

**ENTREPRENEURIAL INTENT OF FINAL-YEAR COMMERCE STUDENTS IN THE
RURAL PROVINCES OF SOUTH AFRICA**

by

MMAKGABO JUSTICE MALEBANA

Submitted in accordance with the requirements for the degree of

DOCTOR OF COMMERCE

in the subject

BUSINESS MANAGEMENT

at the

UNIVERSITY OF SOUTH AFRICA

PROMOTER: PROF E SWANEPOEL

FEBRUARY 2012

Student number: 33260214

I declare that **Entrepreneurial intent of final-year commerce students in the rural provinces of South Africa** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

.....

Mr MJ Malebana

.....

Date

ACKNOWLEDGEMENTS

I would like to thank the following individuals and organisations for making this research project a success:

- God Almighty for giving me the strength, courage and wisdom to complete this study.
- Prof Elana Swanepoel my promoter, for her commitment, support, guidance and encouragement.
- National Diploma: Management students, ND: Internal auditing, Cost and management accounting and Financial information systems students at Walter Sisulu University and Tshwane University of Technology for their willingness to participate in this study and complete the questionnaires.
- Mr M. Macutwana, Mr K. Ntupanyama, Mr L. Tshangana, Mrs R. Luzuka, Ms B. Mpepo at WSU and Dr I. Swarts, Mr M. Dinga, Mr S. Morethe and Ms A. Blom at TUT for granting me the permission to involve their students in this research and their valuable time and assistance in distributing and collecting the questionnaires.
- The Centre of Business Management at the University of South Africa for funding the statistical analysis.
- Dr Kwabena Kyei for his assistance with statistical analysis and data preparation.
- Ms Siya Mchau for her assistance with data capturing.
- Dr Marthi Poll for her valuable time in conducting statistical analysis of the data and advice.
- The National Research Foundation and the University of Venda for partial funding of this research.
- My wife, Kabatu and daughter, Phuti for their support and understanding.
- Dr K.N. Phalanndwa for language editing.

SUMMARY

Owing to the fact that entrepreneurship is widely considered to be a mechanism for reducing unemployment, the purpose of the study was to assess whether final-year Commerce students in the predominantly rural provinces, the Eastern Cape Province and the Limpopo Province, have the intention to start their own businesses. The study draws heavily from entrepreneurial intent models and focuses on the relationship between three key variables, namely, exposure to entrepreneurship education, awareness of entrepreneurial support and social capital to establish whether they are related to the intention of final-year Commerce students to start their own businesses.

The literature review concentrated on entrepreneurial intent and entrepreneurial intent models; government entrepreneurial support initiatives in South Africa and in other countries and their role in the development of entrepreneurial intent, emergence of new ventures and the growth of small, medium and micro enterprises (SMMEs); entrepreneurship education and its role in enhancing entrepreneurial self-efficacy, entrepreneurial competencies and entrepreneurial intent; the influence of social capital on entrepreneurial intent and the different stages on the new venture life-cycle; and concludes with the link between entrepreneurship and the establishment of SMMEs.

A survey was conducted among National Diploma (ND): Internal Auditing, Cost and Management Accounting and Financial information systems students (IAUD, CMA and FIS) (who had six months exposure to entrepreneurship education), ND: Entrepreneurship/Small Business Management (E/SBM) (who had three years exposure to entrepreneurship education) and ND: Management (without exposure to entrepreneurship education). The respondents for the study comprised 355 final-year students of which 276 were from Walter Sisulu University in the Eastern Cape Province and 79 were from Tshwane University of Technology (Polokwane Campus) in the Limpopo Province. Data was analysed using descriptive statistics and nonparametric statistics.

The findings reveal that the majority of the respondents had the intention to start a business in the future. The entrepreneurial intent of the ND: E/SBM students was

stronger than the entrepreneurial intent of the ND: IAUD, CMA and FIS students and ND: Management students. Some significant relationships were found between entrepreneurial intent and the key variables of the study.

Key terms:

Entrepreneurial intent; Theory of planned behaviour; Shapero and Sokol's model of entrepreneurial event; Entrepreneurial self-efficacy; Exposure to entrepreneurship education; Awareness of government entrepreneurial support; Social capital; Model of entrepreneurship development; Final-year commerce students; Entrepreneurial competencies.

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY

1.1	Introduction	1
1.2	The context of the study	2
1.3	The scope of the study	5
1.3.1	The relationship between entrepreneurial intent and behaviour-Theory of planned behaviour	6
1.3.2	The role of social capital in entrepreneurship	8
1.3.3	The role of entrepreneurial support	9
1.3.4	The relationship between entrepreneurship education and entrepreneurial intent	10
1.4	Problem statement	12
1.5	Objectives of the research	12
1.5.1	The primary objective	12
1.5.2	The secondary objectives	13
1.5.3	Research hypotheses	13
1.6	Demarcation of the research study	18
1.7	Significance of research	18
1.8	Research methodology	20
1.8.1	Research design	20
1.8.2	Population and sampling procedures	20
1.8.3	Data collection	23
1.8.3.1	Designing the research instrument	23
1.8.3.2	Administration of the questionnaires	24
1.8.4	Data analysis	24
1.9	Organisation of the study	24

CHAPTER 2: THEORIES ON ENTREPRENEURIAL INTENT

2.1	Introduction	27
2.2	Defining the concept of entrepreneurial intent	27

2.3	Models of entrepreneurial intent	29
2.3.1	Shapero and Sokol's model of entrepreneurial event (SEE)	32
2.3.2	The theory of planned behaviour (TPB)	33
2.3.2.1	Determinants of intention	35
2.3.2.2	Beliefs, attitudes, intention and behaviour linkage	38
2.3.2.3	Views and research in support of Ajzen's model	39
2.3.2.4	The theory of planned behaviour applied to entrepreneurship	40
2.3.3	The model of entrepreneurial potential	42
2.3.4	Shapero-Krueger model of entrepreneurial intention	43
2.3.5	Empirical studies testing and applying the SEE and TPB	46
2.3.5.1	Perceived feasibility and perceived desirability as determinants of entrepreneurial intent	46
2.3.5.2	A model integrating the SEE model and the TPB	49
2.3.6	Summary	50
2.4	Factors impacting on entrepreneurial intent models	52
2.4.1	The relationship between personal and contextual factors and entrepreneurial intent	53
2.4.2	The relationship between self-efficacy and entrepreneurial intent	57
2.4.3	The relationship between gender and entrepreneurial intent	60
2.4.4	Role models and their effect on entrepreneurial intent	61
2.4.5	The influence of culture on entrepreneurial intent	63
2.4.6	Other factors on entrepreneurial intent and behaviour	64
2.4.7	The influence of opportunity recognition on entrepreneurial intent and behaviour	68
2.4.8	The role of improvisation in predicting entrepreneurial intent	68
2.4.9	Summary	70
2.5	Entrepreneurial motivation and the decision to behave entrepreneurially	72
2.5.1	Theories of entrepreneurial motivation	73
2.5.1.1	Model of the move to entrepreneurship	73
2.5.1.2	Model of entrepreneurial motivation	75
2.5.1.3	The utility-maximizing theory and the entrepreneurial decision	76
2.5.1.4	The interplay between motivation, skills, resources and the decision to start a business	78
2.5.1.5	Temporal motivation theory	79

2.5.1.6	The expectancy theory of motivation and the decision to become an entrepreneur	80
2.5.1.7	The role of outcome and ability expectancies in predicting the start-up decision	83
2.5.2	Forces that drive people to entrepreneurship—pull and push factors	84
2.5.3	Research findings on factors that motivate individuals to pursue entrepreneurship	86
2.5.3.1	Entrepreneurial motivation in Singapore	86
2.5.3.2	Factors that motivate entrepreneurs and non-entrepreneurs in the United States	86
2.5.3.3	A multi-country study of entrepreneurial motivation	88
2.5.3.4	Entrepreneurial motivation in China	89
2.5.4	Disincentives to the implementation of entrepreneurial intent	90
2.6	Entrepreneurial motivation of South African entrepreneurs and the total entrepreneurial activity	92
2.7	Summary of entrepreneurial motivation	94
2.8	Conclusion	95

CHAPTER 3: ENTREPRENEURSHIP EDUCATION

3.1	Introduction	97
3.2	Research trends in entrepreneurship	98
3.2.1	Can entrepreneurship be taught?	99
3.2.2	The role of higher education institutions in improving entrepreneurial activity	103
3.2.3	Research on the effect of entrepreneurship education on entrepreneurial activity	105
3.3	Defining entrepreneurship education	106
3.4	The distinction between traditional business education, entrepreneurship education and small business management courses	110
3.5	Teaching entrepreneurship	113
3.5.1	Challenges in teaching entrepreneurship education	114
3.5.2	Objectives of entrepreneurship education	116
3.5.3	Types of entrepreneurship education	119

3.5.4	Key issues in the domain of entrepreneurship education	121
3.5.5	Learning approaches in entrepreneurship education	124
3.5.5.1	The traditional approach to entrepreneurship education	125
3.6.5.2	The constructivist approach to entrepreneurship education	125
3.5.6	Teaching methods in entrepreneurship education	136
3.5.7	Summary of teaching entrepreneurship	142
3.6	The contribution of entrepreneurship education to entrepreneurial intent, skills, competencies and self-efficacy	143
3.6.1	The impact of entrepreneurship education on entrepreneurial intent and start-up of new businesses	144
3.6.1.1	The relationship between entrepreneurship education and entrepreneurial intent in Australia	145
3.6.1.2	The relationship between entrepreneurship education and entrepreneurial intent in Ghana	145
3.6.1.3	The relationship between entrepreneurship education and entrepreneurial intent in Malaysia	146
3.6.1.4	The relationship between entrepreneurship education and entrepreneurial intent in Mexico	147
3.6.1.5	The relationship between entrepreneurship education and entrepreneurial intent in Europe	147
3.6.1.6	The relationship between entrepreneurship education and entrepreneurial intent in South Africa	148
3.6.1.7	The relationship between entrepreneurship education and entrepreneurial intent in Singapore	149
3.6.1.8	The relationship between entrepreneurship education and entrepreneurial intent in Sweden	149
3.6.1.9	The relationship between entrepreneurship education and entrepreneurial intent in China	149
3.6.1.10	The relationship between entrepreneurship education and entrepreneurial intent in the U.S. and Korea	150
3.6.2	Entrepreneurship education and its role in the development of entrepreneurial skills and competencies	152
3.6.2.1	The link between entrepreneurial skills and entrepreneurial intent	153
3.6.2.2	The link between entrepreneurial skills, entrepreneurship education and	

entrepreneurial activity	154
3.6.2.3 The types of skills to be developed through entrepreneurship education	157
3.6.3 The role of entrepreneurship education in the development of entrepreneurial self-efficacy	159
3.6.3.1 The link between entrepreneurial self-efficacy and entrepreneurial competencies	163
3.6.3.2 Determinants of entrepreneurial competence	165
3.6.3.3 Sources that contribute to the development of entrepreneurial self-efficacy and their implications for entrepreneurship education	167
3.6.3.4 Summary	174
3.7 Global perspectives on entrepreneurship education	175
3.7.1 Entrepreneurship education in the United States and Europe	175
3.7.2 Entrepreneurship education in Rwanda	189
3.7.3 Entrepreneurship education in South Africa	190
3.7.4 A comparison of entrepreneurship education at WSU and TUT	200
3.7.5 Entrepreneurship education in Malaysia	202
3.7.6 Entrepreneurship education in Finland	202
3.7.7 Entrepreneurship education in Singapore	204
3.7.8 Summary of global perspectives on entrepreneurship education	204
3.8 Models of entrepreneurship education	205
3.8.1 The application of entrepreneurial intent models in evaluating the impact of entrepreneurship education	205
3.8.2 Teaching model framework for entrepreneurship education	212
3.8.2.1 The ontological level	214
3.8.2.2 The educational level	214
3.8.2.3 The learning processes in entrepreneurship education and the associated key dimensions of the teaching model framework	217
3.8.3 Models of entrepreneurship education in South Africa	220
3.8.4 Models of entrepreneurship education in China	226
3.8.5 Summary of the models of entrepreneurship education	226
3.9 Conclusion	227

CHAPTER 4: ENTREPRENEURIAL SUPPORT

4.1	Introduction	229
4.2	Defining entrepreneurial support	231
4.3	Why the need for entrepreneurial support	231
4.3.1	Entrepreneurial support as a driver of the entrepreneurial process	232
4.3.2	An integrative approach to the entrepreneurial process	233
4.3.3	The process of new venture creation	235
4.3.4	The factors that drive entrepreneurial performance	237
4.3.5	Deficiencies in the human capital of an entrepreneur as a source of the need for entrepreneurial support	238
4.3.6	Failure rate of new businesses as a reason for entrepreneurial support	240
4.3.7	Uncertainty during the process of starting a business	241
4.3.8	The need for entrepreneurial support in South Africa	242
4.4	The conditions that contribute to entrepreneurial activity	247
4.5	The role of entrepreneurial support in the development of entrepreneurial intent and entrepreneurial activity	252
4.5.1	Perceived access to resources and the formation of entrepreneurial intent	252
4.5.2	The relationship between perceived market opportunity, outside assistance and entrepreneurial intent	255
4.5.3	The relationship between entrepreneurial support and entrepreneurial activity	258
4.5.4	The role of the media in creating awareness of entrepreneurial support	261
4.6	The types of support required by entrepreneurs	263
4.7	Entrepreneurial support by the government in South Africa	267
4.7.1	The introduction of entrepreneurial support in South Africa	267
4.7.2	Institutions that provide entrepreneurial support in South Africa	269
4.7.2.1	The Industrial Development Corporation	269
4.7.2.2	The National Empowerment Fund	271
4.7.2.3	The South African Micro Finance Apex Fund	271
4.7.2.4	Khula Enterprise Finance Limited	272
4.7.2.5	Companies Intellectual Property Registration Office	274

4.7.2.6	The Integrated Strategy on the Promotion of Entrepreneurship and Small Enterprises and the establishment of the Small Enterprise Development Agency	275
4.7.2.7	The National Youth Development Agency	278
4.7.2.8	Other programmes for SMMEs	278
4.7.3	Provincial entrepreneurial support agencies in the Limpopo and Eastern Cape	279
4.7.3.1	Limpopo Economic Development Enterprise	280
4.7.3.2	Limpopo Business Support Agency	280
4.7.3.3	Eastern Cape Development Corporation	281
4.8	Empirical studies on entrepreneurial support	282
4.8.1	Entrepreneurial support in Canada	282
4.8.2	Entrepreneurial support in Belgium	284
4.8.3	Entrepreneurial support in Europe	285
4.8.4	Entrepreneurial support in Québec	287
4.8.5	Entrepreneurial support in Thailand	287
4.8.6	Entrepreneurial support in Italy	288
4.8.7	The impact of entrepreneurial support on small business success in Tanzania	288
4.8.8	A study of entrepreneurial support for women in Kenya	289
4.8.9	The impact of entrepreneurial support in the UK	290
4.8.10	The impact of entrepreneurial support in Pennsylvania	291
4.8.11	A study of the usage of entrepreneurial support in Sweden	291
4.8.12	Entrepreneurial support in Britain	291
4.8.13	Factors influencing the use of entrepreneurial support in the United States	293
4.8.14	Entrepreneurial support in Ireland and the Netherlands	294
4.8.15	Research on entrepreneurial support in South Africa	295
4.8.15.1	General evaluation of entrepreneurial support programmes and measures to improve their effectiveness	295
4.8.15.2	Research on entrepreneurial support for the youth	301
4.8.15.3	A study of entrepreneurial support for rural SMMEs	303
4.8.15.4	Entrepreneurial support needs of informal businesses	303
4.8.15.5	An evaluation of micro-finance programmes	304

4.9	Factors that can contribute towards the development of rural entrepreneurship	305
4.9.1	Government policies targeted at promoting and supporting rural entrepreneurship and enterprises	305
4.9.2	A model of rural economic and enterprise development	306
4.10	Conclusion	308

CHAPTER 5: SOCIAL CAPITAL AND THE FORMATION OF ENTREPRENEURIAL INTENT

5.1	Introduction	310
5.2	Defining social capital	311
5.3	The relationship between social capital and social networks	315
5.4	The levels of social capital	315
5.5	The differences and similarities between social capital and other forms of capital	317
5.6	Dimensions of social capital	318
5.7	Social capital as an alternative to the resource-based view of the firm and its potential benefits for entrepreneurs	321
5.7.1	The benefits of social capital at the different stages of the business life-cycle of new ventures	322
5.7.2	Social networks as a means to access resources and to identify and exploit entrepreneurial opportunities	322
5.7.3	Social capital as a means of reducing environmental uncertainty	325
5.7.4	The types of networks and their benefits to entrepreneurs	326
5.8	The role of social skills/competencies in accessing the benefits and resources flowing from social networks	329
5.9	The relationship between social capital and entrepreneurial activity	332
5.9.1	The development and use of social capital in the early phases of establishing a new venture	332
5.9.2	The relationship between social capital, new venture start-up and survival	333
5.9.2.1	The relationship between social capital, new venture start-up and survival in Europe	333

5.9.2.2	The relationship between social capital, new venture start-up and survival in New Zealand	334
5.9.2.3	The relationship between social capital, new venture start-up and survival in Germany	334
5.9.2.4	The relationship between social capital, new venture start-up and survival in Spain	334
5.9.2.5	The relationship between social capital, new venture start-up and survival in the United States	335
5.9.2.6	The relationship between social capital, new venture start-up and survival in the United Kingdom	336
5.9.2.7	The relationship between social capital, new venture start-up and survival in Sweden	336
5.9.3	The role of family members in the stages of the entrepreneurial process	337
5.9.4	The relationship between social capital and new venture performance	338
5.10	The influence of social capital on entrepreneurial intent	339
5.10.1	Entrepreneurial role models as a source of social capital and their effect on entrepreneurial intent	340
5.10.2	The influence of social capital on entrepreneurial intent in Seville, Spain	340
5.10.3	The influence of social capital on entrepreneurial intent in Spain and Puerto Rico	342
5.10.4	The influence of social capital on entrepreneurial intent in the United States, Mexico, Spain and China	342
5.10.5	The relationship between social capital and entrepreneurial intent in Norway, Denmark and Finland	344
5.10.6	The influence of social capital on entrepreneurial intent in Kenya	346
5.10.7	The influence of social capital on entrepreneurial intent in Malaysia	346
5.10.8	The relationship between social capital and entrepreneurial intent in Indonesia and Norway	346
5.10.9	The influence of social capital on entrepreneurial intent in Yorkshire	347
5.10.10	The influence of social capital on entrepreneurial intent in New Zealand	347
5.10.11	The impact of social capital on renascent entrepreneurship in the Netherlands	347
5.10.12	The role of social capital in the pre-start up stage of the new venture	348
5.10.13	The negative effect of role models on entrepreneurial intent	350

5.10.14	A global study of the impact of human capital and social capital on export intentions	350
5.11	Conclusion	351

CHAPTER 6: THE LINK BETWEEN ENTREPRENEURSHIP AND THE ESTABLISHMENT OF SMALL, MEDIUM AND MICRO ENTERPRISES (SMMEs)

6.1	Introduction	354
6.2	Defining entrepreneurship	354
6.3	Entrepreneurship as the nexus of opportunity and the enterprising individual	357
6.3.1	The opposing views on the discovery and the creation of opportunities	358
6.3.2	The role of individual and environmental factors on the start-up process	362
6.3.3	The role of entrepreneurs' human capital in the identification and exploitation of entrepreneurial opportunities and new venture start-up	364
6.3.4	Entrepreneurship as an innovative activity and the creation of a new business	365
6.4	The entrepreneurial process	366
6.5	The relationship between entrepreneurship and small business	370
6.5.1	Classification of small businesses	371
6.5.2	The difference between a small business and an entrepreneurial venture	371
6.5.3	Perspectives on small business growth	373
6.5.4	The factors affecting small business performance	375
6.6.	Conclusion	379

CHAPTER 7: RESEARCH METHODOLOGY

7.1	Introduction	381
7.2	Steps in the research process	381
7.2.1	Identify the research problem/opportunity	382
7.2.2	Define the research problem/opportunity	383
7.2.3	Establish the research objectives	383

7.2.4	Determine the research design	389
7.2.5	Identify the information types and sources	391
7.2.6	Develop a sampling plan	392
7.2.7	Design the research instrument	396
7.2.8	Pilot study	406
7.2.9	Collecting and editing the data	407
7.2.10	Coding data	408
7.2.11	Data capturing, cleaning and storing	408
7.2.12	Data analysis	409
7.2.12.1	Types of data and the choice of statistical techniques	409
7.2.12.2	Descriptive statistics	410
7.2.12.3	Non-parametric statistical techniques that were used to analyse the data	413
7.2.13	Presentation of research findings	414
7.3	Validity and reliability of the research findings	414
7.3.1	Validity	414
7.3.2	Reliability	416
7.4	Summary	419

CHAPTER 8: ANALYSIS AND INTERPRETATION OF THE RESEARCH FINDINGS

8.1	Introduction	421
8.2	Demographic characteristics	421
8.3	Work experience and entrepreneurial knowledge	425
8.4	Entrepreneurial intent	426
8.4.1	Institutional differences with regard to entrepreneurial intent	428
8.4.2	Entrepreneurial intent of the respondents based on their gender	430
8.4.3	The relationship between entrepreneurial intent and entrepreneurial knowledge and work experience of the respondents	432
8.4.4	Entrepreneurial intent of the respondents based on their exposure to entrepreneurship education	434
8.4.5	The strength of the relationship between entrepreneurial intent and exposure to entrepreneurship education	443

8.5	Attitude towards becoming an entrepreneur	445
8.5.1	Differences in the attitude of the respondents towards becoming an entrepreneur based on their exposure to entrepreneurship education	446
8.5.2	The strength of the relationship between the attitude of the respondents towards becoming an entrepreneur and exposure to entrepreneurship education	452
8.5.3	The relationship between the attitude of the respondents towards becoming an entrepreneur and their intention to start a business	454
8.5.4	The relationship between the attitude towards becoming an entrepreneur and entrepreneurial knowledge and work experience of the respondents	459
8.6	Perceived behavioural control	459
8.6.1	Differences in perceived behavioural control of the respondents based on their exposure to entrepreneurship education	462
8.6.2	The strength of the relationship between perceived behavioural control and exposure to entrepreneurship education	466
8.6.3	The relationship between perceived behavioural control of the respondents and their intention to start a business	467
8.6.4	The relationship between perceived behavioural control and entrepreneurial knowledge and work experience of the respondents	471
8.7	Entrepreneurial support	472
8.7.1	Descriptive statistics of the respondents regarding their level of awareness of entrepreneurial support	473
8.7.2	The relationship between the level of awareness of entrepreneurial support initiatives and entrepreneurial intent	476
8.7.3	The relationship between the level of awareness of entrepreneurial support initiatives and the attitude towards becoming an entrepreneur	480
8.7.4	The relationship between the level of awareness of entrepreneurial support initiatives and perceived behavioural control	483
8.8	Social capital	488
8.8.1	Descriptive statistics for the social capital of the respondents	488
8.8.2	The relationship between social capital and entrepreneurial intent	491
8.8.3	The relationship between social capital and the attitude of the respondents towards becoming an entrepreneur	497
8.8.4	The relationship between social capital and perceived behavioural	

	control	503
8.9	Entrepreneurial self-efficacy (ESE)	508
8.9.1	Descriptive statistics with regard to the ESE of the respondents	509
8.9.2	Differences in perceived ESE based on the qualifications of the respondents	513
8.9.3	The relationship between perceived ESE and entrepreneurial intent	527
8.10	Entrepreneurial competencies	530
8.10.1	Descriptive statistics of the entrepreneurial competencies of the respondents	530
8.10.2	Differences in perceived entrepreneurial competencies based on exposure to entrepreneurship education	531
8.10.3	The relationship between entrepreneurial competencies and entrepreneurial intent	534
8.11	Summary and conclusion	538

CHAPTER 9 CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

9.1	Introduction	539
9.2	Demographic profile of the respondents	539
9.2.1	Distribution of the respondents by institution	540
9.2.2	Distribution of the respondents by exposure to entrepreneurship education/qualifications enrolled for	540
9.2.3	Gender distribution	540
9.2.4	Age distribution	541
9.2.5	Distribution of the respondents by work experience and entrepreneurial knowledge	541
9.3	Research objectives revisited	541
9.3.1	Primary objective	541
9.3.1.1	Institutional differences in entrepreneurial intent	545
9.3.1.2	Gender differences in entrepreneurial intent	546
9.3.1.3	The relationship between entrepreneurial intent and entrepreneurial knowledge and work experience	547
9.3.1.4	The relationship between entrepreneurial intent and its antecedents	

	and exposure to entrepreneurship education	547
9.3.1.5	The relationship between entrepreneurial intent and its antecedents	553
9.3.1.6	The relationship between exposure to entrepreneurship education and entrepreneurial intent and its antecedents	554
9.3.2	Secondary objectives	557
9.3.2.1	The relationship between perceived entrepreneurial competencies and entrepreneurial intent	559
9.3.2.2	Awareness of entrepreneurial support and the relationship between the level of awareness of entrepreneurial support initiatives and entrepreneurial intent and its antecedents	561
9.3.2.3	The relationship between social capital and entrepreneurial intent	567
9.3.2.4	The relationship between exposure to entrepreneurship education and entrepreneurial self-efficacy (ESE)	571
9.3.2.5	The relationship between ESE and entrepreneurial intent	573
9.3.2.6	The model of entrepreneurship development based on Ajzen's theory of planned behaviour	573
9.4	Limitations	577
9.5	Contributions to the body of knowledge	579
9.6	Recommendations and conclusions	583
9.6.1	Recommendations for entrepreneurship education	583
9.6.2	Recommendations for entrepreneurial support and social capital	585
9.7	Directions for future research	586
9.8	Conclusion	588

LIST OF FIGURES

Figure 1.1:	The scope of the study	6
Figure 2.1:	Shapero and Sokol's model of entrepreneurial event	32
Figure 2.2:	Ajzen's model of the theory of planned behaviour	34
Figure 2.3:	Behaviour as a function of beliefs	39
Figure 2.4:	The theory of planned behaviour applied to entrepreneurship	40
Figure 2.5:	Krueger and Brazeal's Model of entrepreneurial potential	42
Figure 2.6:	Ajzen's modified theory of planned behaviour	44
Figure 2.7:	Shapero-Krueger model of entrepreneurial intention	45
Figure 2.8:	Model of the relationship between the environment and entrepreneurial intentions	48
Figure 2.9:	An integrated model of entrepreneurial intentions	50
Figure 2.10:	The theories of reasoned action and planned behaviour	52
Figure 2.11:	Modified model of the factors affecting the intention to venture creation	54
Figure 2.12:	Modified entrepreneurial intent model incorporating environmental factors	56
Figure 2.13:	Model of the move to entrepreneurship	74
Figure 2.14:	A model of entrepreneurial motivation	76
Figure 2.15:	An integrative model of the entrepreneurial decision	78
Figure 2.16:	Expectancy framework applied to entrepreneurship	83
Figure 2.17:	The pull and push factors of entrepreneurship	85
Figure 2.18:	Model of the key components entrepreneurial motivation	88
Figure 3.1:	Types of entrepreneurship education and their relationship with the stages of the entrepreneurial process	120
Figure 3.2:	A conceptual framework to approach the domain of entrepreneurship education	122
Figure 3.3:	The entrepreneurial process: behaviours, skills and attributes	128
Figure 3.4:	The entrepreneurial-directed approach to entrepreneurship education	129
Figure 3.5:	The relationship between entrepreneurial skills and entrepreneurial intention	154

Figure 3.6:	The main determinants of entrepreneurial competence	166
Figure 3.7:	The integrated approach to entrepreneurship education	186
Figure 3.8:	Entrepreneurial intention model for entrepreneurship education	206
Figure 3.9:	Framework for evaluating entrepreneurship education programs using the theory of planned behaviour	207
Figure 3.10:	Entrepreneurship teaching programme assessment model	209
Figure 3.11:	Entrepreneurship education programmes assessment model	210
Figure 3.12:	Teaching model framework for entrepreneurship education	213
Figure 4.1:	The influence of entrepreneurial support on the entrepreneurial process	233
Figure 4.2:	An integrative model of entrepreneurial inputs and outcomes	234
Figure 4.3:	Core elements of new venture creation	236
Figure 4.4:	Key issues to consider before going into business	241
Figure 4.5:	The GEM conceptual job creation model	249
Figure 4.6:	Entrepreneurship and the combination of resources	254
Figure 4.7:	Modified model of entrepreneurial intention: The impact of public discourse on desirability, appropriateness and feasibility beliefs	261
Figure 4.8:	The DTI group of institutions for SMME support	269
Figure 4.9:	Strategic pillars of the Integrated Strategy on the Promotion of Entrepreneurship and Small Enterprises	275
Figure 4.10:	Seda's national and provincial roles	278
Figure 4.11:	Model of rural economic enterprise development	307
Figure 5.1:	Social capital and the influence on entrepreneurial intent	316
Figure 5.2:	Dimensions of social capital and the new venture's capabilities	319
Figure 5.3:	The influence of bonding cognitive social capital and bridging cognitive social capital on entrepreneurial intent	341
Figure 5.4:	The process flow model of the pre-start stage of entrepreneurial development	349
Figure 6.1:	The model and units for the opportunity identification and development theory	359
Figure 6.2:	Expanded entrepreneurship model	362
Figure 6.3:	The entrepreneurial process: opportunity, resources and organisation	367
Figure 6.4:	The Timmons' model of the entrepreneurial process	369

Figure 7.1: Research process	382
Figure 8.1: Distribution of respondents by gender	424
Figure 8.2: Distribution of respondents by age	425
Figure 9.1: The model of entrepreneurship development based on Ajzen's theory of planned behaviour	575

LIST OF TABLES

Table 1.1: Percentage distribution of persons aged 20 and above within each province by level of education, 2001	3
Table 2.1: Definitions of entrepreneurial intent	28
Table 2.2: Historical developments in the study of entrepreneurial intentions	29
Table 2.3: Variables at the root of the entrepreneurial event	33
Table 2.4: Barriers to new business formation	90
Table 2.5: Disincentives of entrepreneurship	91
Table 2.6: South Africa's TEA rankings from 2001-2006 and 2008-2010	93
Table 2.7: TEA scores in South Africa in 2008	94
Table 3.1: Research trends in entrepreneurship	98
Table 3.2: Emerging themes in entrepreneurship research and education as indicators of what should be taught in entrepreneurship education	101
Table 3.3: Definitions of entrepreneurship education	108
Table 3.4: Comparison of business education and entrepreneurship education	111
Table 3.5: General difficulties associated with entrepreneurship education	115
Table 3.6: The most commonly cited objectives of entrepreneurship education	117
Table 3.7: A comparison between experiential and traditional learning	131
Table 3.8: Entrepreneurial pedagogical activities and their categories	132
Table 3.9: Conceptual grid of learning styles and pedagogical techniques	134
Table 3.10: Most common teaching methods in entrepreneurship education	137
Table 3.11: Advantages and disadvantages of entrepreneurship teaching strategies and their implications for teaching entrepreneurship	140
Table 3.12: Classification of entrepreneurial skills	157
Table 3.13: Aspects of the entrepreneurial process and the required skills	158
Table 3.14: Phases and tasks in the entrepreneurial life-cycle	160
Table 3.15: Entrepreneurial competencies	164

Table 3.16:	Implications of self-efficacy for effective education and training	168
Table 3.17:	Learning activities and their impact on entrepreneurial intentions	173
Table 3.18:	The creation of relevant associations and centres in the USA	176
Table 3.19:	Scientific journals and conferences on entrepreneurial education in USA	177
Table 3.20:	Scientific journals and conferences on entrepreneurial education in Europe and South Africa	178
Table 3.21:	Predominant courses found in entrepreneurship curriculum in the U.S and U.K	181
Table 3.22:	Entrepreneurship courses offered at academic institutions in the United States and the teaching methods used (1999-2000 survey)	185
Table 3.23:	Entrepreneurship subjects taught at 23 public HEIs in South Africa	191
Table 3.24:	Levels of exposure to entrepreneurship education for ND: E/SBM and ND: IAUD, CMA and FIS students at WSU and TUT	201
Table 3.25:	Key dimensions and concepts of learning processes in entrepreneurship education	218
Table 3.26:	The entrepreneurial performance education model	221
Table 3.27:	Business skills required by entrepreneurs	222
Table 3.28:	Comparison of the E/P model and the E/E model	223
Table 3.29:	The improved entrepreneurship training model	225
Table 4.1:	Contribution of small, very small and micro enterprises to job creation and Gross Domestic Product in South Africa	243
Table 4.2:	Barriers to youth entrepreneurship and solutions to improve the situation	243
Table 4.3:	Actions to promote youth entrepreneurship development in South Africa	245
Table 4.4:	Factors that limit, contribute to and that can increase entrepreneurial activity in South Africa	250
Table 4.5:	Classification of business assistance schemes	264
Table 4.6:	The importance of different types of assistance needed by nascent entrepreneurs	266
Table 4.7:	NEF products and services aimed at SMMEs	271
Table 4.8:	Khula Enterprise Finance products and services	273

Table 4.9:	Policies to promote and support rural entrepreneurship and enterprise	306
Table 5.1:	Definitions of social capital	313
Table 6.1:	Seven perspectives on the nature of entrepreneurship and key terms in the definition of entrepreneurship	356
Table 6.2:	Classification of small businesses	371
Table 6.3:	Factors influencing small business growth – a summary of research results	376
Table 7.1:	Profile of sample and respondents	396
Table 7.2:	Questions measuring entrepreneurial intent and its antecedents	399
Table 7.3:	Questions measuring the level of awareness of entrepreneurial support provided by government institutions and their services	400
Table 7.4:	Measures of social capital and the sources of these measures	402
Table 7.5:	Measures of ESE associated with each phase of the entrepreneurial life-cycle	404
Table 7.6:	Measures of entrepreneurial competencies	406
Table 7.7:	Reliability analysis scores of the constructs in the questionnaire used in this study	419
Table 8.1:	Distribution of respondents by institution, province and qualifications enrolled for	422
Table 8.2	Distribution of respondents by qualification enrolled for	423
Table 8.3	Distribution of the respondents by gender and qualification	424
Table 8.4	Entrepreneurial knowledge and work experience of the respondents	426
Table 8.5	Entrepreneurial intent of the respondents	428
Table 8.6	Differences of responses on selected entrepreneurial intent factors by institution	429
Table 8.7	Entrepreneurial intent of the respondents by gender	430
Table 8.8	Gender differences in entrepreneurial intent	431
Table 8.9	The relationship between the entrepreneurial knowledge and work experience of the respondents and their intention to start a business	433
Table 8.10	Entrepreneurial intent of the respondents by qualification	436
Table 8.11	Differences between the ND: E/SBM students, the ND: IAUD, CMA	

	and FIS students and the ND: Management students in their intention to start a business	438
Table 8.12	Differences between the ND: E/SBM students and the ND: Management students in their intention to start a business	440
Table 8.13	Differences between the ND: Management students and the ND: IAUD, CMA and FIS students in their intention to start a business	441
Table 8.14	Differences between the ND: E/SBM students and the ND: IAUD, CMA and FIS students in their entrepreneurial intent	442
Table 8.15	The relationship between entrepreneurial intent and exposure to entrepreneurship education	444
Table 8.16	Attitude of the respondents towards becoming an entrepreneur	446
Table 8.17	Differences between the respondents in their attitude towards becoming an entrepreneur based on their exposure to entrepreneurship education	448
Table 8.18	Differences between the ND: E/SBM students and the ND: Management students in their attitude towards becoming an entrepreneur	450
Table 8.19	Differences between the ND: E/SBM students and the ND: IAUD, CMA and FIS students in their attitude towards becoming an entrepreneur	452
Table 8.20	The relationship between exposure to entrepreneurship education and the attitude towards becoming an entrepreneur	454
Table 8.21	Summary of significance testing of the relationship between the attitude towards becoming an entrepreneur and entrepreneurial intent	455
Table 8.22	Perceived behavioural control of the respondents	461
Table 8.23	Differences between the respondents in perceived behavioural control based on their exposure to entrepreneurship education	463
Table 8.24	Differences between ND: E/SBM students and ND: Management students in their perceived behavioural control	464
Table 8.25	Differences between the ND: E/SBM students and the ND: IAUD, CMA and FIS students in their perceived behavioural control	466

Table 8.26	The relationship between exposure to entrepreneurship education and perceived behavioural control	467
Table 8.27	Summary of significance testing of the relationship between entrepreneurial intent and perceived behavioural control	469
Table 8.28	Respondents' level of knowledge about entrepreneurial support	474
Table 8.29	Respondents' level of knowledge about government institutions providing entrepreneurial support and their services	475
Table 8.30	Summary of significant relationships between entrepreneurial intent and selected entrepreneurial support factors	478
Table 8.31	Summary of significant relationship between entrepreneurial intent and awareness of selected government entrepreneurial support institutions and their services/funds	479
Table 8.32	Summary of statistical significance testing of the relationship between attitude towards becoming an entrepreneur and selected entrepreneurial support factors	481
Table 8.33	Summary of significant relationships between the attitude towards becoming an entrepreneur and awareness of selected government entrepreneurial support institutions and their services/funds	483
Table 8.34	Summary of statistical significant testing between perceived behavioural control and selected entrepreneurial support factors	485
Table 8.35	Summary of significant relationships between perceived behavioural control and awareness of selected government entrepreneurial support institutions and their services/funds	487
Table 8.36	Social capital of the respondents	490
Table 8.37	Summary of significant relationships between social capital and entrepreneurial intent	493
Table 8.38	Summary of significant relationships between social capital and the attitude towards becoming an entrepreneur	498
Table 8.39	Summary of significant relationships between social capital and perceived behavioural control	505
Table 8.40	Entrepreneurial self-efficacy (ESE) of the respondents	511
Table 8.41	Kruskal-Wallis test results for the differences between the	

	ND: E/SBM, the ND: IAUD, CMA and FIS and the ND: Management students in perceived ESE	515
Table 8.42	Differences between the ND: E/SBM students and the ND: Management students in their perceived entrepreneurial self-efficacy	520
Table 8.43	Differences between the ND: IAUD, CMA and FIS students and the ND: Management students in their perceived ESE	522
Table 8.44	Differences between the ND: E/SBM students and the ND: IAUD, CMA and FIS students in their perceived ESE	525
Table 8.45	Summary of significant relationships between perceived ESE and entrepreneurial intent	528
Table 8.46	Entrepreneurial competencies of the respondents	531
Table 8.47	Differences in perceived entrepreneurial competencies as a result of exposure to entrepreneurship education	532
Table 8.48	Differences in perceived entrepreneurial competencies based on respondents' qualifications	533
Table 8.49	Summary of significant relationships between entrepreneurial competencies and entrepreneurial intent	536
Table 9.1:	Correlations matrix for the constructs of the study	579

CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

In recent years process-oriented cognitive models have become popular frameworks in entrepreneurship research (Segal, Borgia and Schoenfeld, 2005:44; Bridge, O'Neill and Martin, 2009:78). These models are valuable in explaining individual entrepreneurs' inclination towards the entrepreneurial career option and how they ultimately engage in the entrepreneurial process (Wickham, 2006:73). The focus of cognitive approaches is the manner in which individuals acquire, store and process information and how individuals explain events or outcomes of events in an attempt to bring to light how individuals make decisions, act and react to different situations (Van Gelderen, Thurik and Bosma, 2005:367; Wickham, 2006:71). Whilst the trait theories dealt with the personal qualities that described who becomes an entrepreneur (Peterman and Kennedy, 2003:129), cognitive approaches are concerned with the examination of the decision-making process by which individuals choose to act entrepreneurially (Bridge *et al.*, 2009:78).

Central to the cognitive models are attitudes and beliefs and how they can predict intentions and behaviours (Segal *et al.*, 2005:44). According to the cognitive approach, individuals will activate their entrepreneurial potential if they have a specific ability, there are environmental possibilities and there is support (Kirby, 2003:17). Complex activities such as new venture creation are viewed as a result of individuals' cognitive processes in which individuals think about the possible future outcomes, decide which of these are desirable, and whether it is feasible to pursue attaining these outcomes (Segal *et al.*, 2005:44).

The discussion in this chapter begins with the current situation of entrepreneurship in rural provinces. Then the scope of the research is explained followed by the problem statement, objectives of the study and hypotheses, research methodology, demarcation of research and the significance of the study. The chapter concludes with the organisation of the study.

1.2 THE CONTEXT OF THE STUDY

The Eastern Cape and Limpopo provinces are the poorest in South Africa (Bhorat, Poswell and Naidoo, 2004:4). The majority of the population of about 77 percent in Limpopo and 72 percent in the Eastern Cape are living below the poverty income line (Human Sciences Research Council (HSRC), 2004:1). According to Statistics South Africa (StatsSA) (2006a:30), most people in these provinces live in rural areas. StatsSA (2004:14) defines a rural area as “any area that is not classified as urban.” Rural areas are subdivided into tribal areas and commercial farms. An urban area refers to “a classification based on dominant settlement type and land use, and includes typical settlements such as cities, towns, townships and suburbs” (StatsSA, 2004:16). Limpopo Province has 89 percent and Eastern Cape has 61 percent of their population living in non-urban areas (StatsSA, 2006a:1). StatsSA (2006b:19) reports that a minority of the African population was urbanised in 2001 compared with more than 85 percent of the other groups. Provinces that have high levels of urbanisation in South Africa are Gauteng (96%), Western Cape (90%), Northern Cape (80%) and Free State (75%). Those which are less urbanised in their order from the least are Limpopo (10%), Eastern Cape (38%), Mpumalanga (39%), North West (41%) and Kwazulu-Natal (45%) (StatsSA, 2006b:22).

In terms of the levels of education StatsSA (2006c:47) reports that the highest proportion of persons aged 20 and above with Grade 12 or higher is in Gauteng (40.6%) followed by Western Cape (34.6%) while the Eastern Cape had the lowest (20.4%) followed by Limpopo (20.8%). These figures are illustrated in Table 1.1.

Table 1.1: Percentage distribution of persons aged 20 and above within each province by level of education, 2001

Level of education	WC	EC	NC	FS	KZN	NW	GP	MP	LP	SA
No schooling	5.7	22.8	18.2	16.0	21.9	19.9	8.4	27.5	33.4	17.9
Some primary	15.2	19.8	21.0	21.7	16.9	20.0	11.2	15.9	14.1	16.0
Complete primary	7.9	7.4	8.3	7.8	5.7	6.8	5.5	5.9	5.5	6.4
Some secondary	36.5	29.6	29.9	30.7	28.8	29.0	34.3	26.6	26.1	30.8
Std 10/Grade 12	23.4	14.1	16.5	17.5	19.8	18.5	28.0	18.2	14.0	20.4
Tertiary	11.2	6.3	6.1	6.3	6.9	5.9	12.6	5.9	6.8	8.4
Total	100									

Source: StatsSA (2006c:47)

South Africa as a developing country is faced with a high rate of unemployment that is on average 25.7 percent (StatsSA, 2011:6). In the second quarter of 2011 the Eastern Cape Province had the second highest unemployment rate of 28.9 percent while Limpopo Province had the second lowest unemployment rate of 21.1 percent (StatsSA, 2011:6-10). More specifically, Oranje (2003:6) and Youth Development Network (YDN) (2005:70) report that youth unemployment rate in South Africa far outstrips that of the population as a whole. Youth aged between 18 and 24 years according to StatsSA (2006d: xvii) experiences a substantially higher rate of unemployment of 50.3 percent than other age groups from 35 to 65 years. Unemployment rate for those aged 25 to 34 years is 29.5 percent. According to the Umsobomvu Youth Fund (UYF) (2006/2007:1) and YDN (2005:70), youth are people aged between 18 and 35 years.

In terms of the contribution to the Gross Domestic Product (GDP) the Eastern Cape was the fourth largest contributor (8.1 percent) compared to Limpopo with 6.7 percent in 2004 (StatsSA, 2006a:3; StatsSA, 2006c:3). The average annual economic growth rates of these provinces during the period 1996-2004 were 3.5 percent for Limpopo and 2.5 percent for the Eastern Cape while the national average annual economic growth rate was 3.1 percent (StatsSA, 2006a:104).

Given the foregoing, Aviram (2006:166) suggests that efforts to encourage entrepreneurship may be an effective method to reduce unemployment.

Entrepreneurship and the development of small, medium and micro enterprises (SMMEs) are widely recognised as an important source of job creation (Schjoedt and Shaver, 2007:733; Kamau-Maina, 2007:4) and a contributor to the national economic growth and development of both developed and developing countries (Small Enterprise Development Agency (Seda), 2007a:6). The total contribution of micro, very small and small businesses to employment between 2001-2004 in South Africa was 71 percent and medium and large enterprises contributed 26 percent (Seda, 2007a:46). The contribution to the GDP by micro, very small and small businesses is 29 to 34 percent (Seda, 2007a:49). As a result there have been concerted efforts to encourage entrepreneurship in the form of new business start-ups and to aid their survival (Bridge, O'Neill and Cromie, 2003:345; Leeds Metropolitan University (LMU), 2004:3). In South Africa, government has tasked the Department of Trade and Industry (DTI) to establish and coordinate institutions responsible for SMME development (Nieman, 2006:258). For example, institutions such as Seda and Khula have been set up to provide information, advice, support and funding to entrepreneurs (Nieman, 2006:259).

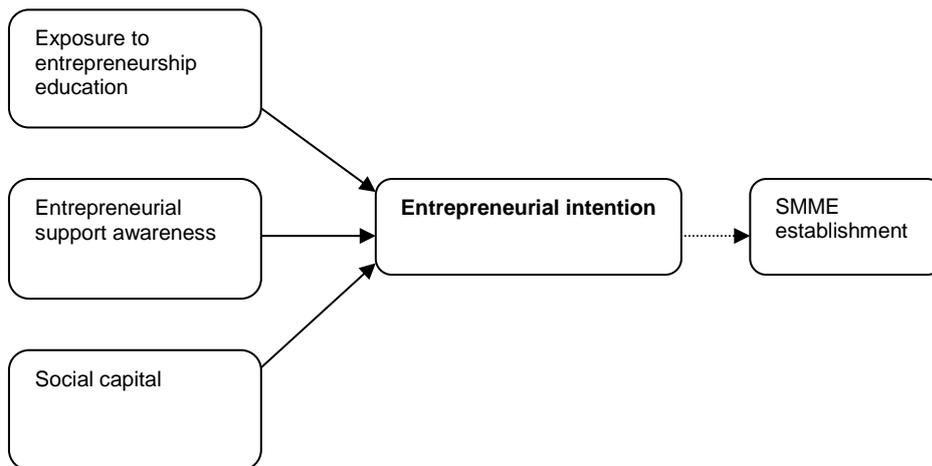
Moreover, SMMEs are also viewed as the main option for the survival of many rural communities (Ladzani and Netswera, 2005:9). These SMMEs create employment opportunities for people in rural communities and also provide essential goods and services (Ladzani and Netswera, 2005:9; Malebana, 2004:11 & 66). Seda (2007a:38) reports that rural provinces are characterised by informal businesses compared to provinces that are urbanised. Rural areas are characterised by over 90 percent of very small-scale enterprises referred to as micro enterprises (Cabinet Office Performance and Innovation Unit, 2000 in Ladzani and Netswera, 2005:3).

From the above discussion, it follows that economically, the Limpopo and Eastern Cape provinces are in a dire state and an attempt should be made to turn around this situation through an increase in entrepreneurial activity. For this reason this study focuses on these two provinces.

1.3 THE SCOPE OF THE STUDY

Within the cognitive approaches are formal, theory-driven models of intention that have proven remarkably robust in predictive validity (Gird and Bagraim, 2006:503; Liñán and Chen, 2006:12; Fayolle, Gailly and Lassas-Clerc, 2006a:712). Intention models are open to exogenous factors that affect intentions indirectly through their impact on attitudes and beliefs (Peterman and Kennedy, 2003:130; Souitaris, Zerbinati and Al-Laham, 2007:586; Fayolle, 2004:11, Fayolle *et al.*, 2006a:708). These exogenous factors refer to individual differences and situational factors (Memorial University of Newfoundland (MUN), 2005:5). This study examines these exogenous factors by investigating how exposure to entrepreneurship education, awareness of entrepreneurial support and social capital are associated with entrepreneurial intentions of students in the Eastern Cape Province and Limpopo Province. The reasons for focusing only on these factors are that previous empirical research found that: (1) Exposure to entrepreneurship education influences one's intention and confidence in the ability to start a business (Souitaris *et al.*, 2007:585; Peterman and Kennedy, 2003:129), (2) Entrepreneurial support contributes to entrepreneurial success (Hanlon and Saunders, 2007:620) and the interest to start a business (Begley, Tan and Schoch, 2005:46), and (3) Social capital is positively and significantly related with the intention to start a business (De Carolis, Litzky and Eddleston, 2007:1; Muhanna, 2007:101) and increases legitimacy-building and resource assembly (Patel, Fiet and Carter, 2007:1; Hanlon and Saunders, 2007:631). The joint effect of these factors on the intention to start a business has not been studied in a South African context. Figure 1.1 illustrates the scope of the study.

Figure 1.1: The scope of the study



1.3.1 The relationship between entrepreneurial intent and behaviour – Theory of planned behaviour

Entrepreneurial intent is regarded as the key element to understanding a new venture creation process (Bird, 1988 in Liñán, Urbano and Guerrero, 2007:1). This is based on the view that entrepreneurial behaviours such as opportunity identification, becoming self-employed or starting a business are planned and intentional acts that are best predicted by intentions towards the behaviour (Henley, 2005:3; Paasio and Pukkinen, 2005:2; Krueger, Reilly and Carsrud, 2000:411; Audet, 2004:1). Entrepreneurial intent is defined as “...*the intention to start a venture at some point in the future*” (United States Small Business Administration (U.S. SBA), 2006:127). Hisrich, Peters and Shepherd (2008:58) refer to entrepreneurial intent as “...*the motivational factors that influence individuals to pursue entrepreneurial outcomes*”. The definition that will be adopted in this study is that entrepreneurial intention refers to a person’s intention to start a new business at some point in the future.

Ajzen and Fishbein (2005:193) report that intentions are good predictors of specific behaviours such as entrepreneurship, and they have become an important part of many contemporary theories of human behaviour. In entrepreneurship, intention models can be applied to strategic decisions such as the decision to start, grow or exit a business (Krueger *et al.*, 2000:412). For example, the entrepreneurs’ intention to grow a business was found to be a key factor in achieving actual growth (Wiklund, 2002:5; Wiklund and Shepherd, 2003:1932; Orser, Hogarth-Scott and Wright, 1998 in

Audet, 2004:3). Zhang and Yang (2006:167) found a significant positive relationship between opportunity recognition and entrepreneurial intention and a significant positive relationship between entrepreneurial intention and entrepreneurial behaviour.

The two dominant theory-driven entrepreneurial intention models used by researchers to study new venture creation and growth are Ajzen's Theory of Planned Behaviour (TPB) and Shapero and Sokol's Model of Entrepreneurial Event (SEE) (Brännback, Krueger, Carsrud and Elfving, 2007:3; Liñán *et al.*, 2007:2). The TPB suggests that the most important immediate determinant of action is a person's intention to perform or not to perform that action (Ajzen, 2005:117; Ajzen, 2006:1). The TPB proposes that entrepreneurial intentions can be predicted with high accuracy from the attitude towards the behaviour, subjective norms and perceived behavioural control (Ajzen, 2005:118). The three conceptually independent determinants of intentions are defined as follows: Attitude towards behaviour refers to the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question. Perceived behavioural control refers to the perceived ease or difficulty in performing the behaviour. Subjective norms refer to the perceived social pressure to perform or not to perform the behaviour.

The SEE model suggests that entrepreneurial intentions can be predicted from perceived desirability, perceived feasibility and propensity to act (Krueger *et al.*, 2000:418). Perceived desirability is the personal attractiveness of starting a business. Perceived feasibility is the degree to which one feels personally capable of starting a business. Propensity to act is the personal predisposition to act on one's decisions (Krueger *et al.*, 2000:419). In their study Segal *et al.* (2005:50) hypothesized that perceived desirability of self-employment is a result of the importance of desired outcomes and the probability that these outcomes can be achieved through entrepreneurship. Ajzen (2005:123) proposed that the attitude towards the behaviour forms on the basis of the person's evaluation of the outcomes associated with the behaviour and the strength of these associations. Segal *et al.* (2005:52) found that perceived desirability of self-employment and perceived feasibility (self-efficacy) of self-employment are positively related with the intention to be self-employed. Furthermore, there seems to be an overlap between the two intention models on two elements: Shapero's construct of perceived desirability is equivalent to Ajzen's

determinants of attitude towards the behaviour (personal attraction) and subjective norms; and perceived feasibility proposed by Shapero is similar to Ajzen's perceived behavioural control or to the concept of self-efficacy (Krueger and Brazeal, 1994 in Liñán *et al.*, 2007:3). Fayolle (2007:65) postulates that perceived behavioural control and self-efficacy are closely related concepts which impact on both intention and behaviour.

1.3.2 The role of social capital in entrepreneurship

Entrepreneurship is viewed as a social role that is embedded in a social context (Hisrich *et al.*, 2008:61). This view has resulted in social capital gaining importance in the field of entrepreneurship in recent years. However, different definitions exist on the concept of social capital (Neergaard, Shaw and Carter, 2005:342; Fayolle, 2007:205). Liao and Welsch (2005:348) define social capital as “...*the sum of actual and potential resources embedded within, available through and derived from the network of relationships possessed by individual entrepreneurs*”. In this study, the definition that is suggested by Liao and Welsch will be used.

Social capital is made up of three dimensions that include structural, relational and cognitive dimensions (Nahapiet and Goshal, 1998 in De Carolis and Saporito, 2006:44-45). Structural dimension is the network structure's overall pattern of connections between actors and includes factors such as the existence or absence of direct connections between the focal actor and others, and the pattern and number of indirect ties between a focal actor and others. Relational dimension refers to the nature of the personal relationship that develops between specific people as manifested in “strong” versus “weak” ties. Cognitive dimension refers to those aspects of social capital that provide shared representations, interpretations and systems of meaning among parties that enable network members to make sense of information and to classify it into perceptual categories (Nahapiet and Goshal, 1998 in De Carolis and Saporito, 2006:45).

Liñán and Santos (2005:447) argue that the kind of social capital to be incorporated into entrepreneurial intention models should be cognitive rather than structural as intentions precede the performance of any specific behaviour. Cognitive social capital

can emerge both from close contact with relatives or friends (bonding cognitive social capital) and from sporadic contacts with other people or organisations in which the individual does not actively participate (bridging cognitive social capital). Liñán and Santos (2005:451) found that both bridging and bonding cognitive social capital influence entrepreneurial intention indirectly. Bonding cognitive social capital affects intention indirectly through perceived desirability (Liñán and Santos, 2005:451). Its effect is through positive valuation of entrepreneurship as a career in the closer environment and approval of the decision to start a business. Bridging cognitive social capital through contacts with entrepreneurial networks and start-up support bodies influences perceived feasibility (Liñán and Santos, 2005:452).

1.3.3 The role of entrepreneurial support

Entrepreneurs need support in order to translate entrepreneurial aspiration into more intentional planning and preparation to launch new ventures (Henley, 2005:22). Hanlon and Saunders (2007:620) define entrepreneurial support as “...*the act of providing an entrepreneur with access to a valued resource*”. Awareness of entrepreneurial support in this study means the level of knowledge individuals have about government support aimed at entrepreneurs and their businesses. Begley *et al.* (2005:46) found that the ability to access support services was related with the desire or intention to start a business. Bradford (2007:98) and Ladzani and Netswera (2005:4) point out that since 1994 the South African government developed an interest in SMME development and constraints faced by the SMME sector. This study focuses on awareness of government entrepreneurial support. The focus on government support is driven by the fact that over the past decade the South African government has introduced support programmes to support youth entrepreneurs and other forms of SMMEs with a view to encouraging people to become entrepreneurs.

Despite the interest in SMME development, Bradford (2007:98) reports that the efforts of the South African government are limited. According to Ladzani and Netswera (2005:10), emerging rural entrepreneurs lack information about the various SMME support mechanisms and programs that have been put in place while Orford, Herrington and Wood (2004:49) concur that very few entrepreneurs in South Africa are aware of the government’s support structures and that there is a high level of

dissatisfaction with the quality of assistance received in these programs. Ahwireng-Obeng (2003:2) observes firstly, that the institutions that have been assigned with the responsibility of implementing entrepreneurship support systems are ineffective in persuasively raising the awareness about their existence. Secondly, that the rural sectors are the most neglected in distributing the services. Thirdly, that the search cost of locating an appropriate service provider is prohibitive to the average micro enterprise operator. Finally, that there are inconsistent policies and cumbersome administration that often frustrate prospective clients (Ahwireng-Obeng, 2003:3). The UYF (2004a:2) concurs that there has been concerns that its programs are more accessible to the urban youth than the rural youth. The youth are unable to reach the UYF offices and lack access to information about the UYF, what the organisation is about and how to access the various initiatives and funding.

1.3.4 The relationship between entrepreneurship education and entrepreneurial intent

Cheng and Chan (2004:4) define entrepreneurship education narrowly as education that provides the needed skills to setting up new businesses. Fayolle (2004:13) refers to entrepreneurship education as “.... *all awareness, teaching, training and support activities in the field of entrepreneurship, including their environment, content, teaching approaches, resources, teachers and other players*”. The definition for this study is based on the viewpoints of Cheng and Chan (2004:4) and Fayolle (2004:13). Entrepreneurship education will be defined as the teaching, training and support activities carried out in a formalised programme with the aim to equip students with the skills to start, manage and grow their businesses. Exposure to entrepreneurship education refers to having attended a course (i.e. module, subject and diploma) in entrepreneurship. Non-exposure to entrepreneurship education means not having studied anything related to entrepreneurship in one’s course.

Baron (2004:224) asserts that taking the decision to become an entrepreneur is an initial and an important step in the entrepreneurial process that is influenced by self-efficacy. Bandura in Baron (2004:224) defines self-efficacy as “the belief in one’s ability to muster and implement the necessary resources, skills, and competencies to attain a certain level of achievement on a given task”. Self-efficacy refers to one’s

confidence in performing a specific task (Chowdhury and Endres, 2005:1). This confidence is based on individuals' perceptions of their skills and abilities (Wilson, Kickul and Marlino, 2007:389). When used in entrepreneurship, self-efficacy is called entrepreneurial self-efficacy (ESE) and refers to the degree to which individuals believe that they are able to successfully start a new business venture (Brice and Spencer, 2007:52) or can successfully execute the entrepreneurial process (Hisrich *et al.*, 2008:58). Zhao, Hills and Seibert (2005:1270) found that people choose to become entrepreneurs because they have high entrepreneurial self-efficacy.

Many studies (Franke and Lüthje, 2004:5; Ramayah and Harun, 2005:18; Peterman and Kennedy, 2003:137; Owusu-Ansah, 2004:17; Kamau-Maina, 2007:42) report that exposure to entrepreneurship education influences students' intention to start their own businesses. It was also found out that attendance of entrepreneurship education results in higher levels of self-efficacy/perceived behavioural control (Alvarez and Jung, 2004:1; Zhao *et al.*, 2005:1260; Wilson *et al.*, 2007:396). Perceptions of ESE have a significant effect on entrepreneurial intentions (Brice and Spencer, 2007:60; Kristiansen and Indarti, 2004:70).

Brice and Spencer (2007:47) found that using entrepreneurial competencies to assess an individual's self-efficacy is valid to successfully discriminate individuals with strong entrepreneurial intentions from others. Entrepreneurial competencies are defined as the sum of the entrepreneur's requisite attributes for successful and sustainable entrepreneurship (Dixon, Meier, Brown and Custer, 2005:1). Onstenk (2003:78) defines entrepreneurial competencies as "the structured and integrated ability to perform entrepreneurial activities adequately and to solve entrepreneurial problems". Urban and van Vuuren (2005:8) propose that the challenge for entrepreneurship education is not only to teach competencies, but students must internalise the competencies by experiencing mastery of skills. Doing so helps to enhance perceptions of entrepreneurial self-efficacy.

1.4 PROBLEM STATEMENT

Having highlighted the high unemployment facing the youth in South Africa, YDN (2005:75) reports that people aged between 18 to 25 years in South Africa are less likely to view starting a business as a means to economic activity. The percentage of the youth entrepreneurs between 18 and 25 years in South Africa is around 22.5 percent, 25 percent in the Limpopo Province and 22 percent in the Eastern Cape Province. Youth are regarded as one of the special target groups in the Integrated Strategy on the Promotion of Entrepreneurship and Small Enterprises (DTI, 2006:25). The South African government has shown its commitment to increase the number of youth entrepreneurs by establishing the UYF in 2001 as a way of addressing youth unemployment (UYF, 2004a:1; YDN, 2005:70). Despite government's efforts to promote youth entrepreneurship in the past seven years, the percentage of youth entrepreneurs in South Africa is still very small. The researcher's concern is whether these efforts are enough. The establishment of SMMEs by the rural youth helps rid unemployment and reduce poverty in rural communities. One category of the youth is final-year commerce students. The problem statement of this research is to determine whether exposure to entrepreneurship education, social capital and entrepreneurial support are associated with the entrepreneurial intention of final-year commerce students in the Limpopo Province and the Eastern Cape Province. The primary research problem can be encapsulated in the following research question: "Do final-year commerce students in the predominantly rural Limpopo and the Eastern Cape provinces have the intention to start a business?"

1.5 OBJECTIVES OF THE RESEARCH

1.5.1 The primary objective

The primary objective of this research is to assess the entrepreneurial intent of final-year commerce students in the predominantly rural provinces of Limpopo and Eastern Cape in South Africa.

1.5.2 The secondary objectives

The secondary objectives to achieve the primary aim of this research are as follows:

- To determine the relationship between students' perceptions of their own entrepreneurial competencies and entrepreneurial intentions as determined by exposure to entrepreneurship education.
- To determine the relationship between the level of awareness of entrepreneurial support initiatives and entrepreneurial intent.
- To determine the relationship between students' social capital and entrepreneurial intentions.
- To investigate the relationship between exposure to entrepreneurship education and entrepreneurial self-efficacy.
- To develop a model of entrepreneurship development based on exposure to entrepreneurship education, awareness of entrepreneurial support and social capital as determinants of entrepreneurial intentions.

1.5.3 Research hypotheses

The following hypotheses were derived from the objectives.

Hypotheses relating to demographic characteristics:

H₀₁ – No institutional differences exist between students with regard to entrepreneurial intent.

H₁₁ – Institutional differences exist between students regarding entrepreneurial intent.

H₀₂ – No gender differences exist between students in entrepreneurial intent.

H₁₂ – Male students differ from female students in entrepreneurial intent.

H₀₃ – No relationship exists between entrepreneurial intent and entrepreneurial knowledge and work experience.

H₁₃ – A relationship exists between entrepreneurial intent and entrepreneurial knowledge and work experience.

Hypotheses relating to entrepreneurial intent:

H₀₄ – No differences exist in entrepreneurial intent between students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H₁₄ – Students who have had exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in entrepreneurial intent.

H_{04a} – No differences exist in entrepreneurial intent between students who have had three years exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{14a} – Students who have had three years exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in entrepreneurial intent.

H_{04b} – No differences exist in entrepreneurial intent between students who have had six months exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{14b} - Students who have had six months exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in entrepreneurial intent.

H_{04c} – No differences exist in entrepreneurial intent between students who have had three years exposure to entrepreneurship education and those who have had six months exposure to entrepreneurship education.

H_{14c} - Students who have had three years exposure to entrepreneurship education differ from students who have had six months exposure to entrepreneurship education in entrepreneurial intent.

Hypotheses relating to attitude towards becoming an entrepreneur.

H₀₅ – No differences exist in the attitude towards becoming an entrepreneur between students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H₁₅ – Students who have had exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in the attitude towards becoming an entrepreneur.

H_{05a} – No differences exist in the attitude towards becoming an entrepreneur between students who have had three years exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{15a} - Students who have had three years exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in the attitude towards becoming an entrepreneur.

H_{05b} – No differences exist in the attitude towards becoming an entrepreneur between students who have had six months exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{15b} - Students who have had six months exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in the attitude towards becoming an entrepreneur.

H_{05c} – No differences exist in the attitude towards becoming an entrepreneur between students who have had three years exposure to entrepreneurship education and those who have had six months exposure to entrepreneurship education.

H_{15c} - Students who have had three years exposure to entrepreneurship education differ from students who have had six months exposure to entrepreneurship education in the attitude towards becoming an entrepreneur.

Hypotheses relating to perceived behavioural control:

H₀₆ – No differences exist in perceived behavioural control between students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H₁₆ – Students who have had exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in perceived behavioural control.

H_{06a} – No differences exist in perceived behavioural control between students who have had three years exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{16a} – Students who have had three years exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in perceived behavioural control.

H_{06b} – No differences exist in perceived behavioural control between students who have had six months exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{16b} – Students who have had six months exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in perceived behavioural control.

H_{06c} – No differences exist in perceived behavioural control between students who have had three years exposure to entrepreneurship education and those who have had six months exposure to entrepreneurship education.

H_{16c} – Students who have had three years exposure to entrepreneurship education differ from students who have had six months exposure to entrepreneurship education in perceived behavioural control.

Hypotheses relating to level of awareness of entrepreneurial support initiatives:

H₀₇ – No relationship exists between the level of awareness of entrepreneurial support initiatives and the intention of starting a business.

H₁₇ – A relationship exists between the level of awareness of entrepreneurial support initiatives and the intention of starting a business.

H_{07a} – No relationship exists between the level of awareness of entrepreneurial support initiatives and the attitude towards becoming an entrepreneur.

H_{17a} – A relationship exists between the level of awareness of entrepreneurial support initiatives and the attitude towards becoming an entrepreneur.

H_{07b} – No relationship exists between the level of awareness of entrepreneurial support initiatives and perceived behavioural control.

H_{17b} – A relationship exists between the level of awareness of entrepreneurial support initiatives and perceived behavioural control.

Hypotheses relating to perceptions of social capital:

H₀₈ – No relationship exists between perceptions of social capital as determined by being a member of a social network and the intention of starting a business.

H₁₈ – Perceptions of social capital as determined by being a member of a social network are related to the intention of starting a business.

H_{08a} – No relationship exists between perceptions of social capital as determined by being a member of a social network and the attitude towards becoming an entrepreneur.

H_{18a} – A relationship exists between perceptions of social capital as determined by being a member of a social network and the attitude towards becoming an entrepreneur.

H_{08b} – No relationship exists between perceptions of social capital as determined by being a member of a social network and perceived behavioural control.

H_{18b} – A relationship exists between perceptions of social capital as determined by being a member of a social network and perceived behavioural control.

Hypotheses relating to perceived entrepreneurial self-efficacy:

H₀₉ – No relationship exists between exposure to entrepreneurship education and perceived entrepreneurial self-efficacy (ESE).

H₁₉ – A relationship exists between exposure to entrepreneurship education and perceived ESE.

Hypotheses relating to perceptions of own entrepreneurial competencies:

H₀₁₀ – No differences exist in the perceptions of own entrepreneurial competencies among students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H₁₁₀ – Students who have had exposure to entrepreneurship education perceive their own entrepreneurial competencies differently from students who have not had exposure to entrepreneurship education.

1.6 DEMARCATION OF THE RESEARCH STUDY

The researcher is interested in the factors that influence rural students' entrepreneurial intentions. This study is concerned with how different levels of exposure to entrepreneurship education, awareness of entrepreneurial support initiatives and social factors influence entrepreneurial intentions. The study focuses on registered third year students studying Entrepreneurship/small business management, Management and Internal auditing, Cost and management accounting and Financial information systems diplomas at the Tshwane University of Technology (TUT) (Polokwane campus) in the Limpopo Province and Walter Sisulu University (WSU) in the Eastern Cape Province.

1.7 SIGNIFICANCE OF RESEARCH

This study is based on the view that there is a need for a growing pool of potential entrepreneurs with the motivation and the ability to identify and realise new business opportunities in South Africa (Orford *et al.*, 2004:7). Maas and Herrington (2006:44) report that there is a limited amount of useable literature that is tested empirically

within the South African context. Based on these views this research makes the following contributions:

- Contributes to the body of knowledge by investigating the factors that influence entrepreneurial intentions. More specifically, the study explores the role of exposure to entrepreneurship education, the level of awareness of entrepreneurial support, and social capital as determinants of entrepreneurial intentions.
- Makes a significant contribution for policymakers and institutions involved in raising entrepreneurial awareness and support with a view to promoting rural entrepreneurship activity. Firstly, factors that affect entrepreneurial intentions of the rural youth as special targets in the government's efforts to promote youth entrepreneurship are compared. Lastly, the study investigates the level of reach of government initiatives aimed at the youth and recommends better ways in which they can be channelled to the target audience/beneficiaries for maximum results.
- Contribute to the body of knowledge with the entrepreneurship development model that incorporates exposure to entrepreneurship education, level of awareness of entrepreneurial support and social capital as determinants of entrepreneurial intentions.
- The entrepreneurship development model will contribute to the body of knowledge through the addition of a competency-based approach and awareness of entrepreneurial support to existing entrepreneurial intention models.
- For higher learning institutions, this study will on the basis of a literature review on entrepreneurship education highlight how entrepreneurial competencies can be developed in students as a way to contribute to the future generation of entrepreneurs.

- For practicing entrepreneurs, the study will review different types of support that government offers to entrepreneurs and demonstrate the importance of building social capital as a way to achieve success in their businesses.

1.8 RESEARCH METHODOLOGY

This section explains how the empirical research of this study was carried out.

1.8.1 Research design

This study was carried out by means of a descriptive research design and consists of literature study and empirical research. The data was collected by means of a survey. Cooper and Schindler (2008:215) define a survey as a “measurement process used to collect information during a highly structured interview”. Surveys may be used in studies that are usually quantitative in nature and which are aimed at providing a broad overview of a representative sample of a large population (Mouton, 2008:152). In a survey research, the researcher asks units of analysis to give self reported answers about their attitudes, opinions, behaviours, characteristics, pieces of information about the conditions of life and the categories that define and differentiate individuals (Gravetter and Forzano, 2006:331; Leedy and Ormrod, 2005:183).

1.8.2 Population and sampling procedures

Population is a group from which the sample is drawn while a sample is a subset of the population. Cooper and Schindler (2008:374) define a population as the total collection of elements about which the researcher wants to make some inferences. When the researcher cannot involve all members of the population in the study, a sample that best represents a population may be drawn to allow for an accurate generalisation of results (Bless, Higson-Smith and Kagee, 2007:100; Tustin, Ligthelm, Martins and Van Wyk, 2005:337). The population of this study consisted of all third year commerce students registered in 2010 for three diplomas (National Diploma: Entrepreneurship/small business management, National Diploma: Internal auditing, Cost and management accounting and Financial information systems and National Diploma: Management (ND: E/SBM, ND: IAUD, CMA and FIS and ND: Management)

at TUT (Polokwane campus) in the Limpopo Province and WSU in the Eastern Cape Province.

Only five out of the twenty-three universities in South Africa offer all three diploma courses, namely, the University of South Africa, Walter Sisulu University (WSU), Cape Peninsula University of Technology, Durban University of Technology and Tshwane University of Technology (TUT). Other universities that offer some of these courses are the University of Johannesburg that offered ND: Entrepreneurship and ND: Management; Nelson Mandela Metropolitan University (ND: Management and ND: IAUD, CMA and FIS); and the Vaal University of Technology and Central University of Technology (ND: IAUD, CMA and FIS). Only two of these universities are considered to enrol students from predominantly rural areas, namely TUT (Polokwane campus) in the Limpopo Province and WSU in the Eastern Cape Province.

In selecting the sample the researcher must determine whether a probability or non-probability approach will be used. When using probability sampling every element of the population has a non-zero probability of being selected whereas under non-probability sampling researchers use their discretion to select sampling units. In this study, non-probability sampling was used and it involved convenience sampling. When using convenience sampling the researcher selects population elements because they are easily and conveniently available (Maree, 2010:177). This sampling method was used because ND: E/SBM, ND: IAUD, CMA and FIS and ND: Management students are suitable for learning about the relationships between their qualifications and the key variables of the study and are readily available.

For the three selected diploma courses the population comprised a total number of 814 registered students from WSU and TUT as per the lists obtained from these universities. At WSU third year students for Management diploma were drawn from three campuses (Ibika campus = 60, Zamukulungisa campus = 45 and Potsdam campus = 45). Third year ND: IAUD, CMA and FIS students were drawn from four campuses (Ibika campus = 100, Zamukulungisa campus = 109, Queenstown campus = 60 and Potsdam Campus = 200). At the Potsdam campus 90 third year students were registered for the ND: E/SBM. A total number of 709 students formed the population from WSU. From TUT 45 third year Internal auditing diploma students, 30

third year students for Entrepreneurship/small business management diploma, and 30 third year students for management diploma, resulting in a total of 105 students formed the population for this study. From these two universities, the population for this research project included the following three groups of students registered in 2010:

- A total number of 120 third-year students in ND: E/SBM who had three years of exposure to entrepreneurship education.
- A total number of 180 third-year students in ND: Management who had no exposure to entrepreneurship education. These students were used as a control group to determine whether exposure to entrepreneurship education impacts on entrepreneurial intentions and entrepreneurial competencies.
- A total number of 514 third-year students in ND: IAUD, CMA and FIS who were exposed to a six months module in entrepreneurship.

The abovementioned groups of students were used for the following reasons:

- Firstly, they were the rural youth from rural provinces which are quite poor.
- Secondly, they were suitable for studying entrepreneurial intentions, because as final year students they were facing important career decisions on completion of their studies which could include starting their own businesses. The use of final year students is in line with other similar studies such as Krueger *et al.* (2000:420); Liñán *et al.* (2007:5); Liñán (2008:263) and Liñán and Chen, (2009:602). Liñán and Chen (2006:14) and Liñán and Chen (2009:610) argue that this practice offers the advantage of similar age and qualifications resulting in a more homogeneous group.
- Thirdly, their different levels of exposure to entrepreneurship education suit the requirements of the present study and therefore would make comparisons easier.
- Fourthly, these student groups were homogeneous in terms of age and year of study. They were all final year students who had to decide about their career on completion of their degrees.
- Lastly, they could be reached with minimum cost and in a short time.

1.8.3 Data collection

This section explains how the research instrument was designed and distributed to the respondents.

1.8.3.1 *Designing the research instrument*

The design of the questionnaire deals with the construction of questions and response options based on the research objectives that will be used to address the research problem (Tustin *et al.*, 2005:98). Questions can include structured and unstructured questions while responses can include open-ended and close-ended responses. In this study, data was collected by means of a structured questionnaire. The design of the questionnaire was guided by the literature and previous questionnaires that were used in research on entrepreneurial intent. The information obtained from the questionnaires was used to determine how exposure to entrepreneurship education was related to perceived ESE and entrepreneurial competencies as well as entrepreneurial intent. It was also used to determine how awareness of entrepreneurial support and social capital were related to entrepreneurial intent and its antecedents.

The questionnaire consisted of close-ended questions for biographical details and the entrepreneurial knowledge and experience of the respondents. Questions relating to awareness of entrepreneurial support, social capital, ESE, entrepreneurial competencies, entrepreneurial intent, attitude towards becoming an entrepreneur and perceived behavioural control were based on a five-point Likert-type response format, as used in Krueger *et al.* (2000:421); Brännback, Heinonen, Hudd and Paasio (2005:5); Liñán, Rodríguez-Cohard and Rueda-Cantuche (2005:6) and Liñán and Chen (2006:20). The questionnaire was piloted before the survey commenced in order to ensure that respondents participate and cooperate in the study, relevant and accurate data are collected, and data collection and analysis proceed as smoothly as possible.

1.8.3.2 Administration of the questionnaires

The researcher approached the Heads of Departments at the two selected institutions to ask for permission to involve their lecturers and students in the research project. Lecturers were requested to encourage their students to participate in the study and to distribute self-administered questionnaires to students during their lectures to complete and collect them immediately from students after completion. Of the 814 students that constituted the population, a total number of 355 final year students completed the entrepreneurial intent questionnaire. Of this number 276 were from WSU in the Eastern Cape Province and 79 from TUT Polokwane Campus in the Limpopo Province.

1.8.4 Data analysis

Cooper and Schindler (2008:702) define data analysis as “the process of editing and reducing accumulated data to a manageable size, developing summaries, looking for patterns, and applying statistical techniques”. Mouton (2008:153) recommends the use of descriptive and inferential statistics in analysing data in a survey research. Descriptive statistics are “statistical computations describing either the characteristics of a sample or the relationship among variables in a sample” (Babbie, 2004:442). Inferential statistics are “statistical measures used for making inferences from findings based on sample observations to a larger population” (Babbie, 2004:458). The collected data was analysed by means of Statistical Package for the Social Sciences (SPSS). More details on data analysis techniques that were used in this study are discussed in Chapters 7 and 8.

1.9 ORGANISATION OF THE STUDY

The final report/thesis is structured according to the following chapters:

Chapter One is an introductory chapter that outlines the basis of the study. It frames the context of this study and points out the relevance and the relationship of the identified concepts with entrepreneurship. In contextualising the study the rationale of the research, the scope of the study, the statement of the research problem, objectives

of the research, demarcation and significance of the research as well as the research methodology were discussed in this chapter.

Chapter Two covered the antecedents of entrepreneurial intentions. As indicated in the earlier sections, entrepreneurial intention models are valuable in studying entrepreneurial intentions. This chapter was organised in terms of theories on entrepreneurial intent that were linked with the theories of entrepreneurial motivation. These theories have been used to identify the factors that play an influential role in deciding to become an entrepreneur. The chapter presented different models of entrepreneurial intent and motivation theories as well as the findings that researchers came up with as they tried to uncover determinants of intentions. It concluded with the factors impacting on entrepreneurial intention models as they were revealed in different studies on entrepreneurial intention.

Chapter Three focused on entrepreneurship education. Exposure to entrepreneurship education was investigated focusing on the types of entrepreneurship education and different teaching approaches to entrepreneurship education with a view to develop entrepreneurial competencies and self-efficacy, its impact on entrepreneurial intentions and a comparison of entrepreneurship education at WSU and TUT in terms of syllabus. Reference was made taking into account the literature on entrepreneurship education worldwide and in South Africa. The models of entrepreneurship education were also investigated.

Chapter Four dealt with entrepreneurial support. The term entrepreneurial support is defined and different types of support that are available are explained. Entrepreneurial support is discussed taking into consideration studies that have been made in other countries and in South Africa. From a South African perspective the researcher refers to the DTI website to create a framework of available government support and how it reaches the provinces where the targeted students reside. The discussion refers to studies on the impact of entrepreneurial support on entrepreneurial activity and intent.

Chapter Five discussed social capital focusing on its dimensions, its role in the exploitation of entrepreneurial opportunities and its relationship with entrepreneurial

intention and small business performance. This was guided by existing literature from South Africa and other countries.

Chapter Six discussed entrepreneurship and how it is linked with the establishment of SMMEs. In an attempt to bring the link into perspective the entrepreneurship process was discussed and the process of new venture creation, the role of resources and the factors affecting the performance of SMMEs were explained.

Chapter Seven focuses on the research design and methodology. The research objectives and hypotheses, key concepts and variables that form part of the study are defined. The population and sampling techniques, the design of the data collection instrument, the data collection process and the data analysis procedures are discussed in this chapter.

Chapter Eight dealt with the analysis, presentation and interpretation of the results. The sample and its characteristics were discussed. The findings from the survey are presented in the form of tables, charts and graphs with reference to the determinants of entrepreneurial intention proposed in this study.

Chapter Nine dealt with conclusions and recommendations. The researcher discussed the main findings of the study drawing from the previous chapters and in the light of literature review and hypotheses formulated. The entrepreneurship development model was proposed based on the key concepts of the study, hypotheses and findings of the research. The chapter concludes with a discussion of the relevance and value of the study and recommendations for policymakers and entrepreneurs and further areas of research.

CHAPTER 2 : THEORIES ON ENTREPRENEURIAL INTENT

2.1 INTRODUCTION

The previous chapter explained the scope of the study, the problem statement, objectives and hypotheses for the research. In this chapter, factors that influence entrepreneurial intent are discussed. The discussion begins with the definition of entrepreneurial intent followed by the different entrepreneurial intent models that form the foundation of entrepreneurial intent theory. The factors impacting on intent models are also highlighted. The chapter concludes with the factors that influence the decision to become an entrepreneur and the theories on entrepreneurial motivation are discussed linking them to the development of entrepreneurial intent.

2.2 DEFINING THE CONCEPT OF ENTREPRENEURIAL INTENT

The definition that is adopted in this study is that entrepreneurial intention refers to a person's intention to start a new business at some point in the future. Table 2.1 provides definitions that have been given by other researchers in the field of entrepreneurship.

Table 2.1: Definitions of entrepreneurial intent

Author(s)	Definition
Bird (1988 in Kamau-Maina, 2007:9)	A state of mind that focuses a person's attention, experiences and behaviour towards a goal or path.
Learned (1992 in Aviram, 2006:156)	A conscious state of mind directing attention towards the goal of establishing new enterprises.
Krueger (1993 in Lindsay, Jordaan and Lindsay 2005:3)	The commitment to starting a new business.
Katz and Gartner (1998 in Choo and Wong, 2006:49)	The search for information that can be used to fulfil the goal of venture creation.
Liñán (2004:5)	The effort that the person will make to carry out the entrepreneurial behaviour.
Fayolle, Gailly, Kickul, Lassas-Clerc and Whitcanack (2005:6)	The cognitive representation of a person's readiness to perform a given behaviour that is considered to be the immediate antecedent of behaviour.
MUN (2005:4); Urban (2006:172)	The belief that one will perform a certain behaviour.
Oruoch (2006:40)	Degree of commitment towards some future target behaviour.
Hmieleski and Corbett (2006:48)	Intentions towards starting a high-growth business.
U.S. SBA (2006:127)	The intention to start a venture at some point in the future.
Li (2006:3)	The desire to start a business.
Souitaris <i>et al.</i> (2007:570)	A state of mind directing a person's attention and action towards self-employment as opposed to organisational employment.
Katz and Green (2007:13)	The target behaviour of being self-employed.
de Pillis and Reardon (2007:383)	The intention to start a new business.
Fayolle (2007:64)	The cognitive representation of a person's will to perform a particular behaviour that is considered a good predictor of planned and controllable human behaviour.
Hisrich <i>et al.</i> (2008:58)	The motivational factors that influence individuals to pursue entrepreneurial outcomes.
Thompson (2009:676)	Self-acknowledged convictions by individuals that they intend to set up new business ventures and consciously plan to do so at some point in the future.

Source: Table created by author.

2.3 MODELS OF ENTREPRENEURIAL INTENT

Entrepreneurial intent is considered as the key element to understand a new venture creation process (Bird, 1988 in Liñán *et al.*, 2007:2). This concept has been studied using various intention models. Entrepreneurial intention models can be applied to strategic decisions such as the decision to start, grow or exit a business (Krueger *et al.*, 2000:412). These models provide a better understanding of the various antecedents of venture initiation and growth as well as the factors that influence these acts (Krueger *et al.*, 2000:424). Entrepreneurial intention models can be used to test the impact of teaching entrepreneurial and managerial competencies on perceptions of venture feasibility (Krueger *et al.*, 2000:427). They can also provide a sound grasp of the critical antecedents of opportunity perception (Krueger, 2000:17). Additionally, they can help in providing policymakers with a better understanding of how government initiatives can help to advance entrepreneurship by influencing attitudes or intentions (Krueger *et al.*, 2000:429). Table 2.2 provides an overview of historical developments in the study of entrepreneurial intentions.

Table 2.2: Historical developments in the study of entrepreneurial intentions

Author(s)	Contribution
Shapero and Sokol (1982, in Brännback <i>et al.</i> , 2007)	Developed the model of entrepreneurial event (SEE) in which the entrepreneurial process is viewed as an event that is driven by perceptions of desirability, perceptions of feasibility and propensity to act.
Ajzen (1991, 2005)	Developed and tested the theory of planned behaviour (TPB) in which the antecedents of intention are attitude towards the behaviour, perceived behavioural control and subjective norms.
Krueger and Carsrud (1993 in Fayolle, 2007)	Applied the theory of planned behaviour to the field of entrepreneurship and incorporated the influence of exogenous variables and external trigger into the model.
Krueger and Brazeal (1994 in Guerrero, Rialp and Urbano, 2008)	Conceptualised and tested the model of entrepreneurial potential based on SEE model.
Krueger <i>et al.</i> (2000)	Compared and tested the TPB and SEE models and developed the Shapero-Krueger model of entrepreneurial intention.
Krueger (2000)	Proposed an intentions model of the cognitive infrastructure of opportunity emergence in large organisations.

Table 2.2 continued

Wiklund (2002); Wiklund and Shepherd (2003)	Applied the TPB to predict the relationship between entrepreneurs' growth intentions and actual growth.
Wiklund, Davidsson and Delmar (2003)	Applied the expectancy-value approach to study entrepreneurs' attitudes towards growth based on the TPB.
Kennedy, Drennan, Renfrow, and Watson (2003)	Incorporated situational factors into the intentions model based on Shapero's perceived feasibility and perceived desirability and Ajzen's subjective norms.
Peterman and Kennedy (2003)	Examined the effect of entrepreneurship education on perceptions of entrepreneurship based on the SEE model.
Alvarez and Jung (2004)	Tested the impact of entrepreneurship education on perceptions of self-efficacy.
Audet (2004)	Tested entrepreneurial intentions of students using Shapero-Krueger model of entrepreneurial intention.
Grundstén (2004)	Developed and tested an intentions model based on Shapero-Krueger model that considers the impact of environmental factors on the development of entrepreneurial intentions.
Owusu-Ansah (2004)	Investigated the impact of entrepreneurship education on career intentions and aspirations of students.
Krueger (2004)	Investigated the perceived barriers and triggers to implementing entrepreneurial intentions on practicing entrepreneurs.
Zhao <i>et al.</i> (2005)	Applied Bandura's social cognitive theory to develop and test a model of the role of self-efficacy on the development of entrepreneurial intentions.
Fayolle (2004); Fayolle <i>et al.</i> (2005); Fayolle <i>et al.</i> (2006a)	Developed an entrepreneurship education assessment model based on the TPB.
Liñán <i>et al.</i> (2005)	Built an entrepreneurial intention model that integrated Shapero and Sokol's (1982) and Ajzen's (1991) theories in which the intention to become an entrepreneur depends on personal attraction towards entrepreneurship, perceived social norms and perceived feasibility (self-efficacy).
Ramayah and Harun (2005)	Used demographic and individual background, personality traits (need for achievement, locus of control and self-efficacy) and contextual factors to study entrepreneurial intentions.
Segal <i>et al.</i> (2005)	Developed and tested an entrepreneurial intentions model based on Shapero-Krueger model that indicates that self-employment intentions are a function of perceived net desirability and perceived feasibility of self-employment and tolerance of risk.
Van Auken, Stephens, Fry and Silva (2005)	Investigated the influence of role models on entrepreneurial intentions.

Table 2.2 continued

Chowdhury and Endres (2005)	Examined gender differences in the formation of self-efficacy.
Paasio and Pukkinen (2005)	Investigated the association between exogenous variables and entrepreneurship.
Kickul and Krueger (2005)	Proposed and tested cognitive processing models of entrepreneurial self-efficacy and intentionality examining direct and indirect influences of personal and cognitive factors on self-efficacy, feasibility and intentionality. Integrated Bandura; Shapero-Krueger model and De Noble <i>et al.</i> 's theories.
Kickul and D'Intino (2005)	Investigated how entrepreneurial self-efficacy relates with the tasks and roles within the entrepreneurial life cycle drawing from Bandura, Chen <i>et al.</i> and De Noble <i>et al.</i> 's research.
Liñán and Chen (2006, 2009)	Tested the TPB and developed the entrepreneurial intentions questionnaire.
Li (2006)	Applied the TPB to test the effects of entrepreneurship education programs on entrepreneurial attitudes and intentions of students.
Lévesque, Shepherd and Douglas (2002); Douglas and Fitzsimmons (2006); Steffens, Fitzsimmons and Douglas (2007)	Applied the utility-maximizing model to study why people become self-employed.
Souitaris <i>et al.</i> (2007)	Applied the TPB to test the effects of entrepreneurship education programs on entrepreneurial attitudes and intentions of students.
Kamau-Maina (2007)	Developed and tested a model of the personal and contextual determinants of entrepreneurial intentions with prior exposure to entrepreneurship and beliefs about formal learning and careers being the main antecedents of entrepreneurial self-efficacy and perceptions of desirability.
Kolvereid, Iakovleva and Kickul (2007)	Developed and tested an integrated model of entrepreneurial intentions based on the TPB and SEE models.

Source: Table created by author.

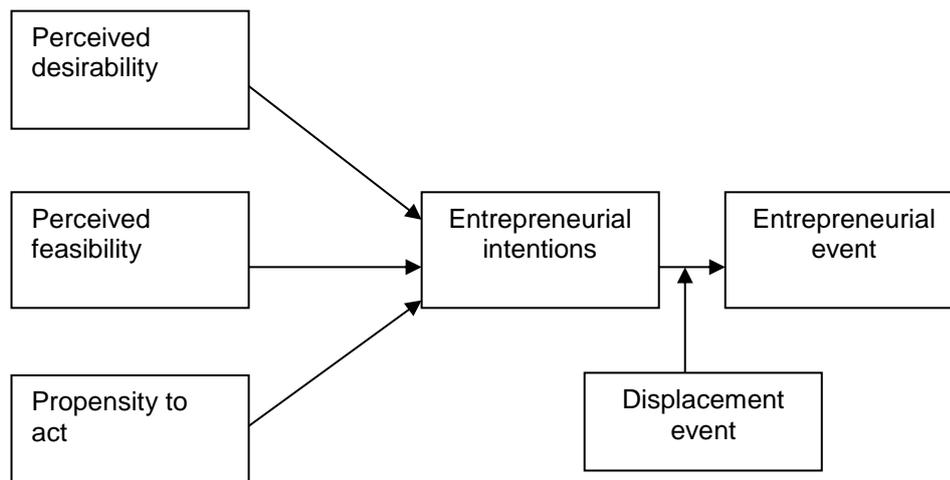
In this section, different entrepreneurial intent models are presented. Of these models, the two dominant and popular theory-driven entrepreneurial intention models used by researchers to study new venture creation and growth are Shapero and Sokol's 1982

Model of Entrepreneurial Event and Ajzen's 1991 Theory of Planned Behaviour (Brännback *et al.*, 2007:3). These models are discussed in the next sections.

2.3.1 Shapero and Sokol's model of entrepreneurial event (SEE)

Shapero and Sokol's model of entrepreneurial event developed in 1982 was the first model of entrepreneurial intent (Guerrero *et al.*, 2008:37)., According to Krueger *et al.* (2000:418) and Audet (2004:2), the SEE model is an intention model specific to the domain of entrepreneurship. According to the model, the intention to start a business derives from perceptions of desirability, feasibility and propensity to act upon opportunities (Shapero and Sokol, 1982 in Guerrero *et al.*, 2008:37). The desirability of an action is influenced by the perception of feasibility. Perceptions of desirability and feasibility are determined by cultural and social environments (Shapero and Sokol, 1982 in Fayolle, 2007:166). Close family, colleagues, relatives and ethnic groups are expected to influence perceived desirability whereas the availability of financial support and would-be partners influence perceived feasibility and propensity to act (Shapero and Sokol, 1982 in Fayolle, 2007:167). In order for new ventures to emerge, they should be perceived as credible or desirable and feasible. Figure 2.1 illustrates the SEE model.

Figure 2.1: Shapero and Sokol's model of entrepreneurial event



Source: Kuehn (2008:90)

The SEE model proposes that the entrepreneurial event emerges from the interactions between situational, cultural and social variables. Shapero and Sokol (1982 in

Krueger, Schulte and Stamp, 2008:1) view the entrepreneurial process as an event that is initiated by some sort of displacement event. The appearance (or acquisition) of a perceived facilitator or the removal (or avoidance) of a perceived inhibiting factor are some of the displacement events that could lead to the initiation of an entrepreneurial action. Krueger *et al.* (2008:2) posit that displacement events could be regarded as triggers to action or barriers to action. Displacement events could be internal or external and are indicated in Table 2.3.

Table 2.3: Variables at the root of the entrepreneurial event

Displacements	Perceptions of desirability	Perceptions of feasibility
<p>Negative displacements Forcefully emigrated Fired Insulted Angered Bored Reaching middle age Divorced or widowed</p> <p>Between things Out of army Out of school Out of jail</p> <p>Positive pull From partner From mentor From investor From customer</p>	Culture Family Peers Colleagues Mentors	Financial support Other support Demonstration effect Models Mentors Partners

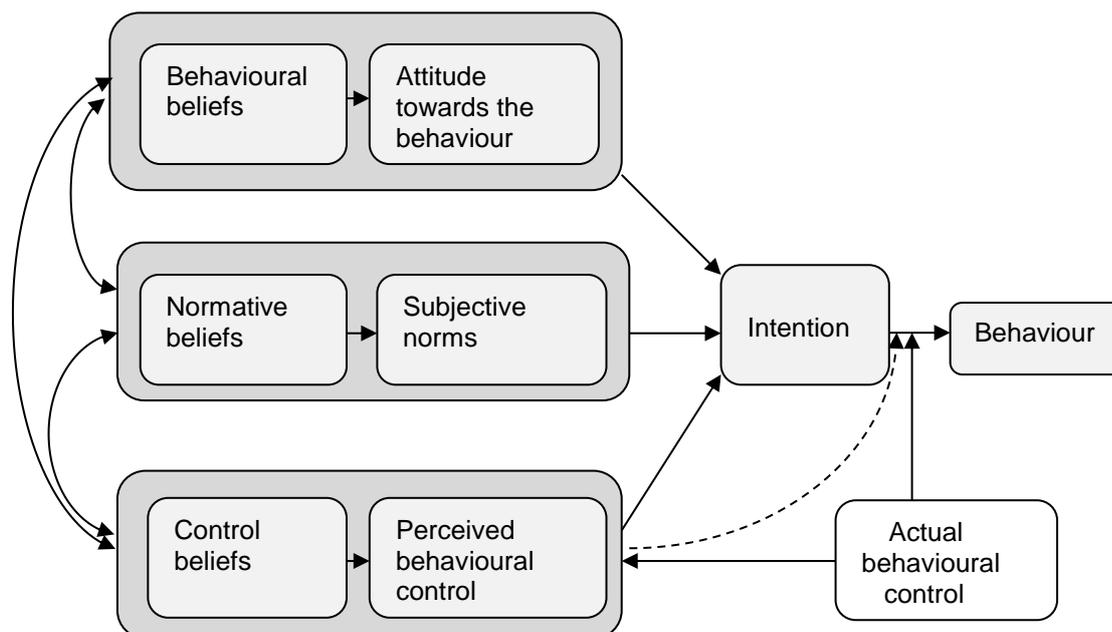
Source: Fayolle (2007:165)

2.3.2 The theory of planned behaviour

Fayolle (2004:8) reports that the theory of planned behaviour (TPB) owes its origin to the theory of reasoned action developed by Ajzen and Fishbein in 1980. The TPB was developed initially by Ajzen in 1991 and was reformulated in 2002. Ajzen (2002:665) and Ajzen and Cote (2008:301) regard the TPB as the most influential and popular framework for the prediction of human behaviour. Intentions are reported as good

predictors of behaviour when the behaviour is under volitional control (Ajzen and Fishbein, 2005:196). The TPB suggests that the most important immediate determinant of action is a person's intention to perform or not to perform that action (Ajzen, 2005:117; Ajzen, 2006:1). Figure 2.2 reflects the determinants of intentions in the TPB.

Figure 2.2: Ajzen's model of the theory of planned behaviour



Source: Ajzen and Cote (2008:301) and Ajzen (2006:1)

Intentions capture the motivational factors that influence the behaviour and they indicate how hard people are willing to try as well as how much effort they are planning to exert in performing the behaviour. When the intention is stronger, the more likely is its performance. Since its introduction, the TPB has been empirically tested and validated in numerous studies. These studies include those that focused on the intention to start a business and the growth decision (for example Paasio and Pukkinen, 2005; Fayolle *et al.*, 2005; Cassar, 2005; Fayolle, 2004; Wiklund *et al.*, 2003; Wiklund and Shepherd, 2003; Wiklund, Dahlqvist and Havnes, 2002; Wiklund, 2002; Krueger *et al.*, 2000).

2.3.2.1 *Determinants of intention*

Ajzen's theory of planned behaviour is regarded as well grounded in theory and robustly predicts a wide variety of planned behaviours, including entrepreneurial behaviour. The TPB postulates that beliefs regarding the likely outcomes of the behaviour and how an individual evaluates these outcomes (behavioural beliefs), beliefs about the normative expectations of others and motivation to comply with these expectations (normative beliefs) and beliefs pertaining to the presence of factors that may facilitate or impede performance of the behaviour and the perceived power of these factors (control beliefs) play a substantial role in guiding human action (Ajzen, 2002:665; Ajzen, 2006:1). "In their respective aggregates, behavioural beliefs produce a favourable or unfavourable attitude towards the behaviour; normative beliefs result in perceived social pressure or subjective norms; and control beliefs give rise to perceived behavioural control".

According to the TPB, intentions to perform behaviours of different kinds can be predicted with high accuracy from attitudes towards the behaviour, subjective norms and perceived behavioural control (Ajzen, 2002:665; Ajzen, 2006:1; Ajzen, 2005:118; Ajzen and Cote, 2008:301). These attitudes and perceptions collectively account for considerable variance in actual behaviour. Therefore, the more favourable the attitude and subjective norms with respect to the behaviour, and the greater the perceived behavioural control, the stronger would be individual's intention to perform the behaviour under consideration (Ajzen and Cote, 2008:301). The three conceptually independent determinants of intentions are discussed as follows:

(1) Attitude towards the behaviour

Attitude towards the behaviour refers to the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question (Ajzen, 2005:118; Ajzen and Cote, 2008:301). Ajzen (2005:123) argues that people develop attitudes from the beliefs they hold about the consequences of performing the behaviour. The belief strength is multiplied by outcome evaluation and the resulting sum is used to estimate the attitude towards the behaviour. The attitude people hold towards the behaviour is the result of their evaluations of the outcomes associated

with the behaviour and the strength of the associations with these evaluations (Ajzen and Cote, 2008:302). Based on this statement it is assumed that the attitude that people hold towards entrepreneurship depends on the expectations and beliefs about personal impacts of outcomes resulting from the behaviour. For example, people will hold negative attitudes about starting a business if they think it will result in stress or separation with the loved ones. They will hold favourable attitudes if starting a business will give them increased autonomy, personal wealth and community benefits (Krueger *et al.*, 2000:417). An ample number of potential outcomes of entrepreneurship are offered in entrepreneurship literature. The impact of the beliefs about these outcomes is testable through entrepreneurial intent models such as the TPB and the SEE models (Shapero and Sokol, 1982 in Krueger *et al.*, 2000:417).

(2) Perceived behavioural control

Perceived behavioural control refers to the sense of self-efficacy or ability to perform the behaviour (Ajzen, 2005:118; Ajzen and Cote, 2008:301). Perceived behavioural control involves judgements concerning individuals' capability to perform a given behaviour, the extent to which they have the requisite resources and the belief that they can overcome the obstacles they may encounter (Ajzen, 2002:677). This reflects past experience as well as the presence of factors that can facilitate or impede performance of the behaviour (Ajzen and Cote, 2008:303; Ajzen, Brown and Carvajal, 2004:1110). Perceived behavioural control is determined by control beliefs about the availability of resources and opportunities (Ajzen, 2005:125). It is further suggested that the more resources and opportunities individuals possess and the fewer obstacles or impediments they anticipate, the greater should be their perceived control over behaviour (Ajzen, 2005:125). When people have a sufficient degree of actual control over the behaviour, they are expected to carry out their intentions when the opportunity arises (Ajzen and Cote, 2008:301; Ajzen, 2006:1). The formation of control beliefs is dependent on factors such as past experience with the behaviour, second-hand information about the behaviour, observing the experiences of acquaintances and friends and other factors that increase or decrease the perceived difficulty of performing the behaviour in question.

Moreover, the degree of control a person has over a given behaviour is influenced by internal as well as external factors. Internally, aspects such as information, skills and abilities and emotions and compulsions can influence successful performance of an intended action (Ajzen, 2005:108). Ajzen argues that a person may intend to perform the behaviour but fail to carry it out because of lack of information, skills and abilities. On the other hand, Ajzen reports that people who are overcome by emotions or perform the behaviour under stress cannot be held accountable for results. Externally, situational factors such as opportunity and dependence on others may facilitate or interfere with performance of the behaviour (Ajzen, 2005:109). When people believe that they lack the resources or an opportunity to perform the behaviour, they are unlikely to form strong behavioural intentions to engage in it despite their favourable attitude towards the behaviour and the belief that important others would approve of their performing the behaviour (Ajzen, 2005:119).

Perceived behavioural control can influence behaviour indirectly via intentions and it can on the other hand predict behaviour directly by serving as a proxy for actual control (Ajzen and Cote, 2008:302; Ajzen, 2006:1; Ajzen, 2005:119; Ajzen *et al.*, 2004:1110). The broken arrow in Figure 2.2 shows that the link between perceived behavioural control and behaviour is expected to emerge only when there is some agreement between perceptions of behavioural control and the person's actual control over the behaviour (Ajzen, 2005:119). Ajzen and Cote (2008:302) suggest that the effect of intention on the behaviour will be strong when actual control is high rather than low.

(3) Subjective norms

Subjective norms refer to the perceived social pressure to perform or not to perform the behaviour (Ajzen, 2005:118; Ajzen and Cote, 2008:301). Subjective norms derive from the beliefs that important referent individuals or groups approve or disapprove of performing a given behaviour; or these social referents themselves engage or do not engage in it (Ajzen, 2005:124). Important referents include a person's parents, spouse, close friends, co-workers and even experts in the behaviour of interest. When people believe that most referents with whom they are motivated to comply think they

should perform the behaviour they will perceive social pressure to perform it and vice versa.

Ajzen (2005:119) reports that since the inception of the TPB 20 years ago, hundreds of studies have applied the theory to predict the variety of different intentions and there has been considerable support for the theory. He asserts that a great number of studies have indeed provided a strong support for the theory that intentions to perform the behaviour can be predicted from attitudes towards the behaviour, subjective norms and perceptions of behavioural control. In a selective comparison of ten investigations that tested the theory, Ajzen (2005:120) found that all three antecedents of intention made significant contributions to the prediction of intentions. However, the relative importance of these antecedents varied from one intention to another. Ajzen (2005:120) found that “subjective norms generally accounted for less variance than the other two predictors.”

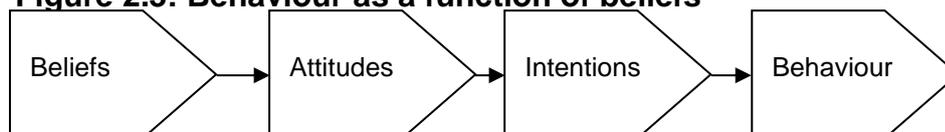
2.3.2.2 Beliefs, attitudes, intention and behaviour linkage

Ajzen (2006:7) suggests that beliefs provide the cognitive and affective foundations for attitudes, subjective norms, and perceptions of behavioural control. Different beliefs, according to Ajzen and Cote (2008:290), are acquired on a daily basis about objects, actions and events. These beliefs are formed through direct observation; they may be self-generated by means of inference processes or formed indirectly by acceptance of information from outside sources such as friends, television, newspapers and books (Ajzen and Cote, 2008:290). When formed, they represent the information about one's world and they form the cognitive foundation of one's responses to aspects of that world.

Beliefs people hold about an object lead to the formation of attitude towards an object (Ajzen and Cote, 2008:291) and intentions and actions follow reasonably from attitudes (Ajzen, 2005:29). Being embedded in the expectancy-value (EV) model beliefs about an object are formed by associating it with other attributes and with other objects, characteristics, or events. Ajzen and Cote (2008:290) argue that “although beliefs accurately reflect reality, they can also be biased by a variety of cognitive and motivational processes”. People automatically and simultaneously acquire an attitude

towards the object by linking it with certain attributes that are valued positively or negatively. As a result people's attitudes are determined by readily accessible beliefs (Ajzen and Cote, 2008:291). Ajzen (2005:30) indicates that attitudes derive reasonably from accessible beliefs about the behaviour, and actions with respect to the behaviour follow directly from behavioural intentions. The causal sequence of these concepts is illustrated in Figure 2.3.

Figure 2.3: Behaviour as a function of beliefs



Source: Adapted from Ajzen (2005:30)

Furthermore, the beliefs relating to the presence or absence of requisite resources ultimately determine intention and action (Ajzen, 2005:125). As a result, it is expected that the resources and opportunities available to an entrepreneur determine, to some extent, the likelihood of behavioural achievement.

Ajzen and Cote (2008:305) conclude as follows: "...Beliefs about the behaviour's likely consequences, about the normative expectations of important others, and about skills, resources, or other factors that can facilitate or impede performance of the behaviour jointly influence the decision to engage or not to engage in the behaviour of interest".

2.3.2.3 Views and research in support of Ajzen's model

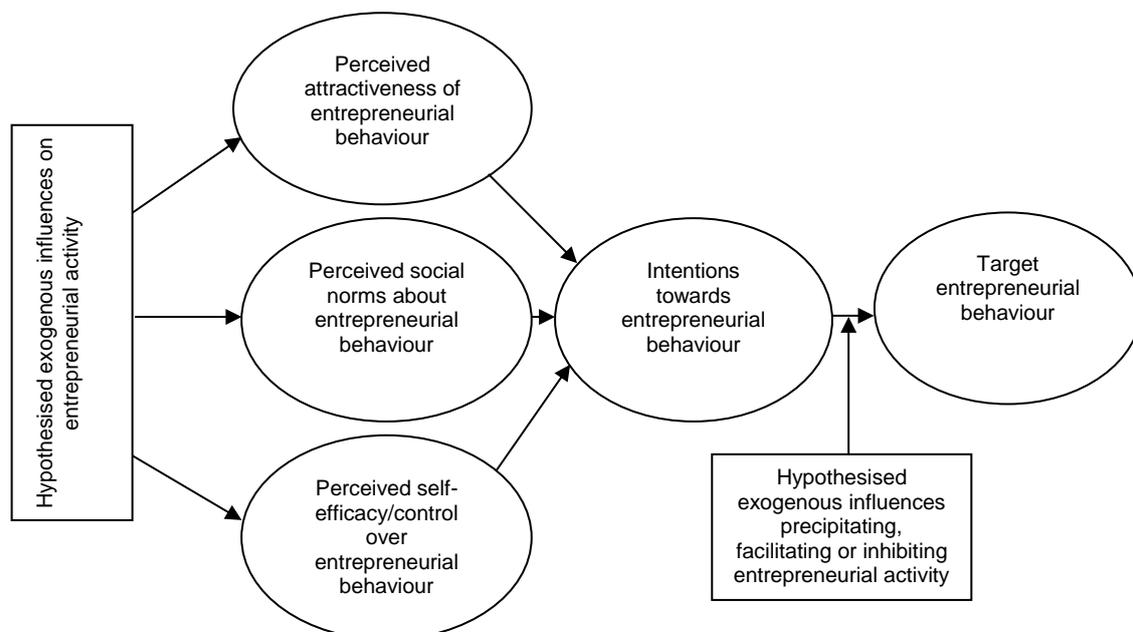
Feldman (2008:521) and Kreitner and Kinicki (2008:160) support the view that attitudes influence behaviour. The strength of the link between attitudes and behaviour varies. However, people strive for consistency between their attitudes and behaviour (Feldman, 2008:521). Bridge *et al.* (2003:76) suggest that the influence of beliefs and attitudes on behaviour is mediated by intentions. Feldman (2008:525) reports that behaviour can be a result of situational and dispositional causes. Situational causes are brought by something in the environment while dispositional causes are based on internal traits or personality factors. Intentions on the other hand are influenced by personal factors such as personality, experience and perceived ability and by contextual factors (Boyd and Vozikis, 1994 in Bridge *et al.*, 2003:76).

Beliefs provide a better understanding on why people act the way they do. Hence behaviour is a function of beliefs relevant to the behaviour (Wiklund *et al.*, 2003:265). Attitudes affect entrepreneurial behaviour through their impact on intentions (Frazier and Niehm, 2006:6; Krueger *et al.*, 2000:425). Souitaris *et al.* (2007:582) observe that the intention to become an entrepreneur is significantly correlated to the attitude towards entrepreneurship.

2.3.2.4 The theory of planned behaviour applied to entrepreneurship

The theory of planned behaviour was first applied to the field of entrepreneurship in 1993 by Krueger and Carsrud in an attempt to make it compatible with other theoretical frameworks such as the SEE model (Fayolle, 2007:172-173; Fayolle *et al.*, 2006:708). Krueger and Carsrud (1993 in Fayolle *et al.*, 2006:708) proposed a model that incorporates the influence of exogenous variables on development of beliefs and attitudes and the notion of external trigger (displacement) to explain the shift from intention to behaviour. Figure 2.4 illustrates their model.

Figure 2.4: The theory of planned behaviour applied to entrepreneurship



Source: Krueger and Carsrud (1993 in Fayolle, 2007:173)

Krueger and Carsrud (1993 in Fayolle, 2007:173-174) identified three antecedents of intention which are explained as follows:

- *Perceived attractiveness of entrepreneurial behaviour.* This concept corresponds to the attitude towards the behaviour and depends on beliefs concerning the positive or negative consequences of the behaviour.
- *Perceived social norms about the entrepreneurial behaviour.* It deals with how influential people perceive the entrepreneurial behaviour. It is suggested that this concept overlaps with perceived desirability and perceived feasibility in the SEE model.
- *Perceived self-efficacy/control over the behaviour.* This factor refers to the perception of feasibility of the behaviour and is reported to be similar to self-efficacy.

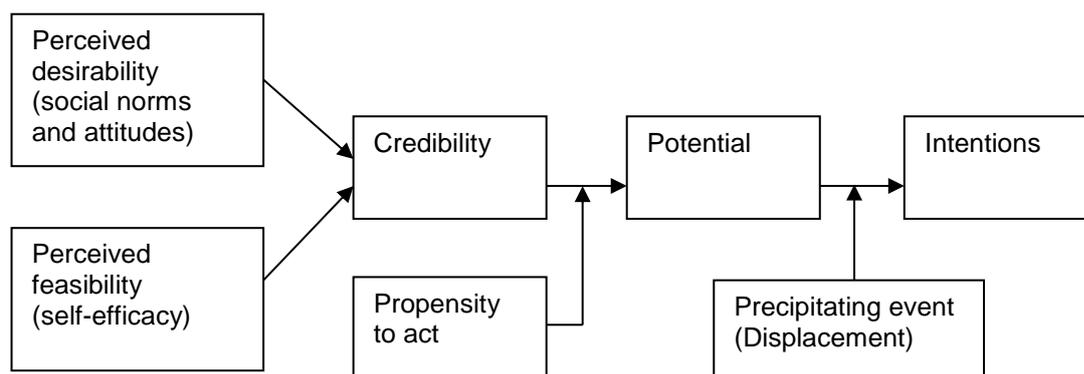
Fitzsimmons and Douglas (2005:7) conducted a cross-cultural study focusing on entrepreneurial attitudes of four countries involving 414 students. They found that entrepreneurial attitudes influenced the assessment of career alternatives. The intention to behave entrepreneurially was found to be positively related to attitudes towards ownership, income, independence and risk tolerance. They found that the strength of the relationship between entrepreneurial attitudes and career decisions was influenced by human capital variables (such as age, gender, level of education, education speciality, business experience and personal income) (Fitzsimmons and Douglas, 2005:11).

In a longitudinal study that involved 297 Norwegian business founders, Kolvereid and Isaksen (2006:868) investigated the antecedents of attitude towards self-employment, self-employment intentions and entry into self-employment. In their findings Kolvereid and Isaksen (2006:880) report that the positive attitude towards self-employment was determined by salient beliefs concerning autonomy, self-realisation, authority and economic opportunity. Self-employment intentions were predicted significantly by attitude and subjective norms. There was a strong relationship between the intention to become self-employed and the actual entry into self-employment (Kolvereid and Isaksen, 2006:882). Similarly, Zhang and Yang (2006:167) found a significant positive relationship between entrepreneurial intention and entrepreneurial behaviour.

2.3.3 The model of entrepreneurial potential

In 1994 Krueger and Brazeal (1994 in Guerrero *et al.*, 2008:41) proposed a social psychology perspective in which they conceptualised and tested the model of entrepreneurial potential. In their model these authors argue that entrepreneurial potential derives from perceived desirability, perceived feasibility and propensity to act, which are critical determinants of intentions in the SEE model. Perceived desirability subsumes the attitude towards the act and social norms in Ajzen's TPB. Perceived feasibility relates to self-efficacy in Bandura's 1997 social learning theory, and perceived behavioural control in Ajzen's TPB. Figure 2.5 illustrates Krueger and Brazeal's model of entrepreneurial potential.

Figure 2.5: Krueger and Brazeal's model of entrepreneurial potential



Source: Guerrero *et al.* (2008:43)

In an effort to promote entrepreneurship Krueger and Brazeal (1994 in Grundstén, 2004:28) suggest that success in empowering people to have the potential to become entrepreneurs is dependent on creating a “nutrient-rich environment for potential entrepreneurs”. This environment entails providing credible information, credible role models, emotional/psychological support and more tangible resources. Support from political, social and business leaders and a team spirit in the community are viewed as factors that can influence perceptions that starting a business is desirable and feasible (Krueger and Brazeal, 1994 in Grundstén, 2004:28).

Guerrero *et al.* (2008:41) used a structural equation model to test Krueger and Brazeal's model of entrepreneurial potential. Their specific focus was on the influence of credibility that is antecedent by perceived desirability and perceived feasibility on the intention to create a new business. A sample of 33,139 university students was used. The sample was made up of 5,288 students with entrepreneurship-related majors, 15,971 students from non-entrepreneurship-related majors and 11,880 students from engineering courses. Guerrero *et al.* (2008:45) found that credibility impacted positively and significantly on students' intention to start a new business. These authors found that the entrepreneurial potential model "reveals the existence of a significant and positive relationship between credibility (the desirability and feasibility) and the intention to create a new venture in all group[s] of students" when the perceptions of students were measured considering their major (Guerrero *et al.*, 2008:46). The majority of students with entrepreneurship-related majors had higher intentions to start a new business than other groups of students (Guerrero *et al.*, 2008:47).

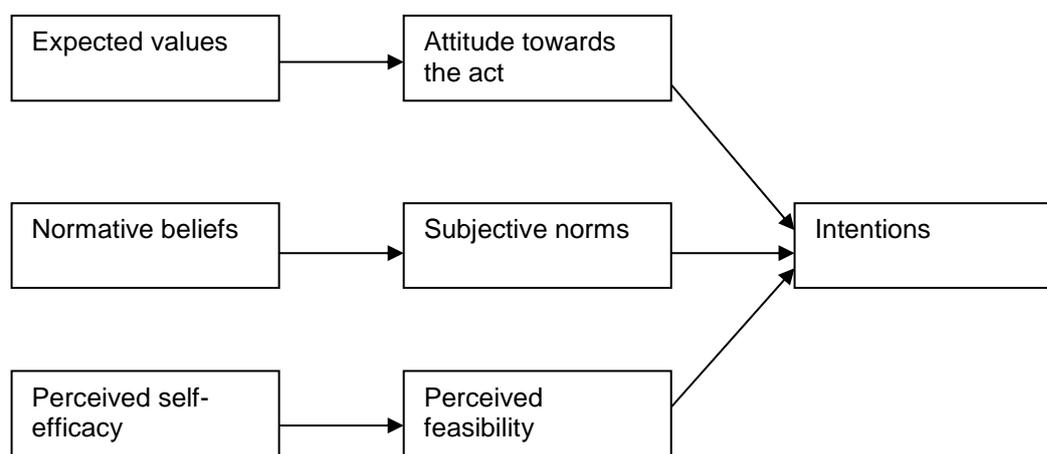
2.3.4 Shapero-Krueger model of entrepreneurial intention

Krueger *et al.* (2000:413) argue that entrepreneurial activity is intentionally planned behaviour. These researchers suggest that any planned behaviour can best be predicted by observing intentions towards it not by attitudes, beliefs, personality or demographic factors. Krueger *et al.* (2000:413) tested and compared the TPB and SEE models which are the two widely used and robust intention models in entrepreneurship research on the efficacy of these models to predict entrepreneurial intentions using a sample of 97 senior university students. Krueger *et al.* (2000:416-417) explained the antecedents of intention in the TPB as follows:

- *Attitude towards performing the behaviour* – this concept is similar to expectancy and depends on expectations and beliefs about personal impacts of outcomes resulting from performing the behaviour.
- *Perceived social norms* – depends on what important people in one's life think about performing the behaviour as well as the expected support of significant others.

- *Perceived behavioural control and perceived self-efficacy* – this concept overlaps with Bandura’s (1986 in Krueger *et al.*, 2000:417) concept of self-efficacy which is the perceived ability to perform the target behaviour. Figure 2.6 illustrates the modified Ajzen’s TPB.

Figure 2.6: Ajzen’s modified theory of planned behaviour



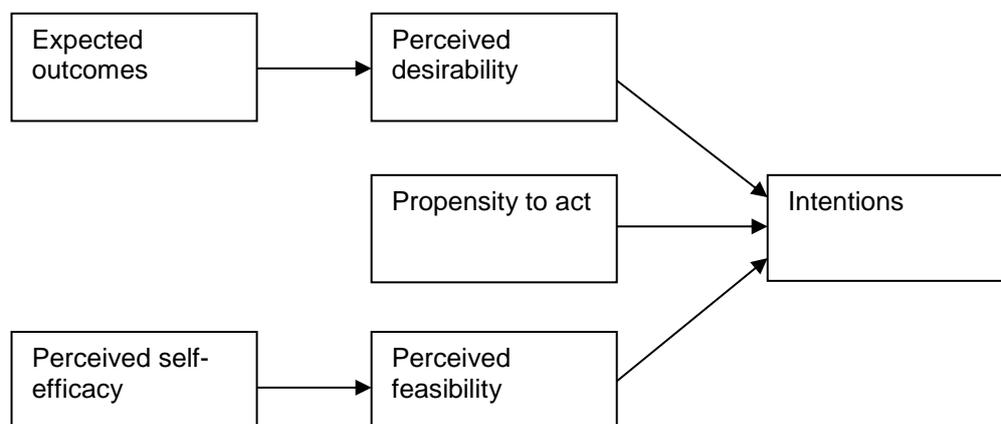
Source: Krueger *et al.* (2000:416)

Krueger *et al.* (2000:419) explain the antecedents of intentions in the SEE model as follows:

- *Perceived desirability* is “the personal attractiveness of starting a business” (Krueger *et al.*, 2000:419). It is similar to *attitude towards the act* in Ajzen’s model (Krueger *et al.*, 2000:416). It is also described as the personal attitude towards the outcomes of the behaviour.
- *Perceived feasibility* is “the degree to which one feels personally capable of starting a business” (Krueger *et al.*, 2000:419). Perceived feasibility is similar to perceived behavioural control in Ajzen’s model (Krueger *et al.*, 2000:416). Hisrich *et al.* (2008:58) suggest that perception of feasibility refers to the entrepreneur’s self-efficacy, which is the “conviction that one can successfully execute the entrepreneurial process”. People who have high self-efficacy take the initiative and are persistent in their efforts leading to improved performance.
- *Propensity to act* is “the personal predisposition to act on one’s decisions” (Krueger *et al.*, 2000:419).

After comparing and contrasting the SEE and the TPB models Krueger *et al.* (2000:424) developed the Shapero-Krueger model of entrepreneurial intention, illustrated in Figure 2.7.

Figure 2.7: Shapero-Krueger model of entrepreneurial intention



Source: Krueger *et al.* (2000:424)

Krueger *et al.* (2000:419) observed that perceived feasibility and perceived behavioural control contain an element conceptually associated with perceived self-efficacy and that the TPB's determinants "attitude towards the act" and "subjective norms" correspond with perceived desirability in the SEE model. Krueger *et al.* (2000:422) found that the TPB was supported but the subjective norms were non-significant. They suggested that the effect of subjective norms on intentions could be high in ethnic groups who have strong traditions of entrepreneurship or may relate to cultural differences in the importance of social norms in economic activity (Krueger *et al.*, 2000:424). The SEE model was fully supported (Krueger *et al.*, 2000:423). They found that entrepreneurial intentions were significantly correlated with perceived desirability and perceived feasibility. They also found that intentions were predicted by propensity to act and that perceived feasibility was correlated with perceived self-efficacy (Krueger *et al.*, 2000:423). Krueger *et al.* (2000:424) suggest that both the SEE and the TPB models offer researchers valuable tools for understanding the process of organisational emergence.

2.3.5 Empirical studies testing and applying the SEE and TPB

In the previous sections, the SEE and TPB models were discussed with the purpose of highlighting the antecedents of entrepreneurial intent in each model. These models were found to be compatible. An exposition of empirical studies that have tested and applied the SEE and TPB models is given in the next sections.

2.3.5.1 *Perceived feasibility and perceived desirability as determinants of entrepreneurial intent*

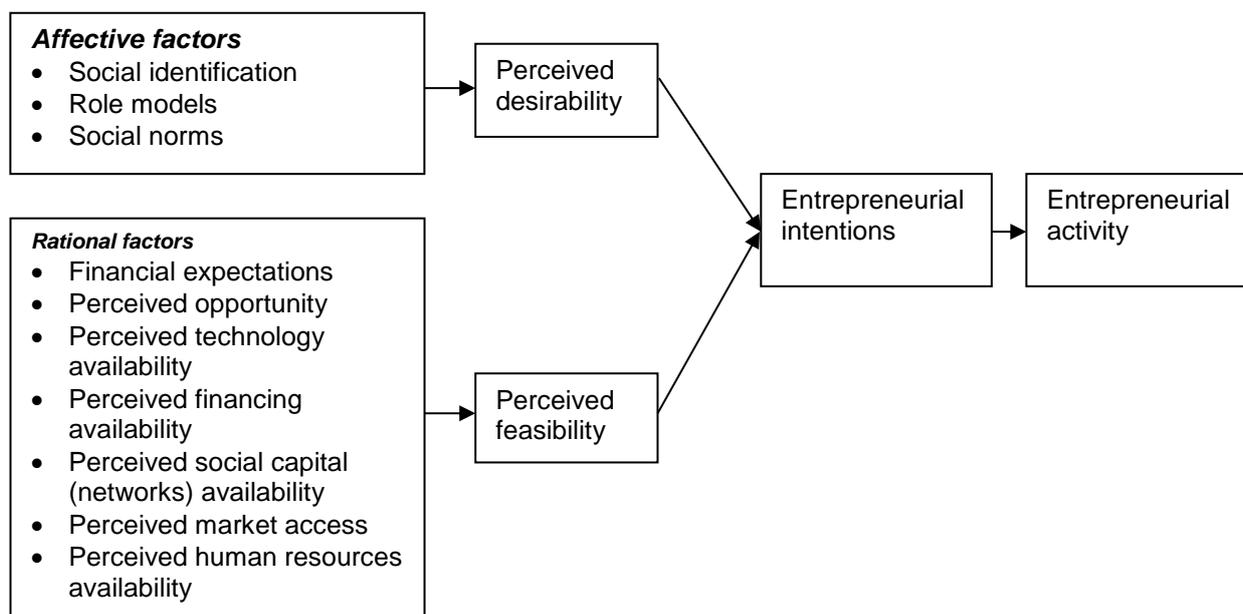
Using a two-country sample involving the Taiwanese and the Spaniards of 533 business and economics students, Liñán and Chen (2006:1) tested the TPB and developed the entrepreneurial intention questionnaire with a view to overcome limitations of previous instruments. Their findings supported the TPB with regard to perceived behavioural control and attitude towards the behaviour but not with regard to social norms (Liñán and Chen, 2006:11; Liñán and Chen, 2009:30). They found that social norms affect personal attraction and self-efficacy/perceived behavioural control (Liñán and Chen, 2006:13; Liñán and Chen, 2009:30). These findings corroborate those in Krueger *et al.* (2000:422); Emin (2003:11); Liñán *et al.* (2005:14); Li (2006:6) Brännback *et al.* (2007:5); Liñán *et al.* (2007:7) and Liñán (2008:266). On the contrary, in a longitudinal study that involved 297 Norwegian business founders Kolvereid and Isaksen (2006:880) report a significant relationship between the attitude and subjective norms and self-employment intentions.

Additionally, Brännback *et al.* (2005:8) reported a direct link between entrepreneurial intent and perceived personal desirability and perceived personal feasibility. Social norms were found to be non-significant (Brännback *et al.*, 2005:10). Kennedy *et al.* (2003:9) confirm the validity of using perceived feasibility, perceived desirability and subjective norms to explain entrepreneurial intentions for first-year university students across multiple campuses. Kennedy *et al.* (2003:10) posit that subjective norms influence entrepreneurial intent in situations where employment is not feasible. Audet (2004:1) studied the entrepreneurial intentions of students using a longitudinal study. Perceived desirability and perceived feasibility explained 49 percent of variation in the long-term intentions to start a business compared to 32 percent in the short-term

intentions. Perceived desirability surpassed perceived feasibility in predicting both long and short-term intentions (Audet, 2004:7). Liñán (2008:266) found that perceived behavioural control and personal attraction explained 59 percent of the variance in entrepreneurial intention.

Grundstén (2004:1) investigated the relationship between the entrepreneurial behaviour of an individual and the environment. Entrepreneurial behaviour was defined as “the set of actions of nascent entrepreneurs that form a path towards new venture creation” (Grundstén, 2004:47). The environment was conceptualised as being made up of affective and rational environmental factors (Grundstén, 2004:48). Affective factors refer to attributes in the social environment such as social identification, role models and social norms. Social identification denotes how individuals relate themselves to the surrounding environment as entrepreneurs. It is how people see themselves as entrepreneurs, as being more appreciated or as less appreciated. Role models refer to “the amount of successful entrepreneurs in the environment that the person knows, which may occur in the family or within other social contexts”. Social norms include the attitude of fellow men towards entrepreneurship and entrepreneurial occupation. Rational factors consisted of financial expectations, perceived opportunity, and perceived availability of resources such as technology-related, financial, social capital, access to the market and human resources. Figure 2.8 shows the modified intention model of the relationship between the environment and entrepreneurial intentions.

Figure 2.8: Model of the relationship between the environment and entrepreneurial intentions



Source: Grundstén (2004:52)

Grundstén (2004:69) found that entrepreneurial intentions are a function of environmental variables that are expressed in terms of affective and rational factors. Entrepreneurial intentions were indirectly affected by social norms through perceived desirability of entrepreneurship (Grundstén, 2004:69) and directly affected by social identification (Grundstén, 2004:70). Rational factors that affected entrepreneurial intentions through perceived feasibility are financial expectations and the availability of technology-related resources (Grundstén, 2004:70). Entrepreneurial intentions were strongly associated with perceived desirability and perceived feasibility. However, there was no significant relationship between roles models, perceived opportunity, perceived availability of financial resources, perceived availability of social capital, and perceived availability of human resources.

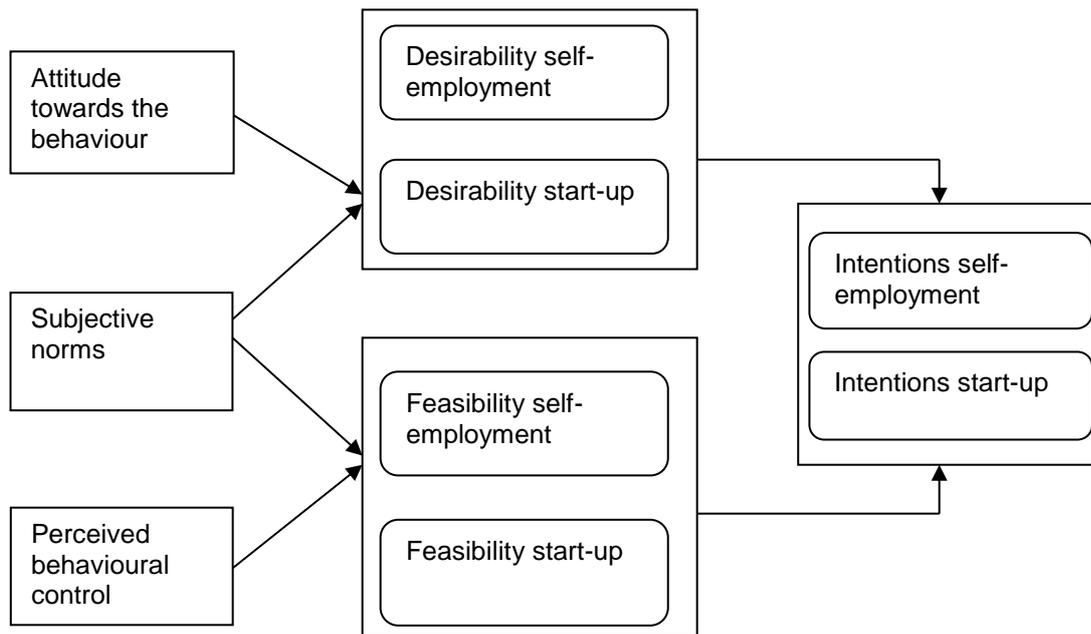
Moreover, Engle, Dimitriadi, Gavidia, Schlaegel, Delanoe, Alvarado, He, Buame and Wolff (2010:35) tested the ability of the TPB to predict entrepreneurial intent of 1748 business students from twelve countries that included Spain, France, Sweden, Finland, Germany, Ghana, Russia, Egypt, China, Bangladesh, Costa Rica and the United States of America. They found that the antecedents of entrepreneurial intent differed greatly between countries in their ability to predict entrepreneurial intent

(Engle *et al.*, 2010:50). All the three antecedents (attitude towards the behaviour, social norms and perceived behavioural control) were statistically significant predictors of entrepreneurial intent only in Finland and Russia. In Costa Rica social norms were the only significant predictor of the entrepreneurial intent of the respondents. Other countries had at least two antecedents in the TPB as significant predictors. Social norms and attitude towards the behaviour were significant predictors of entrepreneurial intent of the respondents in China, Finland, Ghana, Russia, Sweden and USA. Entrepreneurial intent of the respondents in Bangladesh, Egypt, Finland, France, Germany, Russia and Spain was significantly predicted by social norms and perceived behavioural control. Social norms were found to be a significant predictor in all the twelve countries.

2.3.5.2 A model integrating the SEE model and the TPB

Kolvereid *et al.* (2007:1) developed and tested an integrated model of entrepreneurial intentions with the goal of investigating whether the SEE model and the TPB can be integrated into one model. The model was also used to predict individuals' decision to be self-employed and ultimately the intention to start a business. Their sample involved 528 university students enrolled in entrepreneurship programs in three countries (Kolvereid *et al.*, 2007:2). Kolvereid *et al.* (2007:5) found that the intention to become self-employed and to start a business is a function of desirability and feasibility of self-employment. The desirability of self-employment was influenced by attitudes and subjective norms while feasibility was influenced by subjective norms and perceived behavioural control. Kolvereid *et al.* (2007:5) report that in an attempt to predict the intention to become self-employed, the TPB and the SEE models can be successfully integrated into one model. An integrated model of entrepreneurial intentions is depicted in Figure 2.9.

Figure 2.9: An integrated model of entrepreneurial intentions



Source: Kolvereid *et al.* (2007:7)

2.3.6 Summary

From the discussion in the previous sections it appears that entrepreneurial intent is a critical element towards understanding a new venture creation process. As a result, researchers have in the past developed different entrepreneurial intention models that form the foundation of intentionality theory. These models indicate that in order for people to pursue entrepreneurship as a career choice, entrepreneurship must be seen as desirable and feasible. This means that people will choose to act entrepreneurially if they see the positive benefits of entrepreneurship. The benefits (outcomes) of entrepreneurship can be realised personally through the experience of starting one's own business, having family members and friends who are entrepreneurs and through other entrepreneurs in one's environment. If these experiences are positive, people will form favourable attitudes towards entrepreneurship and vice versa. People must also feel capable of performing the tasks related to entrepreneurship (self-efficacy) and there must be opportunities in the market.

The TPB and the SEE are the two dominant and popular models in the entrepreneurial intent theory. The TPB is regarded as well grounded in theory and robustly predicts a

wide variety of planned behaviours including entrepreneurial behaviour. In the TPB, the most important immediate determinant of action is a person's intention to perform or not to perform that action. According to the TPB, intentions develop from the attitude towards the behaviour, perceived behavioural control and subjective norms. Different researchers tested and supported this theory with the attitude towards the behaviour and perceived behavioural control predicting intentions and behaviour robustly. Subjective norms have shown to be insignificant in most studies and significant in few studies. The determinants of intention in the TPB are the result of behavioural, normative and control beliefs. Specifically, human behaviour is guided by beliefs regarding the likely outcomes of the behaviour and the evaluations of these outcomes, beliefs about the normative expectations of others and the motivation to comply, and the beliefs regarding the presence of factors that may facilitate or impede the performance of the behaviour. These beliefs form the foundation of attitudes. Intention develops from attitudes and from intention actions with respect to the behaviour follow. Beliefs relating to the absence or presence of requisite resources ultimately determine intention and action. Intention affects the behaviour when the individual's actual control over the behaviour is high.

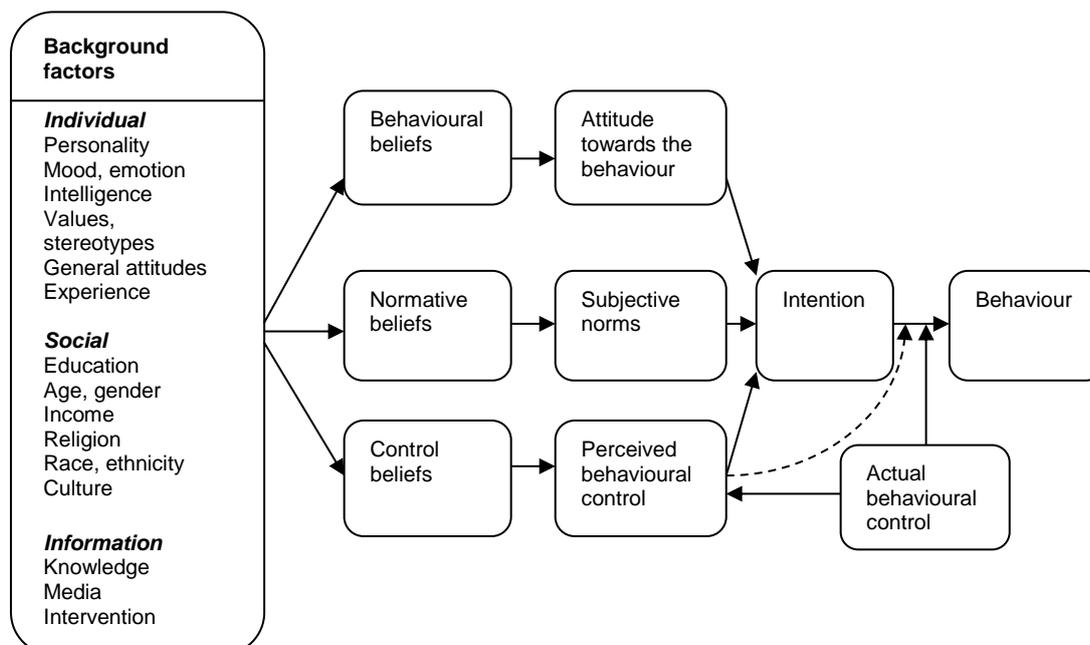
The SEE model is an intention model specific to the domain of entrepreneurship, which suggests that intentions develop from perceived desirability, perceived feasibility and propensity to act. According the model, there must be a triggering event or displacement factor for an individual to act entrepreneurially. This could be the appearance (acquisition) of a perceived facilitator or the removal (or avoidance) of a perceived inhibiting factor. The determinants of entrepreneurial intent in the model were found to predict entrepreneurial intent significantly. Some researchers have noted similarities between the TPB and SEE on the determinants of intentions. It appears that perceived desirability in the SEE model develops reasonably from the attitude towards the act and subjective norms in the TPB and perceived feasibility is similar to perceived behavioural control. Perceived feasibility and perceived behavioural control are also seen as similar to the concept of self-efficacy. Recent research indicates that both the TPB and SEE models can be integrated into one model to predict the intentions of self-employment or start-up.

The development of entrepreneurial intent models was discussed and some of the factors impacting on the variables in the models have been alluded to. In the next sections the different factors that impact on the models are identified and supported by the recent research findings.

2.4 FACTORS IMPACTING ON ENTREPRENEURIAL INTENT MODELS

The development of entrepreneurial intentions is affected by individual differences such as attitudes, predispositions, traits, skills and abilities and cognitive differences (Shook *et al.*, 2003 in Oruoch, 2006:9). The physical and the social environments, exposure to information as well as values and prejudice, may also influence beliefs. Kamau-Maina (2007:9) cites prior exposure to entrepreneurship, availability of role models and social attitudes towards entrepreneurship as some of the situational factors that impact on the intention to start a business. Ajzen and Fishbein (2005:194) in their theories of reasoned action and planned behaviour as illustrated in Figure 2.10, posit that behavioural, normative and control beliefs are influenced by a wide variety of cultural, personal and situational factors.

Figure 2.10: The theories of reasoned action and planned behaviour



Source: Ajzen and Fishbein (2005:194)

Ajzen and Fishbein (2005:196) indicate that the contributions of attitudes, subjective norms and perceptions of control to the prediction of intentions can vary depending on the behaviour and the population under investigation. Entrepreneurial skills were found to be significant predictors of personal attraction, subjective norms and perceived behavioural control (Liñán, 2008:272). Entrepreneurial skills were in turn affected positively by closer and social valuations of entrepreneurship (Liñán, 2008:267). These findings simply mean that people feel more capable of performing a particular activity when it is valued by people closer to them and the society in general.

2.4.1 The relationship between personal and contextual factors and entrepreneurial intent

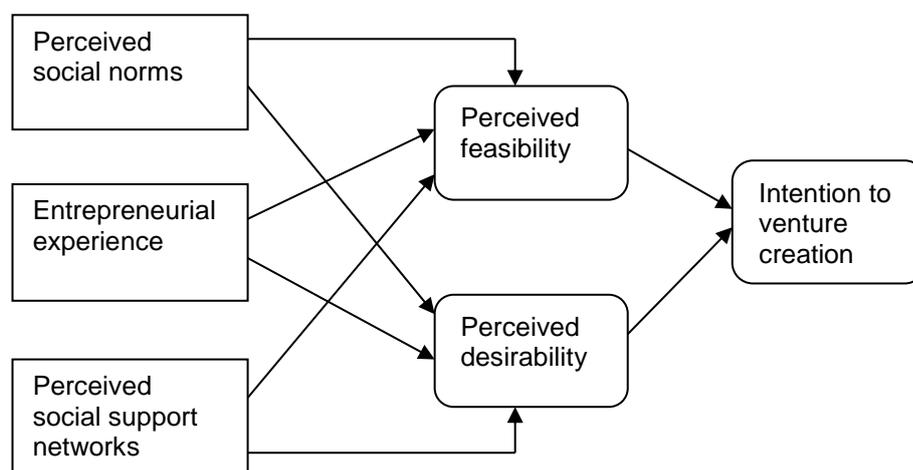
Orooch (2006:7) used the SEE model to examine the impact of entrepreneurial experience, perceived social support networks and perceived social norms on perceived desirability and feasibility of starting a business in Kenya. The study involved a convenience sample of 600 participants made up of 440 students and 160 nascent entrepreneurs (Orooch, 2006:14). The findings support all six hypotheses that were formulated (Orooch, 2006:23-25):

- Perceived desirability had a positive effect on the intent to create a new venture.
- Perceived feasibility had a positive effect on the intent to create a new venture.
- Perceived social support networks had a positive effect on perceived feasibility and perceived desirability.
- Perceived social norms had a positive effect on perceived feasibility and perceived desirability.
- Entrepreneurial experience had a positive effect on perceived feasibility and perceived desirability.
- Perceived desirability and perceived feasibility mediated the effects of entrepreneurial experience, perceived social norms and support networks on intent to create a new venture.

Orooch modified the Shapero-Krueger model of entrepreneurial intention and proposed the model of factors that facilitate the intention to venture creation as

illustrated in Figure 2.11. Oruoch's modified model had an explanatory of 52 percent of the intention to venture creation (Oruoch, 2006:26).

Figure 2.11: Modified model of the factors affecting the intention to venture creation



Source: Oruoch (2006:26)

In another Kenyan study Kamau-Maina (2007:17) investigated the impact of prior exposure to entrepreneurship and beliefs about formal learning and careers on intentions and actual establishment of the venture. In her findings Kamau-Maina (2007:42) reports that entrepreneurial intentions and actual business set up were strongly determined by attitudes towards entrepreneurship. Prior exposure to entrepreneurship that includes businesses run by members of important social referent groups, prior work experience and training in entrepreneurship influenced perceived feasibility which was expressed in entrepreneurial self-efficacy. Schenkel, Azriel, Brazeal and Matthews (2007:6) found that prior start-up experience is strongly related to entrepreneurial intentions.

Begley *et al.* (2005:35) investigated the relationship between politico-economic factors and the interest in starting a business in thirteen Anglo-Saxon, East Asian and South Asian countries. The politico-economic factors studied were perceived availability of: 1) Financing, 2) Supportive government regulation, 3) Market opportunities, 4) Support services, 5) Skilled labour, 6) Personal connections to resource holders and 7) Perceived competitive conditions (Begley *et al.*, 2005:38). The interest in starting a business was measured in terms of feasibility and desirability. Begley *et al.* (2005:46)

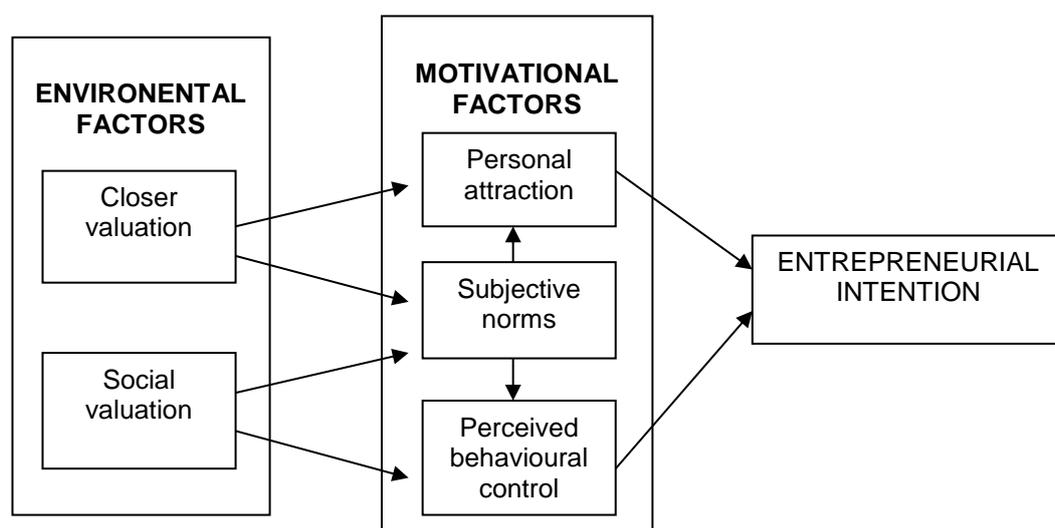
found that market opportunities and the supply of skilled labour were positively related to both feasibility and desirability while supportive government regulation was negatively related to both feasibility and desirability. Support services and competitive conditions were related to feasibility and personal connections to resource holders were related to desirability.

Begley *et al.* (2005:35) investigated the relationship between politico-economic factors and the interest in starting a business in thirteen Anglo-Saxon, East Asian and South Asian countries. The politico-economic factors that were studied include perceived availability of: 1) Financing, 2) Supportive government regulation, 3) Market opportunities, 4) Support services, 5) Skilled labour, 6) Personal connections to resource holders and 7) Perceived competitive conditions (Begley *et al.*, 2005:38). The interest in starting a business was measured in terms of feasibility and desirability. Begley *et al.* (2005:46) found that market opportunities and the supply of skilled labour were positively related to both feasibility and desirability while supportive government regulation was negatively related to both feasibility and desirability. Support services and competitive conditions were related to feasibility and personal connections to resource holders were related to desirability. Comparing the differences among countries, Begley *et al.* (2005:47) found that East Asians scored higher than Anglo-Saxons and South Asians on financing available and personal connections. Supportive government regulation, support services and supply of skilled labour were evaluated as more helpful by Anglo-Saxons and East Asians than South Asians. There was a better evaluation of market opportunities by Anglo-Saxons than South Asians while East Asians were in between. There were no differences across regions in perceived competitive conditions (Begley *et al.*, 2005:47).

Begley *et al.* (2005:49) noted differences in the dimensions that were related to feasibility and desirability in each region. Market opportunities were related to both feasibility and desirability in Anglo-Saxon countries and were also significantly related to desirability in East Asia. Skilled labour was found relevant to the South Asians whereas support services had a significant relationship with feasibility in Anglo-Saxon than South Asian countries. Support services had a significant relationship with desirability in Anglo-Saxon than East Asian countries (Begley *et al.*, 2005:49).

Liñán *et al.* (2007:1) examined the environmental factors that may be explaining regional differences in start-up intentions using 549 last-year students from two universities in Spanish regions namely, Catalonia and Andalusia. They developed an entrepreneurial intent model to help analyse the motivational factors that affect entrepreneurial intent based on the TPB. In their study Liñán *et al.* (2007:3) referred to antecedents of intention such as attitude towards the behaviour/personal attraction, perceived behavioural control and subjective norms as motivational factors. They also analysed the environmental factors influencing entrepreneurial intent. These factors include closer valuation and social valuation of entrepreneurship (Liñán *et al.*, 2007:4). Closer valuation of entrepreneurship refers to the extent to which people closer to an individual such as family members and friends value entrepreneurship (Liñán *et al.*, 2007:4; Liñán, 2008:261). Social valuation of entrepreneurship refers to the system of values peculiar to a specific group or society that shape personality traits and capacities and ability perceptions towards the entrepreneurial activity. Figure 2.12 illustrates the modified entrepreneurial intent model incorporating environmental factors.

Figure 2.12: Modified entrepreneurial intent model incorporating environmental factors



Source: Liñán *et al.* (2007:5)

Liñán *et al.* (2007:6) found that students in Catalonia reported themselves as having greater perceived behavioural control and perceived a more favourable social

valuation of entrepreneurship in their region. They found that personal attraction/attitude towards the behaviour and perceived behavioural control had positive impact on entrepreneurial intentions independently of the region (Liñán *et al.*, 2007:7). Closer valuation of entrepreneurship had a significant positive effect on personal attraction and subjective norms. Subjective norms had a positive impact on personal attraction and perceived behavioural control independently of the region. However, subjective norms did not have a significant effect on entrepreneurial intention in both Catalonia and Andalusia (Liñán *et al.*, 2007:7). Liñán *et al.* (2007:8) found that the motivational factors determining entrepreneurial intention are influenced by perceptions regarding the general-society and closer-environment values. Perceived behavioural control was influenced by social valuation of entrepreneurship (Liñán *et al.*, 2007:8). Liñán *et al.* (2007:8) found that in both Catalonia and Andalusia, personal attitude towards entrepreneurship was strongly influenced by closer valuation of entrepreneurship. This is consistent with the findings by Liñán (2008:268). There was a more favourable social valuation of entrepreneurship in Catalonia than Andalusia which exerted a stronger influence on subjective norms. There was a negative social valuation of entrepreneurship in Andalusia. Liñán *et al.* (2007:8) suggest that support for the start-up decision in Andalusia could be mainly from within the closer environment.

2.4.2 The relationship between self-efficacy and entrepreneurial intent

Some researchers found self-efficacy to be a robust construct in explaining and predicting entrepreneurial behaviour and entrepreneurial intentions (for example Krueger and Brazeal 1994 and Krueger *et al.*, 2000 in Krueger *et al.*, 2008:8). Fayolle *et al.* (2006:708) and Kolvereid and Isaksen (2006:867) posit that perceived behavioural control appears quite similar to the concept of perceived self-efficacy. Similarly, Liñán *et al.* (2007:3) and Liñán (2008:259-260) concur that perceived venture feasibility is similar to perceived behavioural control or to the idea of perceived self-efficacy. Liñán and Chen (2006:4-5) and Liñán and Chen (2009:7) argue that perceived behavioural control is *“therefore, a concept quite similar to perceived self-efficacy (SE) (Bandura, 1997). In the same way, it is also very similar to Shapero and Sokol’s (1982) vision about perceived feasibility. In all three instances, the important thing is the sense of capacity regarding the fulfillment of firm creation behaviors”*.

Orouch (2006:10) reports that perceived feasibility is derived from self-efficacy whereas Krueger *et al.* (2000:416) suggest that “*perceived behavioural control reflects the perceived feasibility of performing the behaviour and is thus related to perceptions of situational competence (self-efficacy)*”. Ajzen (2002:667) concurs that perceived behavioural control originates from self-efficacy. Bandura (1977 in Barbosa, Gerhardt and Kickul, 2007:88) defines perceived self-efficacy as “people’s beliefs about their capabilities to organise and execute courses of action required to produce given attainments”.

Self-efficacy influences the types of activities and goals that people choose and the level of persistence that they exert in carrying out these activities (Bandura, 1986 in Schenkel *et al.*, 2007:4). Self-efficacy theory describes and measures a person’s perceived competence to achieve a desired goal and it is concerned not with the skills one has but with one’s judgement of what one can do with the skills one possesses (Bandura, 1997 in Kickul and Krueger, 2005:1). It deals with individuals’ thoughts about whether they have the abilities perceived as important to task performance and the belief that they can be able to effectively convert those skills into a chosen outcome (Bandura, 1997 in Wilson *et al.*, 2007:389). Kickul and Krueger (2005:6) and Kickul and D’Intino (2005:45) suggest that being exposed to an environment that is perceived to be more supportive can enhance self-efficacy.

An understanding of self-efficacy may help in uncovering the essential skills set required throughout the various stages of the entrepreneurial life-cycle (Kickul and D’Intino, 2005:39). Kamau-Maina (2007:10) argues that self-efficacy is a task and context-specific concept. Therefore, in the field of entrepreneurship, it is referred to as entrepreneurial self-efficacy (ESE). Chen *et al.* (1998 in Kamau-Maina, 2007:10) define ESE as “the strength of a person’s belief that he or she is capable of successfully performing the various tasks and roles of entrepreneurs”. De Noble *et al.* (1999) and Chen *et al.* (1998) have made valuable contributions to the field of entrepreneurship by identifying ESE factors which have been mostly used in recent research (for example Kickul and D’Intino, 2005:39-40; Kickul and Krueger, 2005:3; Zhao *et al.*, 2005:1268; Barbosa *et al.*, 2007:88; Sequeira, Mueller and McGee, 2007:284). However, Drnovšek, Wincent and Cardon (2010:341) point out that ESE is a multidimensional construct that consists of two types of beliefs. The first one is goal

beliefs which deals with the assessments that individuals make about their own capabilities to engage in activities that will lead to successful task completion during business start-up. The second one is control beliefs that relates to the beliefs that individuals have about their own capabilities to control negative thoughts and develop positive thoughts during goal pursuit.

Ajzen (2002:672) found that perceived self-efficacy accounts for a significant variance in intentions and behaviour more than attitudes and subjective norms. Self-efficacy was found to be strongly related to entrepreneurial intention (Frazier and Niehm, 2006:1; Kristiansen and Indarti, 2004:71; Kickul and D'Intino, 2005:44; Kickul and Krueger, 2005:5). Sequeira *et al.* (2007:288) concur that individuals with high self-efficacy have more intentions and desire to start a business and are more likely to engage in nascent behaviour such as writing a business plan or saving money to invest in a business. Schenkel *et al.* (2007:6) found that ESE was positively related to entrepreneurial intentions; more so in the short term than in the long term.

Zhao *et al.* (2005:1265) proposed a model in which self-efficacy mediated the influence of perceptions of formal learning, entrepreneurial experience, gender and risk propensity on entrepreneurial intentions. Their model was tested on a sample of MBA students from five universities in the United States (Zhao *et al.*, 2005:1267). Perceptions of formal learning in entrepreneurship-related courses were significantly related to ESE. Perceptions of formal learning refer to the amount of entrepreneurship-related learning that the individuals report they have acquired in an entrepreneurship program (Zhao *et al.*, 2005:1266). Risk propensity and previous entrepreneurial experience were positively related to ESE (Zhao *et al.*, 2005:1268). ESE was also positively related to entrepreneurial intention. There was no significant relationship between gender and ESE (Zhao *et al.*, 2005:1269). The findings on gender contradict those of other researchers reported in Sequeira (2005:1) that men display higher levels of ESE than women.

Furthermore, Kickul and Krueger (2005:1) proposed a cognitive processing model of ESE and intentionality using 138 students. In their model, they investigated the moderating and mediating influence of personal (proactivity, hardiness, alertness for opportunities) and cognitive style on self-efficacy, feasibility, desirability and

intentionality. They found that proactivity, hardiness and cognitive thinking style were linked to intentions beyond perceived feasibility and perceived desirability (Kickul and Krueger, 2005:5). Perceived feasibility and perceived desirability were found to be related and both being related to intentions. Alertness to opportunities and hardiness were positively related to perceived desirability. Proactivity and cognitive thinking style were positively related to perceived feasibility. In addition, Kickul and Krueger (2005:4) found that self-efficacy was positively related to perceived feasibility. ESE was in turn found to be related to entrepreneurial intention (Kickul and D'Intino, 2005:44; De Clercq and Arenius, 2004:6).

2.4.3 The relationship between gender and entrepreneurial intent

Chowdhury and Endres (2005:1) investigated the relationship between gender differences and the formation of ESE in the United States and found that men had higher levels of ESE and perceived financial knowledge more than women and that perceived financial knowledge influenced ESE perceptions (Chowdhury and Endres, 2005:5). Similarly, Veciana, Aponte and Urbano (2005:176) report a positive relationship between gender and perceived venture feasibility in Catalonia and Puerto Rico. In a Norwegian study, Alsos, Bruyneel and Carter (2007:8) noted that self-efficacy was positively related to intentions, becoming a nascent entrepreneur (planning) and new business start-up and women had a lower self-efficacy than men. Gender had an indirect effect on entrepreneurial intention, becoming a nascent entrepreneur and new business start-up through differences in self-efficacy.

Men were found to be having higher levels of entrepreneurial intentions than women in Spain (Driga, Lafuente and Vaillant, 2005:9); in Singapore (Wang and Wong, 2004:169); in Paris (Laviolette and Radu, 2008:13); in Yorkshire (Wilkinson, 2004:4); and in the United States (Zhao *et al.*, 2005:1269). These findings are also supported by Hytti, Paasio and Pukkinen (2005:9) who conducted their study in Finland. In addition to having higher levels of entrepreneurial intentions than women, men in Norway have a higher probability of becoming nascent entrepreneurs (planning) than women (Alsos *et al.*, 2007:8). Low levels of entrepreneurial intention in women are attributed to lack of entrepreneurial knowledge (Wang and Wong, 2004:171). Similarly, Wilson *et al.* (2007:395) found that men had higher entrepreneurial intentions than

women in the United States. On the contrary, Schenkel *et al.* (2007:6) using a sample of more than 750 students attending an international entrepreneurship conference found that male students had significantly higher entrepreneurial intentions than female students even when both were from a family of entrepreneurs.

In an attempt to understand the reasons behind gender gaps in entrepreneurial intentions Kickul, Wilson, Marlino and Barbosa (2008:321) analysed the direct and indirect relationships between work and leadership experience, presence of parental role model, self-efficacy and entrepreneurial intentions. They used a sample of over 5000 middle and high school students from 29 schools in four regions that included New England, Illinois, California and Texas (Kickul *et al.*, 2008:325). Similar to findings of other researchers, having a parental entrepreneurial role model and ESE were positively related to entrepreneurial intentions (Kickul *et al.*, 2008:326). The relationship between having a parental entrepreneurial role model and the formation of entrepreneurial intention was significant for females and insignificant for males (Kickul *et al.*, 2008:328). Previous leadership experience and work experience was also found to play a positive role in choosing an entrepreneurial career (Kickul *et al.*, 2008:329). Entrepreneurial parental role model had a direct effect on entrepreneurial intention but was not significantly related to ESE. ESE and entrepreneurial parental role model had a stronger effect on entrepreneurial intention for females than males.

2.4.4 Role models and their effect on entrepreneurial intent

Milward (2005 in Nabi, Holden and Walmsley, 2006:377) postulates that career decisions are based on social learning and that people choose careers on the basis of positive and consistent reinforcement from observing significant occupational role models and being exposed to images related to a specific career. This view is supported by Boyd and Vozikis (1994 in Laviolette and Radu, 2008:3) who argue that exposure to successful role models could be a valuable tool to entrepreneurial learning and career development. Driga *et al.* (2005:5) define role models as “persons that by their attitudes, behaviours and actions establish the desirability and credibility of a choice for an individual.” Role models can include parents, brothers or sisters, other relatives or other entrepreneurs (Hisrich *et al.*, 2008:61; Kamau-Maina, 2007:36).

A number of researchers have investigated the influence of role models on the intention to start a business. Some researchers found that having parent entrepreneurs and sibling entrepreneurs affect entrepreneurial intentions (for example Ashley-Coutleur, King and Solomon, 2003:5; Veciana *et al.*, 2005:179; Kirkwood, 2007:46; Dombrovsky and Welter, 2006:8; Wilkinson, 2004:6; Wang and Wong, 2004:169; Hytti *et al.*, 2005:9; Van Auken *et al.*, 2005:8; Co, Groenewald, Mitchell, Nayager, van Zyl, and Visser, 2006:48). Others found that friends who are entrepreneurs influence the intention to start a business (Driga *et al.*, 2005:10). In some studies, a combination of friends and entrepreneurs in the family affected entrepreneurial intention (for example Paasio and Pukkinen, 2005:9; Muhanna, 2007:100; Pruett, Shinnar, Toney, Llopis and Fox, 2007:6; Kamau-Maina, 2007:36). De Clercq and Arenius (2004:6) found that exposure to existing entrepreneurs enhances the likelihood to engage in entrepreneurial activity. It is suggested that this exposure increases the individuals' awareness of their own capabilities and their confidence to pursue entrepreneurship.

Fry and Van Auken (2005:8) and Van Auken *et al.* (2005:8) observe that specific activities of business owner role models and the active inclusion of observers in activities influence entrepreneurial intentions significantly. On the contrary, Frazier and Niehm (2006:6) and Sequeira *et al.* (2007:288) report that having a family member who owns a business can affect intentions negatively because of the exposure to the negative side of being self-employed, such as long hours and stress. Hytti *et al.* (2005:9) concur that entrepreneurial parents influence entrepreneurial intent and the feasibility of an entrepreneurial career but not the desirability. Driga *et al.* (2005:11) suggest that the lack of women entrepreneurs may be an obstacle for women entrepreneurial activities. Hence the effect of role models is stronger for men than for women (Driga *et al.*, 2005:11).

2.4.5 The influence of culture on entrepreneurial intent

Based on the theory of planned behaviour Barbosa, de Oliveira, Andreassi, Shiraishi and Panwar (2008:6) investigated the influence of the cultural environment on entrepreneurial intentions and their antecedents. Their study used structural equation modelling and their sample was 1015 business students from four countries, namely, Germany, Russia, Brazil and France (Barbosa *et al.*, 2008:7). Perceptions of culture were assessed along six dimensions that involve (Barbosa *et al.*, 2008:6):

- *Opportunity seeking* – “the extent to which people in the same region actively seek business opportunities”.
- *Entrepreneurial traits* – “the extent to which people in the same region value entrepreneurial traits such as autonomy, risk taking, personal initiative”.
- *Capability beliefs* – “the extent to which people in the same region are capable to solve complex problems and face difficulties and uncertainty”.
- *Responsibility taking* – “the extent to which people in the same region take responsibility for the work they do”.
- *Entrepreneurial motivation* – “the extent to which people in the same region are willing to start their own businesses”.
- *Entrepreneurial fears* – “the extent to which people in the same region have fears and doubts concerning an entrepreneurial career”.

In the sample of Brazilian and Russian students Barbosa *et al.* (2008:10) found that most of the dimensions of national culture had no influence on entrepreneurial intentions and their antecedents. Opportunity seeking, capability beliefs and entrepreneurial motivation influenced entrepreneurial intentions. In addition, opportunity seeking and capability beliefs affected attitudes towards entrepreneurship. In the sample of French and German students the cultural dimensions that had a strong influence on the three antecedents of intention were opportunity seeking, entrepreneurial traits, capability beliefs and entrepreneurial fears (Barbosa *et al.*, 2008:11). Of the antecedents of entrepreneurial intention, attitude towards entrepreneurship was significantly related to entrepreneurial intentions.

Moreover, Urban and van Vuuren (2005:3) examined the relationship between cultural values and entrepreneurial intentions using a sample of 150 Master of Business

Administration (MBA) students at a higher education institution in South Africa. Cultural values were based on Hofstede's cultural dimensions and included: 1) Individualism-Collectivism, 2) Power distance, 3) Uncertainty avoidance, 4) Masculinity-Femininity and 5) Long-term versus short-term orientation (Urban, 2004:112). The ethnic groups were Indians, Blacks and Caucasians (Urban, 2004:117). Urban and van Vuuren (2005:7) found that cultural values were not related to and did not predict entrepreneurial intentions among the MBA students.

Zhang and Yang (2006:169) in China found that cultural environmental factors measured in terms of respecting entrepreneurs, accepting income difference from entrepreneurship and knowing some entrepreneurs had a significant relationship with opportunity recognition, entrepreneurial intention and entrepreneurial behaviour. Co and Mitchell (2005:1) investigated cultural factors affecting entrepreneurship in the Philippines. They found that positive and negative cultural factors affected the conduciveness of entrepreneurship. Co and Mitchell (2005:7) concur with Zhang and Yang that positive attitudes such as respecting and admiring trading, being encouraged to aspire to be rich and famous as well as using entrepreneurial role models could make people view entrepreneurship more positively.

2.4.6 Other factors affecting entrepreneurial intent and behaviour

Various other factors influence entrepreneurial intent and these may differ from one country to another. In this section other factors influencing entrepreneurial intent are discussed and the differences between countries are explained based on research findings.

(1) Factors affecting entrepreneurial intent in Israel

Aviram (2006:157), in a study in Israel, examined the interrelationship between five factors using three groups: 75 unemployed people, 51 employed people and 32 entrepreneurs. The factors that were studied included: 1) Inclination to entrepreneurship, 2) Knowledge about entrepreneurship, 3) Achievement needs, 4) Self-efficacy, and 5) Propensity to act (Aviram, 2006:158). The findings indicated a high correlation between knowledge about entrepreneurship and inclination to

entrepreneurship and between knowledge about entrepreneurship and propensity to act for all three groups (Aviram, 2006:161). A significant difference was found between the entrepreneurs and the other two groups on inclination to entrepreneurship which was influenced by knowledge about entrepreneurship (Aviram, 2006:163). There were also significant differences between the employed and the unemployed groups. The employed group had a total lack of interest in entrepreneurship while the unemployed group was unsure how to remedy their unemployment. Aviram (2006:163) argues that people cannot form an attitude (either negative or positive) if they do not have enough knowledge about the subject at hand.

Aviram (2006:163) found a strong correlation between inclination to entrepreneurship and the propensity to act for all three groups. Self-efficacy was correlated with propensity to act (Aviram, 2006:164). Significant differences were observed between the entrepreneurs and the unemployed group on achievement needs while the entrepreneurs and the employed group did not differ. The entrepreneurs and the employed group reported that they were motivated by achieving more, whereas the unemployed group exhibited apathy and despair. Achievement needs were significantly related to propensity to act (Aviram, 2006:165). From the findings Aviram (2006:163) deduced that in order for individuals to act entrepreneurially they must have knowledge about entrepreneurship which in turn influences inclination to entrepreneurship and the propensity to act. Again, Aviram (2006:165) suggests that higher levels of self-efficacy and achievement needs make people to have more positive expectations for success in entrepreneurship resulting in their propensity to act.

(2) Attitude towards risk and entrepreneurial intent

People who have positive attitudes towards risk hold stronger intentions to become entrepreneurs (Zhao *et al.*, 2007:1270; Douglas and Shepherd, 2002:88; Wilkinson, 2004:10). Similarly, Barbosa *et al.* (2007:97) found that high risk preference is associated with higher levels of entrepreneurial intentions and opportunity-seeking self-efficacy. In another study that involved 1185 participants in China, Zhang and Yang (2006:169) found that characteristics that included abilities, experience and risk-taking propensity were significantly and positively related to entrepreneurial intention

and entrepreneurial behaviour. Kropp, Lindsay and Shoham (2008:102) investigated the interrelationships among three elements of entrepreneurial orientation (proactiveness, innovativeness and risk-taking) and the international entrepreneurial business venture start-up decision using a sample of 539 individuals from South African firms. Their findings indicated that proactiveness and risk-taking were positively related to the international entrepreneurial business venture start-up decision (Kropp *et al.*, 2008:110). Muhanna (2007:95) investigated the role of personal characteristics and their direct influence on entrepreneurs in the three cities of South Africa: Cape Town, Johannesburg and Durban. The sample involved 65 entrepreneurs and 65 non-entrepreneurs (Muhanna, 2007:97). Muhanna (2007:101) found that risk aversion is negatively related to the decision to become an entrepreneur among the chosen samples. Additionally, in a study that was conducted in Norway Alsos *et al.* (2007:8) observed that women were more risk averse than men and that risk aversiveness was negatively related to new business start-up.

(3) Creativity and entrepreneurial intent

Frazier and Niehm (2006:1) examined the entrepreneurial intentions of 129 undergraduate students in the Family and Consumer Sciences. Their findings indicated that opportunity seeking, a creative mindset and a proactive disposition predicted stronger levels of entrepreneurial intentions (Frazier and Niehm, 2006:5). These findings were consistent with those found by (Pruett *et al.*, 2007:6). Zampetakis and Moustakis (2006:416) proposed a model that linked creativity with entrepreneurial intent. Using a sample of 181 undergraduate students they investigated students' attitudes towards their own creativity, attitudes towards the university that promoted creativity and attitudes towards the family that promoted creativity and their relationship with entrepreneurial intent. They found that students' positive attitudes towards their own creativity predicted entrepreneurial intentions significantly and the family environment that promoted creativity had a positive effect on entrepreneurial intentions.

(4) Factors relevant to entrepreneurial intent in USA and Ireland

De Pillis and Reardon (2007:383) investigated and compared the factors that influenced entrepreneurial intention in the United States of America and Ireland. They found that entrepreneurial intention was significantly and positively correlated with achievement motivation among US participants but not among the Irish. Personal efficacy was significantly correlated with long-term (five-year) entrepreneurial intention among the Irish and with both short-term (one-year) and long-term entrepreneurial intention among the US participants (De Pillis and Reardon, 2007:392). There were similarities among the Irish and the US participants on tolerance of ambiguity. However, tolerance of ambiguity was negatively correlated to short-term entrepreneurial intention (De Pillis and Reardon, 2007:394).

(5) Factors relevant to entrepreneurial intent in Malaysia

Ramayah and Harun (2005:8) interviewed 1281 university students in Malaysia looking at the personality traits (need for achievement, locus of control, self-efficacy) and contextual factors (instrumental readiness and subjective norms) as determinants of entrepreneurial intention. Instrumental readiness involved aspects such as access to capital, availability of information and networking (Ramayah and Harun, 2005:11-12). In their findings male students reported higher self-efficacy, instrumental readiness, subjective norms and entrepreneurial intention as compared to female students (Ramayah and Harun, 2005:16). The need for achievement, locus of control and self-efficacy were related to entrepreneurial intention (Ramayah and Harun, 2005:18).

(6) Factors relevant to entrepreneurial intent in Indonesia and Norway

Kristiansen and Indarti (2004:55) investigated the impact of demographic factors and individual background, personality traits and attitudes, and contextual factors on entrepreneurial intention. Instrumental readiness was found to be a positive significant predictor of entrepreneurial intention among the Indonesian and Norwegian students (Kristiansen and Indarti, 2004:71). They reported that male students had higher levels of self-efficacy than female students and male students in Indonesia had a significantly higher degree of instrumental readiness than female students. In addition, there was a

significant correlation between the need for achievement and self-efficacy (Kristiansen and Indarti, 2004:69). Demographic factors and individual background (age, gender, education and work experience) did not influence entrepreneurial intentions of Norwegian and Indonesian students (Kristiansen and Indarti, 2004:68).

(7) Need for control

Reasons why people start their own businesses are widely documented in entrepreneurship literature. More recently, there has been a revived increase in attention to understanding why people seek self-employment over employment (Steffens *et al.*, 2007:1; Cassar, 2005:1). Sinclair (2008:789) found that differentiating entrepreneurs from those with no current entrepreneurial intentions based on the reasons they give for choosing their current career is possible. This author reports that those who choose to become entrepreneurs have the need for control whereas, those with no current entrepreneurial intentions have the need for approval.

2.4.7 The influence of opportunity recognition on entrepreneurial intent and entrepreneurial behaviour

Opportunity recognition was found to be positively and significantly related to entrepreneurial intention (Zhang and Yang, 2006:167). Edelman, Friga, Mishina and Yli-Renko (2005:6) report that the perception of market opportunity is significantly related to the number of venture creation activities pursued and in turn these activities are significantly related to start-up success.

2.4.8 The role of improvisation in predicting entrepreneurial intent

Hmieleski and Corbett (2006:45) examined the relationship between improvisation and entrepreneurial intention. In their view, entrepreneurial action occurs in four different ways depending on the novelty of the situation and the resource constraints on the individual firm, namely:

- When entrepreneurs have abundant information and time strategic planning is likely to occur.

- When time and information are both limited and entrepreneurs have moderate familiarity with the problem or opportunity, cognitive biases and heuristics that are available will be employed.
- When entrepreneurs have abundant resources and the novelty of the situation is very high, they can take a trial-and-error approach.
- Improvisation becomes the most reasonable course of action when entrepreneurs are faced with resource constraints and a novel problem or opportunity. Entrepreneurs then have to do whatever has to be done right the first time as resource constraints do not allow for planning or trial-and-error basis (Hmieleski and Corbett, 2006:46).

The improvisation process occurs when individuals are faced with a problem or opportunity; then they compare the problem with other problems they had faced previously and select a referent based on the past experience. The feasibility of the referent is considered looking at the constraints that characterise the problem. If the referent is feasible and has a high possibility for success, it is followed. If it is not feasible the individuals have to improvise by extending or reconfiguring the referent to construct a novel course of action. In this case individuals assess probabilities and formulate strategies while acting on the solution. Cognitive heuristics and biases are likely to be employed in the improvisation process (Hmieleski and Corbett, 2006:47).

Hmieleski and Corbett (2006:58) found that proclivity for improvisation is an important construct in predicting entrepreneurial intention as it accounted for a significant amount of variance in entrepreneurial intentions beyond that which is accounted for by personality, motivation, cognitive style and social models. Hmieleski and Corbett (2006:59) are of the view that people “who have proclivity for improvisation might not intend to start a business, but may spontaneously undertake in the creation of a new venture if an opportunity to do so presents itself”.

2.4.9 Summary

In the previous sections, factors that impact on entrepreneurial intent models were discussed and they were corroborated by recent research findings. The research

findings demonstrated that both personal and situational factors impact on entrepreneurial intent models. These factors operate indirectly on intentions by changing the antecedents of entrepreneurial intentions.

Perceived social support networks, perceived social norms and entrepreneurial experience have a positive effect on perceived feasibility and perceived desirability which in turn influence the intention to create a new venture. Prior exposure to entrepreneurship through businesses run by members of important social referent groups, prior work experience and training in entrepreneurship impacts on perceived feasibility and prior start-up experience are strongly related to entrepreneurial intentions.

Politico-economic factors such as market opportunities and supply of skilled labour are related to perceived feasibility and desirability. Support services and competitive conditions are related to feasibility while personal connections to resource holders are related to desirability.

Closer valuation and social valuation of entrepreneurship have a positive effect on the antecedents of entrepreneurial intent. Closer valuation of entrepreneurship affects personal attraction and subjective norms and social valuation of entrepreneurship influences perceived behavioural control.

Entrepreneurial self-efficacy is a robust construct in explaining and predicting entrepreneurial behaviour and entrepreneurial intentions. It accounts for a significant variance in intentions and behaviour more than attitudes and subjective norms. ESE is positively related to perceptions of formal learning in entrepreneurship courses, risk propensity and previous entrepreneurial experience. Gender influences entrepreneurial intent, becoming a nascent entrepreneur and new business start-up indirectly through differences in ESE. Men have higher levels of entrepreneurial intention and have a higher probability of becoming nascent entrepreneurs than women. This is because men are reported as having higher ESE and entrepreneurial knowledge compared to women.

Research findings indicate that having entrepreneurial role models affects the intention to become an entrepreneur. While role models are important in the development of entrepreneurial intentions, it is the specific activities of business-owner role models and the active inclusion of observers in these activities that influence entrepreneurial intentions significantly. Role models impact on positively perceived feasibility while the negative side of being self-employed has a negative effect on desirability.

In some countries, culture does not influence entrepreneurial intent. Cultural dimensions such as opportunity seeking, capability beliefs and entrepreneurial motivation influence entrepreneurial intent. Opportunity seeking, entrepreneurial traits, capability beliefs and entrepreneurial fears have a strong impact on the antecedents of entrepreneurial intent. On the other hand positive and negative cultural factors affect how entrepreneurship is perceived.

Factors that include inclination to entrepreneurship, knowledge about entrepreneurship, achievement needs, self-efficacy and propensity to act seem to play a vital role in understanding the development of entrepreneurial intent. Having knowledge about entrepreneurship influences inclination to entrepreneurship and propensity to act while higher levels of self-efficacy and achievement needs lead to more positive expectations for success in entrepreneurship and the propensity to act.

The attitude towards risk, proactiveness, positive attitude towards creativity and exposure to an environment that promotes creativity, achievement motivation, locus of control, and instrumental readiness (access to capital, availability of information and networking) impact positively on entrepreneurial intent. Additionally, the perception of market opportunities and the proclivity for improvisation are significantly related to entrepreneurial intent.

Entrepreneurial intent is regarded as the fundamental element towards explaining entrepreneurial behaviour. It indicates the effort that the person will make to carry out the behaviour and it captures the motivational factors that influence the behaviour (Liñán, 2004:5). Kuratko, Hornsby and Naffziger (1997 in Van Auken *et al.*, 2005:4) suggest that “goals, motivations and intentions are intertwined in predicting the entrepreneurial decision”. According to Segal *et al.* (2005:45-47), entrepreneurial

intent models such as the theory of reasoned action, the SEE model, TPB and the Shapero-Krueger model, fall within the current process models of entrepreneurial motivation. Barbosa *et al.* (2008:11) found that entrepreneurial motivation influenced entrepreneurial intent. The relationship between entrepreneurial motivation and decision to engage in entrepreneurship is discussed in the next section.

2.5 ENTREPRENEURIAL MOTIVATION AND THE DECISION TO BEHAVE ENTREPRENEURIALLY

Knowledge about new venture creation and the willingness to sustain that venture is linked to an understanding of an entrepreneur's motivation (Kuratko and Hodgetts, 2007:132). The motivation of individuals affects the choice, time and energy that they dedicate to the execution of the various tasks (Raposo, do Paco and Ferreira, 2008:407). Sriram, Mersha and Herron (2007:243) concur that motivation to create a new venture is important because it impacts on the decision to become an entrepreneur. Motivation is defined as a "causative factor that enhances a person to behave or do something in order to attain an objective" (Dionco-Adetayo, 2004:5). It entails internal factors that impel action and external factors that can act as inducements to action (Locke and Latham, 2004:388). Motivation affects three aspects of action namely; choice, effort and persistence. It also affects the acquisition of skills and abilities and how these skills and abilities are utilised.

In the next sections, different theories of motivation are presented with a view to highlighting the factors driving the decision to become an entrepreneur.

2.5.1 Theories of entrepreneurial motivation

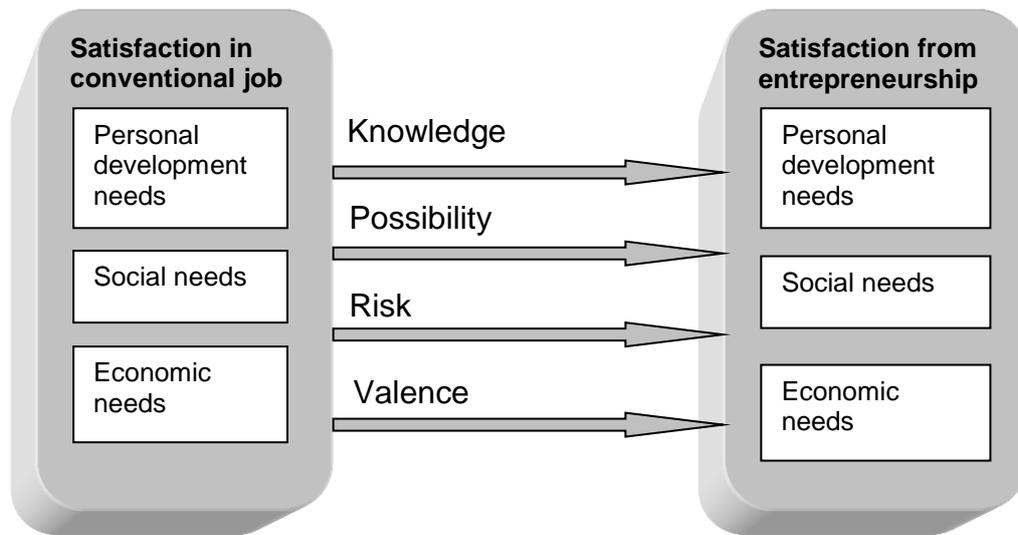
Hessels, van Gelderen and Thurik (2008:403) report that there are three types of studies on entrepreneurial motivation: 1) Studies of reasons, motives, or goals to start a business, 2) The cost-benefit types of studies that try to explain the decision to start a business and 3) Studies that investigate psychological motives. In addition, Hessels *et al.* (2008:43) state that in a number of studies motives were related to aspirations. According to Segal *et al.* (2005:43), research on entrepreneurial motivation has

evolved along a similar path to that of organisational psychology field. Theories of motivation in the organisational psychology field progressed from static, content-oriented theories to dynamic, process-oriented theories. Content theories focused on specific things within individuals that initiate, direct, sustain and stop the behaviour while process theories explained how the behaviour is initiated, directed, sustained and stopped. Research on entrepreneurial motivation is presented in the following sections.

2.5.1.1 Model of the move to entrepreneurship

The decision to become an entrepreneur is regarded as an individual and personal choice (Wickham, 2006:104) that is likened to the choice of a career (Bridge *et al.*, 2003:380). As much as career decisions are regarded as clearly planned in nature and not responses to a stimulus, Kruger *et al.* (2000:414) postulate that starting a business should also be viewed as a career choice. Potential entrepreneurs must view entrepreneurship as a viable career option in order to develop a positive attitude towards it (Bridge *et al.*, 2003:76). Choosing an entrepreneurial career as opposed to a conventional job is a choice that is based on the possibility of achieving satisfaction for a variety of economic, social, and personal development needs (Wickham, 2006:105). This is illustrated in Figure 2.13.

Figure 2.13: Model of the move to entrepreneurship



Adapted from Wickham (2006:105)

In order to make an informed choice, a person will consider the following factors (Wickham, 2006:105-108):

- Knowledge* - An individual must have knowledge that the entrepreneurial option exists and must be aware of its potential (Wickham, 2006:106). The knowledge about a particular business opportunity and an idea of how to exploit its profitability must also exist. According to Wickham (2006:242), identifying real opportunities depends on having industry specific knowledge, which must be supplemented with general business skills and people skills. Similarly, Zhao *et al.* (2005:1270) assert that individuals' beliefs in their own entrepreneurial self-efficacy - the belief that they can succeed in carrying out entrepreneurial tasks, play a vital role in their decision to become entrepreneurs. Previous entrepreneurial experience is also positively related to perceived entrepreneurial self-efficacy (feasibility) (Zhao *et al.*, 2005:1267; Paasio and Pukkinen, 2005:7; Schenkel *et al.*, 2007:6; Kamau-Maina, 2007:42) and desirability (Oruoch, 2006:24) as well as the likelihood to be involved in new business activity (Wiklund *et al.*, 2002:5; Oruoch, 2006:25). Self-efficacy has powerful motivational effects on task performance (Bandura 1997 in Locke and Latham, 2004:388) and plays an important role in the decision to become an entrepreneur (Baron, 2004:224).

- *Possibility* - It must be possible for an individual to pursue the entrepreneurial option (Wickham, 2006:106). This requires having access to the necessary resources such as start-up funding, human resources and access to the established network. In addition an individual must possess the necessary experience and skills to make a success of the venture.
- *Risk* - An individual must be comfortable with the level of risk the venture entails and the potential rewards must be worth taking the risk (Wickham, 2006:107). Mullins and Forlani (2005:51) define entrepreneurial risk as the likelihood and magnitude of below target outcomes that may follow from a given behaviour or set of behaviours. The likelihood and magnitude of risk entail potential losses, the significance of those losses and the uncertainty of those losses. In a study of the role of risk in new venture decision-making that involved a sample of 75 entrepreneurs, Mullins and Forlani (2005:63) found that the nature and the level of the risk inherent in a new venture influenced an entrepreneur's choice of behaviours. Baron (2004:233) suggests that successful entrepreneurs are better in judging the risk associated with various strategies or courses of action and choosing appropriately between them.

Four types of risk must be considered before embracing a career in entrepreneurship (Kuratko and Hodgetts, 2007:126; Schaper and Volery, 2007:41-42), namely: 1) Financial, 2) Career, 3) Social, and 4) Psychic risks.

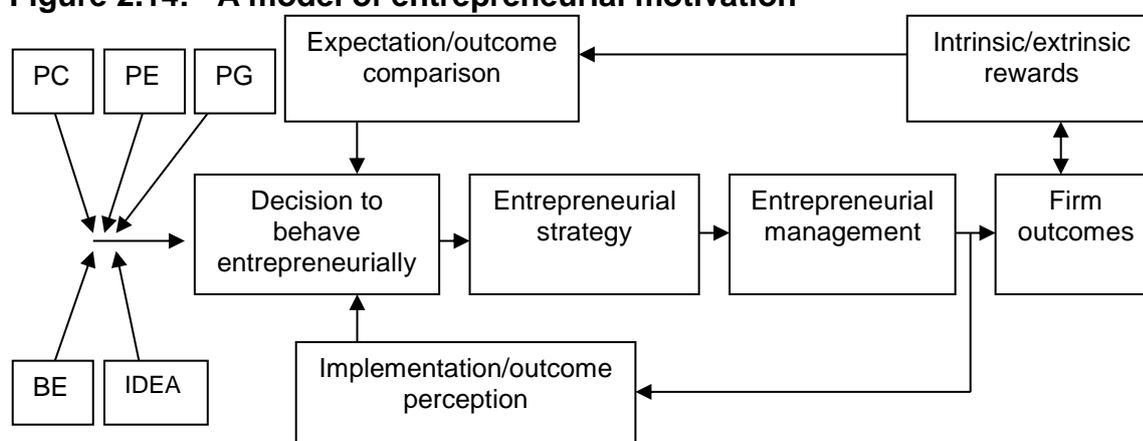
- *Valence* - This refers to the way people are attracted to different options (Wickham, 2006:107). Individuals who are attracted to the positive outcomes offered by the entrepreneurial option will pursue it even though it carries greater economic risks and a lower income than a conventional career that is available to them.

2.5.1.2 Model of entrepreneurial motivation

Entrepreneurial behaviour is influenced by individual personalities and motives (Dionco-Adetayo, 2004:5; Shane, 2003 in Green, 2007:3). People decide to behave

entrepreneurially on the basis of an interaction between their personal characteristics, their personal environment, the relevant business environment, their own personal goal sets and the existence of a viable business idea (Kuratko and Hodgetts, 2007:132). In the process of making a decision, people compare their perceptions of the probable outcomes of acting entrepreneurially with their personal expectations and then compare the relationship between the entrepreneurial behaviour they would implement and the expected outcomes. Their expectations are finally compared with the actual or perceived business outcomes, which then form the basis of future entrepreneurial behaviour. When the expected outcomes are met or exceeded, the entrepreneurial behaviour is reinforced and the individuals are motivated to continue with entrepreneurship. When the expectations are not met, the entrepreneurial motivation becomes lower or nonexistent. Perceptions that individuals have affect the choice of strategies, strategy implementation and management of the business (Kuratko and Hodgetts, 2007:133). Figure 2.14 presents a model of entrepreneurial motivation.

Figure 2.14: A model of entrepreneurial motivation



PC = Personal Characteristics
PE = Personal Environment
PG = Personal Goals
BE = Business Environment

Source: Kuratko and Hodgetts (2007:132)

2.5.1.3 The utility-maximizing theory and the decision to become an entrepreneur

According to the utility-maximizing theory of entrepreneurial behaviour, people are motivated to become entrepreneurs because of the greater psychic utility derived from

entrepreneurship (Steffens *et al.*, 2007:2; Douglas and Fitzsimmons, 2006:1). Utility is a “product of a person’s positive attitude towards an attribute and the absolute value of that attribute” (Lévesque *et al.*, 2002:192). The utility maximizing theory proposes that people make their decisions on the strength of their individual abilities and their attitude towards the benefits offered by entrepreneurship (Douglas and Fitzsimmons, 2006:1). Douglas and Shepherd (2002:87) found that individuals who have a positive attitude towards risk and independence had stronger intentions to become entrepreneurs. However, Lévesque *et al.* (2002:206) caution that the decision to become an entrepreneur does not only depend on appropriate utility weights but also on the opportunity and resources.

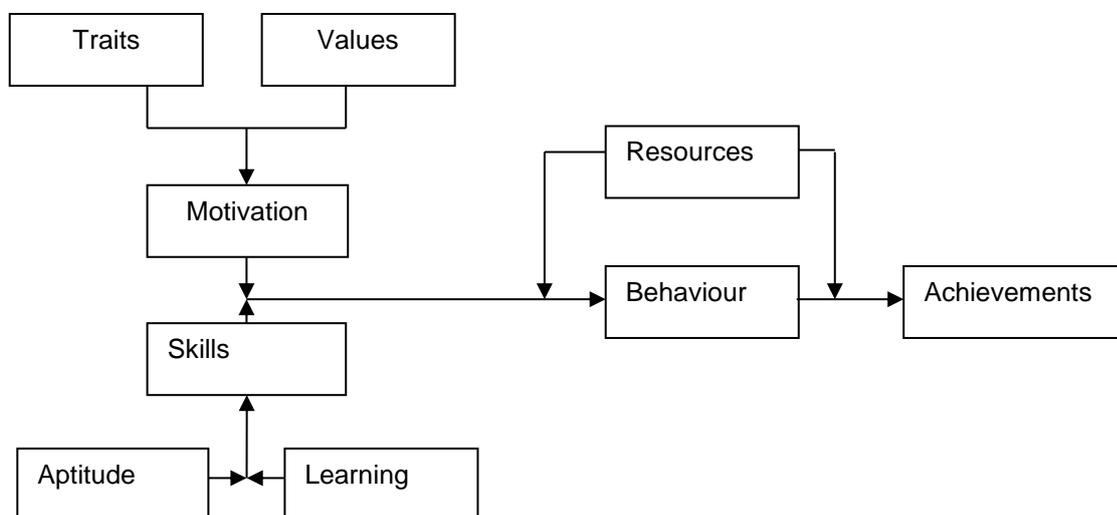
Furthermore, Lee and Venkataraman (2006:120) view entrepreneurship as a search process of alternatives or new opportunities as opposed to just alternative employment opportunities. They argue that pursuing an entrepreneurial opportunity should not only be seen as a utility maximization choice but as a function of an individual’s aspiration vector and the non-entrepreneurial options the entrepreneur perceives in the market. The aspiration vector is a combination of economic, social, and psychological benefits that individuals believe they have the means and motivations to achieve by themselves. The aspiration vector is influenced by abilities, values, traits, past achievements and environment (Lee and Venkataraman, 2006:108). Thus, it is formed from the human, intellectual and social capital of an individual.

The market offering vector is “the combination of economic, social, and psychological dimensions that are implicitly and explicitly available to the individual from the labour market at a given point in time”. This involves an economic package, perceived social status and possible satisfaction that a person could get from performing a job. When the aspiration vector is different from the perceived market offering vector people will choose uncertain entrepreneurial opportunities and become entrepreneurs. Again, when the aspiration vector is close to the perceived market offering vector people would prefer to choose the available non-entrepreneurial option and become non-entrepreneurs (Lee and Venkataraman, 2006:120). As Lee and Venkataraman (2006:119) note, an individual’s job-related specific capabilities are some of the most important factors in determining the aspiration vector of that individual.

2.5.1.4 The interplay between motivation, skills, resources and the decision to start a business

Sriram *et al.* (2007:245) proposed an integrative model of the factors that drive the decision to start a business among the African-American population. Motivation and skills are suggested as two major factors driving the decision to start a business (behaviour) with resources being a moderating factor. Motivation is influenced by personality traits and values which in turn are affected by culture. This is illustrated in Figure 2.15.

Figure 2.15: An integrative model of the entrepreneurial decision



Source: Sriram *et al.* (2007:245)

Sriram *et al.* (2007:245) contend that entrepreneurs need certain skills to perform the tasks required to start and run a new business venture. The skills required can be developed through education and training if they are learned skills or can be nurtured if they are inborn talents. It is suggested that entrepreneurial achievement is driven by behaviour and moderated by resources. The decision to start a business and the successful operation of the new venture is mediated by access to and the deployment of financial and other resources (Sriram *et al.*, 2007:246).

2.5.1.5 Temporal motivation theory (TMT)

Temporal motivation theory is an integrated motivation theory that emerged as a result of an urgent need to tie the different motivation theories and processes into one model (Steel and König, 2006:890). This theory integrates the four closely related theories that include picoeconomics theory, expectancy theory, cumulative prospect theory and need theory. Picoeconomics theory argues that people must choose from a variety of possible rewarding activities. In making choices people have a tendency to undervalue future events. They put off tasks that lead to distant but valuable goals in favour of the ones with immediate but lesser rewards. Expectancy theory deals with choices among courses of action (Steel and König, 2006:893). In each option people will consider the probability that an outcome will be achieved and how much the expected outcome is valued. By multiplying expectancy and value, the option that has the largest value is chosen. Steel and König, (2006:893) suggest that expectancy is closely related to self-efficacy/feasibility and that desirability is a form of value.

In the cumulative prospect theory, values are defined in terms of losses and gains (Steel and König, 2006:894). The expected utility of the behaviour according to this theory is based on the combined utility of its possible gains and losses. Baron (2004:224) proposes that the prospect theory can provide insights into the role of cognitive factors in the decision to become an entrepreneur. In line with the arguments in the cumulative prospect theory, Baron (2004:225) reports that people tend to be risk averse with respect to gains but risk-seeking with respect to losses. Similarly, Lee and Venkataraman (2006:117) assert that people tend to be more risk-averse when there are non-entrepreneurial options that can satisfy their aspirations. If non-entrepreneurial options cannot satisfy their needs, the decision makers will pursue uncertain entrepreneurial opportunities because such opportunities would give them higher probabilities for the satisfaction of their aspirations. Need theory argues that people's needs direct their behaviour towards actions that lead to the satisfaction and the release of the needs themselves (Steel and König, 2006:895).

According to TMT, motivation can be explained in terms of the four core features: expectancy, value, time and the different functions for losses versus gains (Steel and König, 2006:897). Value is how much satisfaction or drive reduction an outcome is

believed to realise. The attractiveness of an event is determined by the situation and individual differences with outcomes satisfying the needs at different degrees. In attempting to predict value for individuals on a certain option, their present needs strength and how satisfying the options are perceived must be taken into account. Expectancy is the probability that an outcome will occur. Steel and König (2006:898) indicate that people in their choices tend to overestimate low-probability events and underestimate high-probability events. TMT is regarded as the theory under which all previous theories are nested. This theory is valuable in explaining situations where expectancy, value, and time affect decision-making simultaneously and are all influenced by individual differences (Steel and König, 2006:899). Similar to the utility maximizing theory, TMT proposes that people are more likely to pursue a course of action that has the highest level of utility (Steel and König, 2006:900).

2.5.1.6 The expectancy theory of motivation and the decision to become an entrepreneur

People are different and have different needs (Bridge *et al.*, 2003:89). As a result, entrepreneurial outcomes will motivate one person but not another. For example, Steffens *et al.* (2007:1) report that people with a high level of entrepreneurial self-efficacy expect income to be higher for self-employment than those with low entrepreneurial self-efficacy. Vroom's 1964 expectancy theory suggests that people are motivated to behave in ways that produce desired combinations of expected outcomes (Kreitner and Kinicki, 2008:222). This theory can be used in predicting motivation and behaviour in situations involving a choice between two or more alternatives. In Vroom's model, an individual chooses among alternative behaviours by considering the behaviour that leads to the most desirable outcome (Segal *et al.*, 2005:44).

Ajzen and Fishbein (2005:193) refer to considerations regarding the likely consequences of performing the behaviour as behavioural beliefs which are similar to outcome expectancies. When making the decision to engage or not to engage in a certain behaviour, people compare the advantages of performing the behaviour with the disadvantages of doing so. If the advantages are greater than the perceived disadvantages people are more likely to form a favourable attitude towards the

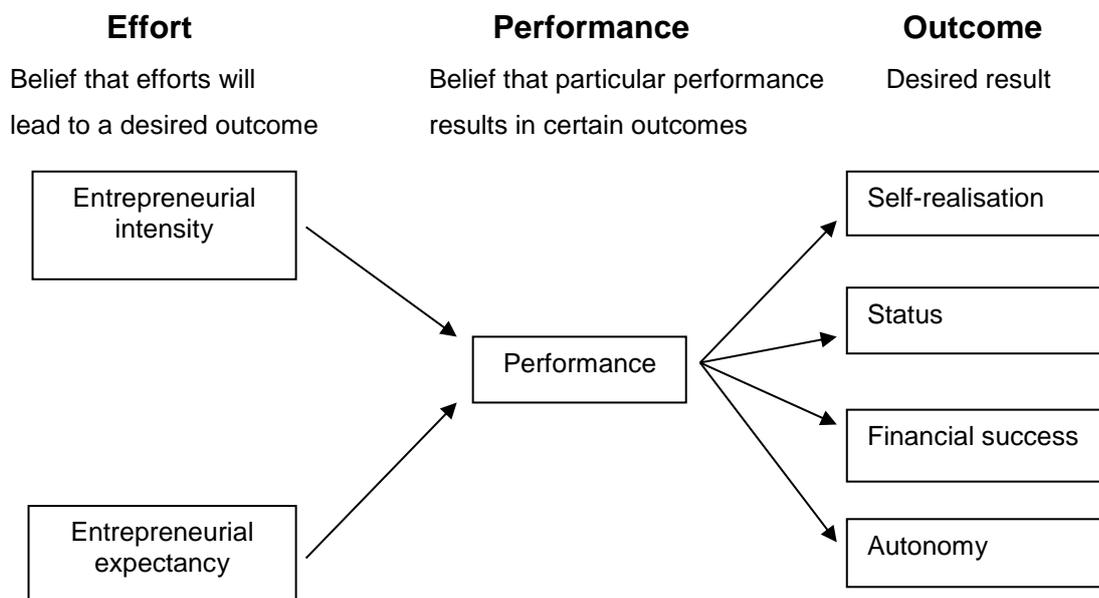
behaviour. Through expectancies, which are beliefs about a future state of affairs, people can use past experiences and knowledge to predict the future. These expectancies are derived from beliefs about self, other people, and about the non-social world (Gatewood, Shaver, Powers and Gartner, 2002:189). Three key concepts of Vroom's theory are expectancy, instrumentality and valence (Kreitner and Kinicki, 2008:223; Luthans, 2008:175) and they are explained as follows:

- *Expectancy* is an individual's belief that a particular degree of effort will be followed by a particular level of performance. It is influenced by self-esteem, self-efficacy, previous success at the task, help received from others, information necessary to complete a task and good materials and equipment to work with.
- *Instrumentality* represents a person's belief that a particular outcome is contingent on accomplishing a specific level of performance.
- *Valence* is the positive or negative value people place on outcomes (Kreitner and Kinicki, 2008:225). Other terms of valence include incentive, attitude and expected utility (Luthans, 2008:175).

Ajzen and Cote (2008:290) report that beliefs as a foundation of attitudes are embedded in the expectancy-value model. In the expectancy-value model people form beliefs about an object by associating it with certain attributes. People tend to like objects that they believe have desirable outcomes and form unfavourable attitudes towards objects associated with undesirable outcomes (Ajzen and Cote, 2008:291). Although Vroom's expectancy theory was originally aimed specifically at work motivation, researchers in the field of entrepreneurship have recently started to use it in an attempt to understand entrepreneurial motivation (for example Manolova, Brush and Edelman, 2008; Segal *et al.*, 2005; Gatewood *et al.*, 2002). Using the expectancy framework Segal *et al.* (2005:50-51) firstly, hypothesised that the desirability of self-employment is a function of the importance of desired outcomes and the probability of attaining these outcomes through self-employment. Secondly, the desirability for working for others was obtained by multiplying the importance of desired outcomes by the probability of attaining these outcomes through working for others.

Furthermore, Manolova *et al.* (2008:2) applied an expectancy framework to examine the differences in motivations to start a business between men and women using a sample of 441 entrepreneurs in the United States. They proposed a framework in which the effort expended to start a business (performance) leads to desired outcomes. Starting the venture is regarded as the first level outcome which leads to second level outcomes explained in terms of reasons or desired outcomes for starting a business. These reasons were self-realisation (intrinsic motivating factors), status, financial success and autonomy (Manolova *et al.*, 2008:5). They hypothesised a positive and significant association between entrepreneurial expectancy and entrepreneurial intensity and starting a business and a positive and significant association between starting a business and desired outcomes (Manolova *et al.*, 2008:6). Entrepreneurial expectancy is defined as “the belief that a particular action will result in particular performance such as starting a business” (Manolova *et al.*, 2008:27). Entrepreneurial intensity refers to the focus or commitment of an entrepreneur to the start-up endeavour. They also hypothesised that the desired outcomes for starting the new venture will differ between men and women (Manolova *et al.*, 2008:8). The expectancy framework as applied to entrepreneurship is shown in Figure 2.16.

Figure 2.16: Expectancy framework applied to entrepreneurship



Source: Manolova *et al.* (2008:27)

Manolova *et al.* (2008:17) found that entrepreneurial expectancy and entrepreneurial intensity were positively and significantly associated with starting a business and starting a business was positively and significantly associated with desired outcomes or reasons/motivations for starting a business. This means that the studied sample expected that starting a business would lead to the attainment of desired outcomes. Their findings revealed that women differed significantly from men with regard to status as their motivation to start a business. Both men and women were motivated by self-realisation, financial success and autonomy (Manolova *et al.*, 2008:19). Manolova *et al.* (2008:17) found a strong support for the expectancy model as an approach to understanding entrepreneurial motivation to start a new venture.

2.5.1.7 The role of outcome and ability expectancies in predicting the start-up decision

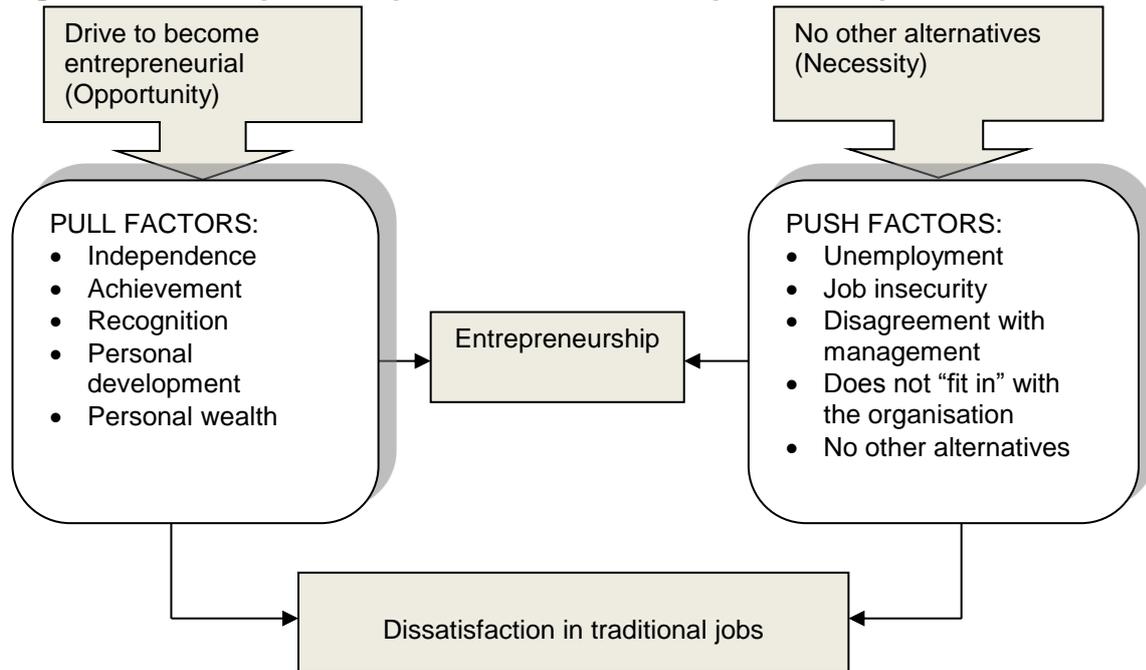
Townsend, Busenitz and Arthurs (2008:2) examined the role of ability and outcome expectancies in deciding to start a new venture based on the social cognitive theory. Bandura (1986 in Townsend *et al.*, 2008:3) in his social cognitive theory states that both perceived ability to perform certain actions (ability expectancies) and the expectation that these actions will produce desired outcomes (outcomes expectancies)

can jointly determine human action. Townsend *et al.* (2008:5) tested this theory using a representative sample of the United States population. Townsend *et al.* (2008:8) found a marginally significant relationship between outcome expectancies and the decision to start a business while the ability expectancy (perceived ability) was found to be a robust predictor of the decision to start a business (Townsend *et al.*, 2008:8). These findings mean that would-be entrepreneurs with higher ability expectancies are more likely to start new ventures. According to Townsend *et al.* (2008:8), their findings are consistent with the social cognitive theory which argues that the belief in one's ability plays a vital role in driving one to action regardless of the value placed on certain outcomes. In support of these findings, Gatewood *et al.* (2002:188) contend that "if people perceive that their given skill and ability set is not adequate or that circumstances beyond their control will conspire against the needed level of performance, they will not be motivated to engage in the necessary behaviours".

2.5.2 Forces that drive people to entrepreneurship – pull and push factors

Wickham (2006:102); Schjoedt and Shaver (2007:734); Stokes and Wilson (2006:37) and Rwigema and Venter (2005:13-14) state that the two forces that drive people from the conventional labour pool to the entrepreneurial pool are categorised into pull and push factors. As result, the motivation for starting a business derives from the pull and push factors. Those who are driven by pull factors become entrepreneurs because they have identified an opportunity in the market. Pull factors are those factors that encourage people who are employed elsewhere to leave their current jobs to become entrepreneurs (Nieman, Hough and Nieuwenhuizen, 2006:32). Push factors are those that encourage entrepreneurship due to traditional jobs being less attractive or because an individual does not have any other career choice or option. Pull and push factors also differentiate between high-growth and low-growth entrepreneurs. Krueger (2004:1) reports that high-growth entrepreneurs are pull motivated. Figure 2.17 illustrates the pull and push factors of entrepreneurship.

Figure 2.17: The pull and push factors of entrepreneurship



Source: Nieman *et al.* (2006:31)

Driga *et al.* (2005:8) posit that the extent to which a person will become an entrepreneur depends on a total consideration of both the pull and push factors of which the results of the analysis should lead to a positive decision. The pull and push factors are categorised as follows (Wickham, 2006:103):

Pull factors include:

- Personal wealth - the financial rewards of entrepreneurship;
- Independence - the freedom to work for oneself;
- Personal development;
- The sense of achievement to be gained from running one's own venture;
- The freedom to pursue personal innovation; and
- Recognition - a desire to gain the social standing achieved by entrepreneurs.

Push factors include:

- The limitations of financial rewards from conventional jobs;
- Being unemployed in the established economy;
- Job insecurity;
- Career limitations and setbacks in a conventional job;

- The inability to pursue a personal innovation in a conventional job;
- Being a 'misfit' in an established organisation;
- Disagreement with management; and
- No other alternatives.

2.5.3 Research findings on factors that motivate individuals to pursue entrepreneurship

This section reports on the research findings regarding entrepreneurial motivation from various countries.

2.5.3.1 Entrepreneurial motivation in Singapore

Choo and Wong (2006:48) examined the factors that motivate individuals to create a new business venture in Singapore using a sample of 145 retired military officers. They found that intrinsic rewards took precedence in motivating would-be entrepreneurs to start a business. Factors that motivated the would-be entrepreneurs were intrinsic rewards, independence/autonomy and extrinsic rewards. Intrinsic rewards that influenced the entrepreneurial intention of would-be entrepreneurs were the desire to have an interesting job, taking advantage of creative talents and challenge (Choo and Wong, 2006:59). Extrinsic rewards included receiving a salary based on merit, providing a comfortable retirement, earning more money, the need for a job, and realising a dream (Choo and Wong, 2006:57).

2.5.3.2 Factors that motivate entrepreneurs and nonentrepreneurs in the United States

Carter, Gartner, Shaver and Gatewood (2003:14) compared nascent entrepreneurs and nonentrepreneurs in the United States on six categories of reasons that individuals gave for starting a business. These categories included: 1) Innovation, 2) Independence, 3) Recognition, 4) Roles, 5) Financial success and 6) Self-realisation. They found that nascent entrepreneurs were both similar to and different from the general population. Both nascent entrepreneurs and nonentrepreneurs rated self-

realisation, financial success, innovation and independence as reasons for career choice. Nascent entrepreneurs and nonentrepreneurs differed significantly on roles and recognition with nascent entrepreneurs scoring low on these reasons (Carter *et al.*, 2003:30). Additionally, Ashley-Cotleur *et al.* (2003:5) found that the need to be more independent was significantly related to the intention to start a business among 335 graduate and undergraduate students enrolled in two US universities.

Moreover, Liang and Dunn (2006:1) investigated triggering factors in new venture creation using 161 entrepreneurs. They found that the majority of entrepreneurs started businesses in order to meet their personal needs better than their present circumstances. These entrepreneurs were motivated by being one's own boss, being in control, being independent, being more challenged and satisfied. Additionally, some started businesses because they had difficulties with their bosses or co-workers, some had discovered opportunities and consumers' needs in the market and some became entrepreneurs because of financial reasons.

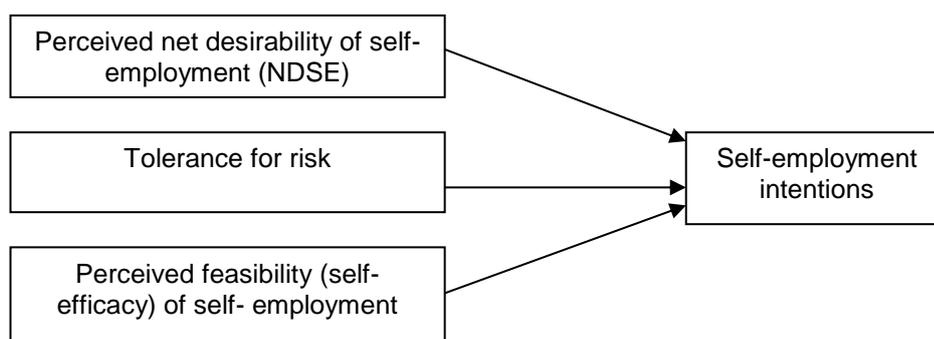
Segal *et al.* (2005:47) used the Shapero-Krueger model of entrepreneurial intention to propose a model of the motivation to become an entrepreneur. In their model the motivation to become an entrepreneur is a choice that is driven by the difference between the desirability of self-employment and that of working for others. In making a decision between the career of self-employment and working for others the individuals follow a rational three-part process that involves:

- Comparing the desirability of self-employment with the desirability of working for others;
- Assessing whether they possess the requisite knowledge, skills, and abilities to perform the tasks and activities necessary to become an entrepreneur; and
- Determining whether they are willing to accept the inherent risk of entrepreneurial activity.

Segal *et al.* (2005:48) suggested that the intention to become an entrepreneur was a function of perceived net desirability of self-employment, the perceived feasibility (self-efficacy) of self-employment and tolerance for risk. The net desirability of self-employment was obtained by subtracting desirability of working for others from

desirability of self-employment (Segal *et al.*, 2005:51). The model was tested on 115 junior and senior undergraduate business students (Segal *et al.*, 2005:49). Their findings supported the model indicating: 1) A significantly positive relationship between entrepreneurial self-efficacy and the intention to become an entrepreneur, 2) A positive relationship between the tolerance for risk and the intention to become an entrepreneur, 3) A positive relationship between the net desirability for self-employment and the intention to become an entrepreneur, and 4) A positive relationship between the net desirability for self-employment, entrepreneurial self-efficacy and tolerance for risk and the intention to become an entrepreneur (Segal *et al.*, 2005:51-52). Figure 2.18 illustrates the key components of entrepreneurial motivation.

Figure 2.18: Model of the key components entrepreneurial motivation



Source: Segal *et al.* (2005:48)

2.5.3.3 A multi-country study of entrepreneurial motivation

Hessels *et al.* (2008:401) investigated whether various start-up motivations and the country's level of social security could explain the prevalence of entrepreneurial aspirations. Their study involved 29 countries including Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Mexico, The Netherlands, New Zealand, Norway, Slovenia, South Africa, Spain, Sweden, Thailand, UK, USA, and Venezuela. They found that independence as a prime motive for being self-employed was not related to entrepreneurial aspirations in terms of growth. Increasing wealth as a prime motive for becoming self-employed was positively related to entrepreneurial aspirations in terms of growth. Necessity (being pushed) motive for being self-

employed was not related to entrepreneurial aspirations in terms of innovation and growth. Social security was negatively related to entrepreneurial aspirations in terms of growth and innovation (Hessels *et al.*, 2008:411).

2.5.3.4 Entrepreneurial motivation in China

Taormina and Lao (2007:201) argue that there is a tendency in entrepreneurship research to compare people who have already started businesses with those who are not entrepreneurs. They are of the view that although this helps to provide an understanding of why some people start businesses while others do not, individuals in the pre-entrepreneurial stage have been ignored. In an attempt to understand entrepreneurial motivation in China, Taormina and Lao (2007) used a sample of people who did not want to start a business, people who were planning to set up a business and those who had already started a business and succeeded. The three groups were compared on the basis of: 1) Achievement striving/need for achievement, 2) The role of social networking, 3) Optimism and 4) The perceived importance of a favourable business environment in influencing the motivation to start a business.

They found that achievement striving, a more favourable attitude towards networking, optimism and the perceived importance of a favourable business environment were positively and significantly correlated with the motivation to start a business. People who had already started a business and succeeded were higher in achievement striving than those who were planning to set-up a business. People who were planning to set-up a business were higher on achievement striving than those who did not want to start a business. The perceived importance of a favourable business environment was significantly higher for people who had already started a business and succeeded than those who were planning to set-up a business. People who had already started a business and succeeded had a significantly higher motivation to start a business than those who were planning to set-up a business and the latter had a significantly higher motivation to start a business than those who did not want to start a business (Taormina and Lao, 2007:211). Optimism had a significant effect on motivation for people who had already started a business and succeeded than those who were planning to set-up a business and those who did not want to start a business (Taormina and Lao, 2007:212).

2.5.4 Disincentives to the implementation of entrepreneurial intent

Although starting one's own business has many benefits, it is not without drawbacks. There are certain barriers that make it difficult for entrepreneurs to realise their dreams. These drawbacks or barriers are referred to as disincentives. Krueger *et al.* (2007:8) propose that it is vital to look more closely at the real and perceived barriers to (and facilitators of) action. This, in their view, would help strengthen the understanding of entrepreneurial intent and its implementation. Choo and Wong (2006:60) report that the would-be entrepreneurs in Singapore identified hard reality, lack of skills, compliance costs, lack of capital and lack of confidence as some of the barriers to new venture creation. These barriers are listed in Table 2.4. Legal and regulatory barriers, knowledge barriers and operational competencies/skills were also found to have an influence on nurse entrepreneurship at the Midwestern University (Elango and Winchel, 2007:201).

Table 2.4: Barriers to new business formation

Lack of capital	Lack of skills	Hard reality	Lack of confidence	Compliant costs
<ul style="list-style-type: none"> • Difficulty in obtaining finance. • Lack of own savings or assets. • Lack of support from family or friends. 	<ul style="list-style-type: none"> • Lack of marketing skills. • Lack of managerial or finance expertise. • Lack information about business start-ups. 	<ul style="list-style-type: none"> • Risks greater than initially expected. • The uncertain future. • Bad economic indicators. 	<ul style="list-style-type: none"> • Fear of failure. • Convincing others about the idea. 	<ul style="list-style-type: none"> • Compliance with government regulations. • High taxes and fees. • Finding suitable labour.

Source: Choo and Wong (2006:58)

Robertson, Collins, Medeira and Slater (2004:3) conducted another study to identify the barriers to student entrepreneurship at the Leeds Metropolitan University (LMU). They argued that the identification of barriers to entry and the strategies to minimise their impact is essential to stimulate the new business aspect of the economy. They found that the barriers affecting the decision to start a business were lack of finance,

motivation, lack of an idea/awareness of the market, lack of skills, the need for security after graduation, and higher education which does not nurture entrepreneurial activities (Robertson *et al.*, 2004:9-10). Table 2.5 shows the additional disincentives to implementing entrepreneurial intent found in entrepreneurship literature.

Table 2.5: Disincentives of entrepreneurship

DISINCENTIVES OF ENTREPRENEURSHIP	
<ul style="list-style-type: none"> • Uncertainty of income • Long hours and hard work • Lower quality of life until business is established • High levels of stress • Complete responsibility • Discouragement • Sales fluctuations • Competition • Employee relations • Lack of motivation, skills, confidence and business idea 	<ul style="list-style-type: none"> • Risk of failure • Financial losses • Sacrificing quality of life with family • Inability to get enough start-up capital and few financial resources • High interest charged for borrowing money and compliance costs • Lack of suitably trained employees • Working alone and lack of support • The need for many skills • Changing and unpredictable environment

Source: Scarborough, Wilson and Zimmerer (2009:31-34); Co *et al.* (2006:23 & 52); Hodgetts and Kuratko (2002:11-13).

From Table 2.4 and 2.5 it can be deduced that a number of factors may hinder the development and implementation of entrepreneurial intent. However, the impact of aspects such as lack of capital, lack of skills, lack of confidence and compliant costs on entrepreneurial intent may be minimised by providing entrepreneurial support and entrepreneurship education, which will be discussed in the next chapters. Having discussed entrepreneurial motivation theories and the disincentives to implementing entrepreneurial intent, the next section focuses on entrepreneurial motivation and the total entrepreneurial activity in South Africa.

2.6 ENTREPRENEURIAL MOTIVATION OF SOUTH AFRICAN ENTREPRENEURS AND THE TOTAL ENTREPRENEURIAL ACTIVITY

Schenkel *et al.* (2007:1) view entrepreneurial intention as an important “fuel” for entrepreneurial action. Similarly, Krueger *et al.* (2000:412-413) suggest that entrepreneurial intentions can help increase the ability of individuals to understand and

predict entrepreneurial activity. As this study focuses on factors that determine entrepreneurial intent in the two provinces of South Africa, namely, Limpopo and Eastern Cape, it is appropriate to look at South Africa's total entrepreneurial activity. In 2006, South Africa had the lowest total entrepreneurial activity (TEA) opportunity index of 3.47 percent that was far below the average of 6.82 percent for all participating countries (Maas and Herrington, 2006:19; Maas and Herrington, 2007:13). This puts South Africa in the 33rd position out of 40 participating countries. In terms of the relative rankings with regard to TEA, South Africa has declined from 14th position out of 28 participating countries in 2001 to 30th out of 42 countries in 2006 (Maas and Herrington, 2006:17). In 2008 South Africa's position improved as it ranked 23rd out of 43 countries but its TEA of 7.8 percent was still below the average of 10.6 percent of all participating countries (Herrington, Kew and Kew, 2008:15), as shown in Table 2.6. In 2009 South Africa's ranking dropped from 23rd position in 2008 to 35th position out of 54 countries with a TEA rate of 5.9 percent that was significantly lower than the average of 11.7 percent for all participating countries (Herrington, Kew and Kew, 2009:59). In 2010 South Africa's TEA ranking improved from 35th position and a TEA rate of 5.9 percent to 27th position with a TEA rate of 8.9 percent (Herrington, Kew and Kew, 2010:16). From the 2010 Global Entrepreneurship Monitor (GEM) report, it seems that the low TEA rates may also be attributed to the low number of people with the intention to start a business and who believe that they have entrepreneurial capabilities. This is so because 17 percent of South Africans indicated that they had entrepreneurial intentions while 44 percent had entrepreneurial capabilities (Herrington *et al.*, 2010:18). South Africa's low TEA rates suggest that more efforts need to be taken to encourage entrepreneurship in the country, which may begin with understanding the factors that influence entrepreneurial intent.

Table 2.6: South Africa's TEA rankings from 2001-2006 and 2008-2010 (no survey in 2007)

Year of survey	2001	2002	2003	2004	2005	2006	2008	2009	2010
South Africa's TEA ranking	14 th /28*	20 th /37	22 nd /31	20 th /34	25 th /34	30 th /42	23 rd /43	35 th /54	27 th /59
South Africa's TEA rate	9.4	6.3	4.3	5.4	5.15	5.29	7.8	5.9	8.9
Median	14	19	16	17	17	21	22	27	30
Number of positions below/above the median	0	1	6	3	8	9	1	8	3

*14th/28 = 14th out of 28 countries that participated in the GEM survey

Source: Maas and Herrington (2006:17); Herrington *et al.* (2008:14-15); Herrington *et al.* (2009:59) and Herrington *et al.* (2010:16).

Similar to the pull and push factors already alluded to in the preceding sections, Maas and Herrington (2006:17) and Von Broembsen, Wood and Herrington (2005:13) report that opportunity and necessity entrepreneurial motivation are prime motivational factors. Orford *et al.* (2004:11); Von Broembsen *et al.* (2005:13) and Maas and Herrington (2006:17) refer to entrepreneurs who get involved in an entrepreneurial activity to take advantage of an opportunity as opportunity entrepreneurs and those who have no better options for work as necessity entrepreneurs. Opportunity entrepreneurs possess high levels of human capital and entrepreneurial competencies (Nakhata, 2007:1).

Entrepreneurs who are motivated by opportunity contribute to more employment creation than those who are motivated by necessity (Von Broembsen *et al.*, 2005:25). Opportunity entrepreneurs employ on average 4.4 employees compared to 1.6 employees by necessity entrepreneurs. The 2008 Global GEM report indicates that opportunity entrepreneurial activity accounted for 79 percent of the total entrepreneurial activity (Herrington *et al.*, 2008:20). As it appears that the job creation potential of necessity enterprises is limited, South Africa faces the challenge of instilling a culture of entrepreneurship in which people do not just start businesses because they have no better options but to respond to opportunities. This is particularly important in lesser urbanised provinces such as Eastern Cape and Mpumalanga (StatsSA, 2006c:22) where the majority of entrepreneurs are necessity

entrepreneurs as is evident from Table 2.7. These two provinces have the lowest TEA compared to other provinces in South Africa (Herrington *et al.*, 2008:25). Table 2.6 reflects the TEA scores in South Africa by province.

Table 2.7: TEA scores in South Africa in 2008

Province	Total TEA	TEA: Opportunity	TEA: Necessity
Gauteng	30%	28%	36%
KwaZulu-Natal	17%	18%	15%
Western Cape	15%	17%	9.6%
Limpopo	10%	10%	7.5%
Free State	9%	10%	5.7%
North-West/Northern Cape	9%	9%	7.5%
Mpumalanga	6%	4%	13%
Eastern Cape	4%	4%	5.7%
Total	100%	100%	100%

Adapted from: Herrington *et al.* (2008:25)

Moreover, South Africa like other developing countries has a huge shortage of entrepreneurs especially in the formal sector (Van Aardt, Van Aardt and Bezuidenhout, 2005:3). As Van Aardt *et al.* (2005:4) observe South Africans generally are not socialised or educated to become entrepreneurs but to enter the labour market as employees. This orientation continues to exist despite the very low labour absorption capacity of the labour market and the large pool of unemployed and underemployed among the economically active population. It is reported that many people become entrepreneurs because they cannot find employment in the formal sector of the economy. However, becoming an entrepreneur offers a personal challenge that many people may prefer over being employed by someone else (Segal *et al.*, 2005:42).

2.7 SUMMARY OF ENTREPRENEURIAL MOTIVATION

An understanding of entrepreneurial motivation is crucial in acquiring the knowledge about new venture creation and the willingness to sustain that venture. This is because entrepreneurship involves action and motivation affects three aspects of action namely: choice, effort and persistence. The entrepreneurial career choice is determined by factors such as: 1) Having the knowledge that the entrepreneurial

option exists, 2) The possibility for an individual to pursue this option, 3) An individual being comfortable with the level of risk the venture entails, and 4) Being attracted to the positive outcomes offered by the entrepreneurial option. People make decisions to start a business on the basis of the strength of their individual abilities, their attitude towards the benefits offered by entrepreneurship and their ability to access and to deploy the various resources in the business.

The motivation to become an entrepreneur derives from pull and push factors. People who are pulled into entrepreneurship act on opportunities identified in the market while those who are pushed become entrepreneurs because they have no other alternatives. Other factors that motivate people to become entrepreneurs include perceived net desirability of self employment, tolerance for risk, perceived feasibility of self-employment, achievement striving, a more favourable attitude towards networking, optimism and the perceived importance of a favourable business environment.

There are a number of disincentives that prevent the implementation of entrepreneurial intent. These disincentives can be categorised into hard reality, lack of skills, compliance costs, lack of capital and lack of confidence. The provision of entrepreneurial support and entrepreneurship education may assist in minimising the impact of some of these disincentives.

2.8 CONCLUSION

The purpose of this chapter was to give an exposition of the different entrepreneurial intention models that form the foundation of entrepreneurial intent theory as well as factors impacting on these models. From these models, it is evident that in order for people to act entrepreneurially, perceptions of desirability and feasibility must exist. These perceptions influence intentions directly which in turn affect the behaviour. There are also individual and situational factors that impact on entrepreneurial intent indirectly via perceived desirability and perceived feasibility. Various motivation theories have been discussed in an attempt to establish a link with entrepreneurial intent. From these theories it can be deduced that people decide to act entrepreneurially because they believe that entrepreneurship offers benefits (outcomes) that may not be achieved in a conventional career. People also assess

themselves in terms of having the skills and resources necessary to act and then decide to act on the belief that they will be successful in their actions. In the next chapter entrepreneurship education and its relationship with entrepreneurial intent will be discussed.

CHAPTER 3: ENTREPRENEURSHIP EDUCATION

3.1 INTRODUCTION

In the previous chapter it was demonstrated through a literature study of intention models that entrepreneurial intent is determined by perceived desirability and perceived feasibility. This chapter explores the relevance of entrepreneurship education with particular focus on its contribution to entrepreneurial activity. The emphasis of the literature study is on entrepreneurship education internationally and in South Africa. The critical issues to be examined as part of this research are whether entrepreneurship education influences the intention to start a business and whether it contributes to the development of entrepreneurial skills, entrepreneurial competencies and entrepreneurial self-efficacy of students.

In order to assess the relevance of entrepreneurship education, the discussion will, firstly, evaluate research trends in entrepreneurship with the aim of indicating how entrepreneurship education found its position in the field of entrepreneurship. The role of higher education institutions in improving entrepreneurial activity will be discussed. Clarification of the term entrepreneurship education is provided through some definitions given by researchers in entrepreneurship and traditional business education, entrepreneurship education and small business management education are distinguished. This is then followed by a discussion of the objectives of entrepreneurship education, the different types of entrepreneurship education, the key issues in entrepreneurship education and learning approaches as well as teaching methods in entrepreneurship education. The value of entrepreneurship education is discussed by focusing on its impact on entrepreneurial intent and actual business start-up and its contribution to the enhancement of entrepreneurial skills, entrepreneurial self-efficacy and entrepreneurial competencies. The chapter concludes with an exposition of the models of entrepreneurship education and a comparison of the syllabi of entrepreneurship education at Walter Sisulu University and Tshwane University of Technology.

3.2 RESEARCH TRENDS IN ENTREPRENEURSHIP

Entrepreneurship is acknowledged as an important economic and social phenomenon as well as a popular research topic (Fayolle and Gailly, 2008:569). Given the significance of entrepreneurship, extensive research has been undertaken in the past in an attempt to understand the factors that either inhibit or facilitate this phenomenon. This research adopted different approaches as illustrated in Table 3.1.

Table 3.1: Research trends in entrepreneurship

Period	Topic	Authors and researchers
1. What entrepreneurs do 1700-(1950)	From an economic perspective	Cantillon, Say, Schumpeter
2. Who entrepreneurs are 1960-(1980)	From a behaviourist perspective	Weber, McClelland, Rotter, De Vries
3. What entrepreneurs do 1980-	From a management science perspective (finance, marketing, operations, human resources)	Drucker, Mintzberg
4. What support is needed by entrepreneurs 1985-	From a social perspective, including economists, geographers and sociologists	Gartner, Welsch, Bygrave, Reynolds
5. What entrepreneurial activities are, what competencies are required to perform them 1990-	From an entrepreneurship perspective	Timmons, Vesper, Brockhaus
6. What the antecedents of entrepreneurial intentions are 1980-	From a cognitive perspective	Ajzen; Shapero and Sokol; Krueger, Reilly and Carsrud
7. Can entrepreneurship be taught? What is the influence of entrepreneurship education on entrepreneurial activity? 1982-	From a social perspective	Vesper; McMullan and Long; Ronstadt; Hills; Dainow;; Ahliah; Curran and Stanworth; Sexton and Bowman; Zeithaml and Rice

Source: Adapted from Nieman and Nieuwenhuizen (2009:8) and Alberti, Sciascia and Poli (2004:478-482)

As Table 3.1 shows, entrepreneurship research has evolved from attempts to understand what entrepreneurs do, who they are, how they can be supported, entrepreneurial activities performed by entrepreneurs and competencies needed to perform these activities, antecedents of entrepreneurial intentions to the focus on entrepreneurship education and its contribution to entrepreneurial activity.

The most dominant approach to researching entrepreneurship that has been studied more intensively than any other class of variables is the personality approach which concentrated on who entrepreneurs are (MUN, 2005:3). The personality approach focused on identifying traits/characteristics shared by successful entrepreneurs. This was done with a view to isolate potential entrepreneurs from nonentrepreneurs (Rwigema and Venter, 2005:60). Personality theories held the belief that an entrepreneur is a special sort of person (Wickham, 2006:50). Although the personality theories played a vital role in facilitating an understanding and appreciation of the entrepreneur (Wickham, 2006:59), these theories have not been without criticism (Rwigema and Venter, 2005:65; Venter, Urban and Rwigema, 2008:51; Wickham, 2006:59). It has been found that there is no real evidence of a single entrepreneurial personality (Timmons and Spinelli, 2007:7; Longenecker, Moore, Petty, and Palich, 2006:16; Burke, 2006:1; Kuratko and Hodgetts, 2007:32).

The fact that there emerged no single entrepreneurial personality opened the possibility of training people to become entrepreneurs. In the next sections whether entrepreneurship can be taught as well as the role of Higher Education Institutions (HEIs) in fulfilling this role are explained.

3.2.1 Can entrepreneurship be taught?

The trait theory, according to Burke (2006:1), had it been successful held little promise for entrepreneurship education. As it appears that entrepreneurial tendencies are not inborn, it is becoming clear that people can be taught to become entrepreneurs (Kuratko, 2005:580). This makes the question whether entrepreneurship can be taught obsolete. Fayolle (2007:52) points out that while it is possible to educate people in entrepreneurship, it is impossible to tell whether these people will be talented or not, just as it is impossible to guarantee a priori success of a given course of action.

Gorman, Hanlon and King (1997 in U.S. SBA, 2006:125) conducted a survey of entrepreneurship education research published between 1985 and 1994. Their findings indicated that there was consensus among researchers that entrepreneurship could be taught and that entrepreneurial attributes could be positively influenced by educational programs. U.S. SBA (2006:128) reports that the volume of empirical research on entrepreneurship education has been increasing tremendously especially research focusing on entrepreneurial intentions as the foundation for entrepreneurial behaviour.

The belief that some of the abilities needed to be a successful entrepreneur can be taught and learnt has led to an increase in the number of entrepreneurship education and training programs over the last two decades in both developed and developing countries (Kuratko, 2005:579; Fayolle *et al.*, 2006a:701; Fayolle, 2004:3; Owusu-Ansah, 2004:1; U.S. SBA, 2006:119; Sriram *et al.*, 2007:240). According to Kuratko (2005:577), colleges and universities that offer courses related to entrepreneurship have increased from just a handful in the 1970s to over 1600 in 2005. The Fortune Magazine (2007 in Godwyn, 2009:1) reports that there were 3000 colleges and universities that offered some form of entrepreneurship education in 2007.

With regard to the question relating to what should be taught and how it should be taught, Kuratko (2005:581) suggests that the major themes which are now part of entrepreneurship research and education may be considered in teaching entrepreneurship. Table 3.2 highlights what can be taught in entrepreneurship education based on entrepreneurship research themes up to the year 2009.

Table 3.2: Emerging themes in entrepreneurship research and education as indicators of what should be taught in entrepreneurship education

Theme	Author(s)
1. The entrepreneurial and managerial domains are not mutually exclusive but overlap to a certain extent. The former is more opportunity-driven and the latter is more resource- and “conservation”-driven.	Stewart <i>et al.</i> (1999); Ireland, Hitt and Sirmon (2003); Ward (2005)
2. Venture financing, including both venture capital and angel capital financing as well as other innovative financing techniques, emerged in the 1990s with unprecedented strength, fuelling another decade of entrepreneurship.	Shepherd and Zacharakis (2001, 2003); Dimov and Shepherd (2005); Fitza, Matusik and Mosakowski (2006); Walske, Zacharakis and Smith-Doerr (2007); Lingelbach, Murray and Gilbert (2008)
3. Corporate entrepreneurship and the need for internal corporate venturing have gained much attention since 1999.	Zahra, Kuratko and Jennings (1999); Morris and Kuratko (2000, 2002); Kuratko, Ireland and Hornsby (2001); Miles and Covin (2002); Kuratko, Ireland, Covin, and Hornsby (2005); Corbett (2006); Bratnicki and Dyduch (2007); Jurna (2009)
4. Entrepreneurial strategies have been identified that show some important common denominators, issues, and trade-offs between entrepreneurship and strategy.	Hitt, Ireland, Camp and Sexton (2001); Kuratko and Welsch (2004); Madsen, Borch and Wiklund (2006); Clarysse, Bruneel and Wright (2007);
5. The great variety among types of entrepreneurs and the methods they have used to achieve success have motivated research on the psychological aspects that can predict future success.	Kickul and Gundry (2002); Munoz, Liao and Welsch (2005); Revelas and Agusaj (2005); Dencker, Gruber and Shah (2006, 2007)
6. The risks and trade-offs of an entrepreneurial career-particularly its demanding and stressful nature-have been subject of keen research interest relevant to would-be and practicing entrepreneurs alike.	McGrath, MacMillan and Scheinbert (1992); Lévesque <i>et al.</i> (2002); Segal <i>et al.</i> (2005); Douglas and Fitzsimmons (2006); Steffens <i>et al.</i> (2007)

Table 3.2 continued

7. Women and minority entrepreneurs have emerged in unprecedented numbers. They appear to face obstacles and difficulties different from those that other entrepreneurs face.	Gundry and Welsch (2001); Chaganti and Greene (2002); Greene, Hart, Gatewood, Brush and Carter (2003); Drever (2005); Rani and Rao (2007); Basargekar (2007); Parent (2008); Mboko and Smith-Hunter (2009); Weeks and Fregetto (2009)
8. The economic and social contributions of entrepreneurs, new companies, and family businesses have shown to make immensely disproportionate contributions to job creation, innovation, and economic renewal, compared with the contributions that the 500 or so largest companies make.	Upton, Teal and Felan (2001); Chrisman, Chua and Sharma (2003); Kim and Ondracek (2005); Poza and Sorenson (2009); Williams and Jones (2009)
9. Ethics and entrepreneurship have become a fast growing area of research due to more recent scandals found in corporations.	Morris, Schindehutte, Walton and Allen (2002); Kuratko and Goldsby (2004); Longenecker, Moore, Petty, Palich and McKinney (2005); Bressler (2007); Koul (2008); D'Intino (2008)
10. Opportunity recognition research focusing on factors associated with the discovery, evaluation and exploitation had increased substantially in recent years.	Ardichvili, Cardozo and Ray (2003); Ucbasaran, Westhead and Wright (2004); Corbett (2007); Green (2007); Ucbasaran, Westhead and Wright (2008); Crump, Singh and Abbey (2009)
11. Triggers and barriers to the start-up decision and new venture creation.	Liang and Dunn (2006); Choo and Wong (2006); Roper and Scott (2009)
12. The role of social networks and social capital in entrepreneurship in terms of start-up and small business performance.	Töttermann and Sten (2005); Leung, Zhang, Wong and Foo (2006); Shaw (2006); Casson and Giusta (2007); Lee and Jones (2008); Klapper (2008)

Table 3.2 continued

13. Determinants of small business growth/venture performance.	Wiklund (2002); Wiklund and Shepherd (2003); Aidis and Mickiewicz (2005); Wolf and Pett (2006); Keh, Nguyen and Ng (2007); Delmar and Wiklund (2008); Davidsson, Steffens and Fitzsimmons (2009);
14. Social entrepreneurship is slowly gaining popularity among entrepreneurship researchers with particular reference to its contribution to the society.	Rennie (2006); Levie, Koepplinger, Boonchoo and Lichtenstein (2007); Cukier, Rodrigues, Trenholm and Wise (2009)

Source: Adapted from Kuratko (2004:4-5) and Kuratko (2005:581) and updated by the author from research articles delivered at the following conferences: Babson, ICSB, ASBE and USASBE up to 2009.

From Table 3.2, it follows that diverse themes need to be considered when designing entrepreneurship education. It seems that entrepreneurship education cannot be taught as a one-size fits all. It has to be designed to meet the needs of different audiences. For example, people who want to start a small business will need a different type of education compared to those who want to engage in internal corporate venturing.

3.2.2 The role of higher education institutions (HEIs) in improving entrepreneurial activity

The growth of entrepreneurship education together with the associated research concerning the impact of entrepreneurship education on entrepreneurial activity has important policy implications for universities and support organisations providing funding for entrepreneurship education (U.S. SBA, 2006:137). For example, if entrepreneurship can be taught, what role should HEIs play in teaching it? Entrepreneurship education and the educational system of universities contribute to economic development and job creation by providing students with the opportunity to shorten the learning curve of developing a business by practicing the entrepreneurial

process within the protection of a university (Franke and Lüthje, 2004:1; Lüthje and Franke, 2002:1). Nieman and Nieuwenhuizen (2009:12) contend that people should be taught to become employers rather than employees in order to contribute to increased levels of entrepreneurship in the society.

HEIs are primary instruments of the society that can play a vital role in developing the factors that affect the performance of entrepreneurs such as attitudes, skills and other competencies (Manimala, 2008:625). According to Matlay (2006:711), “entrepreneurship education curriculum taught in HEIs can positively influence graduates’ attitudes towards entrepreneurship and equip nascent entrepreneurs with the necessary knowledge and skills to start up, manage and develop economically viable businesses”. Equipping youth with the right skills, resources, support and attitudes to start their own businesses and to provide employment both for themselves and for others is viewed as essential to develop future entrepreneurial capacity in South Africa (Von Broembsen *et al.*, 2005:38). Isaacs, Visser, Friedrich and Brijlal (2007:626) assert that a positive contribution to job creation and poverty alleviation can be made by encouraging the entrepreneurial spirit through entrepreneurship education and training. Entrepreneurship education plays an important role in building entrepreneurial capability of tomorrow’s entrepreneurs and leaders (Hannon, 2006:296).

According to Co and Mitchell (2006:349), HEIs can instil among young people a clear understanding of risks and rewards; teach opportunity seeking and recognition skills and the creation and destruction of enterprises. Anderson and Jack (2008:259) posit that universities have to play a key role in shaping attitudes, supplying knowledge and enabling students to become enterprising people. Entrepreneurship education is increasingly regarded as the most effective way through which HEIs can facilitate the transition of the growing graduate population from education to work (Matlay and Westhead, 2005 in Matlay, 2005:627). Kickul *et al.* (2008:328) assert that entrepreneurship educators have the responsibility of ensuring that entrepreneurship education is both relevant and effective for potential young entrepreneurs.

The foregoing sections indicated that people can be taught to act entrepreneurially and that HEIs can play a vital role in teaching people to become entrepreneurs. This may

help contribute to economic development, job creation and poverty alleviation. In the following section entrepreneurship education is defined.

3.2.3 Research on the effect of entrepreneurship education on entrepreneurial activity

Matlay (2008:382) explored the impact of entrepreneurship education on entrepreneurial outcomes using 64 graduate entrepreneurs from eight HEIs in the UK. The study was conducted over a ten-year period from 1997 to 2006 to document, measure and analyse the respondents' progression from graduation into entrepreneurship. He found that from the beginning all the respondents were interested in an entrepreneurial career very soon after graduation. The majority (59 of 64) of the respondents indicated that they had prepared for an entrepreneurial career before embarking on their studies at university level while five of them became interested in entrepreneurship during their first or second years of study at the university (Matlay, 2008:389). The entrepreneurial knowledge and skills of the respondents were evaluated in eight topics that were common to their entrepreneurship courses at their respective HEIs prior to their exposure to entrepreneurship education. These topics included: 1) Business strategy, 2) Business risk, 3) Marketing, 4) Marketing research, 5) Finance, 6) Human resources, 7) Business planning and 8) Business idea development. In his evaluation Matlay (2008:390) found that the respondents ranked themselves relatively low on these topics.

The respondents were again asked to reconsider their general and specific entrepreneurial knowledge and skills in the eight topics that were part of the first evaluation after completion of their third year which included various entrepreneurship education options. Most of the students showed an improvement in both their general business knowledge and specific skills in relation to the eight topics. According to Matlay (2008:391), this was a sign that entrepreneurship education had succeeded in providing these respondents with adequate knowledge and skills to embark on an entrepreneurial career.

With regard to the impact of entrepreneurship education on entrepreneurial careers, Matlay (2008:391) found that none of the respondents were either unemployed or employed in a small business or large organisation. Of the 64 respondents 29 were sole traders, 26 were owners and managers of micro-businesses, three were partners in new establishments and the other six were partners in established enterprises after one year of their graduation. After five years of their graduation, none of the respondents were unemployed, 17 were sole traders, 34 were owners of micro-businesses, four owned small businesses, five were partners in new enterprises and four partners in established enterprises (Matlay, 2008:392). Ten years after graduation, eight of the respondents were sole traders, 31 were owners of micro-businesses, 16 were owners of small businesses, five were partners in new enterprises and four were partners in established enterprises.

The U.S. SBA (2006:126) conducted a review of literature specifically focusing on empirical research linking entrepreneurship education and entrepreneurial action. Their articles were drawn from a wide range of peer-reviewed journals. Published proceedings from three entrepreneurship-focused conferences - the United States Association for Small Business and Entrepreneurship (USASBE), the International Council of Small Business (ICSB) and the Babson-Kauffman Entrepreneurship Conference - were reviewed from 1995-2005. The U.S. SBA (2006:127) reports that seven articles that measured the impact of entrepreneurship education on the act of venture creation were found and the authors of the articles concluded that there was a significant and positive correlation between participation in entrepreneurship education and new venture creation.

3.3 DEFINING ENTREPRENEURSHIP EDUCATION

While entrepreneurship education has shown rapid growth in recent years, Fayolle and Gailly (2008:570) state that numerous ontological, theoretical, pedagogical and practical challenges still remain. They report that lack of consensus at the ontological and theoretical levels concerning what entrepreneurship is, makes it difficult to reach an agreement on what entrepreneurship stands for as a teaching subject. They add that “under these conditions, at the practical and pedagogical levels, old ideas and old questions come and go regarding entrepreneurship education and lead to a lack of

legitimacy". Fayolle and Gailly (2008:571) propose a teaching model framework for entrepreneurship education in which they discuss both the ontological and educational levels of the model. This model is discussed in detail in section 3.8.2.

Sexton and Bowman (1984 in Liñán, 2004:2) assert that entrepreneurship education should be considered as an extension of entrepreneurship itself and that the definition of entrepreneurship education should be based on the view of entrepreneurship. Defining entrepreneurship education becomes a difficult task due to the variety of definitions given to entrepreneurship (Fayolle, 2007:50; Liñán, 2004:1). According to Binks, Starkey and Mahon (2006:12), the definition of entrepreneurship education should be based on the skills required to engender successful entrepreneurship and these skills should be identified by focusing on the entrepreneurial process as a whole. The lack of an accepted definition of entrepreneurship education has resulted in different objectives and terminologies regarding entrepreneurship education being used in many studies (Liñán, 2004:1). In some studies, the terms such as entrepreneurship, enterprise and small business education are used interchangeably as observed by Botha (2006:45) and Niyonkuru (2005:12). Enterprise education is preferred in Ireland and in the United Kingdom while entrepreneurship education is commonly used in Canada and the United States of America (Garavan and O'Connell, 1994 in Botha, 2006:45). Table 3.3 gives some of the definitions of entrepreneurship education provided by researchers in the field of entrepreneurship.

Table 3.3: Definitions of entrepreneurship education

Author(s)	Definition
Shepherd and Douglas (1997 in Solomon, 2007:169)	The essence of entrepreneurship is the ability to envision and chart a course for new business venture by combining information from the functional disciplines and from the external environment in the context of the extraordinary uncertainty and ambiguity which faces a new business venture. It manifests itself in creative strategies, innovative tactics, uncanny perception of trends and market mood changes, courageous leadership when the way forward is not obvious and so on. What we teach in our entrepreneurship classes should serve to instil and enhance these abilities.
Bechar and Toulouse (1998 in Primentas, 2008:9)	A collection of formalised teachings that informs, trains, and educates anyone interested in business creation or small business development.
McIntyre and Roche (1999 in Liñán, 2004:7)	The process of providing individuals with the concepts and skills to recognise opportunities that others have overlooked, and to have the insight and self-esteem to act where others have hesitated. It includes instruction in opportunity recognition, marshalling resources in the face of risk, and initiating a business venture.
Liñán (2004:9)	The whole set of education and training activities – within the educational system or not – that try to develop in the participants the intention to perform entrepreneurial behaviours, or some of the elements that affect that intention, such as entrepreneurial knowledge, desirability of the entrepreneurial activity, or its feasibility. It includes the development of knowledge, capacities, attitudes and personal qualities identified with entrepreneurship.
Cheng and Chan (2004:4)	Education that provides the needed skills to setting up new businesses. They further define it as a formalised programme designed to equip students with the needed skills and knowledge to: <ul style="list-style-type: none"> • Recognise business opportunities • Search customers' insights • Understand the needs of the market • Create an idea • Develop the business plan • Run the business and • Evaluate environmental, institutional and political issues.
Fayolle (2004:13)	All awareness, teaching, training and support activities in the field of entrepreneurship, including their environment, content, teaching approaches, resources, teachers and other players.
Alberti <i>et al.</i> (2005:456)	The structured formal conveyance of entrepreneurial competencies, which in turn refers to the concepts, skills and mental awareness used by individuals during the process of starting and developing their growth-oriented ventures.

Table 3.3 continued

Fayolle <i>et al.</i> (2006a:702)	Any pedagogical programme or process of education for entrepreneurial attitudes and skills, which involves developing certain personal qualities.
Tan and Ng (2006:417)	The process of providing individuals with the concepts and skills to recognise opportunities that others have overlooked, and to have the insight, self-esteem and knowledge to act where others have hesitated.
Hinde (2007 in Fayolle and Gailly, 2008:573)	The knowledge transfer regarding how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated and exploited.

Source: Table created by the author

There seems to be consensus among the authors regarding what entrepreneurship education is in Table 3.3. Authors such as Shepherd and Douglas (1997 in Solomon, 2007:169); McIntyre and Roche (1999 in Liñán, 2004:7); Cheng and Chan (2004:4); Tan and Ng (2006:417) and Hinde (2007 in Fayolle and Gailly, 2008:573) concur that entrepreneurship education involves equipping people with skills and enhances their abilities to recognise, evaluate, marshal resources and to initiate and run the business. Alberti *et al.* (2005:456) refer to the development of entrepreneurial competencies used by individuals to start and grow their businesses while Fayolle (2004:4) and Fayolle *et al.* (2006a:702) define entrepreneurship education in terms of education that influences the intention to perform entrepreneurial behaviours and the development of entrepreneurial attitudes, knowledge, skills and personal qualities identified with entrepreneurship.

The definition that is used for this study is based on the viewpoints of Cheng and Chan (2004:4) and Fayolle (2004:13). Entrepreneurship education is defined as all awareness, teaching, training and support activities in the field of entrepreneurship carried out in a formalised programme with the aim to equip students with the skills to recognise a business opportunity, evaluate it, start, manage and grow their businesses. The reason why this definition has been selected is because it takes into account diverse stakeholders and audiences in entrepreneurship education (Fayolle, 2006:5-6), some of which may just need to know about entrepreneurship while others may need to be taught, trained and supported in order to become entrepreneurs. The differences between the terms awareness, teaching, training and support are as follows:

- *Awareness* refers to knowing that something exists and is important (Wehmeier, 2002:67)
- *Teaching* is the act of imparting knowledge to or instructing someone in how to do something or to cause to learn by example or experience (Soanes and Stevenson, 2006:1477).
- *Training* is the process of learning the skills needed to do a particular job (Wehmeier, 2002:1272).
- *Support activities* refer to the help or encouragement given to individuals as a way of showing approval of what they are doing and of making them successful (Wehmeier, 2002:1204).

With regard to support, not all researchers stipulate the same extent of support activities. Researchers such as Kickul and Krueger (2005:6-7) and Kickul and D'Intino (2005:45) argue that a supportive environment must be set in the classroom and should focus on essential entrepreneurial skills, tasks and abilities to give future entrepreneurs the necessary competencies and confidence to launch and grow their businesses. The issue of support is extended by Li (2006:7) who suggests that university educators may help by providing some financial support for students who want to test their ideas on a small scale. Fayolle (2004:14) concurs that there must be resources such as the availability of funds to help finance students' venture creation projects and support networks for entrepreneurial initiatives.

Having defined entrepreneurship education, the next section distinguishes among business education, entrepreneurship education and small business management education.

3.4 THE DISTINCTION BETWEEN TRADITIONAL BUSINESS EDUCATION, ENTREPRENEURSHIP EDUCATION AND SMALL BUSINESS MANAGEMENT COURSES

Entrepreneurship education differs from typical business education by its ability to equip the learner with the ability to generate more quickly a greater variety of different ideas on how to exploit a business opportunity and to project a more extensive

sequence of actions for entering business (Vesper and McMullen, 1988 in Solomon, Duffy and Tarabishy, 2002:3). Solomon *et al.* (2002:4) and Solomon (2007:171) argue that “the integrated nature, specific skills, and business lifecycle issues inherent in new ventures differentiate entrepreneurial education from a traditional business education”. Vesper and McMullan (1998 in Niyonkuru, 2005:13) suggest that traditional business education deals with the provision of skills needed to understand the functions of an already existing business. Löbler (2006:24) compares the differences between business education and entrepreneurship education as highlighted by several authors set out in Table 3.4.

Table 3.4: Comparison of business education and entrepreneurship education

	Business education	Entrepreneurship education	Author(s)
Focus on	<p>Knowledge and theory</p> <p>Concerned with the necessary technical knowledge for business administration</p> <p>Interested mainly in the organisation of the firms in operation</p> <p>Over-emphasises quantitative and corporate techniques at the expense of more creative skills</p>	<p>Process and application</p> <p>Concerned with traits, skills, attitudes or intentions of the participant</p> <p>Interested in the creation process of an independent entrepreneurial business or its dynamism</p> <p>Emphasises imagination, creativity and risk taking in business</p>	<p>Fiet (2001); Mattare (2008:81)</p> <p>Liñán (2004:9-10)</p> <p>Porter (1994 in Jones and English, 2004:417)</p>
Teaching	Transferring knowledge	Supporting learning	Darling-Hammond (2001)
Goal of education	Broad knowledge	Learning to live, autonomy, the ability of self-governing	Stevenson (2000)

Table 3.4 continued

Role of learner	Passive consumer	Active producer	Fiet (2001); European Commission (2006:45)
Role of teacher and approach	Transmitter of content Educators adopt a predominantly scientific perspective of their field	Assistant of the learner Educators adopt an artistic perspective of their field	Fiet (2001) Parnell and Lester (2007:79)
Sources of information	Teacher, text books	All sources available	Solomon <i>et al.</i> (2002)
Inducement for getting information	Teacher, curriculum	Student's demand	Fiet (2001)
Who is governing the process?	Teacher	Student	Solomon <i>et al.</i> (2002); Fiet (2001); Darling- Hammond (2001)
Interaction between	Teacher, student	Students, teacher is not excluded	Cantwell (2001)
Activities	Listening, reading	Doing, thinking, talking	Fiet (2001)
Teaching methods	Uses lecture-based methods Core concepts are delivered in a stand-alone or silo approach	Project-based learning is particularly common Conducive to the application of integrative learning approaches	Redford (2006); Jones and English (2004:416) Binks <i>et al.</i> (2006:13); Jasinski, Nehrt, O'Connor and Simione (2003:4)

Source: Adapted from Löbler (2006:24)

From Table 3.4 it follows that traditional business education is teacher-centred, relies on the teacher and textbooks as sources of learning and views learners as passive consumers while entrepreneurship is learner-centred, encourages learners to learn from a variety of sources and views learners as active participants. The differences highlighted between these two types of education imply that in order for entrepreneurship education to impart the necessary skills and knowledge for new venture creation and to influence entrepreneurial intent of students, it must adopt an integrated, learner-centred approach that encourages learners to learn from multiple sources.

In entrepreneurship courses, students are taught from idea generation, to business planning, to capital resource acquisition, to start-up and eventually, small business management (Parnell and Lester, 2007:76). Courses in both small business management and entrepreneurship provide students with an opportunity to gain the knowledge and skills needed to generate a business concept, determine its feasibility, launch and operate a business, and develop exit strategies (Solomon, Weaver and Fernald, 1994 in Solomon *et al.*, 2002:4). However, entrepreneurship education and small business management education are not the same. Small business management programs are aimed at providing the students with the know-how of managing and operating small, post start-up businesses including the setting of goals and objectives, leading, planning, organising and controlling from a small business perspective (Solomon and Fernald, 1993 in Solomon *et al.*, 2002:4).

Gibb and Nelson (1996 in Henry, Hill and Leitch, 2005:163) differentiate entrepreneurship courses from small business management courses by highlighting the meaning of entrepreneurship and small business management. They argue that entrepreneurship focuses on the functional management skills and abilities required to start, manage and develop a small business while small business management deals with the personal capability of the person at the helm of the business. Fregetto and Fry (2002:6) point out that there is a substantial overlap between entrepreneurship and small business courses. These authors however, indicate that it is difficult to determine the degree of overlap and optimal content of these two courses. This difficulty occurs because entrepreneurship is generally viewed as a process or an activity while small business management is regarded as the application of traditional business functions specifically in a small business. Having highlighted the differences between traditional business education, entrepreneurship education and small business management courses, the next section focuses on teaching entrepreneurship.

3.5 TEACHING ENTREPRENEURSHIP

In this section the difficulties in teaching entrepreneurship, the objectives and types of entrepreneurship education, the key issues in the domain of entrepreneurship education, learning approaches and teaching methods in entrepreneurship education are discussed.

3.5.1 Challenges in teaching entrepreneurship

Difficulties in teaching entrepreneurship occur due to the nature of entrepreneurship, its complexity, variability and contingency (Anderson and Jack, 2008:259). Entrepreneurship educators are faced with the challenge of accommodating diversity, disparity and varying stakeholder needs. Initially, entrepreneurship education was aimed at small business owners and managers. Currently, there is an increasing demand from people who wish to start new businesses either independently or in the corporate world (Alberti *et al.*, 2005:464). Alberti *et al.* (2005:465-466) report that the possible audiences of entrepreneurship education may include: 1) Entrepreneurs, 2) Managers, 3) Entrepreneurial sympathisers, 4) Scholars and 5) People who are willing to develop their entrepreneurial spirit. Entrepreneurship educators have to clearly understand the identities, characteristics and learning demands of diverse target groups and take these audiences' differences into account for effective entrepreneurship education.

According to Anderson and Jack (2008:262), different constituencies of demand for entrepreneurship education create very different and even incompatible expectations of what should be the outcome of this type of education. These authors state that the demand for entrepreneurship education can be explained in terms of the socio-economic demand and individuals' demands to satisfy their inner needs. The socio-economic demands emphasise the economic outcomes such as new jobs, new businesses and innovation. The demand for entrepreneurship education at the individual level is characterised by an awareness of entrepreneurial opportunity and understanding and enrichment of personal capability that most likely manifests itself in the creation of a new business. As a result, entrepreneurship educators are required to adopt a holistic approach in the delivery of entrepreneurship programmes which encourage managers and students to learn in various ways and from different sources (Mitra, 2002 in Botha, 2006:50).

A Scandinavian consortium consisting of three partners, NIRAS Consultants, FORA (the research and analysis division of the Danish Ministry of Enterprise and Construction) and Econ Pöyry (2008:14) states that teaching entrepreneurship demands new approaches, cross-curricular teaching methods and a multidisciplinary

approach. Unlike other courses taught in the business schools, entrepreneurship courses focus on application rather than theory (Mattare, 2008:81). Tan and Ng (2006:416) are of the view that entrepreneurship education requires the adoption of an integrative and holistic approach because it is a multi-faceted discipline which promotes creativity, cross-functional thinking and ambiguity tolerance. Hegarty (2006:326) suggests that difficulties in teaching entrepreneurship arise due to a complex and diverse range of entrepreneur “opportunity-resource” situations which may vary in terms of risk, uncertainty, technology and financial or social implications. Table 3.5 shows difficulties associated with teaching entrepreneurship as identified by Pretorius (2001 in Botha, 2006:51).

Table 3.5: General difficulties associated with entrepreneurship education

Difficulty	Description
Public image of entrepreneurship	Entrepreneurship has not been promoted as a career as have other occupations, especially in some cultures. Many people do not want to establish their own businesses.
Definition of entrepreneurship	The concept “entrepreneurship” and what it really entails and the relevant attributes are still vague and inadequately defined.
Teachable nature of some aspects of entrepreneurship	Some aspects of entrepreneurship are more difficult than other aspects to teach, such as perseverance and risk tolerance.
Duration	Entrepreneurship programmes are often of very short duration.
Mental aspects and ability of facilitator	Facilitator and trainer commitment and mental preparation are often not sufficient to transfer competencies to learners.
Negative perceptions about the survival of new ventures	The failure rate of start-up businesses is a reality that every upcoming entrepreneur must face.
Complexity of the entrepreneurial process	The process that a start-up business follows is complex and not necessarily comprehensively understood.
Inappropriate learning methodologies	Theoretical training may be insufficient.

Table 3.5 continued

Skills based	Entrepreneurship is skill and competency based, while most programmes give this aspect insufficient attention.
Environmental perspective and context	There is a mistaken perception that all people exhibit entrepreneurial tendencies but at different intensity, and their choice to become entrepreneurs is rather a function of their environment.

Source: Pretorius (2001 in Botha, 2006:51-52)

Table 3.5 shows that while it is accepted that entrepreneurship can be taught, there are challenges that entrepreneurship educators face. Drawing from some of these challenges it seems that teaching entrepreneurship has to be supported by the entrepreneurial culture of the society which promotes entrepreneurship as a viable career option; the duration of entrepreneurship programmes need to be longer to allow for sufficient development of entrepreneurial skills and competencies; there should be training for facilitators to prepare them mentally in order to be effective in transferring entrepreneurial competencies to learners; it must be accepted that failure is a learning experience; and learning methodologies must balance between theory and practice to facilitate the acquisition of skills and competencies. The objectives of entrepreneurship education follow in the next section.

3.5.2 Objectives of entrepreneurship education

Different and even incompatible expectations from entrepreneurship education imply a broad variety of objectives (Fayolle, 2006:7). Brockhaus (1992 in Guzmán and Liñán, 2005:6) suggests that education objectives form the basis of the definition of entrepreneurship education. Aspects such as participants, content, pedagogy or evaluation can then be added to these objectives once formulated. Table 3.6 shows the most commonly cited objectives of entrepreneurship education as suggested by various authors.

Table 3.6: The most commonly cited objectives of entrepreneurship education

Objectives	Authors
<ul style="list-style-type: none"> • Increasing the awareness and understanding of the process involved in initiating and managing a new business • Increasing students' awareness of small business ownership as a serious career option 	Hills (1988 in Henry <i>et al.</i> 2005:103)
<ul style="list-style-type: none"> • Learning to understand entrepreneurship • Learning to become entrepreneurial • Learning to become an entrepreneur 	Gorman <i>et al.</i> (1997 in Heinonen and Poikkijoki, 2006:83)
<ul style="list-style-type: none"> • Developing a broad understanding of entrepreneurship and the role that entrepreneurs and entrepreneurship play in modern economies and societies • Learning to become entrepreneurial, to take responsibility • Learning how to be an entrepreneur by learning how to start a business 	Gibb (1999 in Leger-Jarniou and Kaloussis, 2006:529)
<ul style="list-style-type: none"> • Providing students with the necessary skills to design, create, launch, and effectively manage a business enterprise 	Jasinski <i>et al.</i> (2003:2)
<ul style="list-style-type: none"> • Developing the skills and improving the information necessary for a person willing to start up or manage a small business • Creating a better understanding of (small) businesses and entrepreneurship in order to prepare people for the world of work • Helping people to become more enterprising in their overall lives due to the changing nature of the society and culture 	Hytti and O'Gorman (2004:16)
<ul style="list-style-type: none"> • Acquiring knowledge relevant to entrepreneurship • Acquiring skills in the use of techniques in the analysis of business situations and in the synthesis of action plans • Identifying and stimulating entrepreneurial drive, talent and skills • Undoing the risk-averse bias of many analytical techniques • Developing empathy and support for the unique aspects of entrepreneurship • Devising attitudes towards change • Encouraging new start-ups and entrepreneurial ventures • Stimulating the 'affective socialisation element' 	Alberti <i>et al.</i> (2005:462-464)

Table 3.6 continued

<ul style="list-style-type: none"> • Starting a business • Understanding the role of new and smaller firms in the economy • Knowing the general characteristics of an entrepreneurial process • Understanding the entrepreneurial process and the product planning and development process • Knowing alternative methods for identifying and evaluating business opportunities and the factors that support and inhibit creativity • Understanding the aspects of creating and presenting a new venture business plan • Knowing how to identify, evaluate and obtain resources • Knowing the essentials of: <ul style="list-style-type: none"> ➢ Marketing planning ➢ Financial planning ➢ Cash-flow planning ➢ Operations planning ➢ Organisation planning ➢ Venture launch planning • Knowing how to manage and grow a new venture 	Hisrich <i>et al.</i> (2005 in Botha, 2006:88-89)
<ul style="list-style-type: none"> • Raising awareness • Teaching techniques, tools and how to handle situations • Supporting project bearers 	Fayolle (2006:7)
<ul style="list-style-type: none"> • Developing entrepreneurial drive among students (raising awareness and motivation) • Training students in what is needed to set up a business and to manage its growth • Developing the entrepreneurial abilities needed to identify and exploit business opportunities 	European Commission (2008:23)

Source: Created by the author

From Table 3.6 it can be deduced that the objectives of entrepreneurship education are to make people aware and understand the entrepreneurial process by providing them with the knowledge about entrepreneurship; to make people to become entrepreneurs by equipping them with necessary skills to be able to identify and evaluate opportunities, to search and obtain resources to exploit opportunities and to start, manage and grow new businesses; and stimulating entrepreneurial drive among students and to encourage students to view small business ownership as a viable career option. The basic premise of this study is that entrepreneurship education must influence entrepreneurial intent of students by making them feel confident to identify, evaluate and exploit opportunities and ultimately start new businesses.

In the following section, the types of entrepreneurship education based on the objectives to be achieved are explained.

3.5.3 Types of entrepreneurship education

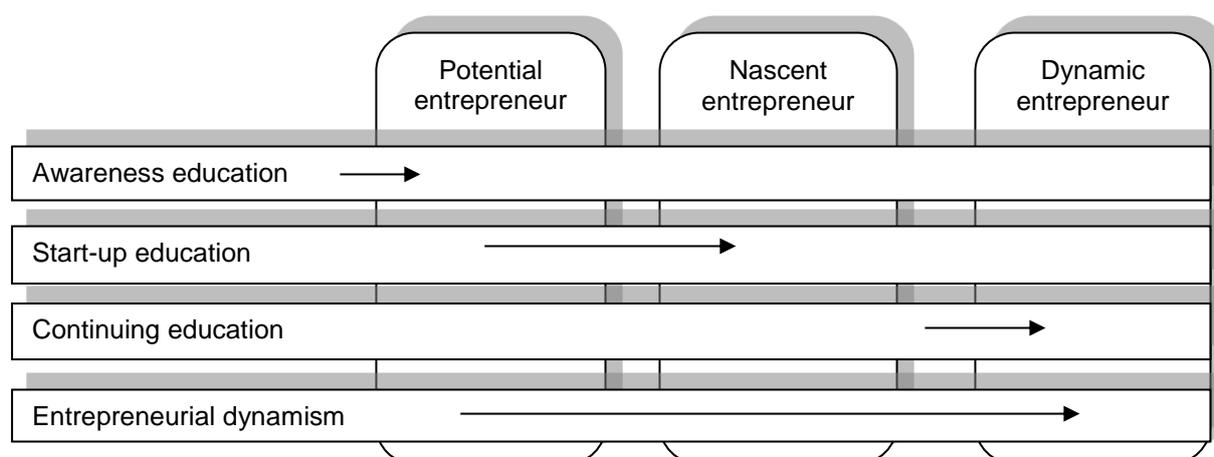
Liñán (2004:10-12) and Guzmán and Liñán (2005:6) provide a classification of entrepreneurship education based on the objectives to be achieved in each type of education. The four categories of entrepreneurship education include:

- (1) *Entrepreneurial awareness education*. The objective of this type of education is to increase the number of people who may consider small businesses and self-employment as a viable and rational alternative. The focus of this type of education is not directly on the creation of more entrepreneurs but on one of the antecedents of entrepreneurial intention such as entrepreneurial knowledge, desirability or feasibility. Examples are optional courses in entrepreneurship within business or engineering degrees at universities (Liñán, 2004:10-11). Entrepreneurial awareness education assists people in making choices regarding their future careers (Liñán, 2004:11; Guzmán and Liñán, 2005:7).
- (2) *Education for start-up*. The objective of this type of education is to prepare people to run conventional small businesses. It teaches people about the practical aspects related to creating a new venture such as how to obtain financing, legal regulations, taxation and others (Guzmán and Liñán, 2005:7-8). Liñán (2004:11) suggests that participants in this type of education are individuals who already have a viable business idea and education for start-up should try to develop the entrepreneurial intention of participants.
- (3) *Continuing education for existing entrepreneurs*. This type of education is a specialised type of adult education that is aimed at improving the entrepreneur's existing abilities (Weinrauch, 1984 in Guzmán and Liñán, 2005:8).
- (4) *Education for entrepreneurial dynamism*. The objectives of this type of education are to increase the intention of people to become entrepreneurs and to develop

dynamic entrepreneurial behaviours of these people after the business is already in operation (Liñán, 2004:11; Guzmán and Liñán, 2005:6).

Guzmán and Liñán (2005:6) also show how the four categories of entrepreneurship education are related to the stages of the entrepreneurial process in Figure 3.1.

Figure 3.1: Types of entrepreneurship education and their relationship with the stages of the entrepreneurial process



Source: Guzmán and Liñán (2005:7)

On the other hand, Jamieson (1984 in Henry *et al.*, 2005:101-102) categorised entrepreneurship education as follows:

- Education about enterprise which deals mostly with awareness creation and its specific objective is to educate students on the various aspects of setting up and running a business mostly from a theoretical perspective.
- Education for enterprise which focuses on the preparation of aspiring entrepreneurs for a career in self-employment with the specific objective of encouraging participants to set-up and run their own businesses.
- Education in enterprise which focuses mainly on management training for established entrepreneurs and is aimed at ensuring the growth and future development of the business.

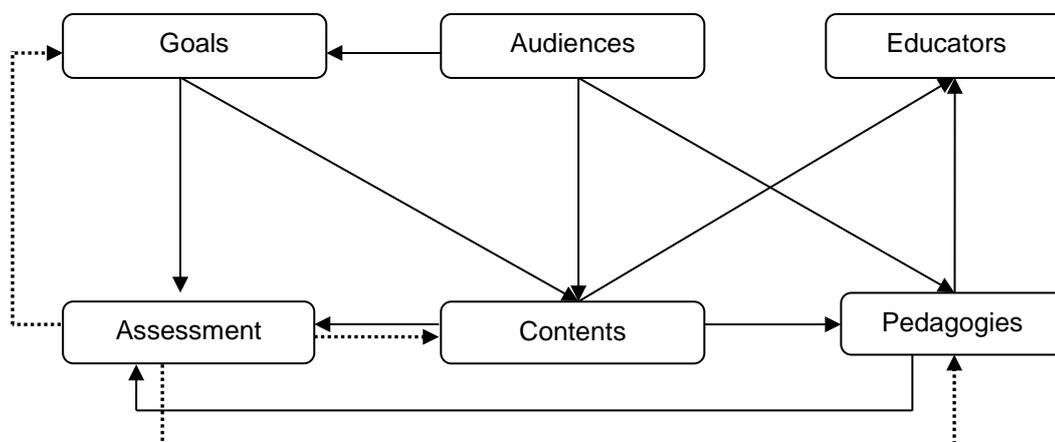
There seems to be similarities between the types of entrepreneurship education proposed by Liñán (2004:10-12) and Guzmán and Liñán (2005:6) and Jamieson (1984

in Henry *et al.*, 2005:101-102). It appears that the focus of both awareness education in Liñán (2004:11) and Guzmán and Liñán (2005:7) and that of education about enterprise in Jamieson (1984 in Henry *et al.*, 2005:102) are similar. They deal with fostering the skills, attitudes and values appropriate to starting, owning, managing or working in a successful business enterprise. Education for start-up and education for enterprise have a similar objective of preparing people to set up and run their own businesses. There is a lack of clear difference between continuing education for existing entrepreneurs and education for entrepreneurial dynamism as discussed by Liñán (2004:11) and Guzmán and Liñán (2005:6). Since these types of education focus on existing entrepreneurs they can be merged into one type of education that is aimed at improving the abilities of existing entrepreneurs and ensuring growth in their businesses. This merger will then be similar to education in enterprise suggested by Jamieson (1984 in Henry *et al.*, 2005:102). Now that the types of entrepreneurship education have been explained, a description of the key issues in the domain of entrepreneurship education follows in the next section.

3.5.4 Key issues in the domain of entrepreneurship education

Alberti *et al.* (2005:454) identified the key issues in the domain of entrepreneurship education and proposed a conceptual framework demonstrating the relationship among these key issues. The key issues are: 1) Goals, 2) Audiences, 3) Pedagogies, 4) Contents, 5) Educators and 6) Assessment. According to Alberti *et al.* (2005:475), authors appear to share the same thoughts about the goals and audiences, and as a result, the debate on these two issues has been closed. The debate on the other four issues seems open as there is still a little agreement on them. Alberti *et al.* (2005:475) propose that *“educational goals depend on the learning audiences and should be fixed on the basis of their specific learning needs; assessment should be done once goals are fixed; contents should be defined only after goals and depending on audiences; pedagogies should be chosen depending on contents and audiences; assessment depends on both contents and pedagogies, as well as the choice of the most suitable educator”*. The relationship among the six key issues is depicted in Figure 3.2.

Figure 3.2: A conceptual framework to approach the domain of entrepreneurship education



Source: Alberti *et al.* (2005:476)

In line with Alberti *et al.*'s (2005:475) view, the European Commission (2008:26) states that the content of programmes and courses in entrepreneurship should be adapted to different target groups in terms of the level of study and the field of study. Having precise objectives of the course or programme is also emphasised as an issue that influences the choice of appropriate teaching methods and tools and facilitate the measurement of outcomes in relation to the objectives (European Commission, 2008:27). The European Commission (2008:35-36) suggests the following criteria for good practice in delivering entrepreneurship education:

- The purpose of the course/programme is precisely defined, being linked to the delivery of the expected outcome (definition of objectives and capacity to measure outcomes related to those outcomes).
- There is a balance between theoretical and practical aspects. Teaching makes use of interactive and pragmatic methods; active self-learning; action-oriented pedagogy; group work; learning through projects; student-centred methods; learning by direct experience; methods for self-development and self-assessment. Delivery is through mechanisms that maintain the motivation of students at a high level.
- Activities and events are organised to improve students' ability to work in a group and build a team spirit, and to develop networks and spot opportunities.

- Different guest lecturers are involved. Close relationships are established with the local entrepreneurial environment and educators should be part of the relevant networks (formal and informal). There is a collaborative approach with real business practice and industry.
- Young entrepreneurs such as alumni who have started a business and experienced business people are involved in courses and activities and contribute to their design. Practical experience (students cooperating with enterprises and working on concrete enterprise projects) is embedded in the programme.
- Courses and activities are part of a wider entrepreneurial programme, have support mechanisms for students' start-ups and are actively utilised.
- Exchange of ideas and experience between teachers and students from different countries are sought and promoted, to encourage mutual learning and to give an international perspective to programmes, courses and activities.

Blenker, Dreisler, Faergemann and Kjeldsen (2008:49) contend that a successful entrepreneurship education programme must balance the following three interrelated elements:

- The target group and the purpose of teaching influence the content of entrepreneurship education.
- The teaching or learning processes used in various forms of entrepreneurship education which relate to identifying the right pedagogical approach for the portfolio of entrepreneurship courses.
- The university itself, its identity, strategy, academic norms and structures which include the general strategy that a university pursues in relation to entrepreneurial activities.

From the foregoing discussion, goals and objectives are regarded as the basis for the design of an effective entrepreneurship education. The formulation of objectives is driven by the audiences and their learning needs, which then guide the contents and pedagogies of entrepreneurship education. Also important is the choice of the most suitable educators who can balance between theory and practice by adopting a student-centred, action-oriented pedagogy that stimulates students' motivation in

learning. Assessment of the effectiveness of entrepreneurship education should take place focusing on the change in the economy, society, firms and individuals (Alberti *et al.*, 2005:476) or the extent to which participants get involved in entrepreneurial activities after the programme (European Commission, 2008:54). Maintaining a balance between the target group and the purpose of teaching, teaching or learning processes and the general strategy of the institution is essential in delivering effective entrepreneurship education. Learning approaches to entrepreneurship education are discussed next.

3.5.5 Learning approaches in entrepreneurship education

A universal approach to teach entrepreneurship does not yet exist. The techniques and modalities chosen depend on the objectives, contents and constraints imposed by the institutional context (Fayolle, 2007:59). As a result a wide range of approaches, pedagogical methods and modalities can be used to teach entrepreneurship (Carrier, 2007 and Hindle, 2007 in Fayolle, 2007:59). Plumly, Marshall, Eastman, Iyer, Stanley and Boatwright (2006:10) state that the utilisation of curriculum experimentation has increased due to a lack of a dominant pedagogical model for entrepreneurship education. It seems that a generalist approach may be more appropriate to teach entrepreneurship education as entrepreneurship education cuts across all traditional disciplines and integrates all the relevant sections. Plumly, Marshall, Eastman, Iyer, Stanley and Boatwright (2008:18) argue that:

“Entrepreneurship training requires a non-traditional approach to business education that stresses generalised cross-disciplinary skills. In addition, students must learn to enthusiastically embrace the challenges of operating in a business environment that favours creativity and risk-taking. Students must experience entrepreneurship to actually grasp the true nature of entrepreneurship”.

The European Commission (2006:46) argues that while there is a need to use experiential and action learning in entrepreneurship education, active learning methods seem to be more complex than traditional learning methods. Entrepreneurship educators must engage students' feelings and emotions in the

learning process and must be able to create an open environment of trust which can enhance students' confidence in taking risks. Despite the lack of consensus on the method to teach entrepreneurship, the two learning approaches to entrepreneurship education are evident in entrepreneurship literature, namely the traditional approach and the constructivist approach.

3.5.5.1 The traditional approach to entrepreneurship education

The traditional approach is behavioural in nature and deals with the acquisition of information (Krueger, 2007:125). Being behaviouristic (teacher-centred) it assumes that the role of the teacher is to transmit information to passive students and encourages memorisation of entrepreneurial facts (Krueger, 2007:126; Krueger, 2009:4). Traditional methods are based on the view that information is owned by the instructor (Frazier, 2005:9). The traditional approach is regarded as the most popular method of teaching entrepreneurship and mainly uses business plans, case studies and lectures (Petraakis and Bourletidis, 2005 in Strydom, 2008:4). The European Commission (2008:29) contends that traditional educational methods fail in developing entrepreneurial traits and attributes and suggests that there is a need to shift to more interactive learning approaches where the teacher instead of lecturing becomes the moderator. The knowledge and skills developed through traditional methods often fail to transfer to the actual environment where they should be used (Honig, 2004:264). According to Hytti and O'Gorman (2004:19), the benefits of traditional methods to students/participants can be described in terms of a better understanding of the benefits of entrepreneurial activity rather than an understanding of "how to" act as an entrepreneur.

3.5.5.2 The constructivist learning approach to entrepreneurship education

The constructivist theory originated from Dewey (1938, in Cooperstein and Kocevar-Weidinger, 2004:141; Roberts, 2006:19). This theory was formalised by Piaget (1963, in Mathews, 2007:2) who articulated that individuals construct new knowledge from their experiences through processes of accommodation and assimilation. The constructivist learning approach to entrepreneurship education emerged from the constructivist theory. This approach is based on the assumption that humans construct

knowledge structures that continue to evolve (Krueger, 2007:125). Krueger (2009:2) suggests that the use of the constructivist approach in entrepreneurship education can have significant, positive impacts on students' learning. The constructivist approach is learner-centred and puts more emphasis on encouraging learners to take ownership of their learning. Good and Brophy (1994 in Cooperstein and Kocevar-Weidinger, 2004:141) suggest the following aspects that characterise constructivist learning:

- Learners construct their own meaning. Students must make a deliberate effort to make sense of the information that comes to them by manipulating, discovering and creating knowledge to fit their belief systems.
- New learning builds on prior knowledge. Students must make connections between old knowledge and new information.
- Learning is enhanced through social interaction. Students must have an opportunity to compare and share their ideas with others.
- Meaningful learning develops through "authentic" tasks. Activities that simulate those that will be encountered in real life or in an assignment must be chosen.

According to Krueger (2007:126), entrepreneurship educators have recently started to recognise that learners have to take responsibility for their own learning. As a result, they do not teach but they facilitate learning. In the constructivist learning approach learners create their own new understanding based on the interaction between what they already know and believe and ideas and knowledge with which they come into contact (Resnick, 1989 in Frazier, 2005:8). Entrepreneurship educators' role therefore is to motivate learners by helping them understand how the knowledge acquired can be used. Izquierdo and Buyens (2008:11) examined the contribution of the constructivist approach in facilitating the learning of students to become entrepreneurial using a sample of 470 students in Belgium, Europe. The sample was divided into the experimental group and the control group which was not exposed to the treatment. They found that exposure to entrepreneurship training that followed a constructivist approach resulted in higher levels of entrepreneurial competencies at knowledge and skill level after completion of the intervention than those who did not receive the treatment (Izquierdo and Buyens, 2008:23).

From the constructivist learning approach several different approaches in educational practice emerged, including the following:

(1) Problem-based learning approach

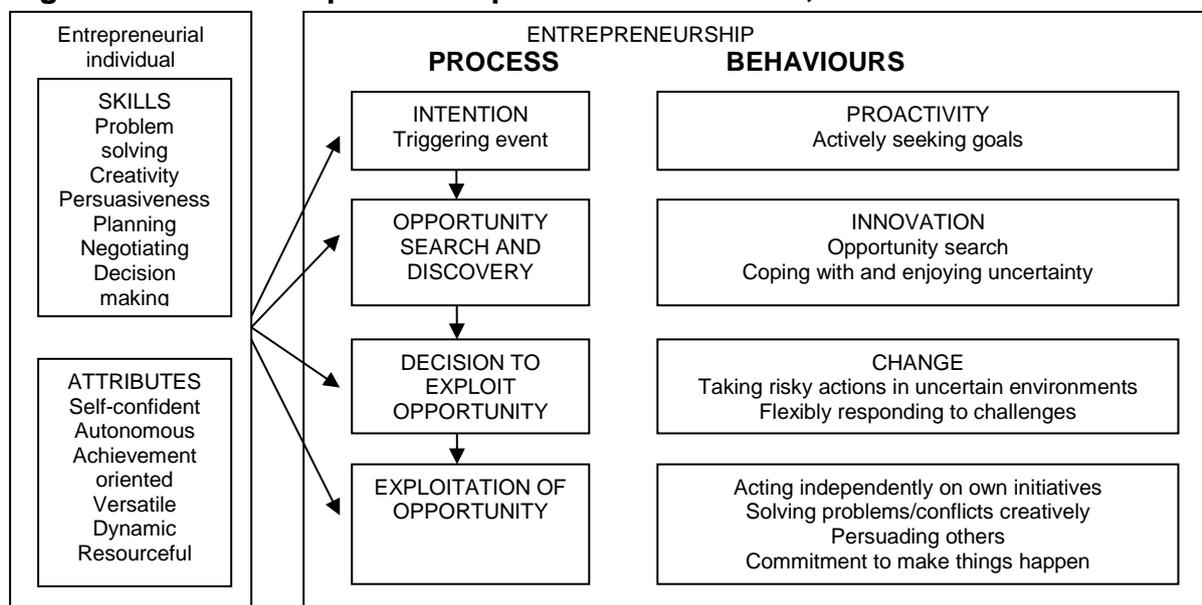
According to Loyens and Gijbels (2008:352) and Hanke (2009:134), problem-based learning is one of the approaches in educational practice that emerged from constructivist theories. Entrepreneurship educators using this approach allow students to develop solutions to problems rather than learning solely from lectures. This approach according to Hanke *et al.* (2005 in Blackford, Sebora and Whitehill, 2008:952) is helpful in developing students' tolerance for ambiguity and entrepreneurial self-efficacy. Tan and Ng (2006:416) used a case study method to assess the effectiveness of the problem-based approach as a pedagogical approach to entrepreneurship education in Singapore. Despite the fact that there was no comparison with the other method, these authors found that students who were taught using the problem-based learning approach demonstrated an understanding of what it took to be an entrepreneur. Conclusions were drawn based on classroom observations, students' journal reflections and feedback. The approach equipped students with the ability to assess opportunities more critically, understand various factors which might impact on entrepreneurial success and to show more caution when proposing solutions (Tan and Ng, 2006:424-425).

(2) The entrepreneurial-directed learning approach

Heinonen and Poikkijoki (2006:84) adopted an entrepreneurial-directed approach to entrepreneurship education at Turku School of Economics and Business Administration in Finland. Firstly, they state that their entrepreneurship education is aimed at integrating the skills and attributes of an entrepreneurial individual with the entrepreneurial process and related behaviour. As entrepreneurship is based on the entrepreneurial process and the prerequisite individual entrepreneurial behaviours, skills and attributes, Heinonen and Poikkijoki (2006:88) assert that integrating the entrepreneurial-directed approach into

traditional methods of learning can facilitate the kind of learning that supports the entrepreneurial process. This is illustrated in Figure 3.3.

Figure 3.3: The entrepreneurial process: behaviours, skills and attributes

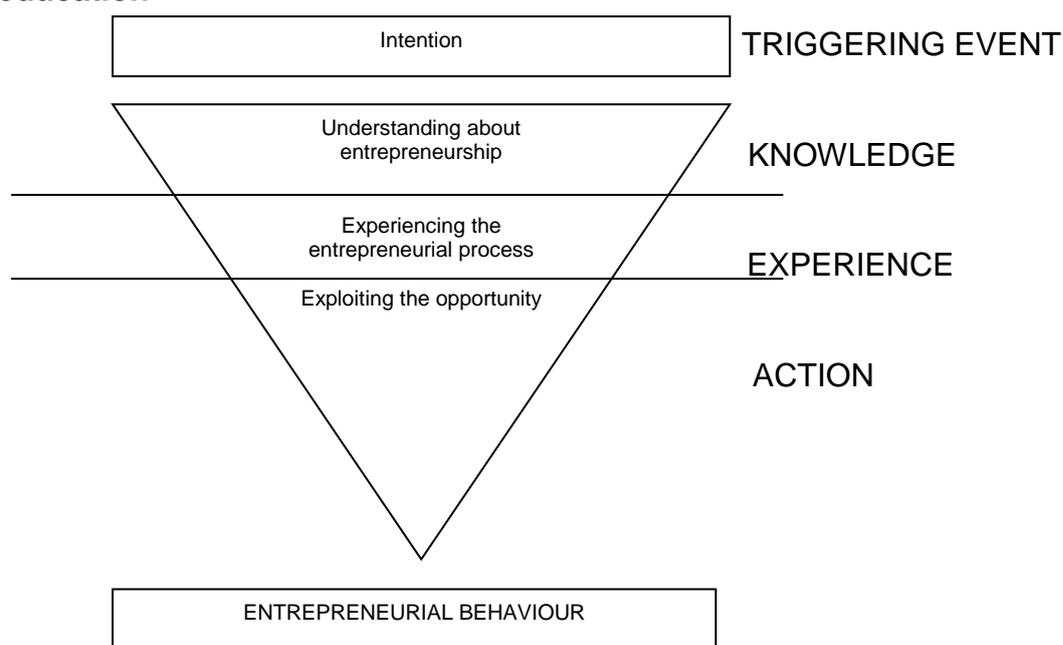


Source: Heinonen and Poikkijoki (2006:84)

Secondly, in order for students to be equipped with the necessary skills and abilities for entrepreneurship, Heinonen and Poikkijoki (2006:83) suggest the need to shift from teaching to learning in an environment as close as possible to real life. Similarly, Edelman *et al.* (2005:6) propose that entrepreneurs must be educated on how to discover opportunities through perceiving the environment in novel ways and that more effort should be dedicated to developing entrepreneurial innovation and creativity than to more popular approaches that emphasise the examination of entrepreneurial best practices. Therefore, entrepreneurship education faces a special challenge of facilitating learning that supports the entrepreneurial process (Heinonen and Poikkijoki, 2006:84). Heinonen and Poikkijoki (2006:84) contend that traditional teaching methods, lectures, literature reviews and examinations do not stimulate and nurture entrepreneurship. These traditional methods according to Kirby (2002 in Heinonen and Poikkijoki, 2006:84), may inhibit the acquisition of entrepreneurial attitudes and skills.

Heinonen and Poikkijoki (2006:84-85) emphasise the importance of the active role of students in the learning process. They explain their entrepreneurial directed approach as an approach that involves co-learning between teachers and students: the students take ownership of their own learning and teachers act as supporters and facilitators of the process (Heinonen and Poikkijoki, 2006:85). The entrepreneurial-directed approach emphasises experiential learning in which new activity produces a new experience and new thinking through reflection (Heinonen and Poikkijoki, 2006:87). This approach however, requires teachers to act in an entrepreneurial way in discovering and innovatively exploiting opportunities. The entrepreneurial-directed approach integrates knowledge, experience and action in entrepreneurship education. Figure 3.4 illustrates the entrepreneurial-directed approach to entrepreneurship education.

Figure 3.4: The entrepreneurial-directed approach to entrepreneurship education



Source: Heinonen and Poikkijoki (2006:85)

(3) Experiential approach to entrepreneurship education

The experiential learning theory formulated by Kolb (1984 in Roberts, 2006:21) draws from the constructivist theory. Kolb (1984 in Shen and Chai, 2006:5) defines experiential learning as “the process whereby knowledge is created

through the transformation of experience”. In the experiential learning approach learners are immersed in an environment in which they actively participate in acquiring knowledge, thereby allowing students to confront highly complex and dynamic situations (Cannon and Feinstein, 2005 in Strydom, 2008:5). Experiential learning has become increasingly used in the classroom with educators moving away from traditional teaching methods, text and lectures in order to create real experiences in entrepreneurship (Sherman, Seborá and Digman, 2008:31).

European Commission (2008:30) states that the use of experience-based teaching methods contributes to the development of entrepreneurial skills and abilities. In experiential learning, learners are required to do something and discover what it means (Leffel, 2008:405). Leffel (2008:406) argues that “the ultimate experiential learning for entrepreneurship students is to be involved with the start-up.” The application of experiential learning philosophy in entrepreneurship education is based on the assumption that what students have already learned has prepared them to start and manage a business. Lüthje and Franke (2002:10) are of the view that in designing entrepreneurship education programs, provision must be made for students to be involved in “hands-on” projects of opportunity identification and new venture creation. Vincett and Farlow (2008:286) found that allowing students with real business ideas to actually become entrepreneurs in the learning process creates an opportunity for students to experience the entrepreneurial life directly. Fontczak (1998, in Corman, Walls and Cook, 2005:50) provides an overview of the differences between traditional learning and experiential learning in Table 3.7.

Table 3.7: A comparison between experiential and traditional learning

	Traditional learning	Experiential learning
Student	<ul style="list-style-type: none"> • Student is passive • Student is a spectator • Vicarious experience by student • Low student involvement • Low student commitment • Less risk for student • Impersonal • Student is “empty cup” 	<ul style="list-style-type: none"> • Student is active • Student is a participant • Direct experience by student • High student involvement • High personal commitment for student • More risk for student • Personal • Students as “full cup”
Teacher	<ul style="list-style-type: none"> • Teacher-centred • Teacher has control • Teacher’s experience primary • Teacher as transmitter of knowledge • Teacher is the decision-maker • Teacher knows • Teacher responsible for learning • Teacher as judge 	<ul style="list-style-type: none"> • Student centred • Student has control • Student’s experience primary • Teacher as guide/facilitator to learning • Student is the decision-maker • Student knows • Student responsible for learning • Absence of excessive teacher judgement
Learning/knowledge	<ul style="list-style-type: none"> • Predefined learning • One-way communication • Broadcast learning • Goal of knowledge accumulation • Stress cognitive processes • Linear, sequential learning • Instruction • Predictable outcome • Emphasis on pedagogy/didactics • School as regiment • Product (knowledge)-oriented • Theory-based 	<ul style="list-style-type: none"> • Customised learning • Two-way dialogue • Interactive learning • Goal of knowledge, skills and attitude development • Includes cognitive, affective and behavioural processes • Non-linear learning • Discovery • Outcome not always predictable • Emphasis on learning • School as fun • Process-oriented • Student’s perceptions-based

Source: Corman *et al.* (2005:50-51)

Sherman *et al.* (2008:29) examined the differences in various pedagogical approaches to entrepreneurship and their impact on career intentions of 98 students at Midwest University in Iowa. Their study focused specifically on the impact of pedagogical approaches on the decision to become an entrepreneur and whether these approaches made students more or less interested in becoming entrepreneurs (Sherman *et al.*, 2008:34). Sherman *et al.* (2008:34-35) report that students participated in one of the eighteen entrepreneurial pedagogical activities. The eighteen entrepreneurial pedagogical activities were then grouped into reading, listening/watching, doing and experiential activities or approaches (Sherman *et al.*, 2008:37) as indicated in Table 3.8.

Table 3.8: Entrepreneurial pedagogical activities and their categories

Pedagogical activities	Categories
<ul style="list-style-type: none"> • “Lessons from the firing line” reading about entrepreneurship • Textbook presentations about entrepreneurship • Reading business plans written by peer students • Examining websites dedicated to entrepreneurship • Reading about entrepreneurs in the current news • Reading about entrepreneurs in history • Reading about the Small Business Administration 	Reading Reading Reading Reading Reading Reading Reading
<ul style="list-style-type: none"> • Hearing presentations by practicing entrepreneurs • Hearing instructor’s experiences as a small business owner/operator • Seeing videos about entrepreneurs 	Watching Watching Watching
<ul style="list-style-type: none"> • Interviewing a practicing entrepreneur • Talking to other students about their entrepreneurial intentions • Participating in a venture forum with entrepreneurs, venture capitalists and service providers • Writing a self-employment plan • Exchange business cards with entrepreneurs, venture capitalists, angel investors and service providers 	Doing Doing Doing Doing Doing
<ul style="list-style-type: none"> • Previous experience in an entrepreneur family • Previous experience in starting a business • Preparing a business plan with more than three employees 	Experiential Experiential Experiential

Source: Sherman *et al.* (2008:37)

Sherman *et al.* (2008:35) reported that the interaction with entrepreneurs, either as guest speakers or through interviews, business plan preparation and self-

employment plans provided a good preview of entrepreneurship to students. They found that: 1) There were significant differences between experiential approaches and reading approaches with experiential approaches having a greater impact on students' decision to become an entrepreneur than reading approaches, 2) Listening/watching approaches using guest speakers and the instructor's version of entrepreneurship had a greater impact on the students' decision to become an entrepreneur than reading activities, 3) Experiential approaches and listening/watching approaches had a greater impact on students' interest in becoming an entrepreneur than reading approaches, and 4) Those approaches that had a greater influence on students made them more likely to become entrepreneurs. They then asserted that educators must continuously improve their methods and teaching styles by assessing the effectiveness of their pedagogical approaches. In order to achieve the goal of educating and promoting future entrepreneurs, educators' course work should be augmented with more experiential approaches (Sherman *et al.*, 2008:39-40).

Kolb (1984 in Shen and Chai, 2006:5) states that "a person learns in a cyclical manner by constantly reconciling the two opposing modes of reflective observation versus active experimentation and concrete experiences versus abstract conceptualisation." Different learning styles can be employed by entrepreneurs in acquiring and transferring entrepreneurial skills and knowledge (Garavan and O'Conneide, 1994 in Niyonkuru, 2005:26). These learning styles include concrete experience, reflective observation, abstract conceptualisation and active experimentation as shown in Table 3.9.

Table 3.9: Conceptual grid of learning styles and pedagogical techniques

Concrete experience	
<i>Quadrant III Active –applied</i> Changes in skills and attitudes: Role-plays Management simulation Processing discussion T-groups/encounter groups Learning diaries Field projects Management of learning groups Counselling	<i>Quadrant II Reflective-applied</i> Changes in application: Motives Applied lectures Limited discussion Cases Role plays Problem-oriented exams Programmed instruction with emphasis on skills
Active experimentation	Reflective observation
<i>Quadrant IV Active-theoretical</i> Changes in understanding: Focused learning groups Argumentative discussion Experiments/research Suggested readings Analysis papers Workshops Monitoring Coaching	<i>Quadrant I Reflective-theoretical</i> Changes in knowledge: Theory lectures Required readings Handouts Programmed instruction with emphasis on concepts Theory papers Content-oriented exams
Abstract conceptualisation	

Source: Garavan and O’Cinneide (1994 in Niyonkuru, 2005:28)

On the active experimentation/reflective observation dimension Garavan and O’Cinneide (1994, in Niyonkuru, 2005:27) suggest that an entrepreneur may prefer active experimentation over reflective observation. With reference to the abstract conceptualisation/concrete experience dimension they argue that an entrepreneur being a creative person prefers concrete experience. They suggest that an entrepreneurial learning style requires pedagogical methods presented in quadrant III and IV of the grid. They also indicate that a typical entrepreneurial situation will need all four learning styles. Fontczak (1998 in Corman *et al.*, 2005:53-54) states the objectives of the four learning styles as follows:

- *Concrete experience* – to encourage active student participation and involvement in the learning process;
- *Reflective experience* - to allow students the opportunity to express their feelings toward the learning experience;

- *Abstract conceptualisation* - to assist students in understanding the concepts and theories presented in class; and
- *Active experimentation* - to improve students' ability to apply what has been learned to new experiences and new topics.

(4) The active learning approach

Active learning or learning by doing are pedagogies associated with the constructivist approach (Cooperstein and Kocevar-Weidinger, 2004:141), as learners in this approach actively and autonomously construct their own knowledge (Mueller, 2008:3). Mathews (2007:101) states that the constructivist theory has resulted in creating active learning of real life situations. Active learning approach engages learners in learning experiences that are active where they can reflect on and evaluate learning experiences, build on them to construct new knowledge and meanings (Yager, 1991 in Frazier, 2005:9). Active learning methods allow learners to learn through critical problem solving and active application of information. This approach incorporates the use of case studies, role plays, group exercises and business simulations (McAdam and Leitch, 2005 in Strydom, 2008:4). According to Hackbert (2006:1), active learning contributes to entrepreneurship education because it engages students, crafts memorable experience and facilitates effective and durable learning.

The discussion in the preceding section highlighted the shift in entrepreneurship education from the traditional learning approach to the constructivist learning approach. This shift is driven by the failure of the traditional approach in developing the necessary entrepreneurial skills and abilities in students. The constructivist approach is hailed as an essential approach that provides learners with real experiences about entrepreneurial behaviour. Specifically, it is learner-centred, requires learners to take responsibility for their own learning and instead of being passive receivers of information, learners are actively involved in constructing knowledge from their experiences. This requires a shift in the mindset of entrepreneurship educators as they must be facilitators of learning rather than

instructors. The next section focuses on teaching methods in entrepreneurship education.

3.5.6 Teaching methods in entrepreneurship education

Solomon *et al.* (2002:6) assert that entrepreneurship educators are faced with the challenge of designing effective learning opportunities for entrepreneurship students. They add that “offering students opportunities to “experience” entrepreneurship and small business management is a theme among many entrepreneurship education programs” (Solomon *et al.*, 2002:7). Postigo and Tamborini (2002 in Co and Mitchell, 2006:350) indicate that education about entrepreneurship and education for entrepreneurship vary in teaching methods. They state that education about entrepreneurship uses common methods such as consulting services by students and researchers while education for entrepreneurship uses videos, practical work, writing business plans, computer simulations, role playing games, working with entrepreneurs, and joining a students’ entrepreneurship club. The most common teaching methods in entrepreneurship education as proposed by various researchers are illustrated in Table 3.10.

Table 3.10: Most common teaching methods in entrepreneurship education

Activities	Authors
Venture plan writing Case studies Readings Lectures by guest speakers and faculty	Vesper (1985); Klatt (1988); Kent (1990); Gartner and Vesper (1994)
Project based experiential learning in the form of business plans	Hills (1988); Vesper and McMullan (1988); Preshing (1991); Gartner and Vesper (1994); Gorman <i>et al.</i> (1997); Audet (2000:59)
Student business start-ups	Hills (1988); Truell <i>et al.</i> (1998)
Consultation with practicing entrepreneurs	Klatt (1998), Solomon <i>et al.</i> (1994)
Computer simulation	Brawer (1997)
Behavioural simulation	Stumpf <i>et al.</i> (1991)
Interviews with entrepreneurs and environmental scans	Solomon <i>et al.</i> (1994)
“Live” cases	Gartner and Vesper (1994)
Field trips and the use of videos and films Student entrepreneurship clubs	Klatt (1988); Audet (2000:59) Vesper and Gartner (1994)
Reading, lectures, guest speakers, case studies, on-site visits, research papers, thesis/dissertations, and workshops	Klandt (1993)
Group projects Lectures Writing essays Case study Writing business plan Role playing Business simulation Video Interaction with entrepreneurs Presentations and handouts	Cheng and Chan (2004:6); Henry <i>et al.</i> (2005:105); Corman <i>et al.</i> (2005:57)

Table 3.10 continued

<p>Lectures Discussions Case studies/site visits Creation of business plans Guest speakers Research projects Videos Role play Computer simulation Workshop/seminars Internships On-site visits Small business consulting Community development Feasibility studies Novel assessment methods E-learning Practical demonstration (competitions) Reading newspaper articles, excerpts from policy documents and company financial reports Group work Summary writing</p>	<p>Co and Mitchell (2006:354-355); Hegarty (2006:330); Redford (2006:28); Tan and Ng (2006:419); Heinonen and Poikkijoki (2006:86); Shen and Chai (2006:12)</p>
<p>Business plan competitions Personal career plan Small business consulting projects New venture computer simulations Abundant specific feedback Creating a business plan as a class project Discussions on current events involving entrepreneurship Videos about entrepreneurial firms Entrepreneur biographies (video and text based) Encouraging entrepreneurial careers through instructor attitude/enthusiasm Entrepreneurs as guest speakers Exercises and role play activities covering critical entrepreneurial functions Field trips to local small businesses Formal mentoring by an entrepreneur Internships with entrepreneurs and small businesses Lecturing New venture initiation (actually starting a business as part of a class) Self-management training (emotional intelligence, goal-setting, time management etc) Entrepreneurship club</p>	<p>Segal, Schoenfeld and Borgia (2007:70-71)</p>

Table 3.10 continued

Elaboration or evaluation of business plans by students	Fayolle (2007:59); Fayolle and Gailly (2008:579); Millman, Matlay and Liu (2008:812); Scandinavian consortium (2008:35); Leffel (2008:406); Izquierdo and Buyens (2008:16-17); Primentas (2008:12)
Writing a business plan	
Development of a new venture creation project	
Guidance of young entrepreneurs through support missions to help them in their project	
Interview with entrepreneurs	
Computer simulations	
Videos and films	
Behavioural simulations	
Traditional lectures	
Real-life or virtual cases	
Role play and problems	
Guidance and coaching	
Brainstorming and business games	
Project teams	

Source: Adapted from Solomon *et al.* (2002:7)

From the teaching methods indicated in Table 3.10, it appears that the most widely used teaching methods in entrepreneurship education are the writing of business plans, case studies, lectures, group projects, consultation and interaction with entrepreneurs, entrepreneurs as guest speakers, role plays, videos and field trips, computer/behavioural simulation, and on-site visits. Internships, business plan competitions, small business consulting projects, entrepreneurship clubs and E-learning are emerging methods that are slowly gaining popularity among entrepreneurship educators.

Hegarty (2006:322) assessed the perceptions of lecturers and learners about the effectiveness of entrepreneurship teaching methods in Northern Ireland using focus groups. From the focus groups she generated a list of teaching strategies for entrepreneurship education with their advantages and disadvantages as well as implications for teaching entrepreneurship (Hegarty, 2006:328). Hegarty (2006:329) reports that the potential for case studies, site visits and guest speakers to explain the entrepreneurial process depends on the suitability of the site/case choice. She adds that while guest speakers may enhance students' motivation they can be too inspirational and students can miss out on much of the entrepreneurship theory. Additionally, Hegarty (2006:329) suggests that interactive strategies such as team work and practical demonstrations may be suitable for educators who have less

knowledge in entrepreneurship and for learners to express their creativity. Table 3.11 shows the advantages and disadvantages of different entrepreneurship teaching strategies and their implications for entrepreneurship education as perceived by educators and learners in Northern Ireland.

Table 3.11: Advantages and disadvantages of entrepreneurship teaching strategies and their implications for teaching entrepreneurship

Teaching strategy	Advantages	Disadvantages	Implications for teaching entrepreneurship
Lecturing	Disseminating information to large numbers	One-way communication, no feedback, thus not interactive	Needs qualified staff experienced in the subject of entrepreneurship
Case study/site visit	Real life – from firsthand experience Inspirational Current	Many dependable variables – selected case/site, targeted audience	Covers aspects of the entrepreneurial process and business operation
Team work/activity	Increase in interest and involvement, thereby making it easy to apply knowledge	Can become unstructured if the teacher is not a skilled facilitator	Allows learners to develop thinking of entrepreneurship – needs to be embedded in a wider programme
Practical demonstration, e.g. competition	Experience of putting new knowledge into action – self-supporting	Expense in monetary and time resources	Sanctions action on innovative ideas, allows expression of attributes, e.g. creativity
Guest speakers	Knowledge from trust worthy source Real-life and engaging	Can become unstructured/not befitting the learner needs if the teacher is an egotistical speaker Too inspirational	Example of bad/good practice but skips much of theory development of the subject of entrepreneurship Team teaching could be a solution

Table 3.11 continued

Novel assessment methods	Adapts thinking and fosters ability to draw novel conclusions	Poor compatibility to old assessment methods and it is difficult to evaluate new progress	Ability to introduce self-awareness and may encourage self-assessment to gauge capabilities. Similar learning potential to debate strategies
Non-hypothetical, e.g. projects	Opportunity to put knowledge/skills into practice	Realisation that knowledge/skills falls short of expectations	Enables learners to make entrepreneurial-type decisions
Student exchange	Engineers life skills, e.g. broaden experience, mind and culture	Many dependable variables, e.g. selected placement	Expose learners to potential for generating new ideas or opportunity
E-learning	Independent, learn at individual's pace. Incorporates other strategies above, e.g. guest speakers as video clip	Depends on ICT skills of staff and student, requires on-campus or off-campus resources	Generic and heavy modules available to be used in whole or in part and should be customised to learner requirements

Source: Hegarty (2006:330)

While there is a wide range of teaching methods in entrepreneurship education, the choice of a suitable teaching method should be made considering the advantages and disadvantages of each method. For example, lecturing involves a one-way communication which does not allow the lecturer to obtain feedback from learners while case studies and teamwork are essential in covering the aspects of the entrepreneurial process and business operation and allow learners to think about entrepreneurship.

Audet (2000:58) measured the impact of completing different assignments on students' perceptions of desirability and feasibility of starting their own ventures, their learning in terms of either skills or knowledge and their level of awareness of entrepreneurship and the small business context. Students had a choice of completing either a business plan or a field study (Audet, 2000:59). In the business plan students

were asked to find a business idea, conduct market research to assess its commercial potential and develop a comprehensive business plan around the business opportunity. Those in the field study had to perform an in-depth study of an entrepreneur and his/her venture. Audet (2000:62) found that the perceived desirability of starting one's own business was significantly greater among the field study students than among the business plan students. Students who completed the business plan had greater perceptions of feasibility of starting their own businesses than those who completed the field study. Additionally, students who completed the business plan rated their assignment higher in terms of skills and abilities they acquired than in terms of knowledge while those who completed the field study rated their project in terms of knowledge as opposed to skills and abilities.

3.5.7 Summary of teaching entrepreneurship

There is consensus among researchers that entrepreneurship can be taught and that entrepreneurial attributes can be positively influenced by educational programmes. However, entrepreneurship educators experience some difficulties in teaching entrepreneurship. These difficulties occur as a result of the nature of entrepreneurship, its variability and contingency. There are also varying stakeholder needs which entrepreneurship educators have to take into account when designing their programs. Based on the need to meet different stakeholder needs, new approaches, cross-curricula teaching methods and multidisciplinary approaches should be followed in teaching entrepreneurship.

The key issues in the domain of entrepreneurship education have been identified in the literature, which include the goals, audiences, pedagogies, contents, educators and assessment. The goals of entrepreneurship education should be formulated taking the learning audiences and their specific learning needs into account. The contents should be defined on the basis of goals and the learning audiences and the choice of pedagogies depends on the contents and audiences. Assessment should be done once goals are fixed and is dependent on the contents and pedagogies as well as the choice of the most suitable educator. Entrepreneurship educators should balance the theoretical and practical aspects of entrepreneurship while adopting student centred teaching methods.

While there is no universal approach to teach entrepreneurship, two main types of learning approaches have been identified in the literature study, namely:

- *The traditional approach.* This is a teacher-centred approach in which the role of the teacher is to transmit information to passive students and it encourages memorisation.
- *The constructivist learning approach.* This is a learner-centred approach that puts more emphasis on encouraging learners to take responsibility for their own learning and entrepreneurship educators' role is to facilitate learning.

There has been a shift from the traditional methods of teaching to entrepreneurial methods that encourage active and experiential learning. Experiential methods contribute to the development of entrepreneurial skills and competencies by providing students with the opportunity to experience what it is to become an entrepreneur. Different types of entrepreneurship education vary in their teaching methods and different teaching methods have differential impacts on perceived feasibility and perceived desirability of starting a business as well as on knowledge and skills. In order to influence students' intentions to start businesses entrepreneurship educators should use teaching methods that actively engage students in the learning process.

In the next section the contribution of entrepreneurship education to entrepreneurial activity is discussed.

3.6 THE CONTRIBUTION OF ENTREPRENEURSHIP EDUCATION TO ENTREPRENEURIAL INTENT, SKILLS, COMPETENCIES AND SELF-EFFICACY

In this section the importance of entrepreneurship education is discussed looking into its impact on entrepreneurial intent and the start-up of new businesses. The role of entrepreneurship education in the development of entrepreneurial skills and competencies as well as entrepreneurial self-efficacy among students is also highlighted.

3.6.1 The impact of entrepreneurship education on entrepreneurial intent and the start-up of new businesses

According to Fayolle (2004:3), entrepreneurship education facilitates the creation of start-ups, educated students, mindset changes and the development of an entrepreneurial orientation measured through intentions. The majority of studies report that exposure to entrepreneurship education encourages students to start their own businesses (Franke and Lüthje, 2004:5). Similarly, Katz and Green (2007:13) concur that graduates who have attended courses in entrepreneurship or small business management have a much better chance of starting and growing a business than business school graduates without such training.

Another similar study was conducted by Dickson, Solomon and Weaver (2008:239) who analysed peer-reviewed research published in a wide range of journals and conference proceedings between 1995 and 2006. They found six articles published since 1995 that focused on the relationship between entrepreneurship education and the founding of a venture. There were 15 articles that focused on the relationship between entrepreneurship education and outcomes that served as precursors of the selection into entrepreneurship such as entrepreneurial intentions, opportunity recognition and self-efficacy. There were six studies that tested the relationship between entrepreneurship education and entrepreneurial intentions (Dickson *et al.*, 2008:249). These studies found a positive correlation between entrepreneurship education and entrepreneurial intentions. There were two articles that measured the impact of entrepreneurship education on opportunity recognition. The link between entrepreneurship education, recognition of entrepreneurship as personally desirable and opportunity recognition was found in one article. The link between entrepreneurial self-efficacy and entrepreneurship education was investigated in four articles which affirmed that indeed entrepreneurship education positively impacts on individuals' perceptions of their ability to start a new venture. Empirical research that supports these views is presented in the next sections.

3.6.1.1 The relationship between entrepreneurship education and entrepreneurial intent in Australia

Peterman and Kennedy (2003:130) investigated the impact of participation in an enterprise education program on perceptions of feasibility and desirability of starting a business using a sample of high school students in Australia. They argued that enterprise education programs afforded students with opportunities to exercise significant responsibilities, to start one's own business and to interact with role models (Peterman and Kennedy, 2003:131). Their findings indicated that: 1) people who were more likely to participate in the enterprise education program were those who had broader and positive prior entrepreneurship experience (Peterman and Kennedy, 2003:136), 2) participation in the enterprise education program increased perceptions of desirability and feasibility of starting a business (Peterman and Kennedy, 2003:137), and 3) participation in the enterprise education program increased perceived desirability and feasibility of starting a business for those with less positive prior experience than those with more positive prior experience (Peterman and Kennedy, 2003:138).

3.6.1.2 The relationship between entrepreneurship education and entrepreneurial intent in Ghana

Owusu-Ansah (2004:5) conducted a study to assess the impact of entrepreneurship education on career intentions and aspirations of tertiary students who had been exposed to different types of entrepreneurship education in Ghana. The study involved a sample of 200 business students and 200 science/engineering students (Owusu-Ansah, 2004:6). Owusu-Ansah (2004:16) found that entrepreneurship education motivated students to initiate business start-ups, made students feel equipped with the skills and competencies to initiate and run their own business, created awareness about the existing business opportunities and raised self-confidence and self-belief to enter into self-employment. Based on these findings Owusu-Ansah (2004:16) suggests that entrepreneurship education engenders a high perception of desirability and feasibility of business start-up or self-employment as a career.

3.6.1.3 The relationship between entrepreneurship education and entrepreneurial intent in Malaysia

In a study that was conducted in Malaysia involving 1281 students from various schools of study at Universiti Sains Malaysia, Ramayah and Harun (2005:14) found that students who attended courses or training in entrepreneurship reported significantly higher self-efficacy, instrumental readiness (access to capital, information and social networks), subjective norms (defined in section 2.3.2.1) and entrepreneurial intention more than those who did not attend entrepreneurship courses. Ramayah and Harun (2005:18) suggest the importance of exposure to entrepreneurship education in nurturing future entrepreneurs. They add that university authorities should use different mediums such as seminars, training courses and hands-on experience in their efforts to enhance entrepreneurial intention of students.

Additionally, Cheng and Chan (2004:5) conducted a study in Malaysia to determine the level of entrepreneurial knowledge among students and willingness to start up their own businesses. The study involved 90 students from one private university, two public universities and two private colleges. A small number (37.8%) of these students was exposed to entrepreneurship education. They found that the level of entrepreneurial knowledge and level of interest among students to become entrepreneurs immediately after graduation were low. Among the respondents 15.6 percent had no intention to start their own business; 10 percent were already running a business; 11.1 percent were considering to start their own business; 4.4 percent were in the process of starting up a business; 8.9 percent indicated that they would create their own ventures upon completion of their studies; 33.3 percent indicated that they would consider starting their own ventures within five years after graduation; and 16.7 percent reported that they would consider starting their own ventures within a 10 year period of their graduation (Cheng and Chan, 2004:7). Cheng and Chan (2004:8) reported that the respondents preferred to work for few years before venturing into their own businesses. However, they did not provide a comparison between those who had exposure to entrepreneurship education and those who did not. It is therefore difficult to conclude that the respondents who had exposure to entrepreneurship education were different from those who did not have exposure to entrepreneurship

education in terms of the level of entrepreneurial knowledge and level of interest to become entrepreneurs.

3.6.1.4 The relationship between entrepreneurship education and entrepreneurial intent in Mexico

Alvarez and Jung (2004:1) investigated the impact of entrepreneurship education on students' perceived self-efficacy, entrepreneurial intentions and orientation towards starting their own business. Their sample consisted of 400 undergraduate entrepreneurship students from three universities in Mexico. They found significant correlations between students' exposure to entrepreneurial courses, their perceived self-efficacy, and their intentions and orientation toward starting their own businesses.

3.6.1.5 The relationship between entrepreneurship education and entrepreneurial intent in Europe

Souitaris *et al.* (2007:567) tested the effects of entrepreneurship programmes on entrepreneurial attitudes and intention of 250 science and engineering students at two European universities in London, UK and Grenoble, France. Their main focus was to confirm (or disconfirm) conventional wisdom that entrepreneurship education increased the intention to start a business. They found that entrepreneurship programmes provided a source of inspiration to students by raising their entrepreneurial attitudes and intentions (Souitaris *et al.*, 2007:585).

Galloway and Brown (2002:400) investigated the difference between students who had completed at least one entrepreneurship module with those who did not have the opportunity to study entrepreneurship in the UK. Their sample was 1,933 students (Galloway and Brown, 2002:401). They found that the majority (78%) of those who took an entrepreneurship module intended to start their businesses at some point in their lives. More than 30 percent of those who completed an entrepreneurship module (alumni) were self-employed and three-quarters of them employed ten people or less (Galloway and Brown, 2002:402).

In another study in Poland, Jones, Jones, Packham and Miller (2008:597) evaluated the impact of enterprise education in encouraging entrepreneurial activity using a sample of 59 students. They asked students to indicate their level of interest in becoming an entrepreneur either on completion of their studies or at some point in the future. The majority of students (15% strongly agreed and 51% agreed) displayed a high level of immediate entrepreneurial intention on completion of their graduate studies (Jones *et al.*, 2008:603). There was a higher percentage (91%) of students who indicated their commitment towards an entrepreneurial career at some future point in their careers (Jones *et al.*, 2008:604). After completion of the course, the impact of the course on students' entrepreneurial motivation and intent were assessed (Jones *et al.*, 2008:605). The findings indicated a positive impact of the course on students' immediate entrepreneurial intentions (Jones *et al.*, 2008:606).

3.6.1.6 The relationship between entrepreneurship education and entrepreneurial intent in South Africa

In South Africa, Botha, Nieman and van Vuuren (2007:163) measured the effectiveness of a Women Entrepreneurship Programme (WEP) on a sample of 180 women entrepreneurs. Of these entrepreneurs 116 formed the experimental group while 64 entrepreneurs were in the control group that did not participate in the WEP. The experimental and the control groups were compared to each other on four skills transfer factors that included entrepreneurial characteristics, entrepreneurial orientation, business knowledge and entrepreneurial and business skills (Botha *et al.*, 2007:175). They found statistically significant differences between the means before and after the WEP of the experimental group for all skills transfer factors (Botha, 2006:287). They suggested that the content of the WEP was effective in providing skills to women entrepreneurs. Additionally, they found that the WEP encouraged potential women entrepreneurs to start their own businesses and start-ups and established entrepreneurs to start multiple businesses (Botha *et al.*, 2007:181; Botha, 2006:284-285).

3.6.1.7 The relationship between entrepreneurship education and entrepreneurial intent in Singapore

Shen and Chai (2006:2) examined the effect of entrepreneurship education based on experiential learning on changing undergraduate students' entrepreneurial perceptions, intentions and competencies in Singapore. They compared the university students with Polytechnic students on entrepreneurial competencies such as risk-taking, innovation, independence, perseverance, opportunity, interpersonal skills and leadership. The two groups were significantly different on independence, perseverance, opportunity and interpersonal skills and were similar on risk-taking, innovation and leadership (Shen and Chai, 2006:19). They found that the introduction of entrepreneurship education into the undergraduate syllabus in Singaporean universities had a positive effect on changing entrepreneurial perceptions and intentions among Singapore undergraduates (Shen and Chai, 2006:22).

3.6.1.8 The relationship between entrepreneurship education and entrepreneurial intent in Sweden

Hamidi, Wennberg and Berglund (2008:305) tested the relationship between entrepreneurship education and entrepreneurial intentions by evaluating the three graduate programs in entrepreneurship that have common training exercises in creativity and in the generation of ideas. They collected data from a sample of 40 students enrolled in three different entrepreneurship programs and a control group of 38 students enrolled in two other graduate programs in Sweden (Hamidi *et al.*, 2008:309). They found that entrepreneurship students were more likely than other student groups to consider starting their own business in the future and that creativity is positively related to students' intentions to start their own firms (Hamidi *et al.*, 2008:313).

3.6.1.9 The relationship between entrepreneurship education and entrepreneurial intent in China

Wu and Wu (2008:752) investigated the impact of the academic major on entrepreneurial intentions of students in Shanghai, China based on the theory of

planned behaviour. The sample involved 180 students from different classes (Wu and Wu, 2008:760). There were students who had entrepreneurship-related majors (ERM), those with non-entrepreneurship-related majors and engineering students. Wu and Wu (2008:765) found that university students with different academic majors were significantly different in their personal attitudes and perceived behavioural control and entrepreneurial intentions. "The "Non-ERM" students had lower attitude towards start-up compared with "ERM" and "Engineering" students." Engineering students had higher intentions of becoming an entrepreneur and were more confident of their entrepreneurial capability than other groups. Students with entrepreneurship-related majors had greater intention to start-up than those without entrepreneurship-related majors (Wu and Wu, 2008:765-768).

3.6.1.10 The relationship between entrepreneurship education and entrepreneurial intent in the U.S. and Korea

Lee, Chang and Lim (2005:32) investigated the differences in the impact of entrepreneurship education between the U.S. and Korea by focusing on students' interest and intention of venture creation. The study involved four groups of students:

- Group A (60 students) consisted of Americans who took entrepreneurship/venture creation course(s);
- Group B (102 students) consisted of Americans who did not take any entrepreneurship/venture creation course(s);
- Group C (102 students) consisted of Koreans who took entrepreneurship/venture creation course(s); and
- Group D (115 students) consisted of Koreans who did not take any entrepreneurship/venture creation course(s).

They compared the differences between the four groups on four factors that included: 1) Intention of venture creation and confidence in it; 2) Knowledge and ability of venture creation; 3) Intention of overseas venture creation with teamwork; and 4) Recognition of the importance of entrepreneurship education (Lee *et al.*, 2005:34). The findings indicated statistically significant differences between Americans (group A and B) who took entrepreneurship-related courses and those who did not in terms of the

“intention of venture creation and confidence in it” and “knowledge and ability of venture creation”. Among the Koreans, those who took entrepreneurship-related courses achieved higher scores in the “intention of venture creation and confidence in it”, “knowledge and ability of venture creation” and “the recognition of importance of entrepreneurship education” than those who did not take any entrepreneurship-related courses. There were statistically significant differences between groups C and D on these three factors (Lee *et al.*, 2005:36). The differences between groups C and D in the Korean sample was greater than the differences between U.S. groups A and B (Lee *et al.*, 2005:38).

The U.S. and the Korean groups (groups A and C, respectively) that took entrepreneurship-related courses were compared with each other. American students displayed a higher level of “knowledge and ability of venture creation” than Korean students after taking an entrepreneurship-related course while Korean students had a higher score in terms of “the intention of venture creation and confidence in it” than the American students. According to Lee *et al.* (2005:38), these differences may be attributed to a strong entrepreneurship culture in the U.S. compared with a younger entrepreneurship-oriented culture in Korea. The U.S. students indicated a higher “recognition of the importance of entrepreneurship education” more than the Korean students before taking the course. After the course their “recognition of the importance of entrepreneurship education” was the same, suggesting the positive impact of entrepreneurship education on the Korean students more than on the U.S students. Lee *et al.* (2005:39) found that the two factors that differentiated the U.S. group from the Korean group were “the intention of venture creation and confidence in it” and “knowledge and ability of venture creation”. The U.S. students reported a higher level of “knowledge and ability of venture creation” than the Korean students after taking an entrepreneurship-related course. In their conclusion, Lee *et al.* (2005:41) suggest that “the impact of entrepreneurship education in countries where entrepreneurship-oriented culture is poor or still in the embryonic stage of development will be greater than that in countries with a strong entrepreneurship-oriented culture”.

Furthermore, the U.S. and the Korean groups (groups B and D, respectively) that did not take entrepreneurship-related courses were compared with each other. There was a higher level of “knowledge and ability of venture creation” and “the recognition of the

importance of entrepreneurship education” in group B than in group D. These differences were also attributed to the strong influence of entrepreneurship-oriented culture in the U.S. on American students (Lee *et al.*, 2005:39). Additionally, there were no significant differences between the four groups on intention of overseas venture creation with teamwork (Lee *et al.*, 2005:40).

The importance of entrepreneurship education has been highlighted in terms of its contribution to entrepreneurial activity. Students who have been exposed to entrepreneurship education have much better chances of starting a business than those who have not been exposed to this kind of education. Some studies have reported a significant and positive correlation between exposure to entrepreneurship education and creating a new venture. Entrepreneurship education influences precursors of entrepreneurship such as entrepreneurial intentions, opportunity recognition and entrepreneurial self-efficacy. Entrepreneurship education impacts on antecedents of entrepreneurial intent (perceived feasibility and desirability) which in turn have a direct influence on entrepreneurial intent. Entrepreneurship education does not only affect the intention to start a business, it leads to self-employment among students and makes start-ups and established entrepreneurs to start multiple businesses. The contribution of entrepreneurship education to the development of entrepreneurial skills and competencies is discussed next.

3.6.2 Entrepreneurship education and its role in the development of entrepreneurial skills and competencies

In order to pursue an entrepreneurial behaviour effectively, potential entrepreneurs need to have entrepreneurial skills and competencies (Heinonen and Poikkijoki, 2006:81; Katz and Green, 2007:58). Kirby (2003:2) suggests that skills, attributes and behaviours required in becoming successful as an entrepreneur need to be developed in students in order to enhance their entrepreneurial capabilities. In teaching entrepreneurship, learners need not learn much about the kind of persons they ought to be and the kind of environments that are conducive for business start-ups in general, but they need to learn how to do it (Burke, 2006:2).

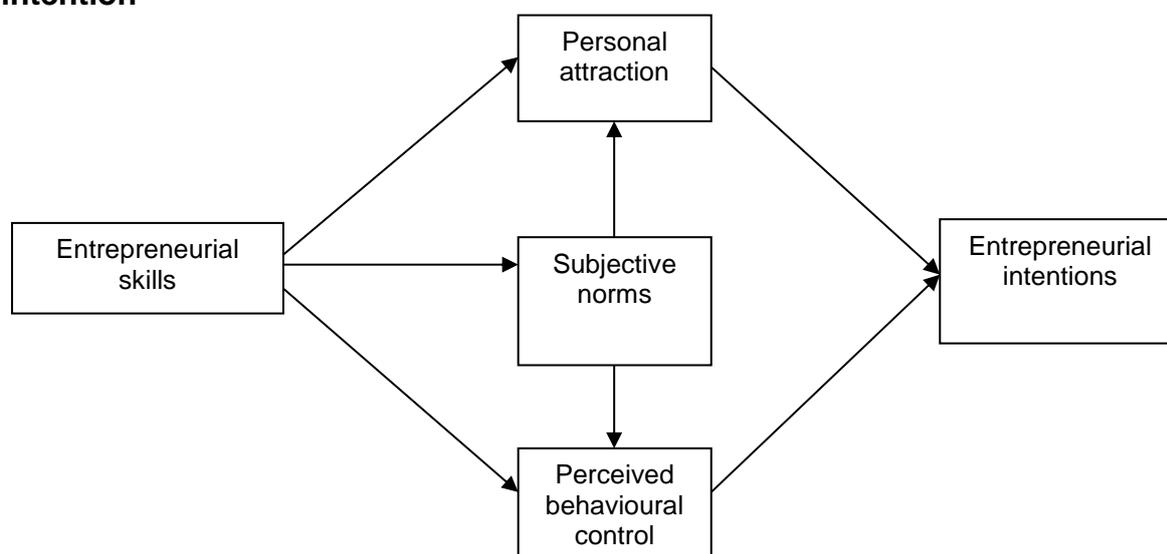
Effective entrepreneurship education enhances the development of skills and competencies associated with successful entrepreneurship (Binks *et al.*, 2006:6). This view is shared by Hynes and Richardson (2007:734) who suggest that “entrepreneurship education should be a key component and a means of equipping students with the knowledge, skills and competencies to exploit opportunities in this knowledge environment”. The U.S. SBA (2006:121) asserts that entrepreneurship educators often address the competencies required for new business start-ups in an ad hoc manner and that there is little consensus regarding exactly what should be taught to entrepreneurship students. Given this, the U.S. SBA (2006:121) suggests that there is a challenge for entrepreneurship educators to provide the subject matter, resources and experiences that will prepare students to cope with the variety of expectations and demands they will face in the process of starting their new ventures. In the following section the link between entrepreneurial skills and entrepreneurial intent is explained.

3.6.2.1 The link between entrepreneurial skills and entrepreneurial intent

Liñán (2008:258) investigated how students’ perceptions of their own entrepreneurial skills impacted on entrepreneurial intentions using a sample of 249 university students in Spain. They found that perceived entrepreneurial skills were significant predictors of the three motivational antecedents of entrepreneurial intention (personal attraction, subjective norms and perceived behavioural control). Personal attraction is the attractiveness of the proposed behaviour or degree to which an individual holds a positive or negative personal valuation of being an entrepreneur. Perceived behavioural control refers to the perceived easiness or difficulty of becoming an entrepreneur. Subjective norms is the perceived social pressure from family, friends or significant others to perform the entrepreneurial behaviour and involves the perception that reference people would or would not approve of the decision to become entrepreneurs. Of the antecedents of entrepreneurial intention personal attraction and perceived behavioural control had a positive impact on entrepreneurial intention while subjective norms had a positive impact on personal attraction and perceived behavioural control. Based on his findings, Liñán (2008:267) suggested that education and training initiatives trying to increase the entrepreneurial potential in the participants should include workshops that are aimed at specifically developing entrepreneurial

skills as these skills would contribute to the effective operation of the firm, once it is established. Figure 3.5 illustrates the relationship between entrepreneurial skills and entrepreneurial intention.

Figure 3.5: The relationship between entrepreneurial skills and entrepreneurial intention



Source: Adapted from Liñán (2008:265)

In a study that was conducted in Finland, Brännback *et al.* (2005:1) examined the impact of entrepreneurship education on factors that drive perceptions of entrepreneurial intention using a sample of students from two Finnish business schools. They found that perceived skills and knowledge were significantly related to perceived personal feasibility for both groups and entrepreneurial intention (Brännback *et al.*, 2005:7). The link between entrepreneurial skills, entrepreneurship education and entrepreneurial activity is discussed in the next section.

3.6.2.2 The link between entrepreneurial skills, entrepreneurship education and entrepreneurial activity

The 2008 South African GEM report highlights that South Africa has poor skills level which leads to below average entrepreneurial capacity (Herrington *et al.*, 2008:33). This report also indicates that entrepreneurship education and training can have a significant impact on entrepreneurial attitudes and aspirations. In a study of the determinants of entrepreneurship in South Africa involving 65 entrepreneurs and 65

non-entrepreneurs from Cape Town, Johannesburg and Durban, Muhanna (2007:101) found that participants who did not want to become entrepreneurs cited lack of entrepreneurial skills as a barrier. The 2007 global GEM report which involved 42 countries found that perceived skills were determined by the level of education and the availability of entrepreneurship training programs (Bosma, Jones, Autio and Levie, 2007:34). Bosma *et al.* (2007:37) found that individuals' beliefs that they have the necessary skills and knowledge to start a business is linked with the level of early-stage entrepreneurial activity and nascent entrepreneurial activity. According to them, having the skills and knowledge to start a business is significantly correlated with early stage entrepreneurial activity and nascent entrepreneurial activity. Bosma, Acs, Autio, Coduras and Levie (2008:9) note that entrepreneurial activity is multifaceted. They defined it as "the extent to which people in a population are creating new business activity, both in absolute terms and relative to other economic activities, such as business closure." The findings in the 2008 global GEM report indicate a generally positive and complex relationship between training in starting a business and entrepreneurial attitudes, aspirations and activity (Bosma *et al.*, 2008:48).

The European Commission (2006:20) suggests that entrepreneurship education helps develop both personal qualities and attitudes and formal knowledge and skills, resulting in the competence of students in entrepreneurship. The personal qualities and attitudes developed from entrepreneurship education contribute to the probability of a person identifying opportunities and acting on them. The knowledge and skills relate to what an individual must do to establish a new enterprise and how to succeed in developing an idea into a practical, goal-oriented enterprise (European Commission, 2006:21). Binks *et al.* (2006:12) are of the view that the skills required for entrepreneurship are those that relate to the entrepreneurial process as a whole. Hegarty (2006:326) argues that what should be taught in entrepreneurship courses is a skill set. She identifies the following skills as the outcomes of entrepreneurship education:

- Seeking out original and viable business and market opportunities;
- Sourcing and responsibly using built, natural, socio-economic and human resources;
- Making the opportunity-resource connection in an extraordinary way;

- Commitment to implementing a business idea without assurance of rewards;
- Building a team and support network that share in the passion for the enterprise; and
- Rejoicing in operating one's own business venture and delivering the product or service.

Alberti *et al.* (2005:467) assert that opportunity specific knowledge and venture specific knowledge are vital for entrepreneurial success. They further contend that there should be a balance in the conveyance of theories with the development of skills and attitudes in entrepreneurship education and a balance in the provision of general and specific knowledge. Garavan and O'Connell (1994 in Niyonkuru, 2005:22) concur that effective entrepreneurship education contains both factual knowledge and practical applications. In a study of entrepreneurship education in Rwanda (detail in section 3.7.2), Niyonkuru (2005:63) argues that entrepreneurship education should convey entrepreneurial skills, attitudes and behaviours that students can use in identifying opportunities, evaluation of opportunities and commitment of resources to pursue the opportunity and the creation of a new venture. As he concludes Niyonkuru (2005:70) reiterates that the contents of entrepreneurship education should be those features that enable students to conceive of and start new businesses.

From the preceding sections, it seems that entrepreneurship education plays a vital role in stimulating entrepreneurial attitudes and aspirations. In order to contribute to entrepreneurial activity, it must impart the skills that are necessary in identifying and evaluating an opportunity, marshalling the resources required, starting and managing a business. In the following section the types of skills that can be developed through entrepreneurship education are explained.

3.6.2.3 The types of skills to be developed through entrepreneurship education

Nieman (2001 in Botha, 2006:53) suggests that business skills, technical skills and entrepreneurial skills should be the main areas of concentration for entrepreneurship training. These skills are depicted in Table 3.12.

Table 3.12: Classification of entrepreneurial skills

Classification	Description
Technical skills	<ul style="list-style-type: none"> • Written and oral communication • Monitoring of environment • Taking advantage of technology • Interpersonal relationships • Ability to organise • Management style
Business management skills	<ul style="list-style-type: none"> • Decision making • Planning and strategising • Human relations • Marketing • Finance • Accounting • General management • Negotiation skills • Business planning • Communication • Managing growth
Personal entrepreneurial skills	<ul style="list-style-type: none"> • Inner control • Risk propensity • Innovativeness • Creativity • Opportunity identification • Change orientation • Persistence • Visionary leadership

Source: Botha (2006:67)

He explains the skills shown in Table 3.12 as follows:

- *Business skills training* involves all the conventional management training areas in a business.
- *Technical skills training* focuses on equipping people with the ability to use knowledge or techniques of a particular discipline to attain certain ends.

- *Entrepreneurial skills training* is related to the birth and growth of a business enterprise and is aimed at fostering entrepreneurial traits such as creativity and innovation, risk propensity and the need for achievement.

Hisrich *et al.* (2008:10) and Botha (2006:53) link the business, technical and entrepreneurial skills with the stages in the entrepreneurial process as illustrated in Table 3.13.

Table 3.13: Aspects of the entrepreneurial process and the required skills

Identify and evaluate the opportunity (Entrepreneurial skills)	Develop business plan (Entrepreneurial skills and business skills)	Manage resources (Technical skills)	Manage the enterprise (Business skills)
Opportunity assessment Creation and length of opportunity Real and perceived value of opportunity Risk and returns of opportunity Opportunity versus personal skills and goals Competitive environment	Title page Table of contents Executive summary Major sections 1. Description of industry 2. Technology plan 3. Marketing plan 4. Financial plan 5. Production plan 6. Organisation plan 7. Operational plan 8. Summary Appendixes (Exhibits)	Determine resources needed Determine existing resources Identify resources gaps and available suppliers Develop access to needed resources	Develop management style Understand key variables for success Identify problems and potential problems Implement control systems Develop growth strategy Planning, organising and leading

Adapted from Hisrich *et al.* (2008:10) and Botha (2006:54)

From Tables 3.12 and 3.13, it appears that entrepreneurship education has a vital role to play in terms of equipping students with the skills that are essential in executing the entrepreneurial process. This view is shared by McGee, Peterson, Mueller and Sequeira (2009:983) who suggest that a properly designed entrepreneurship education program should take into account the multi-dimensional and sequential nature of the entrepreneurial process. Students should, through entrepreneurship education acquire entrepreneurial skills to be able to identify and evaluate opportunities. Entrepreneurial skills and business skills are crucial in developing a business plan. Technical skills enable the student to determine the resources required

to start a new venture and business skills are needed to manage the business effectively once it has started and to ensure its growth.

3.6.3 The role of entrepreneurship education in the development of entrepreneurial self-efficacy

Brice and Spencer (2007:52) define entrepreneurial self-efficacy (ESE) as the degree to which individuals believe that they have the necessary skills to successfully start a new business venture. It is “the degree to which people perceive themselves as having the ability to perform the various roles and tasks of entrepreneurship” (Chen, Greene and Crick, 1998 and De Noble, Jung and Ehrlich, 1999 in Hmieleski and Baron, 2008:57). Self-efficacy beliefs affect the courses of action people choose to pursue, how much effort they put in, how long they will persevere in the face of obstacles and failures, their resilience to adversity and the level of accomplishments they realise (Bandura, 1997 in Kickul and Krueger, 2005:1). The assessment of self-efficacy involves a cognitive appraisal of the interaction between one’s perceived capability and situational opportunities and obstacles (Kreitner and Kinicki, 2008:128). Kickul and Krueger (2005:6) report that self-efficacy is a crucial link in career choice and they reiterate that society has to find ways to enhance self-efficacy if intelligent, informed entrepreneurial thinking is to be encouraged. Krueger *et al.* (2000:3) emphasise that increasing entrepreneurial efficacies will raise perceptions of venture feasibility and perceptions of opportunity.

Forbes (2005:599) suggests that ESE can influence an individual’s decision to start a business and the effectiveness with which individuals manage their ventures once they have founded them. De Noble *et al.* (1999 in Kickul and D’Intino, 2005:39) identified six theoretical dimensions of ESE. These dimensions are: 1) Risk and uncertainty management skills; 2) Innovation and product development skills; 3) Interpersonal and networking management skills; 4) Opportunity recognition; 5) Procurement and allocation of critical resources; and 6) Development and maintenance of an innovative environment. Kickul and D’Intino (2005:39) used these dimensions to investigate how ESE relates with many of the tasks and roles in the entrepreneurial life-cycle based on a sample of 138 Master of Business Administration (MBA) students at Midwestern University in Illinois and Arizona, United States. Cox, Mueller and Moss (2002 in Kickul

and D'Intino, 2005:40) identified the four phases in the entrepreneurial life-cycle and the tasks associated with each phase as illustrated in Table 3.14.

Table 3.14: Phases and tasks in the entrepreneurial life-cycle

Phases	Tasks
Searching phase	1. Conceive a unique idea for a business 2. Identify market opportunities for a new business
Planning phase	1. Plan a new business 2. Write a formal business plan
Marshalling phase	1. Raise money to start a business 2. Convince others to invest in your business 3. Convince a bank to lend you money to start a business 4. Convince others to work for you in your new business
Implementing phase	1. Manage a small business 2. Grow a successful business

Source: Kickul and D'Intino (2005:40)

Kickul and D'Intino (2005:44) found that four of De Noble *et al.*'s dimensions were significantly related to the instrumental tasks within the entrepreneurial process and the intentions to start a new venture. These factors are: 1) Interpersonal and networking management skills; 2) Uncertainty management skills; 3) Product development skills; and 4) Procurement and allocation of critical resources. Instrumental tasks that were related to intentions to start or launch a new business are: 1) Tasks involving raising money to start a business; 2) Convincing others to invest in the business; and 3) Implementing task of managing a small business (Kickul and D'Intino, 2005:43).

In Chapter 2 (section 2.4.3), it was reported that ESE is significantly related to entrepreneurial intentions (Kickul *et al.*, 2008:326). Kickul and Krueger (2005:1) examined the moderating and mediating influences of personal and cognitive factors on entrepreneurial self-efficacy, feasibility, desirability and intentionality based on a sample of 138 Master of Business Administration (MBA) students at Midwestern University in Illinois and Arizona, United States. Self-efficacy was measured on six core dimensions that included: 1) Developing new product and market opportunities; 2) Building an innovative environment; 3) Initiating investor relationships; 4) Defining core purpose; 5) Coping with unexpected challenges; and 6) Developing critical

human resources (Kickul and Krueger, 2005:3). They found that all dimensions of self-efficacy were positively related to perceived feasibility (Kickul and Krueger, 2005:4). “Building an innovative environment and defining a core purpose were related to desirability.” The findings indicated direct relationships between intentionality and self-efficacy dimensions that included initiating investor relationships, defining core purpose and coping with unexpected challenges.

Sequeira *et al.* (2007:276) examined the impact of ESE on the development of entrepreneurial intention and nascent behaviour in the United States using a sample of 132 nascent entrepreneurs and 176 non-nascent entrepreneurs. They found that ESE had a positive and statistically significant effect on entrepreneurial intentions and on nascent behaviour (Sequeira *et al.*, 2007:286). They reported that individuals with high self-efficacy in performing entrepreneurial tasks were more likely to express intentions and desire to start a business. They also found a strong motivational link between self-confidence in performing entrepreneurial tasks and behaviour that leads to the formation of a new venture (Sequeira *et al.*, 2007:288).

In another study that involved 181 nascent entrepreneurs and 122 individuals who were not involved in nascent entrepreneurial activities, McGee *et al.* (2009:983) found that nascent entrepreneurs exhibited higher levels of ESE based on the four dimensions of ESE that included searching, planning, marshalling and implementing than individuals who were not involved in nascent entrepreneurial activities. They reported that nascent entrepreneurship was positively related to ESE and the attitude towards venturing.

Positive self-efficacy beliefs can be enhanced through exposure to entrepreneurship education (Laviolette and Radu, 2008:14). Peterman and Kennedy (2003:140); Brännback *et al.* (2005:11); Alvarez and Jung (2004:1) and Ramayah and Harun (2005:18) found that exposure to entrepreneurship education programs increases perceptions of self-efficacy of starting a business. Similarly, Fayolle *et al.* (2005:17) concur that entrepreneurship education is significantly correlated with perceived behavioural control in the theory of planned behaviour. In Chapter 2 (section 2.4.2) the link between perceived behavioural control and perceived self-efficacy was debated from the viewpoints of different authors who concluded that perceived behavioural

control reflects perceived feasibility of performing the behaviour and this is related to the perception of self-efficacy.

Zhao *et al.* (2005:1266-1267) investigated the impact of entrepreneurship education on ESE and entrepreneurial intention using a sample of 265 MBA students from five universities in the U.S. They found that students' perceptions of formal learning in entrepreneurship courses were significantly related to ESE and in turn ESE was significantly related to entrepreneurial intention. Perceptions of formal learning refer to the amount of entrepreneurship-related learning that the individuals report they have learnt in an entrepreneurship program (Zhao *et al.*, 2005:1266).

The U.S. SBA (2006:128) identified four studies that linked entrepreneurship education and ESE. Authors of the four studies, according to U.S. SBA found that entrepreneurship education positively affected perceptions of ESE. Blackford *et al.* (2008:948) examined the association between the number of entrepreneurship courses taken and the post-graduation start-up of a new firm using a sample of 127 students at Midwestern University in Arizona and Illinois. They found that post-graduation start-up of a new firm by students who have taken an entrepreneurship course was directly related to ESE.

ESE seems to be a crucial factor in the decision to become an entrepreneur as well as managing a new venture once it is started. From these research findings it follows that a definite and positive relationship exists between entrepreneurial education and the potential entrepreneurs' level of ESE as well as between ESE and entrepreneurial intent. Based on this observation, effective entrepreneurship education is that which impacts on the students' ESE.

The next sections highlight the link between ESE and entrepreneurial competencies and the determinants of entrepreneurial competence and ESE.

3.6.3.1 *The link between ESE and entrepreneurial competencies*

Entrepreneurial competencies refer to “a higher-level characteristic encompassing personality traits, skills and knowledge that can be seen as the total ability of the entrepreneur to perform a job role successfully” (Man, Lau and Chan, 2002:124). Bird (1995, in Man and Lau, 2005:468) postulates that entrepreneurial competencies are related to the birth, survival and/or growth of a venture. These competencies can be observed through the entrepreneur’s behaviour and actions (Man *et al.*, 2002:133). Entrepreneurial competencies and self-confidence can be developed and learned through entrepreneurship education (Man and Lau, 2005:468; Hackbert, 2003:1; Onstenk, 2003:85; Orford *et al.*, 2004:20). Brice and Spencer (2007:47) found that individuals with strong entrepreneurial intentions can be successfully discriminated from those who have no entrepreneurial intentions through self-efficacy assessments utilising entrepreneurial competencies. Izquierdo and Buyens (2008:24) found that students who exhibited higher levels of entrepreneurial competencies reported higher levels of ESE after course completion.

According to Katz and Green (2007:58), there are as many competencies as there are personality types. Entrepreneurial competencies are essential to successfully start and run a business (Katz and Green, 2007:60). Table 3.15 shows the different types of entrepreneurial competencies as suggested by various researchers. From the table, the most comprehensive lists of competencies have been identified by Man and Lau (2005:473) and Nakhata (2007:1) and their lists are identical.

Table 3.15: Entrepreneurial competencies

Author(s)	Entrepreneurial competencies
Man <i>et al.</i> (2002:132) identified six entrepreneurial competencies	<ul style="list-style-type: none"> • Commitment competencies • Conceptual competencies • Opportunity competencies • Organising competencies • Relationship competencies • Strategic competencies
Onstenk (2003:78) identified four entrepreneurial competencies	<ul style="list-style-type: none"> • Communication competency • Enterprising key skills • Networking competency • Opportunity competency
Man and Lau (2005:473) identified ten entrepreneurial competencies	<ul style="list-style-type: none"> • Analytical competencies • Commitment competencies • Human competencies • Innovative competencies • Learning competencies • Operational competencies • Opportunity competencies • Personal strength competencies • Relationship competencies • Strategic competencies
Dixon <i>et al.</i> (2005:31) identified eight clusters of entrepreneurial competencies	<ul style="list-style-type: none"> • Basic business skills • Communication competencies • Creativity competencies • Personal traits • Planning and organisational competencies • Problem solving competencies • Team leadership competencies • Trustworthiness competencies
Katz and Green (2007:60) identified five entrepreneurial competencies	<ul style="list-style-type: none"> • Determination competencies • Industry-specific knowledge • Key business functions or basic business competency • Opportunity competencies • Resource competencies
Nakhata (2007:1) identified ten entrepreneurial competencies	<ul style="list-style-type: none"> • Analytical competency • Commitment competency • Human competency • Innovative competency • Learning competency • Operational competency • Opportunity competency • Personal strength competency • Relationship competency • Strategic competency

Source: Table created by author.

Brice and Spencer (2007:50) evaluated the impact of ESE on the intention to pursue an entrepreneurial career utilising the human competency description of ESE. The study involved 140 volunteer undergraduate business students from Southeastern University in Florida. They suggested that ESE could be described differently by considering the broader human competencies associated with new venture development since human competency assessments are less dependent on the specification and complexity of particular new venture entry domains. They identified the following competencies:

- Human/conceptual competence (Leadership and organisational skills)
- Opportunity recognition
- Drive to see the venture through to fruition
- Technical or functional competence and
- Political competence

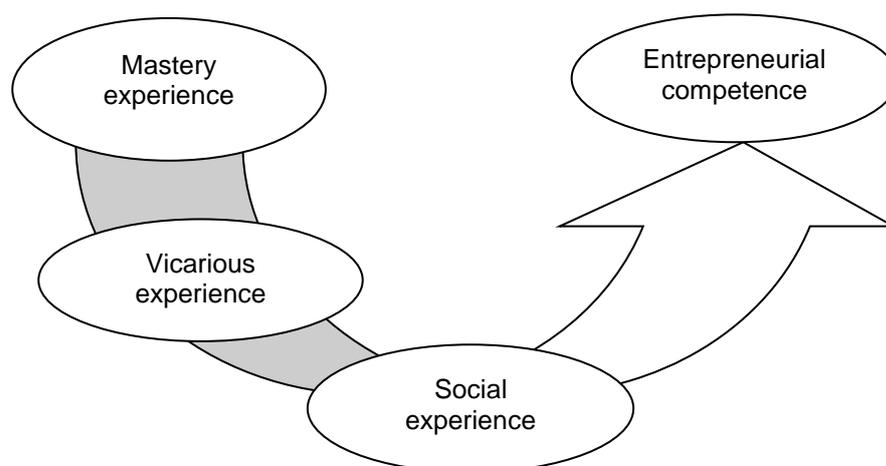
Brice and Spencer (2007:60) found that only individuals with high entrepreneurial intentions placed significantly different weights on the five competencies when making judgements about ESE. Leadership/organisational skills and opportunity recognition were judged as the most important indicators of ESE, technical/functional competence and drive to see the venture through to fruition were judged second, and political competence was judged as the least important indicator of ESE. Their findings indicate that individuals with strong entrepreneurial intentions value human/conceptual competence as more important than the other groups (Brice and Spencer, 2007:61).

3.6.3.2 Determinants of entrepreneurial competence

Wood and Bandura (1989 in Erikson, 2003:107) state that the three main sources of perceived competence are mastery experience, vicarious experience and social experience. Deducing from their assertion, Erikson (2003:108) made three propositions regarding the determinants of entrepreneurial competence. Entrepreneurial competence is determined by mastery experience, vicarious experience and social experience as illustrated in Figure 3.6. Erikson (2003:108) proposes that:

- *Positive mastery experience* relates positively with perceived entrepreneurial competence;
- *Positive vicarious experience* relates positively with the degree of perceived entrepreneurial competence; and
- The greater the degree of social entrepreneurial persuasion, the higher the degree of perceived entrepreneurial competence.

Figure 3.6: The main determinants of entrepreneurial competence



Source: Erikson (2003:108)

In view of the determinants of entrepreneurial competence in Figure 3.6, it seems that entrepreneurial competence is determined by different forms of experience. The implication for entrepreneurship education is that education that is not experiential would not contribute to entrepreneurial competence. Entrepreneurship educators would, therefore, have to build in entrepreneurial experiential learning into the curriculum. In his conceptual paper, Dhliwayo (2008:331) argues that through experiential learning entrepreneurship education can train and produce entrepreneurs in the same way a nursing school produces nurses. Dhliwayo (2008:337) made the following recommendations which can make entrepreneurship education more experiential:

- Entrepreneurship education should be based on appropriate and well structured work integrated learning that includes both classroom and field experiences.
- The disparate efforts of different structures have to be coordinated and re-directed towards the production of entrepreneurs.

- The criteria for recruitment of students into the entrepreneurship programmes should be the potential to start a business and entrepreneurship students should be prepared to start a business within a given period, during or after completion of their studies.
- Incubation facilities should be available for student entrepreneurs to learn their trade.
- Internship programmes should have an entrepreneurship focus and should be built into the current entrepreneurship curricula.
- Failure should be accepted as part of entrepreneurship.

3.6.3.3 Sources that contribute to the development of ESE and their implications for entrepreneurship education

People can develop self-efficacy by paying close attention to their successes and failures as well as through direct reinforcement and encouragement from others (Feldman, 2008:399). According to Kreitner and Kinicki (2008:129), the sources that contribute to the development of self-efficacy include prior experience, behaviour models, persuasion from others and assessment of physical and emotional state. Bandura (1986 in Luthans, 2008:205) suggested four major sources of self-efficacy that include:

- (1) *Mastery experiences or performance attainments.* Mastery experiences gained through perseverant effort and ability to learn, contribute to the formation of a strong and resilient sense of efficacy. The development of entrepreneurial self-efficacy depends, not only on teaching entrepreneurial competencies, but also on allowing students and trainees to internalise the competencies learned through perceived mastery (Krueger, 2000:11). If entrepreneurial behaviour is to be encouraged, learners should learn by performing activities in a context that is similar to the real world (Adams, 2006:471; Heinonen and Poikkijoki, 2006:88). Students should be involved in “hands-on” projects of identification, evaluation of opportunities and new venture creation and successful entrepreneurs should be used to develop specific skills among students (Maas and Herrington, 2006:49; Lüthje and Franke, 2002:10). Educational institutions should establish

entrepreneurship centres and focus their courses on the creation of new enterprises (Franke and Lüthje, 2004:18).

- (2) *Vicarious experiences or modelling.* People can vicariously learn self-efficacy by observing the conduct of other people and the occasions on which it is rewarded, ignored or punished.
- (3) *Social persuasion.* Respected, competent people can strengthen other people's self-efficacy by persuading them that they too have what it takes and providing feedback on progress made on specific tasks.
- (4) *Physiological and psychological arousal.* How people feel, physically and emotionally influences their capability assessments (Luthans, 2008:206).

Self-efficacy has important implications for training and education (Luthans, 2008:207). These implications are indicated in Table 3.16.

Table 3.16: Implications of self-efficacy for effective education and training

Sources of self-efficacy	Key for successful training and transfer to the job	Training recommendations
Mastery of experience and performance attainment	Trainees must learn that they are the cause of their performance.	Plenty of practice so that mastery is reached. Break learning into series of obtainable endpoints to help self-confirmation of skills. Provide feedback on progress (not shortfalls) and contributions.
Vicarious experience and modelling	Model(s) used should have similar demographic attributes, and the training being done should be similar to what the trainees will be doing back on the job.	Carefully select models used in the training to have similar characteristics as the trainees. Set up training so that trainees can perceive performance is due to the capability of the model and not other factors. Models should take a task diagnostic perspective.
Social persuasion	All comments have impact, so feedback must be phrased positively to build trainee confidence.	Set trainees for success so that feedback comments can be very positive. Trainers must be careful and sensitive to keep positive things that are said and done in the presence of trainees.

Table 3.16 continued

Physical and psychological arousal	Make sure trainees experiencing physical or psychological symptoms interpret them as the nature of the training task and not some personal inadequacy.	Trainees must understand that the need to exert a considerable effort does not mean a lack of personal capability. Getting trainees physically and psychologically fit may help arouse motivation to learn and be successful.
------------------------------------	--	---

Source: Adapted from Luthans (2008:207).

Entrepreneurship education impacts positively on perceived ESE which in turn influences entrepreneurial intent. The sources of ESE are mastery of experience and performance attainment, vicarious experience and modelling, social persuasion, and physical and psychological arousal. From Table 3.16, these sources of ESE have implications for entrepreneurship education. Entrepreneurship educators should provide students with the opportunity to practice what is being learned in order to achieve mastery of experience. In order to ensure that vicarious learning takes place, the models selected should have similar characteristics to those of students so that students can feel that they too have what it takes to succeed. Entrepreneurship educators can use social persuasion by giving students positive feedback that enhances their self-confidence. Students should be prepared to be physically and psychologically fit in order to persevere under pressure and uncertainty.

Zhao *et al.* (2005:1266) suggest that the four sources of entrepreneurial self-efficacy can be influenced by various pedagogical approaches used in entrepreneurship education. Among the approaches that can be used are:

- Offering students the opportunity to observe successful role models can facilitate vicarious learning through lectures given by local entrepreneurs, case studies of prestigious entrepreneurs or working with an entrepreneur on a course project. Moesel and Santiago (2008:1261) assert that forms of education that encourage interaction with entrepreneurial ventures and their founders can help in cultivating a strong sense of ESE. The types of competencies, attitudes and motivational orientations that will be repeatedly observed develop through the people with whom one regularly associates (Van Auken *et al.*, 2005:10). Onstenk (2003:86) reports that people can learn competencies needed in their career by observing the actual behaviour of others and their consequences. Based on the fact that

self-efficacy has a significant influence on the intention to start a business, Collins, Hannon and Smith (2004:460) contend that students must be given a chance to take risks on their own or be exposed to people who have taken risks and learn from their experiences as a way to prepare them for entrepreneurial risks. Van Auken *et al.* (2005:10) are of the view that entrepreneurs must be included in entrepreneurship programs and workshops and universities must offer students internships with entrepreneurs. This interaction with entrepreneurs may lead to greater entrepreneurship orientation of the students. These entrepreneurs can act as role models on how to turn the academic know-how into a business idea (Paasio and Pukkinen, 2005:10). While the use of practicing entrepreneurs is emphasised, Kuratko (2005:589) proposes that they must present more than interesting stories and move deeper into the real problems and issues involved with their ventures. Students must be exposed to entrepreneurs who have paid the price, faced the challenges and endured the failures.

- Entrepreneurship educators can use social persuasion to enhance students' self-efficacy when evaluating students' course projects or mentoring students about their career goals.
- Providing examples of the lifestyles and working styles of successful entrepreneurs can help students to develop their own psychological coping strategies.

Segal *et al.* (2007:69) investigated the perceptions of 34 entrepreneurship educators regarding classroom related activities that best enhanced students' ESE and outcome expectations related to the future performance or goals. Perceptions of entrepreneurship educators were assessed based on the four sources of self-efficacy: 1) Enactive mastery; 2) Vicarious experience; 3) Verbal persuasion; and 4) Affective or automatic arousal.

Segal *et al.* (2007:71) found that entrepreneurship educators' ratings on learning activities that impacted on enactive mastery from the highest to the lowest were

starting a business as part of a class, internships, consulting projects, formal mentoring by an entrepreneur, creating a business plan and business plan competitions. The findings relating to learning activities that impacted on vicarious experience or modelling dimension from the highest to the lowest were formal mentoring by an entrepreneur, internships, entrepreneurs as guest speakers and entrepreneur bibliographies. The ratings of entrepreneurship educators regarding learning activities that provided the best opportunity to provide verbal persuasion from the highest to the lowest were new venture initiation, formal mentoring, internships, guest speakers, encouraging entrepreneurial careers with instructor's attitude/enthusiasm and consulting projects. Entrepreneurship educators reported that classroom exercises and role play were the best learning activities that fostered positive emotional reactions such as remaining calm and focused in difficult and stressful situations. These activities were followed by a new venture initiation (Segal *et al.*, 2007:72). Learning activities that were found to enhance self-efficacy and influence students' outcome expectations from the highest to the lowest were starting a business, internships, formal mentoring by an entrepreneur, consulting projects, business plan and entrepreneurs as guest speakers. Lecturing and case study ranked low in terms of self-efficacy and outcome expectations. Segal *et al.* (2007:72) concluded that by incorporating the more highly-ranked class-related activities in the development of course pedagogy, the greater level of self-efficacy and outcome expectations can be fostered throughout the educational experience.

Kuehn (2008:93-96) discusses how social connections, work-related experience and self-efficacy can be incorporated into entrepreneurship education as follows:

- Social connections were found to be important predictors of entrepreneurial activity (Shane, 2003 in Kuehn, 2008:93). This view is supported by Hisrich *et al.* (2008:61) and Kamau-Maina (2007:36) who found that entrepreneurial models have a significant impact on entrepreneurial intent. Additionally, Kamau-Maina (2007:42) found that prior exposure to entrepreneurship through businesses run by members of important social referent groups influenced ESE which led to entrepreneurial intentions and actual business set up. Based on these findings, Kuehn (2008:93) suggests that the interaction between entrepreneurs and students is essential to influence the desirability and feasibility perceptions of students. Entrepreneurship educators can increase the impact of

entrepreneurship programs on their students by pulling together networks of information and other resources that can be accessed by aspiring entrepreneurs, students and alumni.

- Work-related experience. Bandura (1986 in Kuehn, 2008:93) postulated that direct experience or mastery experience is a powerful learning method which increases self-efficacy. Kuehn (2008:94) is of the view that exposing students to internships in entrepreneurial companies and encouraging the establishment of student-run businesses are vital to providing direct learning experiences to students.

Moreover, Bandura (1986 in Kuehn, 2008:94) identifies the four components that are necessary in the learning process before a model can be imitated. These include: 1) Attention, 2) Retention, 3) Reproduction, and 4) Motivation. Kuehn (2008:94) summarised these components and provided implications for entrepreneurial learning as follows:

- Attention means that if the chosen model does not have the full attention of the observer, its impact will be diminished accordingly. Entrepreneurship educators therefore have to be careful in the selection of entrepreneurs as models and pay attention to the setting and the manner in which students interact with these models (Kuehn, 2008:94).
- Retention is the individual's need to recall what was attended to in the model. Kuehn (2008:95) suggests that entrepreneurship educators and students may review key model behaviours and attitudes and discuss what these mean during a class or meeting. This may contribute to the ability of students to use these behaviours when the opportunity arises.
- Reproduction is the ability of an individual to actually do what the model did or exhibit the attitudes the model exhibited in the appropriate context. Katz (2007 in Kuehn, 2008:95-96) asserts that the business plan is a key modelling exercise and entry tool in entrepreneurship education which allows students to practice concepts and techniques on a proposed business venture.

Motivation “refers to willingness of the learner to incorporate the learning experience into his/her life; that is, linking the student’s imitation of the model to real, expected, or vicariously observed outcomes” (Kuehn, 2008:96). Individuals must be able to connect the model’s actions with their own future choices. Internships, student consulting projects and student-run enterprises are regarded as appropriate tools to transfer learning to applications in real situations. Kuehn (2008:96) argues that students must be given an opportunity to see how things are done in the business context and the opportunity to do these things in a business context.

Kuehn (2008:95) provides a summary of the factors that entrepreneurship educators can incorporate into students’ experiences in order to influence their entrepreneurial intentions as set out in Table 3.17.

Table 3.17: Learning activities and their impact on entrepreneurial intentions

Learning activity affecting perceived desirability	Exposure to entrepreneurs and their businesses. Successful direct experience in starting, working in and operating own business. Positive entrepreneurship attitudes of peers, friends, faculty mentors etc.
Learning activity affecting perceived feasibility (indirectly desirability and propensity to act)	Effective modelling of entrepreneurship. Meaningful interactions with entrepreneurs. Direct experiences in starting new businesses. Consulting in entrepreneurial organisations. Internships in entrepreneurial organisations. Courses integrating essential knowledge and skills (business plans). Successful experiences in student entrepreneurship. Exposure to relevant entrepreneurship networks.

Source: Kuehn (2008:95)

In order for entrepreneurship education to succeed in influencing students’ ESE, it is vital to expose students to entrepreneurs and their businesses, students must have first-hand experience of starting, working in and operating their own business and the faculty mentors must display positive attitudes towards entrepreneurship. Students must have an opportunity to consult and do internships in entrepreneurial organisations as well as exposure to relevant entrepreneurship networks.

3.6.4 Summary

In the previous sections the importance of entrepreneurship education has been discussed looking at its contribution to entrepreneurial activity. From the literature it is evident that entrepreneurial intent models could be valuable tools for evaluating the impact of entrepreneurship education programmes. There is substantial evidence that exposure to entrepreneurship education impacts on entrepreneurial intent and encourages students to start their own businesses. More specifically, exposure to entrepreneurship education impacts on antecedents of entrepreneurial intent which in turn influence the intention to start a business. In order to be effective, entrepreneurship education should make students feel equipped with the necessary skills and competencies to initiate and run their own businesses.

Successful establishment and management of a new venture depend on having entrepreneurial skills and competencies. In order to be effective, entrepreneurship education should enhance the development of skills and competencies associated with successful entrepreneurship. Perceived entrepreneurial skills affect the antecedents of entrepreneurial intent. Therefore, entrepreneurship education should concentrate on developing business skills, technical skills and entrepreneurial skills as these are associated with the stages in the entrepreneurial process. Exposure to entrepreneurship education increases the perceived ESE of students. Self-efficacy has a significant influence on entrepreneurial intent and nascent entrepreneurial behaviour. Concentrating on the development of business skills, technical skills and entrepreneurial skills will contribute to students' ESE in dealing with every stage of the entrepreneurial process. The implication for entrepreneurship education with regard to enhancing ESE is that students should be provided with the opportunity to learn from different types of experiences. This can be achieved by making use of local entrepreneurs as guest speakers, giving students positive feedback in relation to course projects or mentoring students about their career goals, giving examples of the lifestyles of successful entrepreneurs and encouraging students to establish student-run businesses and affording them an opportunity for internships in entrepreneurial companies. The next section gives an exposition of the development of entrepreneurship education around the world.

3.7 GLOBAL PERSPECTIVES ON ENTREPRENEURSHIP EDUCATION

This section focuses on the development of entrepreneurship education in different countries and South Africa. The main purpose is to highlight the types of entrepreneurship education offered, the objectives to be achieved and pedagogical methods used. This will contribute to the body of knowledge in terms of the type of entrepreneurship education that can influence the intention of students to start businesses and the pedagogical methods to be followed in order to adequately prepare students to become competent entrepreneurs.

3.7.1 Entrepreneurship education in the United States and Europe

Katz (2003 in Glackin, 2006:1) reports that the first entrepreneurship course in the United States universities was offered in 1947 and that most efforts have begun in the past 30 years. Since 1947 there has been a steady increase in the number of higher education institutions that offer courses in entrepreneurship (Guzmán and Liñán, 2005:10). In 1968, Babson College introduced the first minor in entrepreneurship at the undergraduate level and in 1971 the first interdisciplinary entrepreneurship education was introduced at Masters level at the University of Southern California (Katz 2003 in Guzmán and Liñán, 2005:10-11). Vesper (1982 in Guzmán and Liñán, 2005:10) reports that at the end of 1979 there were only eight institutions at both undergraduate and graduate levels that offered courses in the field of entrepreneurship.

Guzmán and Liñán (2005:11-12) state that there are two occurrences that demonstrate the consolidation of entrepreneurship education in the United States namely, the creation of centres and associations dedicated to the study and the dissemination of the topic and scientific meetings and the publication of scientific journals related to entrepreneurship. These occurrences are illustrated in Tables 3.18 and 3.19.

Table 3.18: The creation of relevant associations and centres in the USA

1956	International Council for Small Business (ICSB) formed (called the National Council for Small Business Management Development until 1977).
1959	SBA Research Initiative launched. (First major government effort to use academics for substantive research on entrepreneurship.)
1970	First modern entrepreneurship centre, the Caruth Institute of Owner-Managed business, was established at Southern Methodist University.
1972	Small Business Institute program launched by US Small Business Administration at Texas Tech University. By the end of the year, 20 schools were participating (SBI sponsored student-performed field consulting projects to small businesses.)
1974	Entrepreneurship Interest Group of the Academy of Management formed under the direction of Karl Vesper.
1984	First Price-Babson College Fellows Program offered. (Pioneering training program for tenure-track and adjunct faculty in entrepreneurship.) First single campus business plan competitions at Babson College and University of Texas-Austin (Known as MOOT).
1987	First National Business Plan Competition, San Diego State University. (First of the enduring national “open” business plan competitions.)
1998	VUsME, the Virtual University for Small and Medium Enterprises went on the World Wide Web. (First entrepreneurship distance education program deployed by a university, in this case a consortium of four schools.)

Source: Guzmán and Liñán (2005:12)

Table 3.19: Scientific journals and conferences on entrepreneurial education in USA

1949	<i>Explorations in Entrepreneurial History</i> began publication at Harvard. (First research journal focused on entrepreneurs. Ceased publication in 1969.)
1963	<i>Journal of Small Business Management (JSBM)</i> began. (First refereed scholarly journal devoted to mainstream entrepreneurship/small business research.)
1970	First major academic research conference, <i>Symposium on Technical Entrepreneurship</i> , chaired by John Komives and Arnold Cooper at Purdue.
1975	<i>International Symposium of Entrepreneurship and Enterprise Development</i> held in Cincinnati.
1976	<i>American Journal of Small Business</i> (after 1988, <i>Entrepreneurship Theory and Practice</i>) first published.
1977	<i>Entrepreneur Magazine</i> began publication.
1979	<i>Inc. Magazine</i> began publication.
1980	First of Don Sexton's "State of the art" conference held at Baylor University. The Consortium for Entrepreneurship Education (CEE) was established which holds Annual Entrepreneurship Education Forum since 1983.
1981	First <i>Babson Entrepreneurship Research Conference</i> and first publication of <i>Frontiers of Entrepreneurship Research</i> .
1982	<i>International Small Business Journal</i> began publication.
1985	<i>Journal of Business Venturing</i> began publication.
1986	Gary Liecap's <i>Advances in the study of entrepreneurship, innovation and economic growth</i> began publication. (First major annual research series specifically with focus on entrepreneurship.)
1987	<i>Family Business Review</i> began publication.
1988	<i>Small Business Economics</i> began publication. Illinois Institute for Entrepreneurship Education (IIEE) started holding Annual Young Entrepreneurs Conference.
1992	<i>Journal of Entrepreneurship</i> began publication.
1993	Jerome Katz and Robert Brockhaus' <i>Advances in Entrepreneurship, Firm Emergence and Growth</i> began publication. (First major annual research series specifically focused on mainstream entrepreneurship.)
1996	United States Association for Small Business and entrepreneurship (USASBE) was established.
1997	Association for Small Business and Entrepreneurship (ASBE) was established.
1998	<i>New England Journal of Entrepreneurship</i> began publication.
2001	<i>Academy of Management Journal</i> began publication. Roundtable on Entrepreneurship Education (REE) was established.
2002	<i>Journal of Applied Management and Entrepreneurship</i> began publication.
2003	National Association for Community College Entrepreneurship (NACCE) was established.
2004	<i>Journal of Entrepreneurship Education</i> began publication.
2005	<i>International Entrepreneurship and Management journal</i> began publication.

Source: Adapted from Guzmán and Liñán (2005:13)

In addition to the abovementioned information on conference proceedings and journals in the United States, other developments have occurred in the UK and South Africa with regard to conferences and journals providing information about entrepreneurship education. These developments are illustrated in Table 3.20.

Table 3.20: Scientific journals and conferences on entrepreneurial education in Europe and South Africa

1959	<i>Education and Training</i> began publication.
1977	<i>Journal of European Industrial Training</i> began publication. The Institute for Small Business and Entrepreneurship (ISBE) was established.
1982	<i>Journal of Management Development</i> began publication.
1987	<i>South African Journal of Education</i> began publication. <i>International Journal of Educational Management</i> began publication.
1989	<i>South African Journal of Economic and Management Sciences</i> began publication. <i>Technology Analysis and Strategic Management</i> began publication.
1991	Internationalising Entrepreneurship Education and Training (IntEnt) was established, which holds conferences on entrepreneurship education.
1994	<i>Journal of Small Business and Enterprise Development</i> began publication.
2001	<i>International Journal of Entrepreneurship and Innovation Management</i> began publication.
2002	<i>International Journal of Entrepreneurship Education</i> began publication.
2004	<i>International Journal of Entrepreneurship and Small Business</i> began publication.

Source; Table created by the author.

As Tables 3.18 and 3.19 indicate, the creation of relevant entrepreneurship associations and centres started as early as 1956 in the USA while scientific journals and conferences started in 1949. In Europe, scientific journals that publish articles on entrepreneurship education started in 1959 while conferences began in 1977. These occurrences have played an essential role in the development of entrepreneurship education.

Entrepreneurship education in Europe started in the 1970s (Guzmán and Liñán, 2005:14). Guzmán and Liñán (2005:24) report that in Europe two countries that implemented entrepreneurship education in the 1970s are the United Kingdom and France. The real diffusion of entrepreneurship education started in the 1990s across the continent. Guzmán and Liñán (2005:14) argue that although there is considerable

agreement that entrepreneurship education is widely developed in Europe, it is very difficult to quantify the level of diffusion of this type of education.

Guzmán and Liñán (2005:3) report that entrepreneurship education in the United States concentrated on specific steps in the firm creation process while in Europe the focus was more on developing the entrepreneurial personality. They attribute these different conceptions to the different rates of development of entrepreneurship education institutions in each region (Guzmán and Liñán, 2005:3). Due to a high level of decentralisation in the United States, there is no unified national system of entrepreneurship education (Guzmán and Liñán, 2005:9). This contributes to differences in theory and practice among researchers and institutions. Guzmán and Liñán (2005:24) found that although entrepreneurship education in the United States placed a lot of emphasis on firm creation while paying little attention to the other types of education, there has been a shift to awareness initiatives and continuing education since the 1980s and 1990s. More recently, there have been efforts to embark on education for entrepreneurial dynamism. Entrepreneurship education in Europe focused on entrepreneurial awareness activities. The differences in perspectives on entrepreneurship education in America and Europe are related to social and cultural differences. “The American society has traditionally been more individualistic and has a more flexible labour market, and there is no stigma attached to entrepreneurial activity”. According to Guzman and Liñán (2005:25), “there is a higher level of social protection in Europe” and “a significant part of the population does not even consider entrepreneurial activity as a professional option”. This is supported by the findings of the 2008 GEM report that indicates the lowest rates of entrepreneurial activity in some European countries such as Belgium, Germany and France. These low entrepreneurial activity rates are attributed to relative risk aversion of the Europeans and their declared preference for employment over self-employment (Bosma *et al.*, 2008:19).

Weaver, Turner, McKaskill and Solomon (2002:4) conducted a benchmarking study on the top 50 ranking entrepreneurship programs in the United States (U.S.) and the United Kingdom (U.K). They conducted an in-depth review of the Success magazine “Top 50” entrepreneurship programs and developed a database of the courses and activities offered. They also carried out a qualitative study of 21 highly thought of programs in the United States and Britain by visiting 22 selected institutions, observing

their programs and discussing their approaches to entrepreneurship education in order to discover what distinguishes them from other programs. A national survey on entrepreneurial education and training was also conducted (Weaver *et al.*, 2002:5).

They found that the most widely taught course in the review of the Success magazine "Top 50" is New Venture Financing followed by Writing a Business Plan, Introduction to Entrepreneurship, Small Business Management, New Venture Growth Strategies, and Small Business Consulting. Courses that were ranked of secondary importance are Family Issues, Technology Development, Entrepreneurship and E-Commerce, Second Business Plan Course, International Entrepreneurship, and Entrepreneurial Marketing. The results of the qualitative study indicated that a successful entrepreneurship program begins with the foundation subjects such as Opportunity Evaluation, Business Plan Writing, Venture Finance, and Managing Growth (Weaver *et al.*, 2002:6). With regard to the national survey of entrepreneurship education, Weaver *et al.* (2002:7) report that most institutions had at least a basic entrepreneurship course and a small business management course followed by New Venture Creation, Technology and Innovation and Venture Capital. The most popular teaching methods from the highest mentioned to the lowest are (Weaver *et al.*, 2002:7): Creation of a Business Plan, Case Studies, Lectures, Discussions, Guest Speakers, Research Projects, Feasibility Studies, Small Business Institute (SBI), Internships and Community Development. Table 3.21 provides a brief summary of each course.

Table 3.21: Predominant courses found in entrepreneurship curriculum in the U.S and U.K

Course	Description
1. Introduction to entrepreneurship	The primary goals of this course are to expose students to the fundamentals of entrepreneurship and allow them to assess their own personal entrepreneurial proclivity.
2. New venture financing	This course typically focuses on sources of seed, start-up and growth capital and looks at the orchestration of raising capital, the investment agreement, financial valuation, various sources of funds, structures and legal issues in arranging financing, private and public markets, and preparation for and execution of an initial public securities offering.
3. Social entrepreneurship	Focuses on the role of the entrepreneur who is primarily concerned with increasing “social wealth” by improving healthcare, education, cultural institutions, and the like.
4. Family issues	Management principles and practices are examined within the context of a family-owned business. Competitive strengths/weaknesses of a family business, dynamics of family interactions within the overlapping family, and management and ownership systems are discussed.
5. Entrepreneurship marketing	This course covers strategies that entrepreneurial companies utilise in marketing their products and services in an environment of low marketing budgets and no brand history. Topics include assessing market opportunities, creating value, building strategic alliances, building a market plan, differentiating products, conducting market research, and managing with market metrics.
6. New venture growth strategies	Focuses on how entrepreneurs turn small businesses into larger businesses. Includes planning, forecasting sales, increasing production, designing new products or services, designing distribution and managing a sales force, managing personnel, using strategic linkages with other companies to increase market presence, satisfying the demanding requirements of investors, and working with a growing customer base.
7. Business plan course I	This course provides the aspiring entrepreneur with a framework for selecting, funding, and starting his or her own business. Universities with single business plan course offerings culminate this course with a complete business plan, while those with multiple business plan course offerings usually culminate this course with a feasibility analysis of a potential business.

Table 3.21 continued

8. Business plans II	This course teaches students the fundamentals associated with writing a full business plan. Emphasis is placed on the purpose and uses of a business plan, including what venture capitalists expect from a good plan. Students write a business plan for a start-up venture of their choice and are evaluated on both their written plan and their oral presentation of the plan. Schools offering multiple business plan courses typically use the second course to write the full business plan.
9. Business plans III	Involves completion of a sophisticated business plan within task groups (teams) from an original concept through all of the elements of a professionally written business plan, and concludes with the business plan being entered into a competition.
10. Corporate entrepreneurship	A study of practices and techniques used to stimulate and foster the entrepreneurial spirit within the framework of larger firms. This course explores the skills, techniques, and strategies that are required to instil entrepreneurial behaviour in large complex organisations.
11. Small business management	The purpose of this course is to prepare students for leadership roles in small to mid-sized companies. Students are exposed to some of the practical realities, transition points, issues and dilemmas that are practically relevant to smaller companies.
12. Small business consulting	This is an integrative course that focuses on consulting assignments with actual small business firms with each student being individually matched with an emerging company. It draws on the skills learned in the several business disciplines, and applies them to operating small businesses, including identifying problems and opportunities, and solving them.
13. Technology development	Valuable technology is frequently developed through basic and applied research, but recognising and realising its value requires an understanding of the technology transfer process. This course provides the student with insights into the development, management and transfer of intellectual assets.
14. Entrepreneurship and e-Commerce	This course provides students with a fundamental understanding of the way that the Internet is changing the way business is conducted, with considerable attention to entrepreneurial Internet companies and business models.
15. International entrepreneurship	The course includes a feasibility study of an international small business venture start up, case studies, and experiential learning. Emphasis is placed on investigating how entrepreneurs respond to the social/cultural, political/legal, physical/environmental, and economic/labour environments of the countries in which they operate.

Table 3.21 continued

16. Entrepreneurial internship	Students gain valuable experience presenting the concepts learned in the classroom and observing how successful entrepreneurs build organisations. Many internships are paid and /or offered with college credit.
17. Creativity	A study of models and methods of creativity development and creativity management, through which the creative process can be encouraged and increased. Students facilitate and lead cross-functional groups to achieve breakthrough creativity and problem solving applied to innovation and entrepreneurship.
18. Entrepreneurship law	This course addresses the legal issues most frequently encountered by entrepreneurs and others involved in start-ups and small, closely-held or family businesses. The focus is on how to avoid legal problems and how best to cope when they arise.
19. Franchising	This course covers the principles and activities involved in starting and managing a new franchise from the perspective of the franchisor and franchisee.
20. Entrepreneurship simulation	This course is about simulation, databases, and other informational science techniques that can be used by the student to examine and test hypothetical situations, with a view to the application of these techniques to new venture opportunity evaluations.
21. Small business negotiations	Covers negotiation techniques and styles, valuation and harvest methods, creating entrepreneurial ventures in large companies, and failure and bankruptcy.
22. Small business strategy	Focuses on the analysis and interpretation of business environments including markets and associated critical success factors. Students adopt an entrepreneurial approach to identify and critically analyse emerging opportunities in new and existing businesses.
23. New product development	This course examines a variety of ways of “hearing” the voice of the customer and then translating this information into design criteria, product specifications and product prototypes. Emphasis is on understanding and appreciating the interaction between design, engineering, manufacturing and marketing to develop successful new products.

Source: Weaver *et al.* (2002:8-10)

A wide variety of entrepreneurship courses are offered in the U.S and the U.K. as indicated in Table 3.19. These courses however, focus on different goals/aims. There are those courses that deal with creating awareness of entrepreneurship, those that focus on managing a business, how to access funding, growing a business, corporate entrepreneurship, developing a business plan, dealing with technology and e-

Commerce, internships, creativity development and management, legal aspects in entrepreneurship, negotiations, strategic management issues in a small business and new product development.

In 1999-2000, Solomon *et al.* (2002:1) conducted a survey to assess the state of entrepreneurship education in the United States. He reported that 80 percent of the academic institutions that participated were four-year colleges, 13 percent were two-year community and junior colleges, and six percent were international universities and colleges. These institutions started offering courses in entrepreneurship from 1978 to 1999. In all academic institutions that participated in the survey the most frequently offered course was Small Business Management, followed by Entrepreneurship and New Venture Creation in third position. The predominant course in two-year colleges and four-year colleges and universities was Small Business Management courses whereas Entrepreneurship was predominant in international colleges and universities (Solomon *et al.*, 2002:11).

Solomon *et al.* (2002:12) found that all three types of institutions applied the same basic in-class teaching methods which included case studies, creation of business plans, discussions, guest speakers and lectures by business people. There were also similarities in the external teaching methods that were used by the three types of institutions. External teaching methods included internships, on-site visits with small business owners and community development and small business consulting (Solomon *et al.*, 2002:13). A summary of the types of courses offered and teaching methods used is depicted in Table 3.22.

Table 3.22: Entrepreneurship courses offered at academic institutions in the United States and the teaching methods used (1999-2000 survey).

Types of institutions	Types of course offered	Pedagogical methods	
		In-class pedagogical methods	External pedagogical methods
2-Year Colleges	<ol style="list-style-type: none"> 1. Small business management 2. Entrepreneurship 3. New venture creation 	<ol style="list-style-type: none"> 1. Case studies 2. Creation of business plans 3. Discussions 	<ol style="list-style-type: none"> 1. Internships 2. On-site visits with small business owners 3. Community development and small business consulting
4-Year Colleges and Universities	<ol style="list-style-type: none"> 1. Small business management 2. Entrepreneurship 3. New venture creation 	<ol style="list-style-type: none"> 1. Creation of business plans 2. Case studies 3. Guest speakers 	<ol style="list-style-type: none"> 1. Small business consulting 2. Internships 3. On-site visits with small business owners
International Colleges and Universities	<ol style="list-style-type: none"> 1. Entrepreneurship 2. Small business management 3. New venture creation 	<ol style="list-style-type: none"> 1. Creation of business plans 2. Case studies 3. Lectures by business people and guest speakers 	<ol style="list-style-type: none"> 1. Small business consulting 2. On-site visits with small business owners 3. Internships

Source: Adapted from (Solomon *et al.*, 2002:11-13)

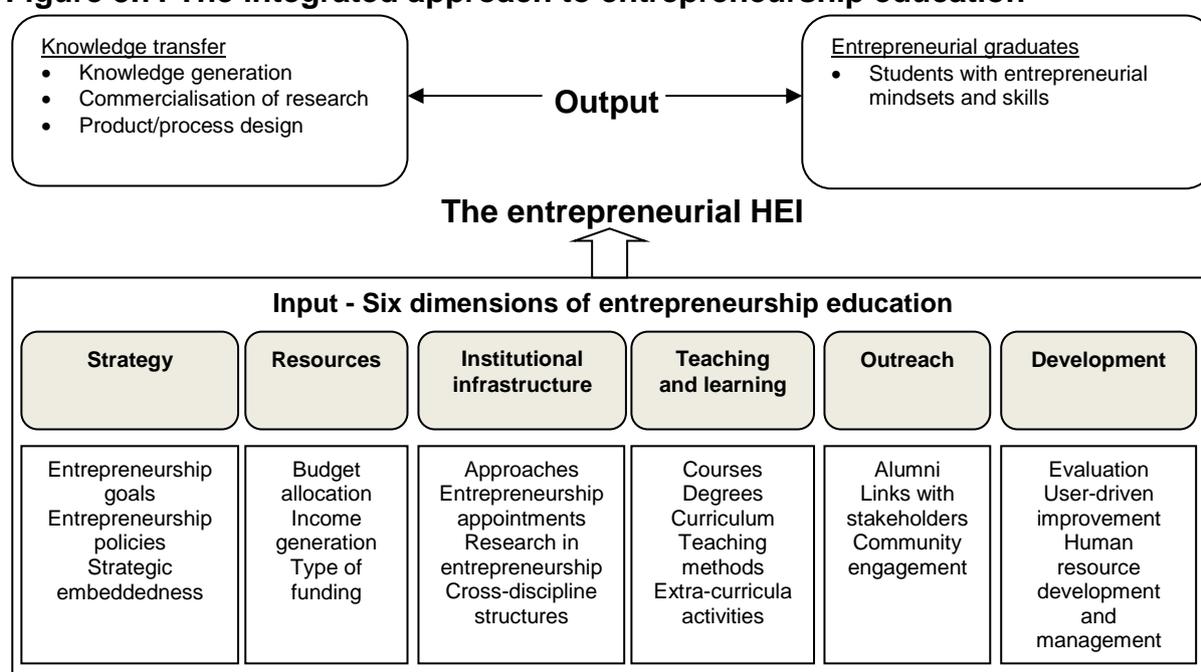
From Table 3.22, Small Business Management, Entrepreneurship and New Venture Creation are the most popular courses offered among 2-year colleges, 4-year colleges and universities and International colleges and universities in the United States. In terms of in-class teaching methods case studies and creation of business plans are used widely across these institutions. Discussions are used only in 2-year colleges while guest speakers are used in both 4-year colleges and International colleges and universities. These institutions used similar external pedagogical methods which included internships, on-site visits and small business consulting.

During 2004-2005, Solomon (2007:175) conducted another national survey that involved 279 HEIs in the United States. Solomon (2007:176) found that the most popular entrepreneurship courses in these institutions were Entrepreneurship (53%), followed by Small Business Management (36%) and New Venture Creation (30%). The results of the 2004-2005 survey showed that Small Business Management has moved up in popularity when compared to the results of the benchmarking study that was conducted in 2002 by Weaver *et al.* (2002:6). The most popular teaching methods that were used are creation of business plans, followed by class discussion and guest

speakers (Solomon, 2007:177). Solomon (2007:179) concludes that the trends discovered in the national survey of 1999-2000 have continued in a similar path though there is a dramatic increase in the use of technology.

A Scandinavian consortium (2008:3) conducted a survey on behalf of the European Commission, Directorate-General for Enterprise and Industry. The investigation focused mainly on the scope of entrepreneurship education in Europe and involved 664 HEIs. The study was based on an integrated framework/approach to entrepreneurship education depicted in Figure 3.7.

Figure 3.7: The integrated approach to entrepreneurship education



Source: Adapted from Scandinavian consortium (2008:44 & 46)

The integrated approach to entrepreneurship education consists of six dimensions representing the input which refers to “different approaches and activities that an HEI can adapt and implement to become an entrepreneurial HEI” (Scandinavian consortium, 2008:44). The consortium identified the output components as knowledge transfer and entrepreneurial graduates. The six dimensions in the integrated approach to entrepreneurship education are explained as follows (Scandinavian consortium, 2008:45):

- *Strategy* – how and if the institutions embed entrepreneurship in the overall strategy.
- *Institutional infrastructure* – the structures that institutions establish to support entrepreneurship education.
- *Teaching and learning* – the entrepreneurial learning opportunities offered by the institutions.
- *Outreach* – the involvement of the institutions in the wider community.
- *Development* – how the institutions ensure sufficient quality in their entrepreneurship education through evaluation and the development of the human resources engaged in entrepreneurship education.
- *Resources* – how the institutions ensure the scalability and sustainability of their entrepreneurship education through the dedication of resources.

The findings of the survey indicate a great difference between the top and bottom institutions on embedding entrepreneurship in the institution's overall strategy and setting out goals for the entrepreneurial activities. Fostering entrepreneurial behaviours, skills and mindsets among students was the common goal among institutions that were offering entrepreneurship education (Scandinavian Consortium, 2008:23). Only a few of the multi-disciplinary HEIs had entrepreneurial policies for their faculties (Scandinavian Consortium, 2008:24). Around half of the institutions that were surveyed had various structures such as entrepreneurship centres, departments and incubators in place to support entrepreneurship education. Scandinavian Consortium, (2008:25) found that HEIs in Europe varied in the extent to which entrepreneurship was being taught. The results indicated differences among institutions with regard to extra-curricula activities. The most common extra-curricula activities that were offered at these HEIs were seminars and workshops, and about half of the institutions had different kinds of competitions, company visits, matchmaking events or offered mentoring/personal coaching (Scandinavian Consortium, 2008:140).

In terms of teaching and learning HEIs emphasised the use of case studies. Entrepreneurship courses were offered mostly in business and technical studies (Scandinavian Consortium, 2008:26). Almost all HEIs used entrepreneurs and alumni as good examples in their teaching.

There are differences between top and bottom institutions in how they engage with the community. Top and bottom institutions were identified using the criteria that included the number of students taking part in the entrepreneurship education and the knowledge-transfer activities of the institutions (Scandinavian Consortium, 2008:76). The top ten institutions were more active in hosting entrepreneurial events to the community, offering advisory services to local entrepreneurs and companies and supporting entrepreneurial activities in schools (Scandinavian Consortium, 2008:27). Some institutions did consultancy work as a means of engaging with the community.

When it comes to human resources development and management, both the top and bottom institutions were lacking. Many of the students were taught by teachers who did not have practical knowledge of entrepreneurship. Only a few institutions offered their entrepreneurship teaching staff training opportunities to enhance their skills.

Scandinavian Consortium (2008:28) states that entrepreneurship education in Europe is still immature because it is often person driven rather than a collective and strategic effort on the part of the HEIs or national government. User-driven improvement is common in the majority of HEIs. The bottom ten institutions focus on student evaluations of their courses while the top ten institutions obtain evaluations from students and from end-users such as employers or investors (Scandinavian Consortium, 2008:29).

The majority (75%) of the HEIs generate income through entrepreneurship related activities such as admission fees from seminars and workshops, and fees from advisory services (Scandinavian Consortium, 2008:29). Some institutions indicate that lack of funding affects the development, growth and continuation of entrepreneurship education. Two thirds of HEIs depend on government funding as their primary source of funding (Scandinavian Consortium, 2008:30).

Furthermore, there are some differences in the way entrepreneurship education is offered across Europe. Scandinavian Consortium (2008:30) found that entrepreneurship education is influenced by the type of institution, years of experience with entrepreneurship education and geographic location. The majority of business

schools and multi-disciplinary institutions with a business school department are offering entrepreneurship education. The nature of entrepreneurship education offered is also different as the business schools offer the highest number of entrepreneurship degrees, and involve alumni in their entrepreneurship education more than other types of institutions. Business schools also provide more recognition for achievements in entrepreneurship education than other types of institutions. Institutions that have been engaged in entrepreneurship education for a longer time offer a more elaborate type of education (Scandinavian Consortium, 2008:32).

3.7.2 Entrepreneurship education in Rwanda

Niyonkuru (2005:iii) investigated the provision of entrepreneurship education at HEIs in Rwanda in terms of aspects such as the levels of provision, support mechanisms, course objectives, contents, teaching and assessment methods in order to ascertain whether they adequately prepare students for entrepreneurship as a career option. The study involved 74 Heads of Departments and 12 lecturers from seven HEIs accredited by the Ministry of Education in Rwanda (Niyonkuru, 2005:40).

Niyonkuru (2005:52) found that 75 percent of lecturers were teaching about entrepreneurship as the primary aim of their courses while 25 percent indicated that the primary aim of their courses was preparing students for entrepreneurship. In terms of teaching methods, Niyonkuru (2005:57) found that 100 percent of the lecturers used lecturing and reading to teach entrepreneurship. Half of the respondents indicated that they also used individual projects, group projects and foreign case studies to teach entrepreneurship and/or small business management.

Additionally, Niyonkuru (2005:59) examined the methods used by HEIs in Rwanda to assess entrepreneurship students. He found that the most common used assessment methods were written exams and essays. All lecturers used exams to assess their students, followed by 91.7 percent of lecturers who used essays with 50 percent of the lecturers using the business plan as an additional assessment method. Niyonkuru (2005:61) found that the provision of entrepreneurship education was limited to entrepreneurship offered as part of another course and no institution offered a programme that led to an academic qualification in entrepreneurship.

3.7.3 Entrepreneurship education in South Africa

Co and Mitchell (2006:348) conducted a nation-wide e-mail survey to assess the state of entrepreneurship education and the importance of entrepreneurship among academics from 15 HEIs (Universities and Universities of Technology) in South Africa. The study involved 33 respondents representing three comprehensive universities, eight traditional universities and four universities of technology (Co and Mitchell, 2006:352). Courses such as Small Business Management, Small Business Finance and New Venture Creation were some of the popular courses that were offered at South African HEIs. Franchising, Innovation and Technology and Growth Management were reported as emerging courses in the curriculum.

In terms of teaching methods Co and Mitchell (2006:354) found that the most commonly used in-class method at undergraduate level was lecturing, followed by the writing of business plans, discussions, case studies and guest speakers. The most common in-class methods at Masters' level were research projects, discussions, case studies and lectures. The creation of business plans, lectures and case studies were commonly used in-class methods at diploma level. There is a wide usage of traditional in-class methods in HEIs in South Africa though there is an emerging trend towards the use of modern techniques such as role plays and computer simulations. Co and Mitchell (2006:354) found that there were only few institutions that used outside class methods. Among the most commonly used outside class methods at undergraduate level were on-site visits, feasibility studies and community development. Small business consulting was used at both undergraduate and Masters' level.

Moreover, traditional methods of assessment such as examinations, tests and business plans were commonly used to assess undergraduate and diploma students in entrepreneurship courses. Students at Masters and PhD levels were assessed through research papers and thesis/dissertations (Co and Mitchell, 2006:354). Co and Mitchell (2006:357) conclude that "entrepreneurship education in South Africa is at its early stages even though some HEIs have been involved in it since the early 1990s".

In South Africa there are 23 public HEIs (University of Kwazulu-Natal (UKZN), 2009:1). These HEIs are comprised of traditional universities, universities of technology and comprehensive universities. Traditional universities offer theoretically-oriented university degrees; universities of technology (former technikons) offer practically-oriented diplomas and degrees and comprehensive universities offer a combination of traditional university programmes and career-oriented, former “technikon-type” programmes (WSU, 2009:1). The websites and calendars of these institutions (faculties of management and commerce) were consulted in order to determine which entrepreneurship subjects were taught in these institutions. Table 3.23 shows the subjects in the field of entrepreneurship that are taught at South African public HEIs.

Table 3.23: Entrepreneurship subjects taught at 23 public HEIs in South Africa

Traditional universities		
Name of university	Name of entrepreneurship subject offered	Type of offering
University of Cape Town	• Entrepreneurship	Core curriculum of the Associate in Management programme.
	• Innovation and Entrepreneurship	One of the core courses of the MBA programme.
	• Globalisation and entrepreneurship	One of the core courses in the Executive MBA programme.
University of Fort Hare	• Entrepreneurship and Small Business Management	An elective subject at Bachelor of Commerce (BCom) Honours level.
	• Small Business Management	Specialisation area at Master of Commerce level.
University of Free State	• Entrepreneurship	An elective subject at BCom (Honours) level.
University of Limpopo	• Entrepreneurship	Offered as one of the core subjects of the MBA programme.
Rhodes University	• Entrepreneurship	Offered as an elective subject in the MBA programme.

Table 3.23 continued

Name of university	Name of entrepreneurship subject offered	Type of offering
University of Pretoria	<ul style="list-style-type: none"> • Entrepreneurship 	Offered as a core subject for BCom Entrepreneurship and as an elective module in BCom Communication and BCom Business Management.
	<ul style="list-style-type: none"> • Entrepreneurship • Managing Growth • Small Business Management • Development Economics • Introduction to Entrepreneurship • Entrepreneurship Theory • Creativity and Innovation • Small Business Enabling Environment • Legal Issues • Entrepreneurship • Business Development Services • International Business • Intrapreneurship 	Modules offered for Master of Philosophy (MPhil) Entrepreneurship.
	<ul style="list-style-type: none"> • Entrepreneurial Characteristics • Entrepreneurial Process • Entrepreneurial Motivation • Window of Opportunity • Entrepreneurship Theory • Business Plans • Ethnical entrepreneurship • Barriers to Entrepreneurship • Venture Capital for New Ventures • Creativity and Innovation • New venture growth • New venture failures • Small Business Management • Small Business Counselling and Mentoring • Franchising • Female Entrepreneurs • Business buy-out • Home Based Business • Networking • Role Models in Entrepreneurship • SMME Enabling Environment • Entrepreneurship in Economic Development • Strategic Management for SMMEs 	Fundamental and supportive modules offered for Philosophiae Doctor (PhD) Entrepreneurship.

Table 3.23 continued

Name of university	Name of entrepreneurship subject offered	Type of offering
University of Pretoria	<ul style="list-style-type: none"> • Growth strategies • Entrepreneurship education and training • Informal sector • Intrapreneurship (Corporate entrepreneurship) • Family business • Legal aspects for new ventures • Forms of business • International entrepreneurship 	
University of Stellenbosch	<ul style="list-style-type: none"> • Entrepreneurship and innovation management comprised of: 1) Introduction to entrepreneurship and 2) Small business management. 	Offered as an elective subject at second and third year levels for BCom, BCom specialising in: 1) Investment management, 2) Management sciences, 3) Financial management, 4) Marketing management, 5) Entrepreneurship and innovation management, 6) Information systems management, 7) Quantitative management, 8) Public and development management, 9) Mathematical sciences, 10) Computer sciences, and 11) Psychology.
	<ul style="list-style-type: none"> • Entrepreneurship and innovation comprised of: 1) Creativity and innovation management and 2) Strategic and corporate entrepreneurship. • Breakthrough start-up entrepreneurship • Corporate entrepreneurship • Entrepreneurship in the social sector 	Modules offered as elective subjects for the MBA programme.
University of the Witwatersrand	<ul style="list-style-type: none"> • Principles of management II (Entrepreneurship) 	Offered at second year level for BCom Business Science.
	<ul style="list-style-type: none"> • Entrepreneurship 	An elective subject for the MBA programme.
	<ul style="list-style-type: none"> • Entrepreneurship and the informal economy 	Offered as a specialisation at Phd level.

Table 3.23 continued

North-West University	<ul style="list-style-type: none"> • Entrepreneurial skills • Entrepreneurial opportunities • Entrepreneurship 	Offered as major courses for BCom Entrepreneurship and Business Management.
	<ul style="list-style-type: none"> • Entrepreneurial tourism 	Offered in the BCom Tourism Management.
	<ul style="list-style-type: none"> • Advanced entrepreneurship • Business plan 	Offered in BCom Honours Entrepreneurship and Marketing.
	<ul style="list-style-type: none"> • Entrepreneurship 	One of the core subjects in the MBA programme.
	<ul style="list-style-type: none"> • Advanced Entrepreneurship 	Offered as a module in Masters in Commerce in: 1) Entrepreneurship and 2) Marketing and Master of Arts in Tourism.
University of KwaZulu-Natal	<ul style="list-style-type: none"> • Introduction to entrepreneurship 	Offered at second year level of Bachelor of Business Science and BCom.
	<ul style="list-style-type: none"> • Entrepreneurship and leadership 	Offered at third year level of Bachelor of Business Administration.
	<ul style="list-style-type: none"> • Entrepreneurship and economic development. • Entrepreneurship, innovation and venture creation • Entrepreneurship and small business development 	Offered as modules in the BCom Honours: Small business development studies.
	<ul style="list-style-type: none"> • Entrepreneurship 	An elective subject in the MBA programme.
	<ul style="list-style-type: none"> • Elements of entrepreneurship 	Offered as an elective subject in the Post Graduate diploma in Management and the Post Graduate diploma in Finance Banking & Investment Management.
University of Western Cape	<ul style="list-style-type: none"> • Entrepreneurship 	Offered as a major subject for BCom (General) and for BCom (General) with Information systems or Management as fields of specialisation.
	<ul style="list-style-type: none"> • Enterprise management 	An elective subject for BCom Honours in Business Administration.
	<ul style="list-style-type: none"> • SME management 	An elective subject for Advanced Diploma in Management and Management Development Programme.
	<ul style="list-style-type: none"> • Social entrepreneurship 	An elective subject in the Master's in Management.

Table 3.23 continued

Comprehensive universities		
Name of university	Name of entrepreneurship subject offered	Type of offering
Nelson Mandela Metropolitan University	<ul style="list-style-type: none"> • Entrepreneurial skills 	Offered in the first semester for National Higher Certificate (NHC): 1) Accountancy and 2) Financial Information Systems and in the second semester for ND Economics.
	<ul style="list-style-type: none"> • Introduction to business management and entrepreneurship 	<p>Offered in the first year as an optional subject for: 1) Bachelor of Arts, 2) BCom Computer Science and Information Systems and Statistics and 3) BCom Law.</p> <p>Offered in the first year as a compulsory subject for: 1) BCom Accounting for Chartered Accountants, 2) BCom Computer Science and Information Systems, 3) BCom Economics and Statistics, 4) BCom Financial Planning, 5) BCom General Accounting and Related subjects, 6) BCom General Business Management, 7) BCom General Economics, 8) BCom General Statistics, and 9) BCom Industrial Psychology and Human Resource Management, 10) BCom Marketing Management, 11) BCom Sport and Recreation Management, 12) BCom (Rationum) Economics/Business Management and 13) BCom (Rationum) Law.</p>
	<ul style="list-style-type: none"> • Small business marketing 	Offered as a module for BTech Tourism.
	<ul style="list-style-type: none"> • Entrepreneurship and small business management 	Offered as an elective module for BCom Honours Business Management.
	<ul style="list-style-type: none"> • Entrepreneurship education • Finance for entrepreneurs • Entrepreneurship techniques 	Offered as core modules in the MTech Entrepreneurship.
<ul style="list-style-type: none"> • Entrepreneurship 	Offered as an elective module for the MBA programme.	

Table 3.23 continued

Name of university	Name of entrepreneurship subject offered	Type of offering
University of South Africa	<ul style="list-style-type: none"> • Introduction to entrepreneurship and small business management • Entrepreneurship and small business management • Intrapreneurship • Innovation and technology • Family business management 	Offered for BCom with specialisation in entrepreneurship.
	<ul style="list-style-type: none"> • Entrepreneurship I • Entrepreneurship II • Entrepreneurship III • Entrepreneurship practice III 	Offered as major subjects for ND: Entrepreneurship.
	<ul style="list-style-type: none"> • Business management I and Travel and Tourism Management I comprising: Entrepreneurship and how to establish your own business and Management for entrepreneurs are also modules that make Entrepreneurship I. 	Offered in the first year for: 1) ND Administrative Management, 2) ND Banking, 3) ND Commercial practice as an optional subject, 4) ND Credit Management, 5) ND Explosives Management, 6) ND Human Resource Management, 7) ND Management as an optional subject, 8) ND Management Services, 9) ND Safety Management, 10) ND Logistics and 11) ND Tourism Management.
	<ul style="list-style-type: none"> • Entrepreneurial skills 	Offered in the first semester for National Higher Certificate (NHC): 1) Accountancy and 2) Financial Information Systems.
University of Venda	<ul style="list-style-type: none"> • Entrepreneurship • Business planning 	Offered at third year level as compulsory subjects for: 1) BCom Business Management and as optional subjects for: 2) BCom Economics.
	<ul style="list-style-type: none"> • Entrepreneurship 	Offered as an optional subject for BCom Honours Business Management.

Table 3.23 continued

University of Johannesburg	<ul style="list-style-type: none"> • Small business management I • Small business management II • Small business management III 	Offered as a major subject for National Diploma (ND) Small Business Management.
	<ul style="list-style-type: none"> • Entrepreneurial growth strategies 	Offered at second year level of ND Small Business Management.
	<ul style="list-style-type: none"> • Entrepreneurship practicals and service learning 	Offered at third year level of ND Small Business Management.
	<ul style="list-style-type: none"> • Entrepreneurship 	Offered at first year level of ND Transportation Management and second year level of Masters in Commerce Business Management.
	<ul style="list-style-type: none"> • Intrapreneurship 	Offered as a major subject for BCom Intrapreneurial Management.
Walter Sisulu University	<ul style="list-style-type: none"> • Entrepreneurial skills 	Offered in the first semester for NHC Accountancy and in the second semester for NHC Financial Information Systems.
	<ul style="list-style-type: none"> • Small business management I • Small business management II • Small business management III • Small business management experiential training 	Offered as major subjects for ND Small Business Management.
	<ul style="list-style-type: none"> • Entrepreneurship 	An elective module for the BCom Honours Business Management.
University of Zululand	<ul style="list-style-type: none"> • Fundamentals of entrepreneurship • New Venture planning 	Offered as compulsory subjects at third year level for: 1) BCom Management Information Systems, 2) BCom Banking, 4) BCom Insurance, 5) BCom Industrial Psychology, 6) BCom Human Resources, and as elective subjects for: 7) BCom General and 8) BCom Management.

Table 3.23 continued

Universities of technology		
Name of university	Name of entrepreneurship subject offered	Type of offering
Cape Peninsula University of Technology	<ul style="list-style-type: none"> • Entrepreneurial skills 	Offered in the first semester of the first year for NHC Accountancy.
	<ul style="list-style-type: none"> • Small business management I • Small business management II • Small business management III • Small business management practice 	Major subjects for ND Entrepreneurship.
	<ul style="list-style-type: none"> • Entrepreneurship education • Finance for entrepreneurs • Entrepreneurship techniques 	Core subjects for Magister Technologiae (MTech) Business Administration (Entrepreneurship).
	<ul style="list-style-type: none"> • Entrepreneurship 5 	Offered as a compulsory subject for MTech Business Administration (Course-based).
Central University of Technology	<ul style="list-style-type: none"> • Entrepreneurial skills 	Offered in the second semester of the first year for NHC Accounting and NHC Financial Information Systems.
Durban University of Technology	<ul style="list-style-type: none"> • Entrepreneurship skills 	Offered in the first semester of the first year for NHC in Accountancy.
	<ul style="list-style-type: none"> • Small business management I • Small business management II • Small business management III • Experiential learning 	Major subjects for ND Small business management.
Mangosuthu University of Technology	<ul style="list-style-type: none"> • Introduction to entrepreneurial skills • Entrepreneurial skills 	Offered in the first semester of the first year for the four-year ND Accounting programme. Offered in the second semester of the first year for the four-year ND Accounting programme and in the first semester of the second year of the three-year ND Accounting and ND Cost and management accounting programmes.

Table 3.23 continued

Tshwane University of Technology	<ul style="list-style-type: none"> • Entrepreneurial skills 	Offered in the first semester of the first year for NHC Accountancy.
	<ul style="list-style-type: none"> • Small business management I • Small business management II • Small business management III • Small business management experiential training 	Offered as majors for ND Entrepreneurship.
	<ul style="list-style-type: none"> • Technological entrepreneurship 	Offered as an elective subject in the MBA programme.
Vaal University of Technology	<ul style="list-style-type: none"> • Entrepreneurial skills 	Offered at first year for ND: 1) Financial Information Systems, 2) Internal Auditing and 3) Cost and Management Accounting.
	<ul style="list-style-type: none"> • Entrepreneurship I 	Offered for MTech Business Administration.
	<ul style="list-style-type: none"> • Entrepreneurship II 	Offered for ND Engineering: Computer Systems.

Source: Created by author from the calendars of the universities contained in the table

Among 23 public HEIs listed in Table 3.23, the University of Pretoria offers the largest number of entrepreneurship subjects from which students can choose for their study programs. However, a limited number of students have exposure to entrepreneurship as only those who are enrolled for BCom Entrepreneurship, BCom Business Management and BCom Communication, MPhil Entrepreneurship and PhD Entrepreneurship study entrepreneurship modules. HEIs that expose the majority of students to entrepreneurship subjects are the Nelson Mandela Metropolitan University, followed by the University of South Africa and the University of Stellenbosch. The most popular entrepreneurship subjects are Entrepreneurship (found in 12 HEIs), Entrepreneurial Skills (found in 10 HEIs) and Small Business Management (found in eight HEIs).

Traditional universities that offer entrepreneurship subjects from undergraduate to post graduate degrees are University of KwaZulu-Natal, North-West University, University of Pretoria, University of Stellenbosch, University of Western Cape and University of Witwatersrand. Traditional universities that offer entrepreneurship from postgraduate level are University of Cape Town, University of Fort Hare, University of Free State, University of Limpopo and Rhodes University.

Comprehensive universities that offer entrepreneurship subjects from undergraduate to post graduate level are University of Johannesburg, Nelson Mandela Metropolitan University, University of Venda and WSU. Comprehensive universities that offer entrepreneurship subjects only at undergraduate level are University of South Africa and University of Zululand. While these HEIs may be offering students the option to specialise with entrepreneurship at Masters and Phd levels, the focus of this comparison was on entrepreneurship subjects offered and not specifically qualifications offered in entrepreneurship.

Universities of technology are offering similar entrepreneurship subjects that include Entrepreneurial skills and Small Business Management I, II and III. Entrepreneurial Skills is offered in all six universities of technology for NHC Accountancy and NHC Financial Information Systems and for ND Accounting and ND Cost and Management Accounting programmes at the Mangosuthu University of Technology. Small Business Management I, II and III is offered at the Cape Peninsula University of Technology, Durban University of Technology and TUT for ND Entrepreneurship/Small Business Management. There is also experiential learning that ND Entrepreneurship/Small Business Management must complete at the third year level. Entrepreneurship subjects are also offered at the Masters level at the Cape Peninsula University of Technology, Vaal University of Technology and TUT. Entrepreneurship education offered at WSU and TUT is explained in the next section as the effect of entrepreneurship education on entrepreneurial intent at these two institutions is the research focus of the study.

3.7.4 A comparison of entrepreneurship education at WSU and TUT

This study compares entrepreneurial intentions of three groups of students who have different levels of exposure to entrepreneurship education at WSU and TUT. These groups are National Diploma: Entrepreneurship/Small Business Management (ND: E/SBM) students, National Diploma: Internal auditing, Cost and management accounting and Financial information systems (ND: IAUD, CMA and FIS) students and National Diploma: Management students. (ND: E/SBM) students have Small Business Management as their major subject for three years while ND: IAUD, CMA and FIS students study Entrepreneurial skills during the first semester of their first year. ND:

Management students are not exposed to anything related to entrepreneurship. The syllabus for ND: E/SBM at TUT is semesterised while at WSU it is conducted as year courses. Table 3.24 shows the levels of exposure to entrepreneurship education for ND: E/SBM and ND: IAUD, CMA and FIS students at WSU and TUT.

Table 3.24: Levels of exposure to entrepreneurship education for ND: E/SBM and ND: IAUD, CMA and FIS students at WSU and TUT

WSU		TUT	
ND: E/SBM	ND: IAUD, CMA and FIS	ND: E/SBM	ND: IAUD, CMA and FIS
Year 1: Small business management I Year 2: Small business management II Year 3: Small business management III Year 3: Small business management experiential training	Year 1: First semester Entrepreneurial skills I	Year 1: Small business management IA & IB Year 2: Small business management IIA & IIB Year 3: Small business management IIIA & IIIB Year 3: Small business management experiential training	Year 1: First semester Entrepreneurial skills I

Source: WSU (2009:30&176); TUT (2009a:12) and TUT (2009b:65-66)

Before the merger of HEIs in South Africa, all technikons were operating under the convenor system which ensured a large degree of uniformity in terms of the courses offered. The convenor system meant that one technikon was responsible for liaising with other technikons on matters relating to the rules, syllabi and credits relating to certificates and diplomas offered and to communicate with the Department of Education accordingly (Wallis, 2005:2). Based on the former convenor system, the assumption is that both TUT and WSU are offering similar syllabi even though there could be slight differences. The description of the entrepreneurship subjects offered at the two universities is as follows:

- Entrepreneurial Skills I: Deals with basic business and economic principles, as well as the application and development of entrepreneurial skills (TUT, 2009a:16).

- Small Business Management IA: Entrepreneurship and small business management in perspective, basic business concepts, identifying business ideas, feasibility of business ideas, the business plan and the establishment of a new business (TUT, 2009b:92).
- Small Business Management IB: Deals with the different business functions: general management, the financial, marketing, operational, purchasing, inventory and human resource management functions and public relations.
- Small Business Management IIA: Deals with certain aspects of human resource management for small businesses.
- Small Business Management IIB: Focuses on the study of the financial management of a small business.
- Small Business Management IIIA and IIIB: Focuses on strategic planning and the management of a small business (TUT, 2009b:92-93).

3.7.5 Entrepreneurship education in Malaysia

Cheng and Chan (2004:2) report that entrepreneurship education has been actively implemented in Malaysia as many universities and HEIs have recently introduced courses related to entrepreneurship or majors in entrepreneurship. Many universities and colleges in Malaysia started to offer entrepreneurship as a major or a subject in most programmes since the mid-1990s (Cheng and Chan, 2004:5). The most popular teaching methods of entrepreneurship, from the highest rated to the lowest rated, are group projects, lectures, short essays and case studies. The least popular method is interaction with entrepreneurs (Cheng and Chan, 2004:6).

3.7.6 Entrepreneurship education in Finland

In a study that involved 21 Finnish Universities, Nurmi and Paasio (2007:56) investigated the role of universities in fostering and promoting entrepreneurship in Finland. More specifically, they examined the university-entrepreneurship relationship, its nature and how universities are addressing the entrepreneurship agenda. They found that every Finnish university offered some sort of enterprise education even though there were differences in the supply and forms of education offered. According

to Hytti and O’Gorman (2004:20), enterprise education can achieve a variety of objectives which can be much more than preparing people to be entrepreneurs. A Finnish study by Anneli (2002:2) defines enterprise education as comprising “all the activities related to the schooling that aims to increase an individual’s initiative, activity, and self direction in life”. The Finland Economic Information Bureau (1996 in Erkkila, 2000:151) defines enterprise education as a “deliberate process where students will gain: 1) facility to grow as goal-directed human beings (ability to visualise, grow with change and co-operate) and 2) facility to understand the rules and principles of business life and to consider entrepreneurship as a viable career option”. In Finland, entrepreneurship education emphasises external entrepreneurship whereas enterprise education could include both external and internal entrepreneurship. Internal entrepreneurship means acting in the spirit of enterprise in one’s own life, either in school, in free time activities or at work. External entrepreneurship refers to being in the profession of doing business (The Finland Economic Information Bureau and the Centre of the School Clubs, 1993 in Erkkila, 2000:150-151).

Finnish universities participate in transferring technology and spin-off activities, development of existing enterprises and commercialisation of university-based research results as ways to promote entrepreneurship (Nurmi and Paasio, 2007:59). Entrepreneurship education is perceived as a speciality more appropriate for universities of technology and schools of economics than it is for multi-faculty universities (Nurmi and Paasio, 2007:60). Nurmi and Paasio (2007:61) report that entrepreneurship education is still rather a marginal phenomenon in Finnish universities. Although Finnish universities have a fairly positive view of entrepreneurship education, they do not regard it as one of their expertise areas. Entrepreneurship is offered as a major subject in five Finnish universities and the rest of the universities offer different curricular related to entrepreneurship as a minor subject. The focus is on teaching to understand entrepreneurship or furthering intrapreneurship rather than preparing people to become entrepreneurs (Nurmi and Paasio, 2007:62).

3.7.7 Entrepreneurship education in Singapore

In Singapore there are three local universities that were established by the government. These universities used different approaches to entrepreneurship education (Shen and Chai, 2006:11). The different approaches were adopted as a result of different traditions, strategies and resources of universities and also due to different universities adapting models from mainly US-based universities to see if they could work for Singapore. Entrepreneurship education was offered for the first time at the National University of Singapore in 1999 as a minor in the Technopreneurship programme for engineering undergraduates. It was then expanded to the science and computing faculties in 2000 and later in 2002 it was offered university-wide. The programme was based on classroom-based experiential learning techniques. In 2001 Nanyang Technological University introduced the Entrepreneurship Speaker Series for the general undergraduate population. It was then expanded to a five-module entrepreneurship minor programme with additional experiential learning techniques such as case studies and computer-based simulations. The last university to introduce entrepreneurship education is Singapore Management University where it was incorporated in 2000. The teaching methods were based on loosely structured experiential projects in small groups instead of lectures and tutorials. Additionally, entrepreneurship education was introduced in the two polytechnics, Nanyang Polytechnic and Temasek Polytechnic in 2002/2003. Nanyang Polytechnic used simulations and internships as its teaching methods while Temasek Polytechnic used action-learning by setting up within its premises an on-campus retail store that was managed by students (Shen and Chai, 2006:12).

3.7.8 Summary of global perspectives on entrepreneurship education

The development of entrepreneurship education around the world has been discussed in the previous sections. The most widely taught courses in entrepreneurship based on the literature are New Venture Financing, Writing a Business Plan, Introduction to Entrepreneurship, Small business management, Entrepreneurship and Venture Creation, New Venture Growth Strategies, Small Business Finance and Small Business Consulting.

The most popular in-class teaching methods are case studies, writing business plans, group projects, discussions, research projects, reading, guest speakers and lectures. The most popular external teaching methods are internships, feasibility studies, on-site visits with small business owners, community development and small business consulting. With regard to assessment, the most popular methods used at undergraduate level are tests, examinations, essays and business plans while research papers and thesis/dissertations are used to assess Masters' and PhD students.

The next section focuses on models of entrepreneurship education.

3.8 MODELS OF ENTREPRENEURSHIP EDUCATION

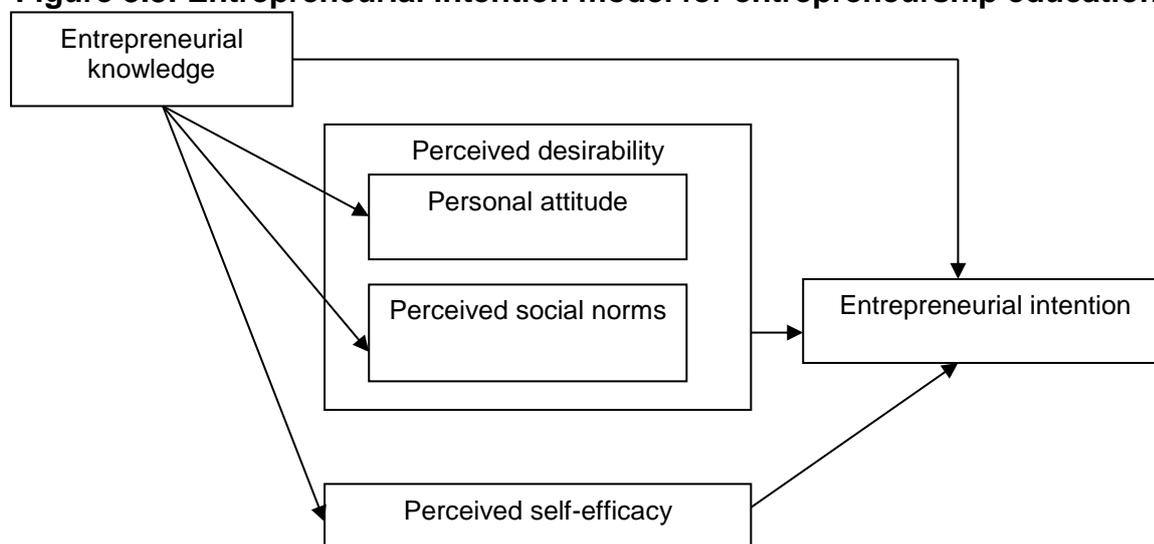
This section gives an exposition of different models of entrepreneurship education. These models include those that are based on entrepreneurial intent models which are used to evaluate entrepreneurship education, the teaching model framework for entrepreneurship education, and models of entrepreneurship education in South Africa and China. These models are discussed in the next sections.

3.8.1 The application of entrepreneurial intent models in evaluating the impact of entrepreneurship education

Ajzen (2005:136) suggests that the TPB discussed in section 2.3.2 of Chapter 2, has important implications for behavioural interventions designed to change intentions and behaviour. These interventions can be directed at one or more of the behaviour's theoretical determinants: 1) Attitudes, 2) Subjective norms and 3) Perceived behavioural control. A change in these determinants should lead to changes in behavioural intentions and when people have adequate control over the behaviour the new intentions should be carried out under appropriate circumstances. The design of interventions should entail changing antecedents of intentions by motivating people to engage in the desired behaviour and ensuring that these intentions are carried out by removing any obstacles that could impede actual control over the behaviour. The specific plans for the implementation of intentions must be developed to maximise the interventions' effectiveness (Ajzen, 2005:137).

Following Ajzen's suggestion, Liñán (2004:4) developed a view of entrepreneurship education based on an integration of the TPB and Shapero and Sokol's model of entrepreneurial event (SEE) discussed in section 2.3.1 of Chapter 2. As a basis for his model, Liñán (2004:7-8) argues that perceived feasibility corresponds well with perceived behavioural control and perceived desirability is made up of attitudes towards the behaviour and subjective norms. He adds that a greater knowledge of the entrepreneurial environment contributes to more realistic perceptions of entrepreneurship, greater awareness of entrepreneurship as a professional option and the intention to become an entrepreneur as depicted in Figure 3.8.

Figure 3.8: Entrepreneurial intention model for entrepreneurship education



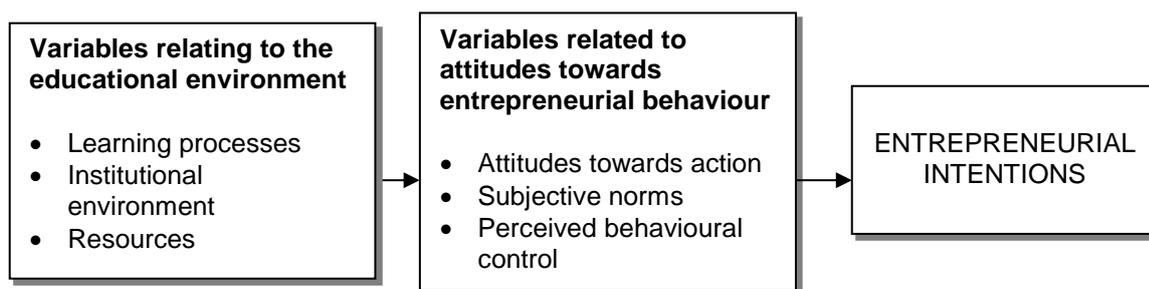
Source: Liñán (2004:25)

In a longitudinal study, Liñán (2004:13) tested his model on students who were completing their last year subjects at two Andalusian university business schools in Spain. He found that entrepreneurial knowledge explained the antecedents of entrepreneurial intention and had a direct influence on entrepreneurial intention. Entrepreneurial knowledge exerts a strong influence on perceived feasibility. Specifically, the knowledge of an entrepreneur and being familiar with the business environment had an influence on the confidence of students about their capacity in becoming entrepreneurs. Additionally, he found that participation in entrepreneurship education was associated with higher levels of perceived feasibility and desirability and greater entrepreneurial knowledge (Liñán, 2004:18). The same author found that education for start-up and entrepreneurial awareness education had statistically

significant differential effects on the antecedents of entrepreneurial intention. There was a higher direct relationship between participation in education for start-up and perceived feasibility, perceived personal attraction and the level of entrepreneurial intention. Entrepreneurial awareness education had an impact on perceived social norms (Liñán, 2004:19).

Fayolle (2004:3) proposed a conceptual framework for assessing entrepreneurship teaching programmes based on Ajzen's theory. He argued that using the venture creation act as the sole criterion to evaluate a program's impact is difficult and that using the criteria related to entrepreneurial intention or change of attitudes towards entrepreneurial behaviour may be easier and appropriate. He further stated that using the TPB as an evaluation tool for entrepreneurship, education programs could be helpful in understanding the process by which entrepreneurial intentions were formed. Entrepreneurship educators could also use this model to learn about their students' motivations and intentions and to adjust their programs accordingly. In his model, Fayolle (2004:13) used aspects such as learning processes, institutional environment and resources as independent variables. This model is shown in Figure 3.9.

Figure 3.9: Framework for evaluating entrepreneurship education programs using the theory of planned behaviour

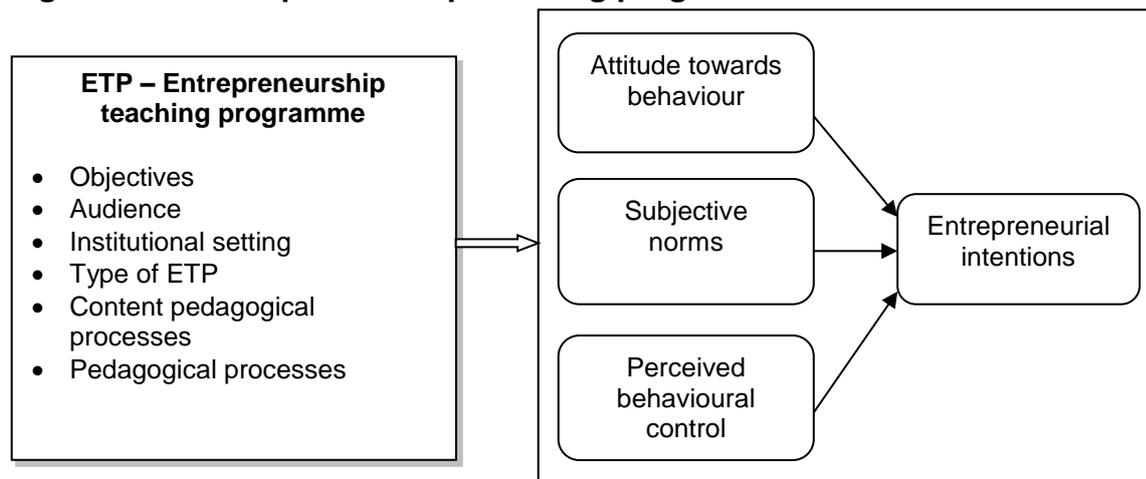


Source: Fayolle (2004:12)

The dependent variables were attitudes towards entrepreneurial behaviour (attitude towards action, subjective norms and perceived behavioural control) and entrepreneurial intention (Fayolle, 2004:15). Fayolle (2004:15) highlights the need for different measurements at varying times such as at the beginning and at the end of the program with one or two intermediate measurements for long term programs. The independent variables of the model are explained as follows:

- *Learning processes*
According to Fayolle (2004:13), “learning processes can be broken down into teaching objectives, types of students and disciplines, content, duration, intensity, frequency, teaching methods and approaches, and teacher numbers and profiles.” These aspects may be independent variables that impact on attitudes and intentions individually or collectively.
- *Institutional environment*
Students may develop entrepreneurial intentions by being exposed in an institutional setting that accepts and values entrepreneurial behaviour and employment in small and medium-sized enterprises. Institutions can through their policies, incentives and behaviours and by conveying a positive image of entrepreneurship as a career choice encourage their students to take actions that lead to new venture creation (Autio *et al.*, 1997 in Fayolle, 2004:14).
- *Resources*
Resources may include materials, financial and intellectual resources. They may for example, include the availability of funds to help finance new venture creation projects by students, support networks for entrepreneurial initiatives (professionals and businesses), entrepreneurship centres, business incubators, a broad supply of entrepreneurship programs, entrepreneurship institutes and specialised libraries (Fayolle, 2004:14).

Fayolle *et al.* (2005:2) and Fayolle, Gailly and Lassas-Clerc (2006b:510) proposed a new methodology for assessing the entrepreneurship teaching programme (ETP) based on the TPB. They applied this theoretical and methodological framework to test the impact of ETP on a 3-day-pedagogical process using a sample of 275 French students enrolled for a specialised Master in Management. The impact of ETP was tested using the assessment model illustrated in Figure 3.10.

Figure 3.10: Entrepreneurship teaching programme assessment model

Source: Fayolle *et al.* (2005:8) and Fayolle *et al.* (2006b:513)

Students were engaged in a 3-day case study related to entrepreneurship during their first weeks of the Masters program. Students' attitudes with regard to entrepreneurship were tested at the beginning and after the ETP (Fayolle *et al.*, 2005:10; Fayolle *et al.*, 2006b:515). Before testing the impact of the ETP, Fayolle *et al.* (2005:12) and Fayolle *et al.* (2006b:516) tested the validity of Ajzen's model on whether its antecedents of intention were good predictors of entrepreneurial intention before and after the ETP.

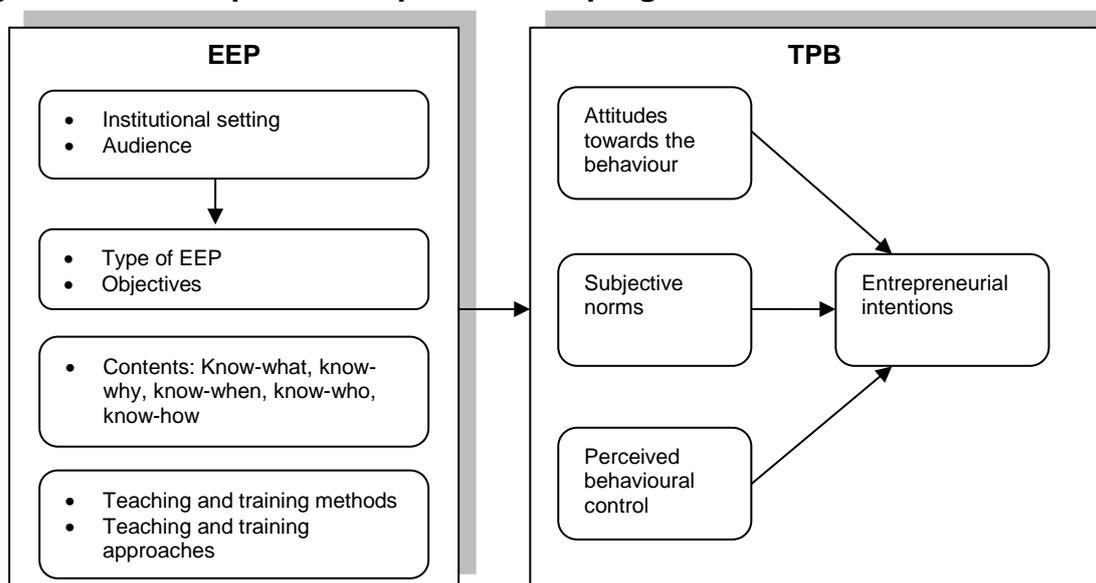
Their results validated the use of Ajzen's model in predicting entrepreneurial intention of the students surveyed. They found that ETP had a significant impact only on perceived behavioural control (Fayolle *et al.*, 2005:13; Fayolle *et al.*, 2006b:516). Fayolle *et al.* (2006b:520) found that ETP had a positive impact on perceived behavioural control and entrepreneurial intention for students who had not previously attended a course in entrepreneurship, those who had not been exposed to entrepreneurship through their family and those who had not actively participated in the founding and development of student associations. They also found that the impact of ETP varied depending on students' background and initial perspectives on entrepreneurial intention (Fayolle *et al.*, 2005:16; Fayolle *et al.*, 2006b:520).

Fayolle *et al.* (2006a:710) distinguish between entrepreneurship training and entrepreneurship education as follows: the purpose of entrepreneurship training is to develop knowledge or skills that enable an individual to achieve effective performance

whereas entrepreneurship education enables individuals to assimilate and develop knowledge, skills and values for addressing a broader range of problems.

Fayolle *et al.* (2006a:705) found that the TPB could also be a useful framework for analysing the influence of entrepreneurship education programs (EEP) on the participants' entrepreneurial behaviour. They asserted that the EEP should change individuals' attitudes and consequently intentions related to entrepreneurship. They argued that the measurement of the impact of EEP on attitudes and intention provided an indirect measurement of the impact of EEP on entrepreneurial behaviour. They then proposed a model to assess the impact EEP based on the TPB in which the independent variables were the characteristics of the EEP. The dependent variables were the antecedents of entrepreneurship behaviour: measures of the attitude towards the behaviour, subjective norms and perceived behavioural control and entrepreneurial intention (Fayolle *et al.*, 2006a:711). Figure 3.11 illustrates the EEP assessment model.

Figure 3.11: Entrepreneurship education programmes assessment model



Source: Fayolle *et al.* (2006a:710)

The characteristics of the EEP are explained as follows:

- *Institutional setting*
Entails aspects such as internal culture, entrepreneurship dedicated structures, resources and mechanisms or institutional strategy towards entrepreneurship.
- *Audience*
The audience of entrepreneurship education could be diverse depending on the basic discipline of students, their age, nationality and their educational background.
- *Type of EEP*
A great variety of EEP exists, such as entrepreneurial awareness education, education for start-up and education in enterprise.
- *Objectives*
Objectives can be set in terms of pedagogical, social and economic perspectives (Fayolle *et al.*, 2006a:711).
- *Contents*
According to Johannisson (1991 in Fayolle *et al.*, 2006a:711), the five content levels for the development of entrepreneurial knowledge which characterise the content dimension of EEP are: 1) know-why (attitudes, values and motivations), know-how (abilities), know-who (short and long-term social skills), know-when (intuition) and know-what (knowledge).
- *Teaching approaches and methods*
Teaching approaches and methods may include among others learning by doing, immersion in real-life situations, case studies and talks by entrepreneurs or more didactical and conventional procedures whose efficiency could be assessed (Fayolle *et al.*, 2006a:711).

Fayolle *et al.* (2006a:713) tested their assessment model by conducting a small experiment on a group of students attending a one-day EEP. They found that EEP had

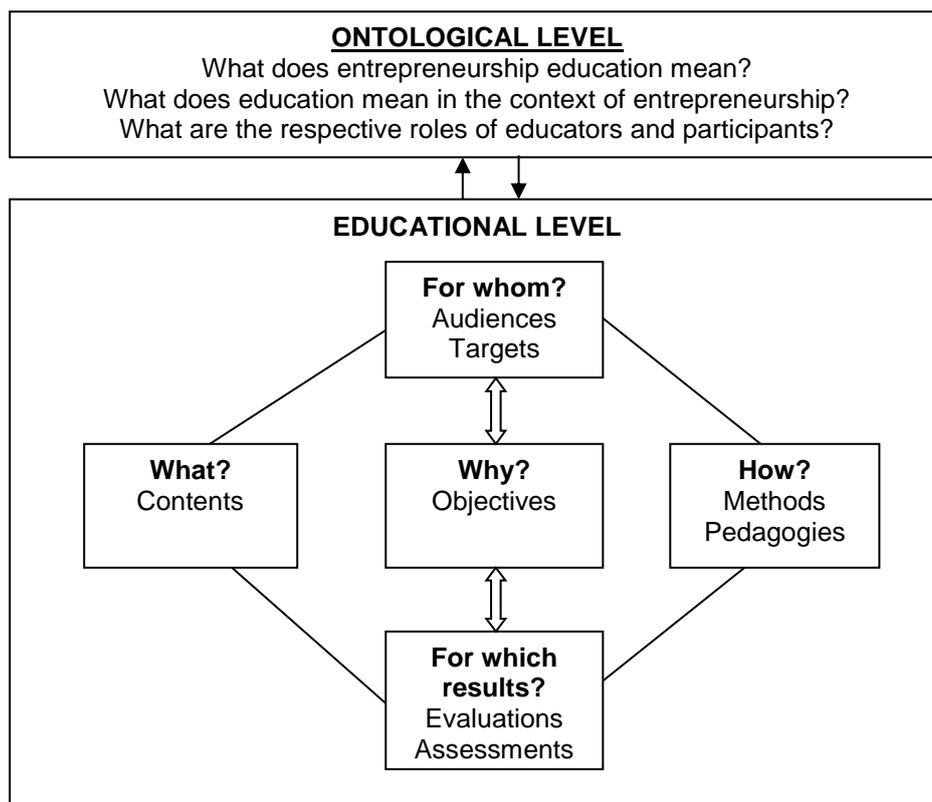
strong, measurable impact on entrepreneurial intent of students and a positive impact on perceived behavioural control (Fayolle *et al.*, 2006a:714). Based on their findings, they suggested that their framework allowed people to apply a theory-based approach to assess EEP and that through this framework measurable and actionable impact could be identified.

Models of entrepreneurship education based on entrepreneurial intent models indicate that entrepreneurship education impacts on the antecedents of entrepreneurial intent which in turn influence entrepreneurial intent. Specifically, variables relating to the educational environment such as learning processes, institutional environment, resources, audiences, type of entrepreneurship education, objectives, contents, teaching and training methods and approaches affect attitude towards the behaviour, subjective norms and perceived behavioural control. The implication for entrepreneurship education is that it must influence perceptions of desirability and feasibility in order for students to view entrepreneurship as a career option.

3.8.2 Teaching model framework for entrepreneurship education

Fayolle and Gailly (2008:570) argue that because there is no consensus on what entrepreneurship stands for as a teaching subject, problems occur at practical and pedagogical levels leading to a lack of legitimacy. Béchard and Grégoire (2005 in Fayolle and Gailly, 2008:570) suggest that entrepreneurship teaching activities resemble more of a craft than science and are driven by experience more than by systematic teaching approaches. On the basis of this view, Fayolle and Gailly (2008:571) propose a coherent teaching framework including ontological and educational dimensions with the purpose of providing educators and teachers with theoretical and practical guidelines. This framework integrates a number of dimensions related to both the ontological and educational levels. They refer to this framework as a Teaching Model Framework for Entrepreneurship Education as illustrated in Figure 3.12.

Figure 3.12: Teaching Model Framework for Entrepreneurship Education



Source: Fayolle and Gailly (2008:572)

Fayolle and Gailly (2008:571) suggest that considering key questions such as what? For whom? Why? How? and For which results?, could be very helpful for entrepreneurship educators and teachers when designing entrepreneurship teaching programs and for program managers trying to foster effective learning processes in entrepreneurship education. The discussion of the ontological level serves to clarify what should be considered when defining entrepreneurship education while the educational level emphasises the questions that should be answered in designing an effective entrepreneurship education programme. In order to offer relevant education that equips potential and existing entrepreneurs with the necessary competencies, entrepreneurship educators should understand the learning processes as well as concepts and theories that are associated with these learning processes. The discussion in the next sections focuses on the ontological and educational levels of the Teaching Model Framework for Entrepreneurship Education and the learning processes together with the associated key dimensions of the model.

3.8.2.1 *The ontological level*

At the ontological level, Fayolle and Gailly (2008:571) assert that there should be a clear conception of entrepreneurship leading to an unambiguous definition of entrepreneurship education (Fayolle and Gailly, 2008:573). On the definition of education in the context of entrepreneurship, they suggest that both the notions of teaching and educating should be combined in entrepreneurship courses and programs (Fayolle and Gailly, 2008:574; Fayolle, 2007:51). Educating is used to develop learners' minds, raise people's awareness of the entrepreneurial phenomenon and to give learners keys to personal development, professional orientation and incentives to act entrepreneurially. Teaching enables knowledge transfer of entrepreneurial themes and dimensions (Fayolle, 2007:51).

Soanes and Stevenson (2006) define teaching and educating as follows:

- Teaching is the act of imparting knowledge to or instructing someone on how to do something or to cause to learn by example or experience (Soanes and Stevenson, 2006:1477).
- Educating is giving intellectual, moral, and social instruction to people or training or giving people information on a particular subject (Soanes and Stevenson, 2006:1529).

3.8.2.2 *The educational level*

The educational level concerns the design and the architecture of an education program around five specific interrelated dimensions or questions that are explained as follows:

- (1) *The "why" dimension.* There should be a connection between the objectives and goals and learning and social needs (Fayolle and Gailly, 2008:575). The sources of needs include governments, institutions (such as universities, engineering and business schools, public agencies etc), both large and small firms, and individuals. Learning objectives can be set in relation to personal development, awareness and mindset or culture. These authors argue that "entrepreneurship education should aim at developing a taste for entrepreneurship in its broadest

sense and stimulating a spirit of enterprise and value creation.” Fayolle and Gailly (2008:576) further propose that clear and comprehensive objectives must be set for entrepreneurship education aimed at micro (individual, participant) level and the macro (organisation, society) level. Kirby (2007 in Fayolle and Gailly, 2008:575) state the goals of entrepreneurship education as follows:

- Raising awareness of entrepreneurship. It deals with teaching students about entrepreneurs and their roles and functions in the economy and society.
- Developing the attributes of the successful entrepreneur in students, called education for enterprise.
- Education through enterprise. This goal is concerned with using new venture creation process to help students to acquire a range of both business understanding and transferable skills or competencies.

(2) *The “for whom” dimension.* There are differences in teaching entrepreneurship to people who are strongly committed to establishing a business, to professionals and other practitioners committed to the field of entrepreneurship or to students who have no intention of starting a business (Fayolle and Gailly, 2008:577). Therefore, in designing entrepreneurship education programs educators should take into consideration the diversity of audiences based on various socio-demographic characteristics and levels of involvement and aspirations in the entrepreneurial process.

(3) *The “for which results” dimension.* Fayolle and Gailly (2008:578) propose that the relevant criteria for evaluating the impact of entrepreneurship education and their effective measurement methods must be identified and defined, and that such criteria must be in line with the objectives and characteristics of the audience.

(4) *The “what” dimension.* Fayolle and Gailly (2008:578); Fayolle (2007:57-59) and Fayolle (2006:7-8) state the three dimensions that guide the content of entrepreneurship education. These dimensions are explained as follows:

- a) **The professional dimension.** This dimension focuses on the practical knowledge, or know-how, and to a lesser extent on the theoretical knowledge. It relies on the following kinds of knowledge:

- Know-what: “what one has to do in order to act in a given situation.”
 - Know-how: “how to deal with a given situation.”
 - Know-who: “who are the useful people and which are the useful networks in a given context.”
- b) **The spiritual dimension.** This dimension enables individuals to identify entrepreneurial situation(s) that are consistent with their profiles and to recognise when it is both possible and desirable to engage in entrepreneurship. The contents of the spiritual dimension are:
- Know-why: it deals with the determinants of human behaviour and actions, entrepreneurs’ attitudes, values and motivation (Fayolle, 2007:58; Fayolle, 2006:8). Fayolle and Gailly (2008:578) suggest that the appropriate and interesting modes of learning in this content may involve testimonies of entrepreneurs in various situations and varying degrees of performance, debates with teachers and provision of feedback.
 - Know-when: students are faced with questions such as: When is the right time to go ahead? What is the best situation given my profile? Is this a good project for me? These questions according to Fayolle and Gailly (2008:579); Fayolle (2007:59) and Fayolle (2006:8) may be addressed through case studies, interviews with experts and professionals.
- c) **The theoretical dimension.** This dimension involves theories and scientific knowledge that are useful to master in order to understand the entrepreneurial phenomenon (Fayolle and Gailly, 2008:579). The contents of entrepreneurship education related to this dimension involve the effects and impacts of entrepreneurship and other aspects that deal with the entrepreneurial phenomenon and process (Fayolle, 2007:58; Fayolle, 2006:8).
- (5) *The “how” dimension.* The “how” question in the framework presented in the foregoing sections focuses on the teaching methods used in entrepreneurship education which follow the “why” and the “what” questions (Fayolle and Gailly,

2008:579). Teaching methods have already been discussed in the previous sections. Fayolle and Gailly (2008:580) propose that “the selection of pedagogical methods for each entrepreneurship education course should rely upon their adequacy and a priori efficiency regarding the objectives, the audience’s characteristics, the contents and the constraints due to the institutional context.”

3.8.2.3 The learning processes in entrepreneurship education and the associated key dimensions of the Teaching Model Framework

Moreover, Fayolle and Gailly (2008:580) argue that entrepreneurship educators should create the right conditions for more efficient and effective learning. However, they highlight the impact of constraints such as time and context and other constraints that include material factors (the nature of the equipment, the configuration and the characteristics of the classroom(s)) as well as the quality and availability of the resources on the learning processes. Fayolle and Gailly (2008:581) state the three types of learning processes in entrepreneurship education, their associated key dimensions of the teaching model and relevant concepts and theories which are shown in Table 3.25.

Table 3.25: Key dimensions and concepts of learning processes in entrepreneurship education

Learning process	Key dimensions of the teaching model	Relevant concepts and theories
1. Learning to become an enterprising individual.	<ul style="list-style-type: none"> • Entrepreneurship as a broad concept. • Focus on spiritual dimension (“know why” and “know when”). • Expected changes in attitudes, perceptions and intention toward entrepreneurship. • Large diversity of audiences: students in business and non-business fields. • High importance of entrepreneurs as role models in the classroom. 	<ul style="list-style-type: none"> • Entrepreneurial intention • Entrepreneurial event (Shapero and Sokol, 1982) • Theory of planned behaviour • Entrepreneurial self-efficacy • Entrepreneurial orientation (applied at the individual level)
2. Learning to become an entrepreneur.	<ul style="list-style-type: none"> • Entrepreneurship as a specific concept and professional situation (independent entrepreneurship, corporate entrepreneurship, etc.). • Focus on the professional/practical dimension (know what, know how and know who). • Learning by doing pedagogies. • Expected acquisition of skills, practical knowledge, techniques to act and succeed as an entrepreneur. • Expected development of entrepreneurial competencies. • Main audience: would-be entrepreneurs working or having a real and concrete entrepreneurial project/venture. 	<ul style="list-style-type: none"> • Entrepreneurial process theories • Learning by trying/emergence • Learning from failure • Bounded rationality • Effectuation • Entrepreneurial cognition (heuristics, risk perceptions, etc.) • Entrepreneurial management and growth

Table 3.25 continued

3. Learning to become an academic.	<ul style="list-style-type: none"> • Academic conception of entrepreneurship. • Focus on the theoretical dimension. • Didactical education model. • Discussion in the classroom of research issues. • Main audience: PhD students, teachers and researchers. • Expected acquisition of theoretical and scientific knowledge. 	<ul style="list-style-type: none"> • Entrepreneurship as a research domain • Theories to teach and make research in the field
------------------------------------	--	---

Source: Fayolle and Gailly (2008:581)

The three learning processes indicated in Table 3.25 are explained as follows:

(1) *Learning to become an enterprising individual*

This type of learning process helps individuals to better position themselves with regard to entrepreneurship and to become more enterprising by developing their entrepreneurial spirit and to make them more entrepreneurial. Through education and training, students are able to better understand the roles and actions of entrepreneurs, their values, attitudes and motivations. This learning process focuses on the spiritual dimension of the program content (“know why” and “know when”) (Fayolle and Gailly, 2008:582).

(2) *Learning to become an entrepreneur (or an expert in the field of entrepreneurship)*

In this learning process individuals are taught how to become entrepreneurs and it is aimed at those who are engaged in an entrepreneurial venture and who wish to benefit from some support or training. Students who want to learn about entrepreneurial situations and contexts may be the target audience. The professional/practical dimension of the program content is emphasised in this kind of learning (i.e. “know what”, “know how” and “know who”) (Fayolle and Gailly, 2008:583).

(3) *Learning to become an academic (teacher or researcher in the field of entrepreneurship)*

This type of learning process helps people to become teachers or researchers in the field of entrepreneurship. It focuses on the theoretical dimensions of the content and emphasises useful theories and methods to study entrepreneurship (Fayolle and Gailly, 2008:584).

The implication for the teaching model framework is that entrepreneurship education must be clearly defined based on the concept of entrepreneurship. At the educational level, comprehensive objectives must be set aimed at the micro and macro levels. The diversity of the audiences must be taken into account when designing education programmes. The contents and teaching methods followed must contribute to the students' ESE so that they can successfully start and manage businesses. Evaluation of the impact of entrepreneurship education must take place to determine its effectiveness in making students competent entrepreneurs and in developing an entrepreneurial society.

3.8.3 Models of entrepreneurship education in South Africa

This section examines the two models that are used in South Africa at the University of Pretoria, which govern the thinking of entrepreneurship education (Pretorius, Nieman and van Vuuren, 2005:415). They are the Entrepreneurial Performance Education Model (E/P Model) and the Entrepreneurial Education Model (E/E Model). The E/P model is regarded as the philosophy that drives the three educational programmes of the Chair in Entrepreneurship at the University of Pretoria, namely BCom in Entrepreneurship, MPhil in Entrepreneurship and PhD in Entrepreneurship (Pretorius *et al.*, 2005:416). In the E/P model entrepreneurial performance is a function of motivation, entrepreneurial and business skills which can be depicted as follows:

$$E/P = f[aM(bE/S \times cB/S)],$$

“where: *E/P* is the entrepreneurial performance; *M* is the motivation; *E/S* is the entrepreneurial skills; *B/S* is the business skills; and *a* to *c* are constants” (Pretorius *et al.*, 2005:416). The E/P model is shown in Table 3.26.

Table 3.26: The Entrepreneurial Performance Education Model

Entrepreneurial performance (E/P)	Performance motivation (M)	Entrepreneurial skills (E/S)	Business skills (B/S)
Establishment of own business	Motivation	Risk propensity	General management skills
Growth in net value of business	Role models	Creativity and innovation	Marketing skills
Recruitment of employees		Opportunity identification	Legal skills
Increasing productivity levels		Role model analysis	Operational skills
Increasing profitability		Networking	Human resource management skills
			Communication skills
			Business plan compilation
			Financial management
			Cash flow management

Source: Botha (2006:72-73)

From Table 3.26, it can be deduced that entrepreneurship education should enhance the performance of businesses owned by the participants. It must raise the performance motivation and equip participants with the necessary entrepreneurial and business skills to establish and grow new businesses. A detailed description of the business skills is provided in Table 3.27.

Table 3.27: Business skills required by entrepreneurs

Business skills	Description
General management	How a business works and how it must be managed. Planning, organising, leading, motivating and control also form part of general management. Proper planning for the future, the investigation of all production factors, leading the operation and the control of all staff activities will ensure that the performance of the entrepreneur is greatly enhanced.
Marketing management	Conducting market research, selecting a target market and determining how to sell to it and positioning the business in the market. Identifying the marketing mix (price, product, place, promotion, physical evidence, people and process) within the business as well as managing consumer behaviour.
Legal skills	Business forms, contractual law, understanding the necessity for ethical behaviour within a business as well as registering trademarks, logos and designs.
Operational management	Manufacturing the finished product and service, identifying raw materials and suppliers, identifying wholesalers and retailers.
Human resource management	Management of people within the business. Recruiting, selecting and training and development of employees on a continuous basis are important.
Communication skills	Internal communication between employees and owner/manager and external communication between the entrepreneur and all other stakeholders such as customers and suppliers.
Business plan compilation	Before committing time and energy to preparing a business plan, the entrepreneur should do a quick feasibility study of the business concept. The feasibility study – done by the entrepreneur – is in preparation for writing the business plan. The business plan is a comprehensive action plan of how an entrepreneur will achieve his/her business goals.
Financial management	How to do financial planning, how to collect money from customers and pay suppliers, what sources of finance must be used to obtain capital and how to compile financial statements - income, balance and cash flow statements.
Cash flow management	Managing the cash inflow and outflow in a business and solving cash flow problems.

Source: Botha (2006:71-72)

The E/E model, according to Pretorius (2000, in Pretorius *et al.*, 2005:418), does not only consider the content of entrepreneurship education programmes but it also focuses on the context in which these programmes are conducted by facilitators and the approaches they use. The E/E model is based on five constructs that are relevant

for entrepreneurship education aimed to increase start-ups and also indicates the relevance of the programme context. These constructs are:

- Entrepreneurial success themes;
- Business knowledge and skills;
- Business plan utilisation;
- Learning approaches; and
- The programme context.

Pretorius *et al.* (2005:420) conducted a qualitative in-depth comparative analysis of the E/P and E/E models in order to establish their differences and similarities. They looked at the extent, level of detail, strength of focus and intent of each model. The comparative contributions, strengths and weaknesses of each model are illustrated in Table 3.28.

Table 3.28: Comparison of the E/P model and the E/E model

Construct element	Entrepreneurial performance model (E/P) according to van Vuuren and Nieman (1999)	Entrepreneurial education model (E/E) according to Pretorius (2001)
Entrepreneurial performance	Considers the performance of the individual as entrepreneur (or venture) and not as manager (where entrepreneur refers to utilising an opportunity to start a venture)	The requirements of the context determine the programme content. One required outcome is the start-up of a venture
Motivation (<i>M</i>)	Motivation as seen as the level of nAch (need for achievement) of individual, including: desire to be successful and to do well; urge to improve; motive to achieve excellence for its own sake	Absent as a separate construct but considered partially as an element of <i>E/S</i> under motivation to excel
Entrepreneurial skills (<i>E/S</i>)	Considers: creativity and innovation; identification of opportunities; risk taking; interpretation of role models	Considers: commitment; personal leadership; opportunity obsession; tolerance for risk and ambiguity; creativity; motivation to excel
Business skills (<i>B/S</i>)	Covers both skills and knowledge associated with the general functions; life cycle stages of a venture and the business plan	Similar except that the business plan is a separate construct
Approaches used to transfer knowledge and skills (<i>A</i>)	Absent, as it assumes that a motivated person would find a way to master the skills once knowledge has been gained	Considers both: the involvement of the learner in the learning process; and the variety of learning approaches used

Table 3.28 continued

Facilitator (<i>F</i>)	Absent	Considers: own practical experience; how reinforced thinking is used; entrepreneurial way of being; use of apprenticeships; multidisciplinary approach and thinking
Business plan Utilisation (<i>B/P</i>)	Absent as a separate construct but stated under the <i>B/S</i> construct	Coverage of how the business plan is utilised by: preparation; presentation; defence and execution
Contextual description	Absent but implied	Considers: previous experience; minimum education level; outcomes of the programme; needs of the target group and reason for participation

Source: Pretorius *et al.* (2005:417)

In their comparison of the two models Pretorius *et al.* (2005:421) found that motivation was much stronger in the E/P model while the facilitator and approaches constructs were much stronger in the E/E model. They also indicated that the E/P model did not refer to approaches and the facilitator constructs as its focus was on the performance of the entrepreneur rather than the success of the training course. In the E/P model the business plan construct was implied as part of the business skills while in the E/E model it was regarded as an important tool for training to give students a holistic picture of the venture and its future operations (Pretorius *et al.*, 2005:421). Pretorius *et al.* (2005:422) proposed an integrated model referred to as Education for Improved Entrepreneurial Performance (*E* for *E/P*). This model is “a linear function of the facilitator’s ability and skills (aF) to enhance motivation (bM), entrepreneurial skills (cE/S) and business skills (dB/S) through the creative use of different approaches (values of eA) and specifically the business plan (fB/P) and a to f are constants.” Botha (2006:81) added additional constructs (shaded) to the integrated (*E* for *E/P*) model and compiled the improved entrepreneurship training model as shown in Table 3.29.

Table 3.29: The improved entrepreneurship training model

Entrepreneurial Performance (E/P)	Performance Motivation (M)	Entrepreneurial Skills (E/S) and entrepreneurial success themes	Business Skills (B/S)	Facilitator and programme context (F)	Approaches to learning (A)	Business Plan utilisation (B/P)
Establishment of own business	Motivation	Risk propensity	General management skills	Previous experience of facilitator and participants	Involvement of participant	Elements
Growth in net value of business	Mentorship	Creativity and Innovation	Marketing skills	Outcomes of the programme	Learning approaches used	Preparation
Recruitment of employees	Role models	Opportunity identification	Legal skills	Needs analysis of participants		Presentation
Increasing productivity levels		Role model analysis (success factor)	Operational skills			Evaluation
Increasing profitability		Networking	Human resource management skills			
		Leadership	Communication			
		Motivation	Financial management			
		Attitude of participant	Cash flow management			
		Social skills				
		Start-up skills				

Source: Botha (2006:275)

The improved entrepreneurship training model that is offered as an integration of the E/P and E/E model links very well with some of the key issues in the domain of entrepreneurship education discussed in section 3.5.4. This is because it emphasises that entrepreneurship education should contribute to entrepreneurial performance by raising performance motivation and equipping learners with entrepreneurial and business skills. Performance in terms of establishing a business, achieving growth and increasing productivity levels relate to the assessment of the impact of entrepreneurship education. The improved entrepreneurship training model considers facilitators/educators, outcomes of the programme and the needs of the audiences, involvement of the learners in the learning process as well as the learning approaches adopted by facilitators. A business plan is regarded as a primary teaching method in the model. The improved entrepreneurship training model also emphasises role models and mentorship which may be vital tools in enhancing ESE which in turn will influence entrepreneurial intent of participants to start or grow their businesses.

3.8.4 Models of entrepreneurship education in China

In China there are three entrepreneurship education models that have been adopted in HEIs (Millman *et al.*, 2008:808). These models are:

- *Entrepreneurship awareness raising model.* This model focuses on fostering entrepreneurship culture among students. It is aimed at establishing and developing knowledge capacity for teaching entrepreneurship and improving participating students' core competencies. Through the Entrepreneurship awareness raising model, students are actively encouraged to acquire relevant knowledge and learn from workplace experience by engaging in various social placements and volunteer activities. Teaching methods in the model are classroom and placement activities that are supplemented with various workshops on relevant entrepreneurial themes, direct contact with lecturers and entrepreneurial role models.
- *Entrepreneurial skills and knowledge acquisition model.* This model is aimed specifically at enhancing students' entrepreneurial knowledge and skills and facilitating the commercialisation of ideas and innovative approaches to entrepreneurship which include the provision of business incubator facilities for students.
- *Integrated entrepreneurship education model.* This model is aimed at providing students with the opportunity to become familiar with the entrepreneurial culture of China and facilitating knowledge transfer from the classroom into real life situations.

3.8.5 Summary of the models of entrepreneurship education

Various models of entrepreneurship education have been discussed in the previous section. These models have significant implications for entrepreneurship education. Firstly, entrepreneurship education should be designed and offered in such a manner that it can impact on the antecedents of entrepreneurial intent. This means that after completion of entrepreneurship programmes students must perceive entrepreneurship

as desirable and feasible which in turn influence entrepreneurial intent. Secondly, there must be a clear definition of entrepreneurship education based on the concept of entrepreneurship; comprehensive objectives for entrepreneurship education must be set aimed at the micro and macro level; the diversity of the audiences must be taken into account when designing education programmes; the contents and teaching methods followed must contribute to the students' ESE so that they can successfully start and manage businesses; and entrepreneurship education must be evaluated to determine its effectiveness in making students competent entrepreneurs and in developing an entrepreneurial society. Thirdly, entrepreneurship education must enhance students' entrepreneurial performance motivation and improve entrepreneurial and business skills. This requires entrepreneurship educators to adopt different approaches that engage the learner in the learning process.

3.9 CONCLUSION

Entrepreneurship education has become increasingly important owing to the fact that entrepreneurial tendencies can be learned. In line with this view, there is consensus among researchers that HEIs can play a vital role in influencing students' attitudes towards entrepreneurship and equipping them with the necessary knowledge and skills to start-up, manage and develop economically viable enterprises. From an analysis of previous research it seems that effective entrepreneurship education is that which is supported by the entrepreneurial culture of the society which promotes entrepreneurship as a viable career option.

Learning approaches and teaching methods that balance theory and practice as well as provide students with the opportunity to learn through various types of experiences contribute to the development of entrepreneurial self-efficacy and entrepreneurial competencies. They also make students to perceive entrepreneurship as desirable and feasible, which lead to the intention to start a business. Learning approaches and teaching methods that engage students actively in the learning process provide students with the opportunity to experience what it is like to be an entrepreneur and impact positively on students' decision to become entrepreneurs.

The success in starting and managing new businesses depends on the design of entrepreneurship education programmes that concentrate on the development of entrepreneurial, technical and business skills. These are essential skills which enhance prospective entrepreneurs' ability to cope with each stage of the entrepreneurial process. An effective entrepreneurship education programme is based on clear objectives, contents and pedagogies which are guided by the audiences and the choice of suitable entrepreneurship educators who can act as supporters and facilitators of the learning process. The role of entrepreneurial support in the development of entrepreneurial intent will be discussed in the next chapter.

CHAPTER 4: ENTREPRENEURIAL SUPPORT

4.1 INTRODUCTION

In recent years there have been concerted efforts to encourage entrepreneurship in the form of new business start-ups and to aid their survival (LMU, 2004:3; Kiley, 2006:627). Perceived behavioural control was reported in the preceding chapters as one of the key determinants of entrepreneurial intention in the theory of planned behaviour (TPB). According to Ajzen and Cote (2008:303), perceived behavioural control is based on accessible control beliefs regarding the presence of factors that can facilitate or impede the performance of the behaviour. People develop a strong sense of perceived behavioural control when they believe that they have the skills and other resources necessary to perform the behaviour or overcome the barriers to the behaviour (Ajzen and Fishbein, 2005:193). A similar concept to perceived behavioural control is perceived feasibility in the Shapero and Sokol's model of entrepreneurial event (SEE), as alluded to in section 2.3.4. Fayolle (2007:167) is of the view that the availability of general or specific financial support and would-be partners who can help transform vague possibilities into action may influence perceived feasibility and propensity to act. Nabi *et al.* (2006:381) assert that providing a range of support and resources can influence the start-up decision processes through the impact on entrepreneurial intentions in terms of perceived attractiveness, perceived feasibility, self-efficacy, and propensity to act.

The government of a country has a significant role to play in making entrepreneurial behaviour feasible and desirable. For instance, Bridge *et al.* (2009:120) suggest that governments can do a number of things to influence the level of entrepreneurial activity. They can set the conditions and intervene to support the process of starting and growing new ventures. Through their regulations, governments may make it easy or hard to start a business and their fiscal policy can have a significant impact on the potential profitability as well as the attractiveness of a new venture. Governments can support new business start-ups and more business growth by providing entrepreneurship education schemes, subsidising enterprise advice and training, and providing financial support schemes and incubation workspace.

The Centre for Development and Enterprise (CDE, 2004:14) and Wickham (2006:431) state that the recognition of the importance of entrepreneurship worldwide makes it a good candidate for government support and promotion. The main reason for government intervention in providing entrepreneurial support is the job creation effect of small, medium and micro enterprises (SMMEs) (Bridge *et al.*, 2009:333). Michael and Pearce II (2009:285) argue that people give various reasons to justify the provision of entrepreneurial support. In some governments the focus is on job creation, while others support entrepreneurship to create competition in the markets. These authors suggest that government support for entrepreneurship should be to encourage innovation. They are of the view that innovation leads to wealth creation, employment and overall public welfare (Michael and Pearce II, 2009:291). Wickham (2006:401) reports that there are differences among governments around the world in how they engage in interventions to support the creation and survival of new and fast-growing businesses. However, Bridge *et al.* (2009:334) argue that government interventions must enhance the level of enterprise, entrepreneurship and/or growth of small businesses and deliver the benefits sought. Boter and Lundström (2005:245) assert that entrepreneurial support should motivate people to start businesses, provide good opportunities to develop new businesses, and entail support structures for equipping entrepreneurs with the necessary skills.

The need to support SMMEs is recognised by both governments and the private sector (Boter and Lundström, 2005:248; Schaper and Volery, 2007:262). This chapter examines whether entrepreneurial support provided by government has an impact on entrepreneurial intent and entrepreneurial activity. In the efforts to promote entrepreneurship, the South African government has implemented various entrepreneurial support programmes in the past years. Research relating to the impact of these programmes may assist in improving their effectiveness. As a result, the literature consulted in this chapter serves to determine whether the level of awareness of these entrepreneurial support programmes influences students' intention to start a business. The discussion will begin with the definition of entrepreneurial support which will be followed by the factors that necessitate entrepreneurial support, the conditions that contribute to entrepreneurial activity and the influence of entrepreneurial support on entrepreneurial intent and entrepreneurial activity. The discussion will focus on the

different types of entrepreneurial support that are provided by the different governments in other countries and in South Africa. From a South African perspective, the websites of government organisations such as the DTI, Small Enterprise Development Agency (Seda), Khula Enterprise Finance (Khula) and Industrial Development Corporation (IDC) will be consulted to create a framework of available government support and how it reaches the target population of this study in the Eastern Cape and Limpopo. Provincial support programmes that exist in these provinces are also discussed. This chapter concludes with empirical research on the effectiveness of entrepreneurial support.

4.2 DEFINING ENTREPRENEURIAL SUPPORT

While there could be different terms that refer to support for SMMEs such as small business assistance and business support, Hanlon and Saunders (2007:620) define entrepreneurial support as “... *the act of providing an entrepreneur with access to a valued resource*”. Orford *et al.* (2004:30) define entrepreneurship support as the specific incentives, business development services and business incubator programmes provided to entrepreneurs to start and grow their businesses. Entrepreneurial support in this study means access to information and finance, training and education programmes, provision of infrastructural facilities, business counselling and mentoring needed by an entrepreneur to act on opportunities and manage the business successfully.

4.3 WHY THE NEED FOR ENTREPRENEURIAL SUPPORT?

Entrepreneurs need support in order to implement their intentions by launching new ventures (Henley, 2005:22). The discussion in this section looks at the origin of the need for entrepreneurial support. This study will determine whether the level of awareness relating to the availability of entrepreneurial support that focuses on these sources influence the intention to start a business. More specifically, the main idea is to determine to what extent entrepreneurial support impacts on perceived desirability and feasibility of starting a business, which in turn influence entrepreneurial intent. The

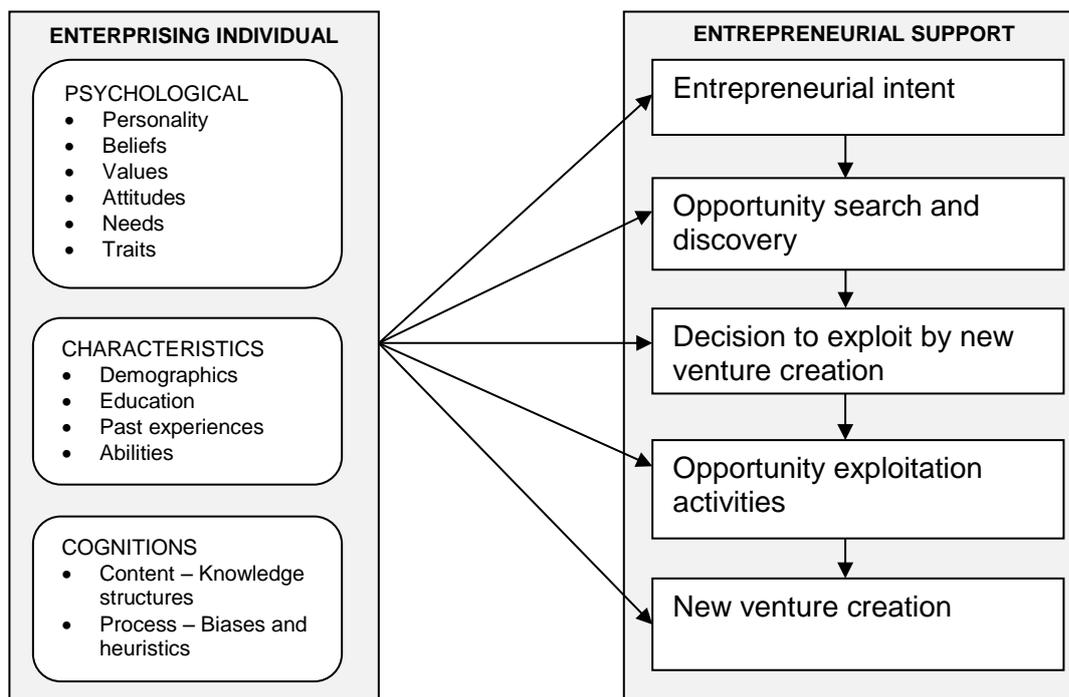
need for entrepreneurial support may originate from a variety of sources, which are discussed in the following sections.

4.3.1 Entrepreneurial support as a driver of the entrepreneurial process

Entrepreneurial support in this chapter is regarded as a vital component that influences entrepreneurial intent and the success of the potential entrepreneur in executing the entrepreneurial process. The entrepreneurial process is very complex (Fayolle, 2007:146; Baron, 2004:170) and is influenced by a multitude of variables that operate at three distinct levels: 1) The individual level (motives, skills, and cognitive processes of individual entrepreneurs); 2) The interpersonal level (the relationships between entrepreneurs and other persons); and 3) The societal level (for example, government politics, economic and market conditions and other factors) (Baron, 2004:170). The entrepreneurial process is defined as “...*the process through which an entrepreneur creates a new venture*” (Nieman and Bennett, 2009:53). Burke (2006:3) refers to this process as “...*all cognitive and behavioural steps from the initial conception of a rough business idea, or first behaviour towards the realisation of a new business activity, until the process is terminated or has led to an up and running business venture with regular sales*”.

Bird (1992 in Shook, Priem and McGee, 2003:380) suggested that new ventures emerge as a result of individuals' intentions and consequent actions. The role of entrepreneurial support in influencing entrepreneurial intent is based on the organising model proposed by Shook *et al.* (2003:381). In their model they suggest that the development of entrepreneurial intent is the first stage in the new venture creation process, which is followed by the search for and ultimate discovery of opportunities. Once discovered, entrepreneurs must make decisions on whether or not to exploit those opportunities and how to exploit them (Shook *et al.*, 2003:382). If entrepreneurs decide to pursue opportunities, entrepreneurial intent is translated into a new venture. In order for this to happen the entrepreneur should have to accumulate resources, which may come from the entrepreneur or other institutions. Figure 4.1 shows the influence of entrepreneurial support on the entrepreneurial process.

Figure 4.1: The influence of entrepreneurial support on the entrepreneurial process



Source: Adapted from Shook *et al.* (2003:381)

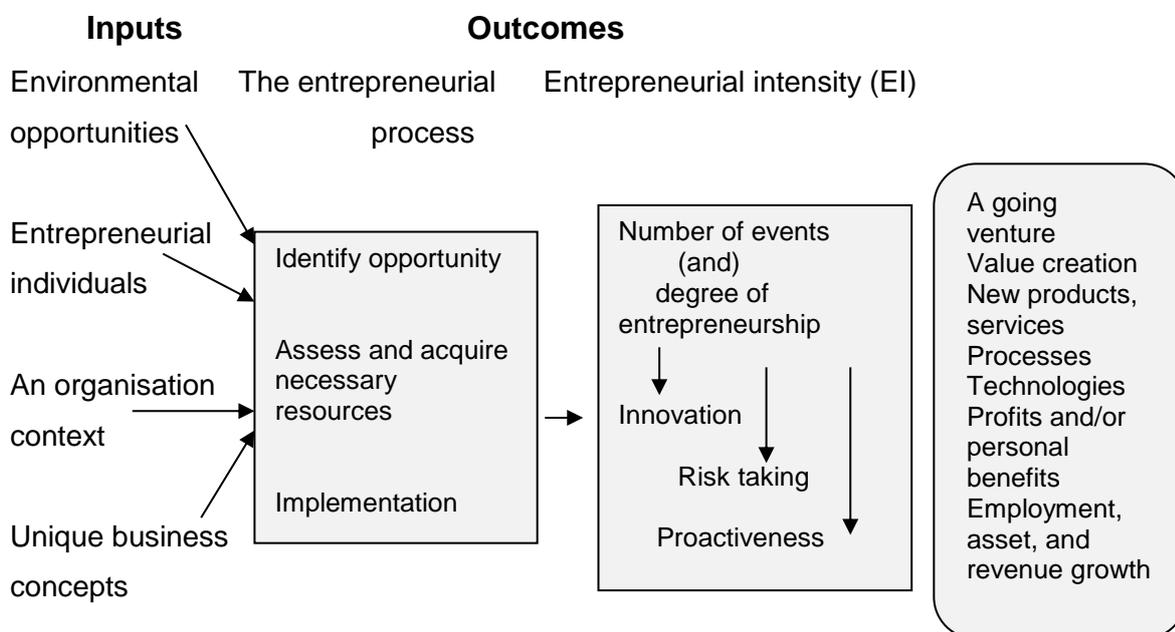
The main idea that is emphasised in figure 4.1 is that entrepreneurial support impacts on entrepreneurial intent, which then drives an enterprising individual to take the steps in the entrepreneurial process to bring the new venture into existence.

4.3.2 An integrative approach of the entrepreneurial process

Morris *et al.* (1994 in Kuratko and Hodgetts, 2007:43) proposed a more integrative model of the entrepreneurial process in which there are inputs to the entrepreneurial process and outcomes from the entrepreneurial process. The input component consists of five elements that contribute to the process. These elements are environmental opportunities, entrepreneurial individuals, an organisational context, unique business concepts and resources. Environmental opportunities include demographic changes, the development of a new technology, or a modification to current regulations. Entrepreneurial individuals are people who assume personal responsibility for conceptualising and implementing a new venture. These people develop unique business concepts to take advantage of opportunities. To implement business concepts entrepreneurs need an organisational context such as a sole

proprietor's home or franchise and a wide variety of financial and non-financial resources on an ongoing basis. Entrepreneurs combine these elements throughout the stages of the entrepreneurial process. The level of entrepreneurship achieved represents the outcome component. The entrepreneurial process may lead to a number of entrepreneurial events that vary, referred to as entrepreneurial intensity. Among the final outcomes is one or more going ventures, value creation, new products and processes, new technologies, profit, jobs, and economic growth or failure (Kuratko and Hodgetts, 2007:44). An integrative model of entrepreneurial inputs and outcomes is presented in Figure 4.2.

Figure 4.2: An integrative model of entrepreneurial inputs and outcomes



Source: Adapted from: Kuratko and Hodgetts (2007:43)

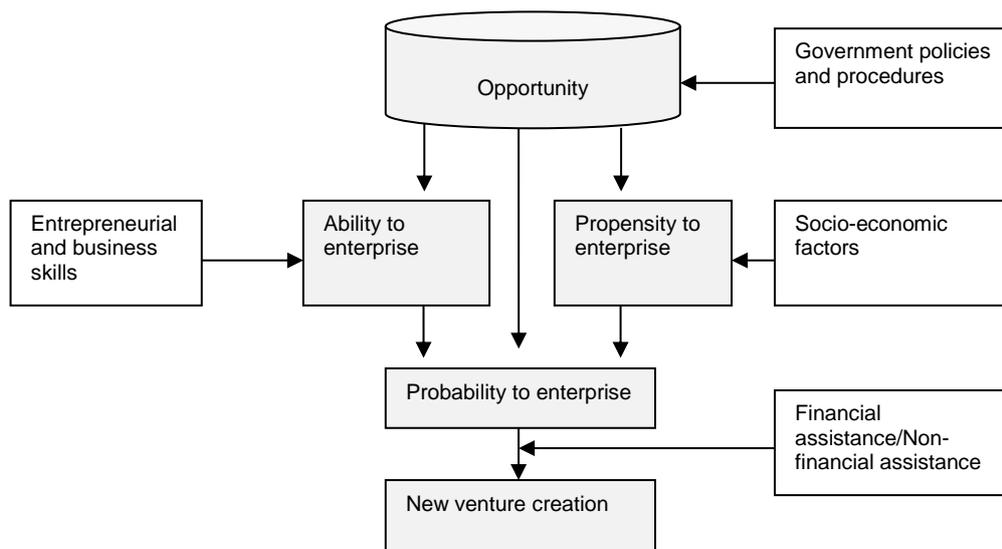
From Figure 4.2, it can be deduced that in order for entrepreneurial individuals to execute the entrepreneurial process, they must identify opportunities in the market, create unique business concepts and choose a form of ownership to act on the opportunity and must have access to resources. Through their innovative behaviour, risk taking propensity and proactiveness entrepreneurial individuals start new ventures; introduce new products and services, processes and technologies to make profit and to create employment opportunities. Entrepreneurial support can make this

effort possible by linking entrepreneurs with market opportunities (provision of market information) and by providing resources and skills.

4.3.3 The process of new venture creation

The process of new venture formation begins with a self-confident entrepreneur, who has a need for achievement and a risk-taking propensity (Schaper and Volery, 2007:10). The entrepreneur recognises an opportunity in the market in the form of market needs or under employed resources and also recognises a 'fit' between particular market needs and specified resources. New ventures emerge as a result of a favourable political, economic, social and infrastructure environment (Schaper and Volery, 2007:11). Schaper and Volery (2007:11) state that even though the entrepreneur has identified an opportunity, the actual decision to launch a new venture arises from a clear intention which implies action. The entrepreneur must finally decide whether to proceed or abandon the attempt to establish a business. As Schaper and Volery, (2007:11) put it "the decision may be triggered by a specific event or simply by the accumulated weight of confirmatory or contradictory information". Precipitating events such as a dismissal and in most cases the passion of an individual may trigger the launch of a business venture. A venture is launched when triggers prevail over the perceived barriers to start up or when perceived barriers appear to be greater than advantages the entrepreneur may decide to abandon the attempt (Schaper and Volery, 2007:11).

Furthermore, Gnyawali and Fogel (1994, in Boter and Lundström, 2005:246) explained the role of entrepreneurial support by concentrating on the core elements of new venture creation which entail: 1) Opportunity, 2) Propensity to enterprise, and 3) Ability to enterprise, as shown in Figure 4.3.

Figure 4.3: Core elements of new venture creation

Source: Gnyawali and Fogel (1994, in Boter and Lundström, 2005:246)

Opportunity refers to the environmental conditions that impact on business activities. Propensity to enterprise is determined by psychological and behavioural aspects of an individual, which may influence an individual's ability to create new products, satisfy new customer needs, and to establish and develop new enterprises. Ability to enterprise is associated with the technical and business conditions required in running the business, such as competencies in managing the different business functions (Boter and Lundström, 2005:246-247). Opportunity, ability to enterprise and propensity to enterprise are regarded as a platform for entrepreneurial activity which impacts on the probability to enterprise. Boter and Lundström (2005:247) contend that there is a need to stimulate entrepreneurs, to establish new enterprises by creating an environment with business opportunities and to support the development of entrepreneurial competencies. These authors assert that government, through its macro-economic measures and policies can create favourable conditions for business development; the entrepreneurial culture should be developed by radically and intensively providing entrepreneurship education and using the media to share information and knowledge about the importance of entrepreneurship; and small business policy should introduce support measures that focus on enhancing business competence. It is suggested that support programmes such as financial support, business information, advisory services and counselling can only be provided when the propensity to start up a business is present.

From the core elements of new venture creation discussed above, it seems that entrepreneurial support programmes have to focus on creating opportunities for starting a business through favourable conditions in which new businesses can succeed. The support provided should enhance the entrepreneurial competencies of individuals while on the other hand it should influence the entrepreneurial culture of the society. When the opportunity, the ability to enterprise and propensity to enterprise are present for the individual, the probability to start a business will be high, leading to new venture creation.

4.3.4 The factors that drive entrepreneurial performance

Dionco-Adetayo (2004:5) is of the view that entrepreneurial performance is influenced by external and internal factors that can be grouped into triggering factors, enhancing factors and sustaining factors. Triggering factors are those that push the entrepreneur to go into thinking. Included in those factors are the moods, attitudes, motives, tradition, values and other factors that describe an individual. Enhancing factors are those that have a synergy influence on entrepreneurial opportunity, referred to as entrepreneurial capacity factors. They drive an entrepreneur into action. They include management skills and ability, level of formal and informal education attained. Management skills and ability facilitate the setting and achievement of goals through the use of human, technical and financial resources in a business. Management tasks of planning, organising, directing and controlling both human and non-human resources are used to achieve the set goals. According to Dionco-Adetayo (2004:5), as soon as the idea is conceived the management process begins, requiring the entrepreneur to possess the breadth of knowledge to manage the available resources in achieving the goals of the business. Sustaining factors refer to the support that the entrepreneur needs from the government in terms of technology, marketing and financial support, and infrastructure.

4.3.5 Deficiencies in the human capital of an entrepreneur as a source of the need for entrepreneurial support

According to Yusuf (2008:506), the lack of human capital influences the need for entrepreneurial support. Ucbasaran *et al.* (2004:1) argue that the ability of entrepreneurs to identify and exploit opportunities is a function of their human capital. In their study of the human capital based determinants of opportunity identification, Ucbasaran *et al.* (2004:5) distinguish between general human capital (education, age and gender) and specific human capital (managerial capability, entrepreneurial capability and technical capability). Their study involved 4324 independent firms in the United Kingdom. Ucbasaran *et al.* (2004:7) found that specific human capital (managerial and entrepreneurial capabilities and developmental attitude towards opportunity) were positively related to information search intensity and entrepreneurial capability was positively related to opportunity identification and pursuit.

Corbett (2007:97) examined the relationship between how individuals acquire and transform information and experience in order to identify opportunities. He found that individuals with higher levels of specific human capital (level of industry or technical related knowledge or skill) will recognise more opportunities than those with lower levels of specific human capital (Corbett, 2007:110).

In a study that was conducted in the United States based on a representative sample of the population, Townsend *et al.* (2008:2) assessed the role of outcome and abilities expectancies in the start-up decision process. They found that a strong belief in one's ability to act entrepreneurially had a larger effect on the firm creation process than the outcome expectancies (Townsend *et al.*, 2008:9). Therefore, entrepreneurial support programmes that focus on equipping entrepreneurs with necessary entrepreneurial skills and competencies can make a positive contribution in enhancing new firm creation.

De Clercq and Arenius (2004:1) examined the effects of human capital and social capital on the likelihood to engage in new venture creation using a sample of 4536 individuals in Belgium. Human capital was measured based on general human capital (overall educational attainment) and specific human capital (perception about the

capability to launch a new venture). The measurement for social capital was based on the personal knowledge of an entrepreneur (De Clercq and Arenius, 2004:4). They found that individuals with a lower level of education were more likely than those with higher education (post-secondary degree) to start a business. Specific human capital and social capital were significantly and positively related with the likelihood to launch a new venture (De Clercq and Arenius, 2004:5). De Clercq and Arenius (2004:6) report that an individual's specific human capital (perception of having the necessary skills for starting a new business) is the most important factor that increases the likelihood of entrepreneurial activity.

De Clercq and Arenius (2006:339) examined the effects of knowledge-based factors on the likelihood to engage in business start-up based on the 2002 GEM data for individuals located in Belgium (3102 individuals) and Finland (2005 individuals). Knowledge-based factors included: 1) Individuals' overall educational attainment and knowledge, skills as well as experience required to start a business, and 2) Personal knowledge of an entrepreneur and 3) Involvement as an informal investor (De Clercq and Arenius, 2006:344).

De Clercq and Arenius (2006:347-348) found that there was a positive correlation between the perceived level of skills, personally knowing an entrepreneur, experience as an informal investor and the likelihood to engage in business start-up activity. The findings also indicate that individuals with a higher fear of failure were less likely to engage in start-up activities while the perception of more opportunities for starting a business impacted positively on the likelihood to engage in start-up activities. Males were more likely than females to engage in business start-up activity. Individuals with a secondary degree were more likely to set up a business compared to those with a lower education level. The two countries had similar results regarding the positive effect of the perception of having the necessary skills and the personal knowledge of the entrepreneur on the likelihood to start a business. In Belgium, opportunity recognition and gender were significant drivers for the start-up activity whereas the fear of failure and age had a significant negative effect in Finland. In Belgium the three knowledge-based factors (the perception of having the specific skills, personal knowledge of an entrepreneur and experience as an informal investor) had a positive effect on the likelihood to start a growth-oriented venture (a start-up business that is

expected to create more than five jobs in five years). In Finland, only one knowledge-based factor (personally knowing an entrepreneur) had a weak effect on the likelihood to engage in a growth-oriented start-up (De Clercq and Arenius, 2006:48).

Bradford (2007:95) examined the training and support needs of 400 township entrepreneurs in the Eastern Cape, Gauteng, Kwa-Zulu Natal and Western Cape. He found that the high-ranking problems experienced by township entrepreneurs were accessing funds to purchase capital items and accessing funding for running costs, transport costs and competition (Bradford, 2007:113). Based on his findings, Bradford suggests that township entrepreneurs can benefit from training programmes such as keeping and interpreting financial records, marketing/promotional strategy and obtaining financing.

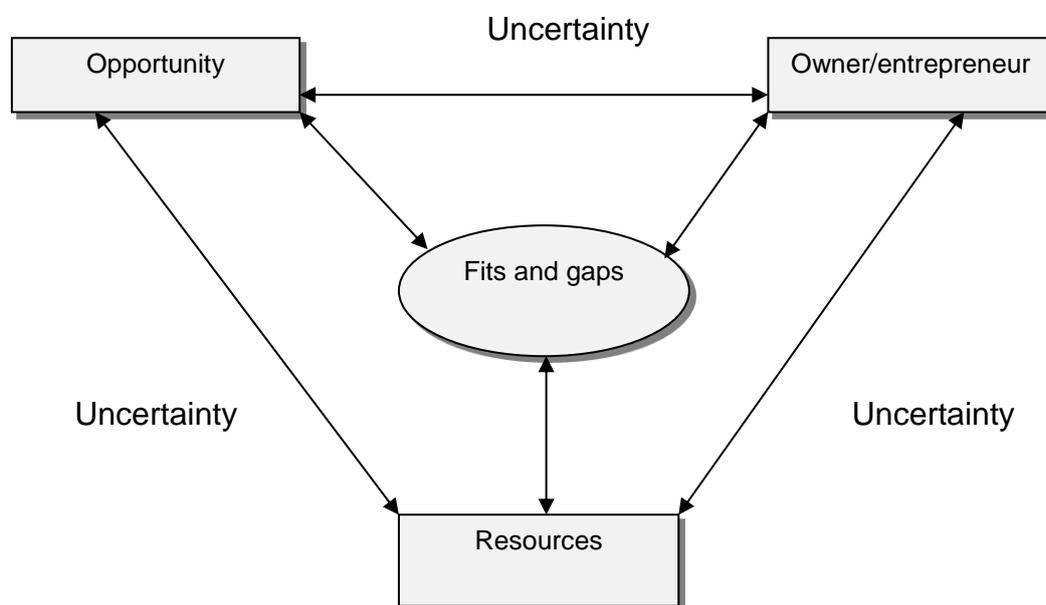
4.3.6 Failure rate of new businesses as a reason for entrepreneurial support

The need for entrepreneurial support may be driven by the high failure rate of new businesses as reported in the entrepreneurship literature. Timmons and Spinelli (2007:84) report that the failure rate for start-ups is around 46.4 percent. However, failure does not only affect new business start-ups, it is also experienced by old ventures (Nieman and Pretorius, 2004:71). Van Aardt, Van Aardt, Bezuidenhout and Mumba (2009:247) categorise the causes of failure of small businesses into internal and external reasons. While internal causes of failure can be controlled or avoided, the entrepreneur cannot reverse the results of external causes that lead to failure but can take alternative actions to reduce the negative impact of these factors. In order to avoid and prevent some of the causes of small business failure, Bridge *et al.* (2009:345) suggest that the development of businesses is dependent on a range of skills and abilities in the areas that include organisation, management, production, marketing, selling, strategy, finance and law. These are areas in which the government can assist new businesses to increase their chances of survival. According to Herrington *et al.* (2008:16), start-ups have poor sustainability which necessitates policy interventions aimed at supporting and mentoring entrepreneurs through the difficult process of firm birth.

4.3.7 Uncertainty during the process of starting a business

Hanlon and Saunders (2007:634) and Yamada (2004:301) contend that the start-up phase is surrounded by high levels of uncertainty and ambiguity, thereby requiring multiple and regular infusions of support. Such high levels of uncertainty can inhibit action. Uncertainty refers to doubt that prevents action by undermining someone's beliefs regarding whether an environmental stimulus presents an opportunity for the actor in the marketplace, whether the actor can feasibly exploit an opportunity, and whether successful exploitation of the opportunity would adequately fulfil some personal desire of the actor (McMullen and Shepherd, 2006:133). McMullen and Shepherd (2006:141) are of the view that having identified an opportunity does not mean people believe that they possess the knowledge and motivation necessary to exploit it. A person can be able to overcome doubt and act through learning effects and/or the encouragement of others. According to Schaper and Volery (2007:111), there are three key issues to consider before going into business, namely: 1) Owner/entrepreneur, 2) Opportunity and 3) Resources, as shown in Figure 4.4.

Figure 4.4: Key issues to consider before going into business



Adopted from Schaper and Volery (2007:111)

Entrepreneurs should have a thorough understanding of their own personal strengths and weaknesses as well as their goals before they decide to start a business. As starting a business involves risk, entrepreneurs have to consider their own risk

profiles. This is because of the uncertainty relating to the chances of success or failure of a new business, the resources available to an entrepreneur and the identified opportunity impact on the type of business chosen (Schaper and Volery, 2007:112-113), illustrated in Figure 4.4. Entrepreneurial support may be valuable in reducing these levels of uncertainty. For instance, knowing where to obtain assistance relating to the required resources and opportunities can impact positively on entrepreneurial intent, thereby raising the level of confidence in starting a new venture.

4.3.8 The need for entrepreneurial support in South Africa

As indicated in Chapter 1 section 1.2, South Africa as a developing country is faced with a high rate of unemployment. The country, as a result of high unemployment, is faced with the problem of generating rapid economic growth and employment growth (Mahadea, 2003:1). The South African government has recognised SMME development as a key factor in its strategy for job creation and the significance of SMMEs in the development of the economy (Umsobomvu Youth Fund (UYF), 2004b:4; Kiley, 2006:627). As a result, the government has put a variety of support mechanisms in place for SMME development (UYF, 2003:4). The UYF has identified the development of vibrant and sustainable youth owned and supported enterprises as a way of addressing youth unemployment in South Africa (Youth Development Network (YDN), 2005:70).

Small businesses are flexible and understand the needs of local communities better than large businesses (Bamford and Bruton, 2006:5). In South Africa, small, very small and micro enterprises constitute around 94 percent of the total number of businesses (Seda, 2007a:21) and they contribute between 27 and 34 percent to the Gross Domestic Product (GDP) (Seda, 2007a:12; DTI, 2008a:36) and about 59 percent to employment (Seda, 2007a:11). Medium to large enterprises contribute between 40-50 percent to the GDP. Table 4.1 shows the contribution of small, very small and micro enterprises to job creation and to the GDP in South Africa.

Table 4.1: Contribution of small, very small and micro enterprises to job creation and Gross Domestic Product in South Africa

Category	Number of employees	Share in total enterprises	Share of employees (2004)	Share in GDP
Micro-enterprises	<5	50% in 2004, down to 41% in 2006	6%	8-10%
Very small enterprises	5-20	40% in 2004, up to 45% in 2006	30%	9-11%
Small enterprises	20-50	8% in 2004, up to 9% in 2006	23%	10-13%
Medium to large enterprises	>50	2% in 2004, up to 5% in 2006	37%	40-50%

Source: Adapted from Seda (2007a:11-12)

In 2004, the UYF (2004b:2-3) identified a number of barriers that the youth faced as emerging entrepreneurs. The steps for dealing with these barriers were also identified as a way of improving the environment for youth entrepreneurs (UYF, 2004b:4), as shown in Table 4.2.

Table 4.2: Barriers to youth entrepreneurship and solutions to improve the situation

Barriers	Solutions
<ul style="list-style-type: none"> • Lack of ability to write a feasible and realistic business plan • Lack of management and interpersonal skills • Lack of financial management; • Lack of strategic planning • Lack of financial support • Lack of direction • Lack of networking • Lack of mentorship • Poor perceptions of entrepreneurs • Lack of community support, especially in rural areas • Heavy collateral requirements by banks • A perception that start-up businesses are risky • Complex tendering and contractual processes • Long turnaround time for processing applications 	<ul style="list-style-type: none"> • Becoming more accessible • Establishing a greater presence, especially in rural areas • Improving turnaround time for applications • Developing new products specifically designed for the entrepreneurial market • Encouraging rural entrepreneurship as a priority • Closely monitoring Business Development Service providers • Conducting opportunity scans in unexplored sectors • Establishing a mechanism for assessing the impact of the various interventions • Coordinating the activities of service providers so that they do not work in isolation • Finding ways of integrating non-financial and financial support • Ensuring that service provision is relevant to the needs and is sector-based • Focusing on growth-oriented businesses to encourage job creation

Source: UYF (2004b:3-4)

From Table 4.2, it can be deduced that the stimulation of youth entrepreneurship is constrained by many barriers which require coordinated efforts by those carrying out programmes to support youth entrepreneurs. Entrepreneurial support that helps the youth to acquire business skills in areas of writing the business plan, financial management, general management and tendering may have positive effects on the success of the youth in starting and running their own businesses. The development of an entrepreneurial culture in rural communities, opportunities for networking and mentorship, and improving the turnaround time for applications may contribute to success in the efforts to encourage youth entrepreneurship.

Maas and Herrington (2007:38) in the South African GEM report of 2007 investigated the factors that impact negatively on perceptions regarding start up of a new business among the youth. They found that inhibiting factors to the success of new businesses were:

- Shortage of capital
- Lack of turnover
- Competition
- Crime
- Insufficient knowledge/information
- Business planning
- Quality of employees
- Stock control
- Business location
- Regulations and policies
- Marketing of products/services
- Technological changes
- Personal entrepreneurial capacity
- Politics, society and institutions
- Taxes and rates
- Labour regulations

On the basis of the abovementioned factors that have a negative impact on youth perceptions regarding starting a business, Maas and Herrington (2007:44-45)

recommended the following actions to promote youth entrepreneurship development, as illustrated in Table 4.3.

Table 4.3: Actions to promote youth entrepreneurship development in South Africa

Financing for young entrepreneurs	<p>Encouraging youth to start their own businesses and teaching them that making mistakes is one way of learning. Development of a financial support system which allows for trial and error for entrepreneurs starting their first business.</p> <p>Introducing a Student Placement system for Entrepreneurs in Education programme within tertiary education institutions.</p> <p>Integrating activities of the private sector, higher education institutions and local authorities in order to find solutions for youth development.</p> <p>The development of start-up capital systems for students whilst studying at tertiary institutions.</p>
Curriculum design	<p>Ensuring that the youth is employable and can start their own businesses by:</p> <ul style="list-style-type: none"> • Designing curriculum that supports employability skills such as languages, starting your own business, presentation skills, creativity and leadership abilities. • Developing specific qualifications that focus on business creation. • Using case studies that focus more on opportunity-orientated ideas and businesses. • Empowering lecturing staff to support entrepreneurial activities in their respective fields.
Research	<p>Enhancing the ability of youth to identify the right ideas and to implement them successfully by:</p> <ul style="list-style-type: none"> • Developing databases of possible business ideas. • Developing a conceptual research model that will support accelerated youth entrepreneurship development and contracting research institutions to populate this research model. • Testing all government regulations with regard to their impact on youth entrepreneurship development. • Developing fresh approaches and researching policies and programmes to stimulate youth entrepreneurship in rural areas.
Visibility of youth entrepreneurs	<p>Portraying positive images of entrepreneurs to help to address the fear factor, which prevents youth from becoming entrepreneurs by:</p> <ul style="list-style-type: none"> • Encouraging national competitions for youth entrepreneurs. • Organising visible events such as Enterprise Weeks at tertiary institutions. • Investigating the possibility of business hives for students or allowing students to operate businesses on campus for the duration of their studies.

Table 4.3 continued

General support system	<p>Supporting youth entrepreneurs over time in creating sustainable businesses by:</p> <ul style="list-style-type: none"> • Making information regarding government policies and programmes available to the youth market with ease of understanding and use. • Developing a total support system for students who want to establish their own businesses during their studies, such as hot desk facilities where computers, fax machines, telephone systems and meeting places are available. • Developing mentoring systems on different levels such as entry level that will concentrate more on coaching; intermediate level for people who want to start a business but still need coaching; and an advanced level where youth entrepreneurs are already involved in business. • Investigating placement systems for youth entrepreneurs within smaller companies in order to create a positive mindset in terms of smaller businesses and the abilities needed to start and manage their own business. • Actively promoting small business as a career and not as a second-rate choice if one cannot find a job in the corporate sector. • Exposing the youth to modern technologies both nationally and internationally.
Networking	<p>Emphasis should be put on networking as an important activity of entrepreneurs. The networking ability of youth entrepreneurs can be improved by:</p> <ul style="list-style-type: none"> • Teaching youth entrepreneurs about the importance of networking and how to network. • Creating a national network of youth entrepreneurs such as students in Business Societies. This national network should interact with international networks, which can be done through a virtual meeting place such as the Start-up Café concept (www.start-upcafe.eu). • Linking all offices of Seda and other agencies to a tertiary institution. • Including the specialists in entrepreneurship and small business in the services offered to the youth in order to improve the quality of service. • Having a regional structure where the advisors of Seda can have a direct line to the expertise at a tertiary institution would benefit all clients of the agency.
Learnership programme	<p>The learnership programme for graduates is too bureaucratic and needs to be changed to empower the youth to utilise opportunities. This change should include:</p> <ul style="list-style-type: none"> • Setting standards for the programmes required which will ensure quality short courses. • Changing the assessment tool to a bankable business plan. • Linking training and development programmes to mentorship programmes to guide prospective entrepreneurs

Source: Maas and Herrington (2007:44-45)

Efforts to develop entrepreneurial intent of the youth in South Africa as Table 4.3 indicates, require a range of actions that include making financial support available and communicating its availability as well as other types of support such as mentoring and networking. Entrepreneurship education that adequately equips the youth with necessary skills should be introduced while the positive image of the entrepreneur and entrepreneurship as a career should be portrayed. The youth may also develop entrepreneurial intent through exposure to entrepreneurial activities in small businesses.

According to Seda (2007b:15), black-owned SMMEs represent an interest group that puts pressure on the public sector to expand, streamline or strengthen its different SMME support programmes. Seda identifies the following support needs of Black-owned SMMEs:

- Information, advice and mentorship
- Market access and procurement
- Access to finance
- Entrepreneurship and business training
- More flexible rules and regulations
- Business infrastructure facilities
- Access to appropriate technology
- Sector-development facilitation
- Tax benefits and
- Facilitation of community initiatives and business networks

4.4 CONDITIONS THAT CONTRIBUTE TO ENTREPRENEURIAL ACTIVITY

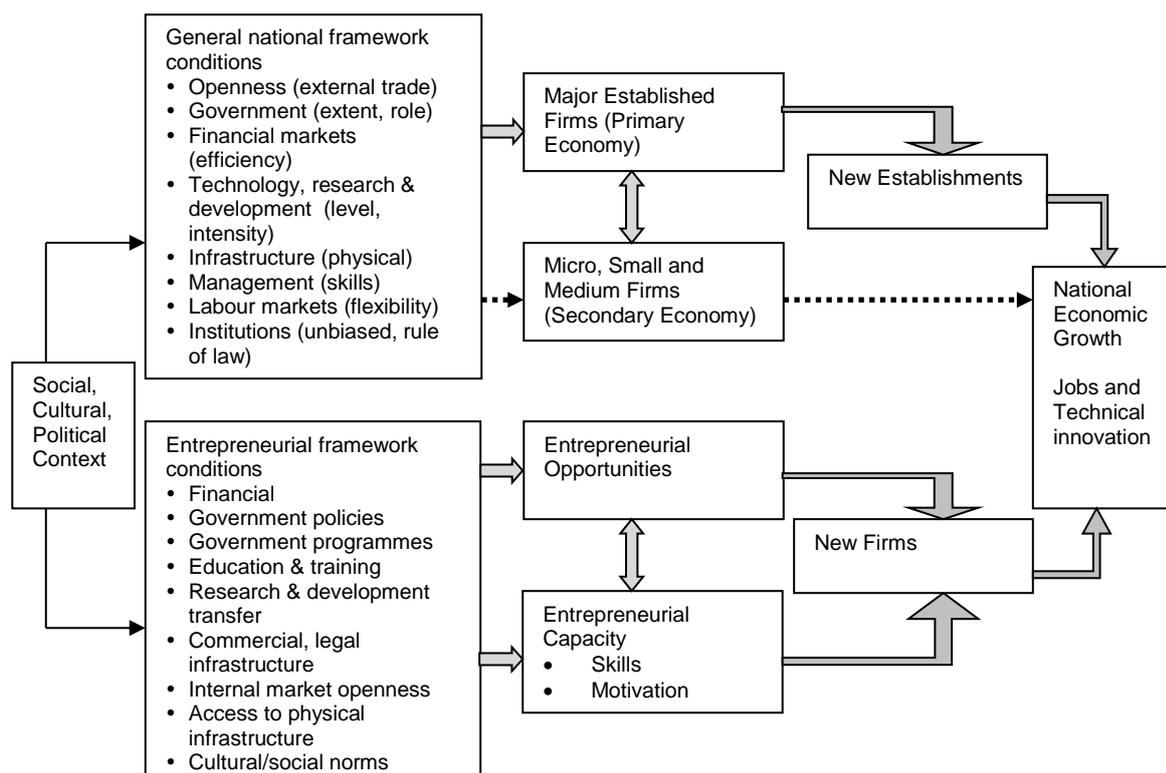
Entrepreneurial activity may be stimulated by a wide variety of factors. This section examines the conditions and factors that contribute to and limit entrepreneurial activity. These conditions and factors may serve as the basis for the design of entrepreneurial support programmes that impact on entrepreneurial intent.

Entrepreneurship is dependent on conducive framework conditions, supportive environment, well-designed government programmes and cultural attitudes (Pfeifer,

Duka and Havnes, 2003:11). The promotion of entrepreneurial activity in South Africa is facilitated and hindered by a number of factors which in turn affect the decision by individuals whether or not to respond to an opportunity or start a business. Von Broembsen *et al.* (2005:12) and Bosma *et al.* (2007:41) refer to these factors as entrepreneurial framework conditions. They include access to finance; government policies; government programmes; education and training; transfer of research and development; commercial, legal and financial infrastructure; openness of the domestic market; access to physical infrastructure and the extent to which cultural and social norms support the choice of starting a business as a career option. On the other hand the ability of existing businesses to compete effectively and to start new or ancillary businesses is affected by general business conditions.

When conditions are favourable for businesses to compete effectively and new or ancillary businesses are started new jobs are created (Von Broembsen *et al.*, 2005:12). The environment in which to do business is a result of the interplay of the general national framework conditions. The level of development in a country determines the environment in which entrepreneurial decisions are taken and the type, quality and quantity of entrepreneurship in a country which, in turn contribute to the growth and development of a country. The impact of general national framework conditions and entrepreneurship framework conditions on job creation and national economic growth is illustrated in Figure 4.5.

Figure 4.5: The GEM conceptual job creation model



Source: Von Broembsen *et al.* (2005:12)

Table 4.4 represents the factors that limit, contribute to and those that can increase entrepreneurial activity.

Table 4.4: Factors that limit, contribute to and those that can increase entrepreneurial activity in South Africa

Factors that limit entrepreneurial activity	Factors that contribute to entrepreneurial activity	Factors that can increase entrepreneurial activity
<ul style="list-style-type: none"> • The education system does not encourage entrepreneurship as a career. • Lack of resources to start a business and too much security needed by banks. • Regulations and high costs in starting a business. • The environment influences people to become job seekers and be safe. • Harsh attitude toward failure. • Lack of infrastructure and the necessary skills. • High expectations that big businesses, government and others should create jobs. • Lack of competencies amongst entrepreneurs. • Lack of financial support, networking, mentorship and community support. • Lack of ability to put together a feasible and realistic business plan. • Perception that start-up businesses are risky. • Poor perception of entrepreneurs. 	<ul style="list-style-type: none"> • Entrepreneurship is becoming a key focus of the government. • Stable and favourable economic conditions. • Government encourages entrepreneurship with lower taxation rates. • Establishment of a central integrated organisation (Seda) to serve entrepreneurs. • Schools are starting to encourage entrepreneurship education. • Policies are starting to fall into places. • Entrepreneurial awareness is being developed in youth. • Unemployment and retrenchments push people into entrepreneurship. • More role models in entrepreneurship are observable. 	<ul style="list-style-type: none"> • Clear definitions of key concepts such as political and economic development, poverty alleviation and economic development. • Developing entrepreneurship from an early age through education. • Developing access to cheaper and different funding models. • One-stop shop and integrated approach for the development of entrepreneurship. • Ruling out corruption and nepotism. • Integrated support services must be developed and implemented. • Improving access to venture capital. • Service delivery on various government levels must be improved. • Highlighting and solving policy conflicts between government departments. • Developing different support measurements for different entrepreneurial groups

Source: Table created by author from: Maas and Herrington (2006:12-13); UYF (2004a:2-3).

Some of the factors that limit and those that contribute to entrepreneurial activity as indicated in Table 4.4 can be dealt with effectively through the media. Government could partner with the media to impact on factors that influence entrepreneurial intent and ultimately entrepreneurial behaviour. Government can, through the media, encourage entrepreneurship as a career and develop an entrepreneurial culture; it can

create positive perceptions about entrepreneurs; it can portray successful entrepreneurial role models with the necessary entrepreneurial competencies and it can also convey information about support programmes available for those who want to start businesses. These actions may impact on perceptions of feasibility and desirability of entrepreneurship.

In a study that assessed the entrepreneurial motivation of 337 Chinese respondents, Taormina and Lao (2007:217) found that a perceived favourable business environment was a strong and most powerful predictor of the actual entrepreneurs' motivation to start a business. Herrington *et al.* (2008:20) postulate that the major obstacle in the development of rural entrepreneurial activity is the lack of enabling environment in these areas. Orford *et al.* (2004:20) reported that poor infrastructure and fewer viable opportunities in rural areas compared to urban areas partly accounted for the low entrepreneurial activity rates in South Africa. Rural areas experienced significantly lower entrepreneurial activity rates than urban areas and were dominated by necessity entrepreneurs (Orford *et al.*, 2004:17; Seda, 2007a:42). Necessity entrepreneurs are entrepreneurs who got involved in an entrepreneurial activity because they had no better career options (Orford *et al.*, 2004:11; Von Broembsen *et al.*, 2005:13 and Maas and Herrington, 2006:21).

Additionally, Ladzani and Netswera (2009:225-226) report that impediments to rural economic development include sparse population, remoteness, poor infrastructure, little or no access to vibrant markets and other negative factors that characterise rural areas. The majority of rural small businesses are sole proprietorships, followed by family businesses and partnerships. In a study that involved entrepreneurs from the five district municipalities of Limpopo, Ladzani and Netswera (2005:235) report 70 percent of sole proprietorships, 16 percent of family businesses, 13 percent of partnerships and one percent of close corporations. In another study in the Aganang Municipality in Limpopo, Malebana (2004:60) and Malebana (2009:12) reports 97.5 percent of sole proprietors and 2.5 percent of partnerships. Kiggundu (2002:247) observes that African entrepreneurs prefer to be involved in sole proprietorships and less attention is paid to partnerships and limited companies. Given their type of ownership and size, rural small businesses find it difficult to access support systems and to attract enough capital investment from the owners or other potential investors.

Opportunities for tendering and subcontracting also require diversity in terms of ownership, gender, race and age groups (Kiggundu, 2002:248; Ladzani and Netswera, 2009:235-236). Fuller-Love, Midmore and Thomas (2006:293) assert that initiatives taken to support rural small businesses should consider the distinctive nature of businesses in rural areas.

4.5 THE ROLE OF ENTREPRENEURIAL SUPPORT IN THE DEVELOPMENT OF ENTREPRENEURIAL INTENT AND ENTREPRENEURIAL ACTIVITY

Various types of entrepreneurial support may impact positively or negatively on entrepreneurial intent and entrepreneurial activity. In the next sections the role of perceived access to resources and opportunities in the development of entrepreneurial intent, and the relationship between entrepreneurial support and entrepreneurial intent and entrepreneurial activity are discussed. This discussion serves to determine whether perceived access to resources, opportunities and entrepreneurial support impact on entrepreneurial intent and activity.

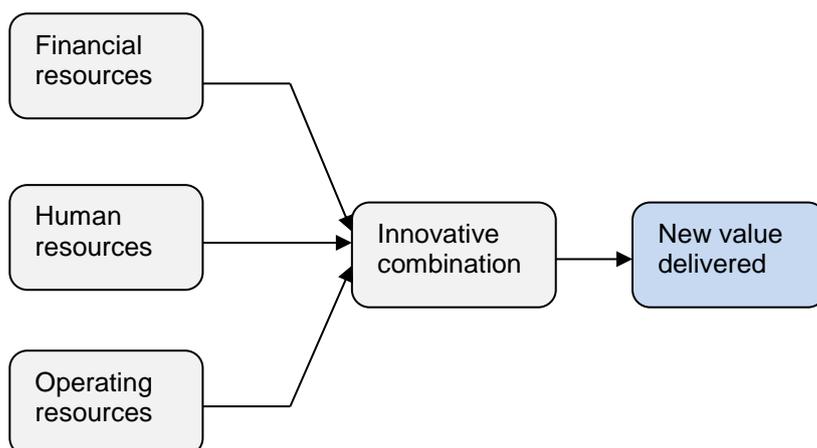
4.5.1 Perceived access to resources and the formation of entrepreneurial intent

When prospective entrepreneurs decide to organise and launch new ventures, they evaluate their skills, capabilities, and economic and non-economic determinants of success that include access to and the ability to mobilise monetary and non-monetary resources (Ahwireng-Obeng, 2003:11). Lévesque *et al.* (2002:206) contend that the decision to become an entrepreneur does not only depend on appropriate utility weights but also on the opportunities and resources. The majority of studies indicate that lack of access to resources in particular, finance and information, networking and management incompetence are reported as the biggest impediments entrepreneurs face, especially at the early stages of starting up a business, limiting the survival and growth of new ventures (Ramayah and Harun, 2005:18; Nieman and Pretorius, 2004:8; Nieman and Nieuwenhuizen, 2009:35; Kamau-Maina, 2007:36). Due to the lack of resources among entrepreneurs, Sriram *et al.* (2007:241) assert that entrepreneurs should determine where and how to acquire these resources, hence the government is expected to play an active role in making capital available and providing other types of assistance.

Resources refer to the things that are used by the business to pursue its ends (Wickham, 2006:255). The resources needed by an entrepreneur to offer products and services are financial, human, information and physical resources (Co *et al.*, 2006:4; Nieman and Nieuwenhuizen, 2009:126; Nieman and Pretorius, 2004:8). These resources are explained as follows:

- Financial resources are resources that take the form of, or can be readily converted into cash. These resources can be used to buy other resources (Wickham, 2006:255; Nieman and Pretorius, 2004:8; Nieman and Nieuwenhuizen, 2009:126). Financial resources entails cash in hand, overdraft facilities, loans, outstanding debtors, investment capital and investment in other businesses.
- Human resources refer to all the people and their efforts, skills, knowledge and insight they contribute to the success of the business (Wickham, 2006:255; Nieman and Pretorius, 2004:9; Nieman and Nieuwenhuizen, 2009:127). Human resources play a crucial role in the success of new venture (Wickham, 2006:259).
- Physical/operating resources are those resources that an entrepreneur uses to deliver goods and services to the marketplace (Wickham, 2006:258). Physical resources include premises, motor vehicles, production machinery, raw materials, storage facilities and office equipment.
- Information resources refer to information about the prospective business's competition, customers and other external uncontrollable variables that may impact the new business as well as information relating to the internal working of the business (Nieman and Nieuwenhuizen, 2009:128; Nieman and Pretorius, 2004:11).

Entrepreneurs combine the resources at their disposal innovatively and in a way that offers new value to customers (Wickham, 2006:256). This innovative combination of resources is illustrated in figure 4.6.

Figure 4.6: Entrepreneurship and the combination of resources

Source: Wickham (2006:256)

In a study that involved 271 nascent technology-based entrepreneurs, Grundstén (2004:53) proposed a model defining the relationship between the environmental factors and entrepreneurial intentions in that environment. He found that the availability of technology-related resources affected perceived feasibility of entrepreneurship significantly (Grundstén, 2004:67) and that the environmental factors were significantly related to entrepreneurial intentions (Grundstén, 2004:68). In his conclusion, Grundstén (2004:119) suggested that the development of entrepreneurial intentions is a multiphase process where different external factors affected the process at different phases.

Using the 2004 UK GEM data of 22 000 individuals, Roper and Scott (2009:150) investigated the role of access to finance in shaping business start-up decision. They found that women were more likely to perceive financial barriers to business start-up than men. Perceptions of financial barriers were most common among younger women in low income households who were working full-time and were significantly less common among older males from high income households (Roper and Scott, 2009:159-160). Perceptions of financial barriers were marginally significantly associated with a reduction in the start-up probability.

In a study of the determinants of entrepreneurial intention of 1281 students at Universiti Sains Malaysia, Ramayah and Harun (2005:11-12) assessed the impact of instrumental readiness which was measured in terms of access to capital, availability of information and networking on the intention to start a business. They found that

instrumental readiness was positively related to entrepreneurial intention (Ramayah and Harun, 2005:18). These findings are corroborated in a study that was conducted among 130 Indonesian and 121 Norwegian students by Kristiansen and Indarti (2004:71). They found that instrumental readiness was a positive significant predictor of entrepreneurial intention. In addition, instrumental readiness was significantly correlated with self-efficacy among the Indonesian sample (Kristiansen and Indarti, 2004:69). Additionally, Begley *et al.* (2005:46) found that perceived supply of skilled labour was positively related to the interest to start a business and was also positively related to both desirability and feasibility of starting a business (detail in 4.5.2).

4.5.2 The relationship between perceived market opportunity, outside assistance and entrepreneurial intent

In a study that was based on the theory of reasoned action and the theory of planned behaviour focusing on the intention to become self-employed and actual entry into self-employment among 297 Norwegian business founders, Kolvereid and Isaksen (2006:880) found that opportunity recognition as a measure of self-efficacy was marginally significantly related to self-employment intentions. These findings are corroborated in Zhang and Yang (2006:167). They reported a significant positive relationship between opportunity recognition and entrepreneurial intention and a significant positive relationship between entrepreneurial intention and entrepreneurial behaviour on a sample of 1500 MBA students in China.

When people believe that resources are abundant and available in the environment, their security or confidence with regard to their ability to acquire resources is enhanced. Edelman *et al.* (2005:1) investigated how entrepreneurial perceptions and objective characteristics of the environment influenced entrepreneurial action and start-up success using the dataset of 193 nascent entrepreneurs drawn from the National Panel Study of Entrepreneurial Dynamics in the United States of America. They found that entrepreneurs perceived greater existence of resource mobilising structures in munificent environments (Edelman *et al.*, 2005:5). Munificence is defined as “the ability of the environment to support sustained growth by providing sufficient resources” (Edelman *et al.*, 2005:2). They found that entrepreneurs’ perception of market opportunities was significantly related to the number of new venture creation

activities pursued, which in turn were significantly related to start-up success (Edelman *et al.*, 2005:6). Salvato, Valentini and Dawson (2007:1) examined how entrepreneurial choices arose and were made based on the data from 2003 to 2005 GEM surveys. They found that the perception of more opportunities in the environment led to higher entrepreneurial activity in the countries studied (Salvato *et al.*, 2007:7). Shane (2000 in Green, 2007:2) asserts that having access to information about the existence of a given opportunity improves the discovery of an entrepreneurial opportunity. Corbett (2007:114) posits that individual differences in how they acquire and transform information have an impact on the knowledge they use to uncover opportunities.

Elango and Winchell (2007:198) explored the factors that prevented nurses from becoming entrepreneurs. Their study involved a focus group of 20 students in a nurse practitioner program at the Midwestern University in the United States. They found that even though student nurses identified opportunities for nurse entrepreneurship, legal and regulatory barriers, knowledge barriers, lack of office management skills, lack of public awareness and lack of infrastructural support prevented them from exploiting the identified opportunities (Elango and Winchel, 2007:200-202).

Begley *et al.* (2005:46) investigated politico-economic factors associated with interest in starting a business among thirteen Anglo-Saxon, East Asian and South Asian countries. They found that perceived availability of market opportunities and supply of skilled labour had a positive effect on the interest to start a business whilst supportive government regulations had a negative effect (additional detail in section 2.4.1). Perceived availability of market opportunities and supply of skilled labour were related positively to both feasibility and desirability of starting a business. Perceived favourableness of competitive conditions and perceived availability of support services were significantly related to feasibility of starting a business while personal connections were significantly related to desirability of starting a business (Begley *et al.*, 2005:46).

In an entrepreneurial intention survey of 697 students that was conducted at the University of Leeds in Yorkshire, Wilkinson (2004:7) found that 45 percent of students with a strong desire to become entrepreneurs expected the university to provide support and assistance. Three quarters of the students with a desire to be self-

employed had no knowledge of specific self-employment support at their institution. Robertson *et al.* (2004:314) suggest that both the government and universities need to work together in promoting entrepreneurship. In addition to providing funds, government must emphasise the importance of entrepreneurship to the economy.

Sarder (2003:1) studied the influence of outsider support on nascent entrepreneurs in the creation of new ventures using a sample of 293 nascent entrepreneurs in Dhaka, Bangladesh. The study revealed an overall positive influence of outsider assistance on nascent entrepreneurs in the creation of new ventures. Outsider assistance moderated the relationship between entrepreneurial intention and new venture creation.

According to Tang (2008a:131), “a munificent environment enhances entrepreneurial alertness through a favourable attitude of society toward entrepreneurship and a widespread public support for entrepreneurial activities”. Tang (2008a:128) examined the effects of environmental munificence on entrepreneurs’ alertness, the moderating role of entrepreneurial self-efficacy and the effects of alertness on entrepreneurs’ commitment to their new ventures. The study was based on the data from the Panel Study of Entrepreneurial Dynamics in the United States of America. Tang (2008a:141-142) found that there was a significant association between environmental munificence and alertness; entrepreneurial self-efficacy had a significant moderating relationship between environmental munificence and alertness, and entrepreneurial alertness was positively related to continuance commitment, behavioural commitment and affective commitment. Continuance commitment refers to “entrepreneurs’ desire to remain with the new business regardless of the uncertainties and unpredictability associated with the start-up process.” Behavioural commitment is the willingness of entrepreneurs to expend significant efforts for the new businesses. Affective commitment is defined as “entrepreneurs’ emotional attachment to, identification with, and involvement in the new ventures” (Tang, 2008a:133).

4.5.3 The relationship between entrepreneurial support and entrepreneurial activity

Kim and Cho (2009:305) investigated the effect of the economic policy on transition to self-employment in South Korea based on the data of the economically active

population from January 2000 to December 2004. During the period 1998 to 2002 the government in South Korea provided information, consulting services and financial support to encourage new start-ups amongst the unemployed. They found that institutional support provided to start-ups led to the increase in the number of people entering self-employment (Kim and Cho, 2009:318). However, during 2002 to 2005 the new administration took over which limited universal self-employment support policies and focused support on a few self-employment sectors. This led to a fall in the ratio of the self-employed from 27.98 percent to 27.1 percent (a decrease of about 200, 000 self-employers) (Kim and Cho, 2009:319).

Lerner and Kavhul (2004:2) examined the impact of human capital and small business assistance on the survival of 892 businesses owned by immigrants who received small business assistance from the Israel government during 1995/6. The human capital was measured in terms of business founder's age and experience, the length of residence in Israel and the length of experience as a salaried employee in Israel (Lerner and Khavul, 2004:4). They found that the human capital of immigrant owners was significantly related to the survival of their businesses. "The owners of operating businesses had been in Israel significantly longer than the owners of closed businesses. The owners of operating businesses had on average one year of experience as salaried employees in Israel whereas, the owners of closed businesses had only half a year" (Lerner and Khavul, 2004:5). They reported that there were no significant differences between operating and closed businesses in the number of different financial or advisory support services they received prior to the loan. There was no statistically significant effect of the diversity of either financial or advisory support on the likelihood of firm survival (Lerner and Khavul, 2004:6).

Entrepreneurial support should not only be directed towards start-ups, but should assist SMMEs that have growth potential in order to realise their growth intentions. The impact of entrepreneurial support can be greater when SMMEs that have been supported achieve growth. Previous research has found that high growth small businesses account for a more meaningful contribution to employment creation than their larger counterparts (Morrison, Breen and Ali, 2003:417; Nieman and Pretorius, 2004:2; Bridge *et al.*, 2009:258). In their study of the link between small business managers' growth aspirations and the level of growth achieved in Sweden, Wiklund

and Shepherd (2003:1929) found that small business managers' aspirations were positively related to actual growth. The level of access to financial capital had a significant influence on growth. Based on their findings, Wiklund and Shepherd (2003:1937) suggest that entrepreneurs must have access to relevant resources and opportunities to realise their intentions. Delmar and Wiklund (2008:452) suggest that economic growth can be achieved if small business managers' growth intentions are increased. Therefore, governments and those who want to grow the economy should understand the role of growth motivation in the development and growth of small businesses as well as the impact of measures to encourage the growth motivation on the economy. These authors argue that while there is an overemphasis on the implementation of support programs to provide small businesses with the resources to grow, governments should make it attractive for small businesses to grow. This could include making resources available at reasonable costs and growth opportunities must be abundant. Shane (2009:1) posits that instead of putting more effort in subsidising more start-ups, policymakers should focus their energy on the subset of businesses with growth potential. In his view, new businesses are less likely to provide jobs in the future because of their low survival rate (Shane, 2009:5). He maintains that economic growth and job creation can be realised from encouraging high quality, high growth companies to be founded.

Ferreira (2007:159) analysed the types of business interventions and their effect on the perceived success of 200 South African SMEs, all members of the Confederation of Employers of South Africa (2007:186). A business intervention was defined as "the interference that may affect the interests of others" (Ferreira, 2007:7). The concepts associated with business interventions include: consulting, training, supporting (providing small business owners with whatever is needed to enable them to start, maintain or grow the business), advising and mentoring (Ferreira, 2007:7 & 78-80). Ferreira found that 91 percent of SMEs were successful. Success was measured in terms of having been in business for at least four years, profitability and having shown growth over the three preceding years (Ferreira, 2007:137). The areas of assistance received, from the highest percentage to the lowest are finance/accounting, marketing, human resources, administration, production/operations, legal aspects, health and safety, business plan, information technology and systems (Ferreira, 2007:202). Respondents were asked to indicate the stage of their businesses' life cycle during

which they needed assistance. For the majority of SMEs assistance was sought during every stage, with 58.5 percent having sought assistance continuously (Ferreira, 2007:208-209). Only 39.5 percent of the respondents were happy with the assistance received while 30 percent did not comment (Ferreira, 2007:222). Ferreira (2007:234) reports that the two main factors that were perceived as critical to the SMEs success were product quality and marketing. The majority (72 percent) of SMEs indicated that they were successful because of the assistance they received (Ferreira, 2007:235).

In another study Swanepoel (2008:1) evaluated the effectiveness of the interventions used by the South African Breweries' KickStart Programme to establish and grow entrepreneurial SMMEs among the 502 youths who participated in the programme. Her research findings indicated that entrepreneurs who had received training, funding and mentoring were more likely to continue with their original business than those who had received training only (Swanepoel, 2008:194). Additionally, it was found that those entrepreneurs who had received training, funding and mentoring experienced a significant increase in profit and turnover more so than those who had received training only (Swanepoel, 2008:233-235). From these findings it seems that the provision of training or funding to entrepreneurs should be accompanied by mentoring in order to make a positive impact on the growth of SMMEs.

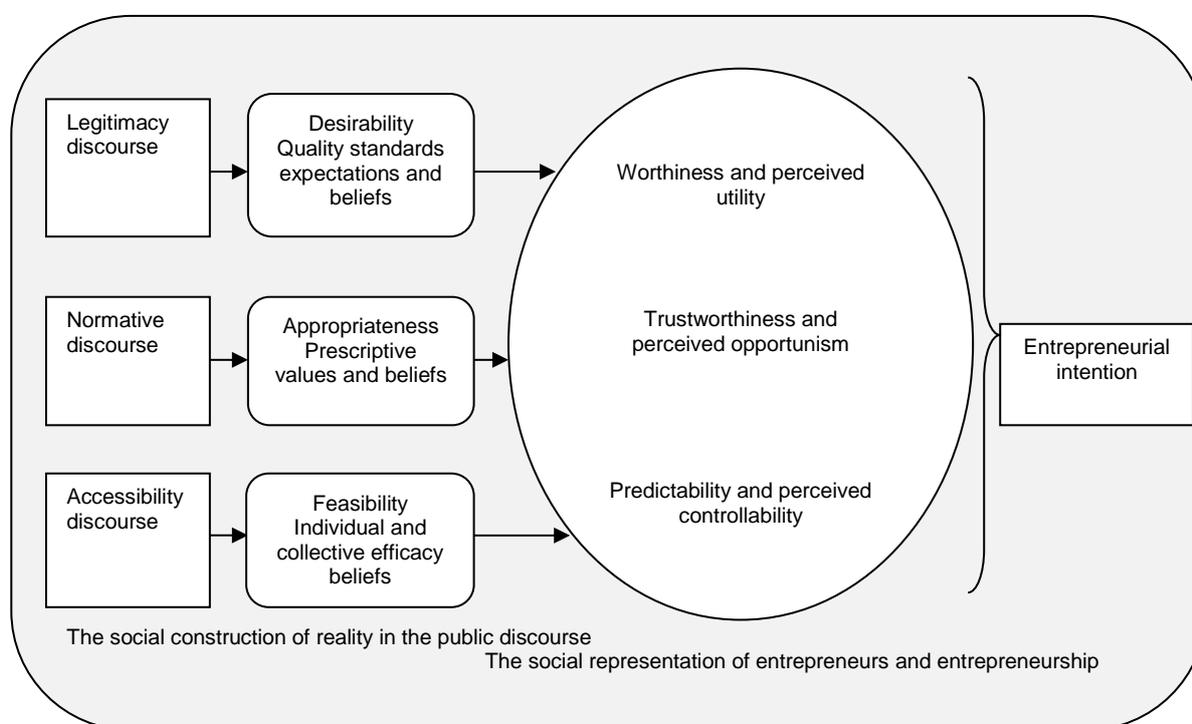
Having discussed the role of perceived access to resources, market opportunities and outsider assistance on entrepreneurial intent, the question is whether the media can contribute to the awareness of entrepreneurial support which in turn stimulates entrepreneurial intent and activity. This is examined in the next section.

4.5.4 The role of the media in creating awareness of entrepreneurial support

Radu and Redien-Collot (2008:263) argue that press discourses affect entrepreneurial intentions indirectly through their impact on desirability and feasibility perceptions. Radu and Redien-Collot (2008:265) proposed a modified model of entrepreneurial intention in which intentions are the result of perceived desirability, feasibility and appropriateness of the behaviour, which depend on the social and subjective norms individuals are aware of and are willing to respect. They argued that there could be a connection between desirability beliefs and legitimacy assumptions relating to the

nature and quality of the origin, the conduct and the consequences of a concrete behaviour. Appropriateness beliefs are said to be influenced by the normative assumptions concerning the social rules observable in regularly repeated behaviours and environmental cues on prescriptive values. The viewpoint regarding the role of the media is that it impact on the beliefs of individuals concerning the desirability, the appropriateness, and the feasibility of alternative occupational behaviours in specific social contexts, as illustrated in Figure 4.7.

Figure 4.7: Modified model of entrepreneurial intention: The impact of public discourse on desirability, appropriateness and feasibility beliefs.



Source: Radu and Redien-Collot (2008:266)

Radu and Redien-Collot (2008:281) argue that through the press discourse entrepreneurial self-efficacy can be raised as the media can provide concrete information about entrepreneurial competencies and behaviours (know-how information), networks and institutions engaged in entrepreneurship development (know-who information), and available training programmes (know-what information). Radu and Redien-Collot did not test the impact of the media on entrepreneurial intent but they proposed how the media could impact on entrepreneurial intent.

As figure 4.7 indicates, the media can play an essential role in shaping societal values that support entrepreneurship. Specifically, the media can influence perceptions of desirability and feasibility which have been established as robust predictors of entrepreneurial intent. The role that the media can play involves emphasising the importance and benefits of entrepreneurship as a career option which may impact on perceived desirability. The media can also provide information about how to start a business, what skills are required, opportunities for networking, entrepreneurial support programmes available and how to access them, and interviewing successful entrepreneurial role models who may share their views regarding the challenges they face and how they deal with them which may influence perceived feasibility. Consequently, more people may have the desire to start a business.

Hindle and Klyver (2007:218) examined whether the higher volume of mass media stories portraying successful entrepreneurs is associated with a higher rate of participation in opportunity searching activity, start-up activity and young firm activity. The study was based on the GEM data of 37 countries over four years from 2000-2003. They found a positive correlation between media coverage and young business start-up activity and total early-stage opportunity-based entrepreneurial activity (Hindle and Klyver, 2007:236). In another study that was based on the GEM data from 2003 to 2005 by Salvato *et al.* (2007:7), it was found that the more entrepreneurship is widely perceived as desirable and high-status occupational choice and rewarded by high media coverage, the higher the entrepreneurial activity in the country.

In the preceding sections it has been highlighted that perceived access to resources, market opportunities and outsider assistance influence entrepreneurial intent and activity. Individuals who have the intention to start a business may have different support needs, which require the explanation of the different types of entrepreneurial support.

4.6 THE TYPES OF ENTREPRENEURIAL SUPPORT REQUIRED BY ENTREPRENEURS

Just as people differ in their needs, SMMEs will not require the same type of support. This is because some have just been started and others may be in the growth stage. In the same vein, an individual who wants to start a business will need support that can make start-up process possible. This section explains the types of entrepreneurial support that are required by entrepreneurs.

A supportive environment and institutional government programs and policies as well as subjective mindsets are required to develop entrepreneurship (Pfeifer *et al.*, 2003:11). According to Wickham (2006:401 & 431), entrepreneurial support can take the form of tax incentives, more liberal employment laws, affordable loans and credit, capital grants, technical development, education and consulting services and training. During the start-up period entrepreneurs need a strong advisory and support system (Co *et al.*, 2006:54). Entrepreneurs need support in the form of access to finance, training and education programmes, provision of infrastructural facilities, deregulation (Nieman and Pretorius, 2004:15), business counselling, mentoring, networking and incubation (Nieman and Nieuwenhuizen, 2009:192-195); business start-up assistance, business development and improvement, infrastructure support, tax concessions and trade assistance (Schaper and Volery, 2007:260).

Temtime, Chinyoka and Shunda (2004:567) posit that small businesses face numerous and complex problems which make it difficult to determine the appropriate assistance scheme for each specific problem. They suggest that there are two major dimensions of assistance schemes: 1) The dimension on the nature of business assistance schemes measured on a continuum from operational (short-term) to strategic (long-term) perspective; and 2) The dimension relating to the type of assistance scheme measured on a continuum from advisory services to resource allocation and mobilisation. Temtime *et al.* (2004:568) provide a classification of the various business assistance schemes on the bases of four quadrants as illustrated in Table 4.5.

Table 4.5: Classification of business assistance schemes

ADVISORY SERVICES	II. BUSINESS GUIDANCE <ul style="list-style-type: none"> • Basic skills development • Business planning • Market identification • Employee relations 	III. COMPETITIVE AWARENESS <ul style="list-style-type: none"> • Visioning and achievement • Competitive benchmarking • Diversification/growth management • Strategic management/networking • Sustainable growth management
MATERIAL RESOURCES	I. CAPACITY BUILDING <ul style="list-style-type: none"> • Short-term loan/credits • Facilities/equipments • Infrastructure/premises • Training subsidy 	IV. TOTAL EMPOWERMENT <ul style="list-style-type: none"> • Long term loan/rent/grants • Expansion facilities/import-export • Reservation/external linkages • New business incubation package
	OPERATIONAL PERSPECTIVE	STRATEGIC PERSPECTIVE

Source: Temtime *et al.* (2004:568)

Business assistance schemes that are illustrated in Table 4.5 are explained as follows:

- *Capacity building* (Cell I) deals with assistance to small businesses by providing them with material and financial resources needed for expansion or start-up (Temtime *et al.*, 2004:568).
- *Business guidance* (Cell II) assists small businesses with information in the form of education, training and orientation as well as specialised technical assistance in the fields of marketing, inventory control, and hiring and selection.
- *Competitive awareness* (Cell III) promotes long-term competitiveness through education and training by providing small businesses with advanced venture management techniques in the form of executive development programmes (Temtime *et al.*, 2004:569).
- *Total empowerment* (Cell IV) deals with the long-term sustainability of the small businesses and provides small businesses with expanded loan and credits, growth financing sources, import and export benefits, and expansion facilities.

From Table 4.5, it seems that entrepreneurial support is varied. It entails the provision of tangible support for start-ups and growth-oriented businesses; guidance to those who want to start businesses; contributes to the competitiveness of new businesses by

equipping entrepreneurs with the skills; and ensures long term sustainability of ventures by increasing access to markets and providing finance for growth.

The provision of entrepreneurial support should be based on the needs of entrepreneurs. Liang and Dunn (2005:169) investigated whether the information needs, the need for assistance and importance assigned to the assistance are different for males and females in Louisiana. The study involved 598 individuals who participated in the programmes offered by the Small Business Development Centre (SBDC) and 358 of these individuals were nascent entrepreneurs (Liang and Dunn, 2005:174). The need for assistance was assessed on the basis of: 1) Business planning and leadership, 2) Finance, 3) Marketing, 4) Human resources and 5) Operations. Their findings revealed that the number of females who needed assistance were significantly higher than males in every category with the exception of obtaining finance and improving bookkeeping and accounting.

With regard to the importance attached to each type of assistance, statistically significant differences were found on writing a business plan and setting goals and developing a plan to meet those goals, improving bookkeeping or accounting, marketing assistance (obtaining customer/industry data) and complying with regulatory requirements. A higher proportion of females considered these aspects very important than males did (Liang and Dunn, 2005:178-183). Business planning information, finance information and marketing information were regarded as important or very important by nascent entrepreneurs and, human resources and operations were considered less important (Liang and Dunn, 2005:185). Liang and Dunn (2005:184) reported that nascent entrepreneurs regarded the knowledge and skills of SBDC personnel as the most important factors that influenced their participation in SBDC programmes, which were followed by the accuracy of information, access/availability, pricing, and convenience. Table 4.6 indicates the types of assistance needed by nascent entrepreneurs based on their order of importance.

Table 4.6: The importance of different types of assistance needed by nascent entrepreneurs

<p>Business planning</p> <ul style="list-style-type: none"> • Writing a business plan; and • Setting goals and developing a plan to meet those goals.
<p>Finance assistance</p> <ul style="list-style-type: none"> • Obtaining finance; • Understanding and complying with tax; • Understanding financial statement; • Improving bookkeeping or accounting; • Improving cash flow management; and • Managing credit and collections.
<p>Marketing assistance</p> <ul style="list-style-type: none"> • Increasing sales; • Obtaining customer/industry data; • Developing and implementing a marketing strategy/plan; • Developing/improving advertising strategies; • Selling to the government; and • Developing/improving pricing strategies.
<p>Human resource assistance</p> <ul style="list-style-type: none"> • Training employees • Developing compensation and benefit packages • Developing/improving hiring and firing procedures
<p>Operations assistance</p> <ul style="list-style-type: none"> • Complying with regulatory requirements; • Managing facility and equipment planning; • Evaluating insurance needs; • Managing inventory; and • Adopting or improving E-Commerce applications.

Source: Liang and Dunn (2005:178-184)

Additionally, Indarti and Langenberg (2004:5) suggest that having access to business information is important for the intention to create a new business and influences the perception of individuals regarding their ability to succeed. Indarti and Langenberg (2004:2) examined the factors affecting business success among 100 SMES in Indonesia. Their study focused on the characteristics of the entrepreneur and SMEs as well as contextual variables (marketing, technology, information access, entrepreneurial readiness, social network, capital access, government support and business plan) (Indarti and Langenberg, 2004:3). Their findings indicated that entrepreneurs with university education were significantly less successful than those with elementary and high school education, and entrepreneurs who used capital from the family were significantly more successful than those who used other sources of

capital. Entrepreneurs in their study considered capital access, marketing and information access to be the most important factors in running the business (Indarti and Langenberg, 2004:10). Technology, access to capital and marketing had a significant positive effect on business success while legality had a negative effect.

Entrepreneurial support comes in different categories as indicated in the previous section. It also seems that certain types of support impact positively on entrepreneurial intent and success more than other types of support. As this study focuses on government entrepreneurial support in South Africa, the following section gives an exposition of entrepreneurial support available to SMMEs in South Africa.

4.7 ENTREPRENEURIAL SUPPORT PROVIDED BY THE GOVERNMENT IN SOUTH AFRICA

The next sections explain the development of entrepreneurial support in South Africa and the institutions that provide this support to SMMEs. The main purpose of this discussion is to indicate the types of business support programmes that the South African government provides to SMMEs. From the types of entrepreneurial support programmes discussed in this section, the questionnaire was designed to measure the level of awareness students had regarding entrepreneurial support in South Africa and how students' level of awareness impacted on entrepreneurial intent.

4.7.1 The introduction of entrepreneurial support in South Africa

The South African government has recognised that it has a critical role to play in fostering an enabling environment for the creation and growth of small businesses. In 1995 it published the White Paper on National Strategy on the Development and Promotion of Small Business in South Africa, which articulated measures to foster an enabling environment for small businesses (DTI, 2005:3). The measures included:

- Creating an enabling legal framework
- Streamlining regulatory conditions
- Facilitating access to information and advice
- Facilitating access to marketing and procurement

- Facilitating access to finance
- Facilitating access to affordable physical infrastructure
- Providing training in entrepreneurship, skills and management
- Improving industrial relations and labour environment
- Facilitating access to appropriate technology
- Encouraging joint ventures
- Capacity building and institutional strengthening
- Introducing differential taxation and other financial incentives

According to the DTI (2005:8), the government support initiatives for SMMEs include:

- Easing the regulatory and compliance burden on small enterprises
- Access to finance
- Business development services
- Youth enterprise development
- Support for women-owned enterprises
- Incubation and technology acquisition and transfer services
- Productivity enhancement centres
- Sector-focused support measures

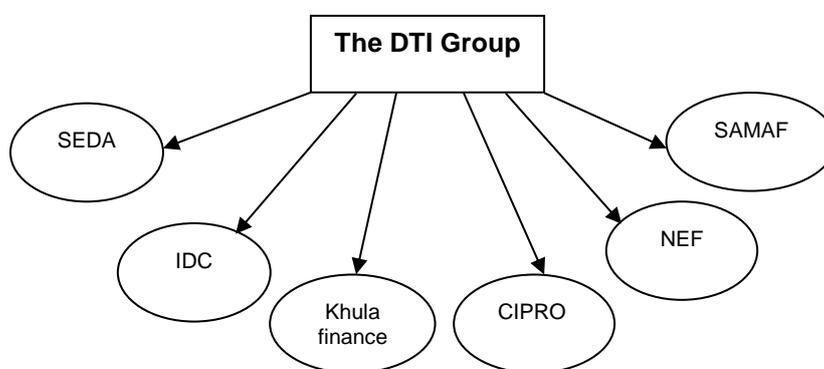
The publication of the White Paper led to the establishment of a number of support institutions and various measures that were put in place to support SMMEs. These support institutions included the National Small Business Council, Ntsika Enterprise Development Agency, Khula Enterprise Finance, a national grid of local business service centres (LBSCs) and the provincial small enterprise desks (DTI, 2004:13; Seda, 2007b:13). The National Small Business Act of 1996 was promulgated in order to create an enabling environment and it was amended in 2004 (DTI, 2004:24; Manjezi, 2008:1). The DTI is the key organisation that provides the national framework for SMME support in South Africa (DTI, 2004:23; Manjezi, 2008:7).

4.7.2 Institutions that provide entrepreneurial support in South Africa

The DTI through its economic cluster has the responsibility to strengthen integrated state financial and business development support for small enterprises through a

delivery network of institutions that cover the entire country (DTI, 2007/08:16). The DTI also facilitates the creation of an enabling environment for the development and growth of co-operatives in all sectors of the economy (DTI, 2007/08:17). Its agencies include Khula Enterprise Finance, the Small Enterprise Development Agency (Seda), the South African Micro-Finance Apex Fund (SAMAF), the Industrial Development Corporation (IDC), Companies and Intellectual Property Registration Office (CIPRO) (changed its name with effect from April 2011 and now called Companies and Intellectual Property Commission (CIPC)) and the National Empowerment Fund (NEF) (DTI, 2008b:6; DTI, 2007/08:6 & 16; DTI, 2006a:1), as illustrated in Figure 4.8.

Figure 4.8: The DTI group of institutions for SMME support



Source: DTI (2007/08:6)

The DTI group of institutions as shown in Figure 4.8 are discussed as follows:

4.7.2.1 The Industrial Development Corporation (IDC)

While its primary objectives are to contribute to the generation of a balanced, sustainable economic growth in Africa and to the economic empowerment of the South African population, the IDC views promoting entrepreneurship by building competitive industries and enterprises based on sound business principles as a route towards achieving its objectives (IDC, 2009:1). Its objectives that focus on SMMEs include the development of small and medium enterprises and the achievement of accelerated Black Economic Empowerment (BEE).

The IDC provides financing through strategic business units that deal with the following (IDC, 2009:1):

- The Metal, Transport and Machinery Products Unit provides bridging finance or guarantee requirements of at least R1 million.
- The Techno-Industries Unit provides equity financing of a minimum of R5 million and debt funding of a minimum of R1 million.
- The Wood and Paper Industries Unit offers a minimum loan size of R1 million.
- The Franchising Unit provides funding to franchisees who require a loan of at least R1 million.
- The Mining and Beneficiation Unit offers the minimum debt finance of R1 million and debt equity of R5 million.
- The Textile and Clothing Unit provides bridging finance or guarantee requirements of at least R1 million.
- The Public, Private Partnerships Unit finances infrastructure projects of a minimum loan size of R10 million and smaller projects with a funding requirement of a minimum of R1 million.
- The Chemical and Allied Industries Unit offers a minimum loan size of R1 million and minimum equity financing of R5 million.
- The Media and Motion Pictures Unit provides commercial/venture loans from a minimum loan of R1 million.
- The Venture Capital Unit offers financing by way of equity contributions of between R1 million and R30 million with the initial investment size not exceeding R15 million.
- The Health Care and Education Unit provides a minimum loan size of R1 million and minimum equity financing of R5 million.
- The Tourism Unit offers loans from a minimum of R1 million.
- The Food, Beverage, and Agro Industries Unit provides a minimum loan size of R1 million and minimum equity financing of R5 million.
- The Transportation, Financial Services, Security and Catering Unit offers loans up to a maximum of R250 million.

4.7.2.2 The National Empowerment Fund (NEF)

The NEF is a catalyst for Broad-Based Black Economic Empowerment (B-BBEE) and its role is to promote and facilitate Black economic equality and transformation (NEF, 2008:1). The NEF provides different types of financing and non-financial support as illustrated in Table 4.7.

Table 4.7: NEF products and services aimed at SMMEs

Finance	
1. Imbewu Fund consists of:	<ul style="list-style-type: none"> • Entrepreneurship Finance provides risk capital to new businesses and early stage businesses owned and managed by black people. • Procurement Finance is aimed at financing working capital requirements relating to procurement contracts secured by BEE groups. • Franchise Fund enables black people to buy franchises. • Rural and Community Development Fund is aimed at facilitating community involvement in projects that promote social and economic upliftment.
2. Corporate Fund entails:	<ul style="list-style-type: none"> • Acquisition Fund is targeted at enabling BEE applicants to buy equity in existing businesses. • Expansion capital is aimed at black empowered entities that seek capital to grow the business.
Non-financial business support includes funding advice, business planning and general assistance to help ensure applications are of sufficient quality to complete all the steps in the application process.	

Source: NEF (2008:1)

4.7.2.3 The South African Micro Finance Apex Fund (SAMAF)

SAMAF was established as a wholesale funding institution in 2006 and accounts to the executive authority of the DTI (DTI, 2006b:1). It has the mandate of providing affordable access to finance by micro, small and survivalists businesses for the purpose of growing their income and asset base. Its primary purpose is to reduce poverty and unemployment by extending financial services to rural areas, informal settlements and peri-urban settlements of South Africa as well as building a network of self-sufficient and sustainable micro-finance institutions (MFIs). It partners with financial services co-operatives, village banks and medium to large micro-finance institutions. SAMAF offers financial services that include:

- *Micro enterprise development loan* – This financing is offered to Micro Finance Institutions and partner organisations for on-lending to clients earning R1500 per month.
- *Poverty alleviation fund* – This type of financing is provided to partner organisations for on-lending to clients earning less than R1500 for the development of projects.
- *Capacity building fund* – This product is aimed at building the infrastructure of MFIs to ensure that they are functional, effective and sustainable.
- *Savings mobilisation fund* is aimed at capacitating existing savings schemes.

4.7.2.4 Khula Enterprise Finance Limited

Khula Enterprise Finance Limited, commonly known as Khula was established in 1996 as an independent agency of the DTI. It is a wholesale finance institution that works with both commercial banks, retail financial intermediaries (RFIs), specialist funds and joint ventures to provide funding to previously disadvantaged SMMEs (Khula, 2007a:3). Khula also offers mentorship and other value-added services, as illustrated in Table 4.8, through its 13 regional offices and independent service providers to ensure sustainability of supported entrepreneurs (Khula, 2007a:25).

Table 4.8: Khula Enterprise Finance products and services

Financial and non-financial services	
Khula Credit Indemnity Scheme	Allows entrepreneurs who do not have sufficient collateral/security to access funding to establish, expand or buy out an existing business through commercial banks. It covers facilities from R10 000 to R3 million.
Non-bank Financial Intermediaries	Independent organisations which are lent money by Khula on a whole basis to on-lend to SMEs. They ensure that the loans originally received from Khula are paid back. Khula has a network of non-bank RFIs in seven provinces excluding the Northern Cape and the North-West. The minimum loan is R10 000 and the maximum loan is R3 million per SME.
Khula Mentorship	Entrepreneurs are assisted by experienced mentors with advice, counselling and development of viable business plans to access funding. Offices in Johannesburg, Cape Town, Durban, Port Elizabeth, East London, Midrand, Bloemfontein, Nelspruit and Rustenburg, Kimberly, Pennyville, Polokwane and Tshwane.
Khula's Land-reformed Empowerment Facility	Offers financial assistance to emerging black farmers and entrepreneurs who would like to invest in agricultural projects. The maximum loan per project is R10 million and R800 000 per black person participating in the project.
Khula joint venture funds	
Business Partners-Khula Start-up Fund	An initiative between Khula and Business Partners to help entrepreneurs in establishing new enterprises and in early-phase business expansion.
Anglo-Khula Mining Fund	Partnership between Khula and Anglo American which provides seed capital to facilitate entry of commercially viable mining ventures into the mainstream mining sector.
Regent Factors Reverse Factoring	Partnership between Khula and Regent that allows entrepreneurs to access working capital, that reduces the time gap between the delivery of goods or services and the receipt of payments.
The Enablis-Khula Loan Fund	Partnership between Khula, the Enablis Entrepreneurial Network and FNB Enterprise Solutions which provides loan guarantees for businesses focused on Information and Communications Technologies.
Khula-Enablis SME Acceleration Fund	Provides risk capital funding for several business sectors including transportation, tourism and agriculture.
Khula Emerging Contractors Fund	Partnership between the Khula and the Eastern Cape Department of Public Works to provide bridging finance to emerging black contractors in Grade 1 to 6 who have been awarded tenders by the Eastern Cape Department of Public Works.

Source: Khula (2007a:120); Khula (2009:1) and Khula (2007b:1)

The DTI (2004:39) reports that sector-focused and tailored financing performed better than standard banking loans to small enterprises in recent years. This is due to the fact that this type of financing was accompanied by some mentoring and sector-screening of applicants which resulted in low levels of risk. With regard to infrastructure, the DTI (2004:41) observes that the success in supporting SMMEs depends on the effective combination of national government-funded special local economic development, infrastructure and job creation programmes with local business development initiatives. There have been positive results from some of the local government-driven projects that were aimed at supporting SMMEs, even though all of them were implemented in urban areas (DTI, 2004:42).

In its conclusion, the DTI (2004:50-51) maintained that the total government funding for small enterprise support through the implementation of agencies should be continued rather than reduced or phased out; coordination between small enterprise support funding channelled through different national government departments and other spheres of the government is essential; and four sets of specialised support need to be addressed:

- (1) The different dimensions of Black economic empowerment, as they are integrated with the different small enterprise support programmes.
- (2) Targeted support for small enterprises initiated, owned or managed by particular groups (women, rural people, the youth, the disabled, “turnaround” candidates, exporters) or small enterprises in particular growth sectors and locations (small towns and rural areas).
- (3) Widening access to finance for small enterprises by providing micro finance, short-term financing needs to support procurement opportunities, start-up funds, and financing of black-owned enterprises.
- (4) Bridging the gap between South Africa’s “second economy” and the “formal economy”.

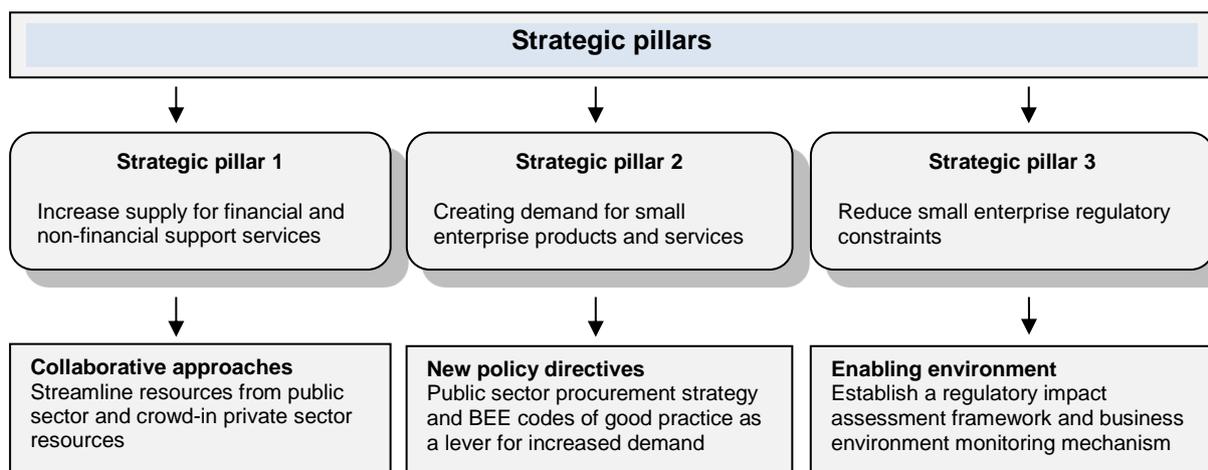
4.7.2.5 Companies Intellectual Property Registration Office (CIPRO)

CIPRO assists entrepreneurs with registration of their businesses and protection of a business or an individual’s intellectual property rights (CIPRO, 2009:1).

4.7.2.6 The Integrated Strategy on the Promotion of Entrepreneurship and Small Enterprises and the establishment of the Small Enterprise Development Agency (Seda)

Based on the critical challenges that the government had experienced in implementing some of its earlier programmes, the Integrated Strategy on the Promotion of Entrepreneurship and Small Enterprises was introduced in 2005 (DTI, 2005:3). This strategy is aimed at providing support from pre-start-up and start-up assistance measures to growing enterprises and enterprises in distress (DTI, 2005:4). The strategy consists of three strategic pillars which direct the efforts to improve the availability of quality business information and knowledge through expanded research and communication outreach as depicted in Figure 4.9.

Figure 4.9: Strategic pillars of the Integrated Strategy on the Promotion of Entrepreneurship and Small Enterprises



Source: DTI (2005:4)

The special focus of the Integrated Strategy on the Promotion of Entrepreneurship and Small Enterprises include (DTI, 2005:25):

- Special target groups (youth, women and the disabled)
- Special geographic areas (poor areas and areas with high unemployment)
- Special sectors (growth sectors as identified in the Micro-economic Reform Strategy) and
- New enterprise organisational forms (such as co-operatives)

The success in the implementation of the Integrated Strategy on the Promotion of Entrepreneurship and Small Enterprises will be measured on the basis of achieving the following (DTI, 2005:38-40):

- Fostering entrepreneurship culture and increasing enterprise creation rate through improved integration between social and economic cluster strategies, more effective utilisation of existing strategies and the creation and implementation of new measures.
- Establishment of a dedicated network of SMME finance through a more targeted approach.
- Creating demand for small enterprise products through bilateral trade agreements to provide opportunities for small enterprises to penetrate foreign markets through exports.
- Strengthening local network for small business development support services by means of collaboration with various providers of support at local level in order to reach all regions of the country.
- Improving small enterprise competencies and delivery capacity through business support service centres and the provision of facilities for use by small businesses in specialised manufacturing and service industries as well as the strengthening of cottage industries for rural enterprises.
- Strengthening enterprise networks to promote cooperative development.
- Providing necessary support incentives by developing new incentive schemes and reviewing existing programmes to increase the incentives' impact and accessibility to small enterprises.
- Improving regulatory environment.
- Using entrepreneurship and small business research, which entails statistical data on small enterprises (business entry, exit, survival and failure rate) to inform policies and support programmes.

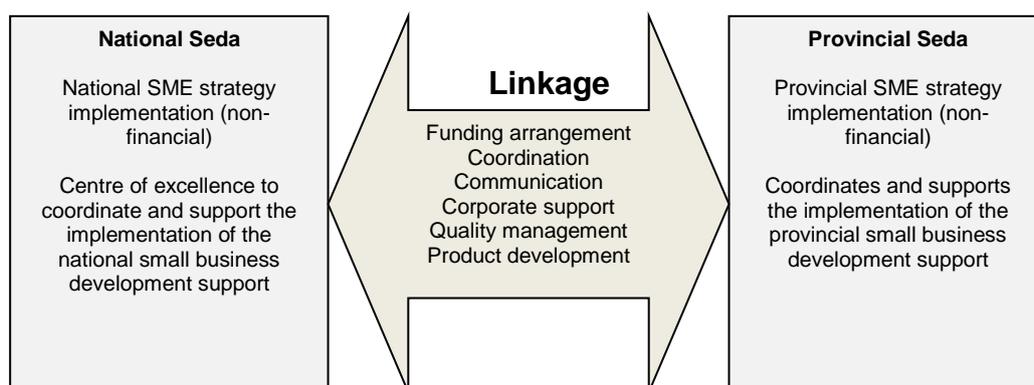
The Integrated Strategy on the Promotion of Entrepreneurship and Small Enterprises resulted in the establishment of Seda in December 2004 in terms of the National Small Business amendment Act (DTI, 2005:4; Seda, 2009:1). Seda's responsibility is to design and implement a standard national delivery network which must uniformly apply throughout the country as well as to support and promote co-operative enterprises

(Seda, 2009:1). Seda was established by the DTI to replace Ntsika Enterprise Agency and the National Manufacturing Advisory Centres (Trade and Industrial Policy Strategies (Tips), 2005:20; DTI, 2006a:1; Nieman, 2006:258). Seda's key function is to provide information to small enterprises and prospective entrepreneurs to help and encourage them to start and manage sustainable businesses. It also deals with the support and promotion of co-operative enterprises, especially those located in rural areas (DTI, 2006a:1; Seda, 2009:1). According to Johnson (2004:6) the strategic pillars of Seda include:

- A service delivery network that is visible at local level and addresses issues of access and outreach.
- Access to information and opportunity to promote access to entrepreneurial activities.
- Programs that deliver according to the diverse needs of small enterprises to address sector specific and local needs.
- To leverage efficiency and effectiveness through a service provider network to support programs and the network.
- Partnerships with stakeholders to leverage resources and integrate delivery.
- Monitoring and evaluating service delivery to assess impact and progress. An effective and efficient organisation to deliver to the challenge.

Seda has the task of integrating all government-funded small enterprise agencies across all spheres of government; managing the performance of the entire network, sourcing funding at the national level, designing programmes around various products and services; monitoring, evaluating and assessing the value of services provided by the network (Seda, 2007b:6). Seda provides business development support in the form of information, counselling, training, tender advice, and technical support in certain cases (Seda, 2007b:7). It has nine provincial offices, district branches below the provincial offices, and information centres which provide a scaled-down service at municipal level and referrals to the district branches where necessary. The national Seda is responsible for implementing the national SME strategy while the provincial Seda is tasked with the implementation of the provincial SME strategy (Johnson, 2004:8) as illustrated in Figure 4.10.

Figure 4.10: Seda's national and provincial roles



Source: Johnson (2004:8).

4.7.2.7 The National Youth Development Agency

On 16 June 2009 the Umsobomvu Youth Fund (UYF) ceased to exist. The President of South Africa announced in his State of the Nation Address that the UYF would merge with the National Youth Commission to form a new institution called the National Youth Development Agency (NYDA) (NYDA, 2009:1). The functions of NYDA are:

- National youth service and cohesion
- Economic participation
- Policy, research and development
- Governance, training and development
- Youth advisory and information services and
- National youth fund

4.7.2.8 Other programmes for SMMEs

The DTI also offers specific programmes that are targeted to SMMEs, in particular women (the DTI, 2006a:1). These programmes include the following:

- *Technology for Women in Business (TWIB)*
 TWIB is a national programme under the DTI that is aimed at enhancing the accessibility of science and technology to women in business who are running SMMEs (the DTI, 2006c:1).
- *Technology and Human Resources for Industry Programme (THRIP)*

THRIP is managed from within the National Research Foundation based on an agreement with the DTI. Its priorities involve promoting the technological know-how in the SMME sector, through the deployment of the skills vested in higher education institutions and science, engineering and technology institutions; and to facilitate and support the enhancement of the competitiveness of black economic empowerment and black-owned enterprises (BEEs) through technology and human resource development (the DTI, 2006d:1).

- *South African Women Entrepreneurs' Network (SAWEN)*

It aims to facilitate and monitor the socio-economic advancement of women entrepreneurs and their positive impact on the country's economy, and to facilitate access to business resources, information and opportunities for South African women entrepreneurs in order to promote their effective participation in the global economy (the DTI, 2006e:1).

- *The Tourism Enterprise Programme (TEP)*

TEP focuses on small business development in the tourism sector and is offered as a joint initiative between the Department of Environmental Affairs and Tourism (DEAT) and the Business Trust (DTI, 2005:11). It is aimed at facilitating and fostering commercially viable business transactions between established industry players and small businesses (Tips, 2005:22).

4.7.3 Provincial entrepreneurial support agencies in Limpopo and the Eastern Cape

According to the DTI (2004:29), most provinces have established at least a directorate for small business support. The effectiveness of the provincial initiatives has been hindered by limited staff and funding. This study examines whether the level of awareness of entrepreneurial support impacts on entrepreneurial intent of students in Limpopo and the Eastern Cape. As a result, while other provinces could be having their own business support agencies, the discussion in this section looks at provincial agencies in Limpopo and the Eastern Cape, which are the foci of this study. The

following provincial agencies provide entrepreneurial support in Limpopo and Eastern Cape:

4.7.3.1 Limpopo Economic Development Enterprise (LIMDEV)

Limpopo Economic Development Enterprise (LIMDEV) was established in 1994 and operates as a Provincial Government Business Enterprise. Its mandate is to provide development finance to SMMEs in order to stimulate the growth and development of the Limpopo economy (LIMDEV, 2008:5). It consists of strategic business units (SBU) such as: 1) Enterprise development finance; 2) Property management; 3) Project management; and 4) Investment management. LIMDEV through its enterprise development finance SBU offers bridging finance, working capital, performance guarantees, asset and equipment finance, equity financing, personal loans, and venture capital and start-up finance to SMMEs (LIMDEV, 2008:27).

4.7.3.2 Limpopo Business Support Agency (LIBSA)

Limpopo Business Support Agency (LIBSA) was established by the Limpopo Department of Economic Development, Environment and Tourism (LIBSA, 2009:2). Its main role is to coordinate and implement business support programmes through: 1) Co-operatives development and support; 2) Business incubation; 3) Business information and dissemination; 4) Business advisory services; and 5) Capacity development programmes (LIBSA, 2008:4; LIBSA, 2009:2). These non-financial business support programmes are offered at LIBSA's 22 branch offices that are spread across all the district municipalities of the Limpopo province (LIBSA, 2009:2). The services of LIBSA are described as follows:

- *Co-operatives development* - LIBSA provides consultancy services to Co-operatives to ensure optimal utilisation of the Co-operatives' resources (LIBSA, 2008:17).
- *Business incubation* – LIBSA provides targeted support to entrepreneurs who are already in business to ensure that their businesses are viable and sustainable in the long term. Through the incubation programme entrepreneurs can access physical space, counselling, assistance with the compilation of the business plan

and business profiles, advice on compliance with legal requirements, technical support and advice on the sources of finance (LIBSA, 2008:23).

- *Business advisory services* include mentoring and counselling.
- *Business information and dissemination* entails:
 - Collection and dissemination of tender information.
 - Assistance with completion of tender documents.
 - Assistance with compiling business plans and profiles.
 - Ensuring easy access to essential business development-related information.
 - Assistance with the identification of business opportunities.
 - Facilitating linkages to business markets and
 - Facilitating access to finance.
- *Capacity development programme/training and development* – This programme deals with the design and implementation of training programmes that are aimed at providing entrepreneurs with practical skills to manage their businesses efficiently and effectively (LIBSA, 2008:17).

4.7.3.3 Eastern Cape Development Corporation (ECDC)

The Eastern Cape Development Corporation (ECDC) is the official economic development agency for the Eastern Cape that is wholly owned by the Provincial Department of Economic Development and Environmental Affairs (ECDC, 2008/09:8). Its Head Office is in East London and operates from five regional offices in Port Elizabeth, Queenstown, King William's Town, Butterworth and Mthatha. The ECDC carries out its mandate through the seven targeted business units which include: 1) Development finance, 2) Investment promotion, 3) Trade promotion, 4) Enterprise development services, 5) Project development, 6) Spatial and rural development, and 7) Property management and development. The following business units that focus on SMMEs are discussed:

- Development finance's objectives are to provide financial assistance to SMMEs and emerging contractors through term loans, equity investments, trade finance, contractor finance and micro loans (ECDC, 2008/09:25-26).

- Enterprise development services' objectives are to provide development services in a sector-focused approach; to provide business support to SMMEs; to promote entrepreneurship; and to develop service providers (ECDC, 2008/09: 39-40). Business support offered include: business plans, feasibility studies, advertising material, due diligence, franchise development, mentorship, product and market development, business linkages, information technology support and training/skills development.

The ECDC (2008/9:42) realised that lack of access to information inhibits SMME growth and entrepreneurship. As a result, the ECDC has formed partnerships with various organisations and has held Imbizos and exhibitions which reached large numbers of emerging and aspiring entrepreneurs who were provided with the necessary information for start-up and supporting businesses.

4.8 EMPIRICAL STUDIES ON ENTREPRENEURIAL SUPPORT

While different governments around the world have introduced and implemented initiatives to support SMMEs, research on the successes and failures of these initiatives is essential in the development of measures to improve their effectiveness. Specifically, having the knowledge of entrepreneurial support programmes that have achieved success and those that have failed may assist in the efforts to design support programmes that are tailored to meet the needs of the different target groups. For instance, support programmes to stimulate entrepreneurial intent may differ from those that are targeted to existing entrepreneurs. Research on entrepreneurial support is discussed in the next sections.

4.8.1 Entrepreneurial support in Canada

In a study that was conducted among 70 SME owner-managers in the Gaspé region of Québec in Canada, Audet, Berger-Douce and St-Jeane (2007:28) investigated the factors that influence the decision of SME owner-managers to consult public support agencies. They found that while most of the owner-managers had used outside help in the past, 51.4 percent of SME owner-managers never used government agencies (Audet *et al.*, 2007:34). The majority of SME owner-managers surveyed reported that

business support agencies were useful, with only a third reporting that they were not very or not at all useful (Audet *et al.*, 2007:35). The two groups were statistically significantly different on the perceptions of utility. There were more than half of the SME owner-managers who thought that the services offered by public service agencies were not very or not at all suited to their needs, with the majority (80.6%) coming from those who had never used a support agency (Audet *et al.*, 2007:36-37). There were statistically significant differences between SME owner-managers who used the services and those who did not use the services. SME owner-managers (60%) who had never used a support agency had very little knowledge or knew nothing at all about the agencies. Public support services were used more by male entrepreneurs than their female counterparts (Audet *et al.*, 2007:39). Factors that contributed to the negative perception about public support services were the hierarchy-based structure of the agencies, overlaps among programs offered by the agencies, program eligibility criteria that were too difficult to meet, time required to obtain the decision and advisors working for the agencies that were disconnected from the real world of small business. The majority (80%) of SME owner-managers used agencies to request subsidies or financial assistance and the second distant type of assistance sought was training (Audet *et al.*, 2007:41). Agencies were also not well marketed, as the vast majority of owner-managers had learned about the agencies through their own means (Audet *et al.*, 2007:43).

Another Canadian study by researchers Hanlon and Saunders (2007:624) highlighted a gap in the entrepreneurial support literature. They asserted that entrepreneurial support literature focused on a limited range of sources or types of support. They investigated the sources of support valued by entrepreneurs launching new ventures and the resources provided by the key supporters, whether certain types of support were associated with different sources and supporter characteristics, and whether the quantity and quality of resources provided depended on the nature of supporter relationship (Hanlon and Saunders, 2007:625). The study involved 50 surviving Canadian firms. The types of support that were identified by these researchers were (Hanlon and Saunders, 2007:627-628):

- Advice
- Network contacts

- Sounding board
- Financial assistance
- Strategic information
- Emotional support
- Extraordinary labour

The findings showed that the most frequent type of supporter relationship identified by entrepreneurs was the family, followed by friends and then government (Hanlon and Saunders, 2007:630). The most frequent types of support provided by these supporters included advice, serving as a sounding board and emotional support. Relatives were more likely to provide financial support, extraordinary labour and emotional support and significantly more emotional support than non-relatives (Hanlon and Saunders, 2007:630-631). Shareholders provided more financial support than non-shareholders. Individuals who were providing their services for a fee were less likely to provide additional services such as network referrals, financial assistance, extraordinary labour or emotional support. These additional services were more likely to come from voluntary ties and intimate ties. Entrepreneurs were able to acquire significantly more resources from their closer relationships than from distant relationships. Higher quality resources were associated with supporters who were compensated for the services they provided and a significantly higher quantity of support was provided by individuals in the firm.

4.8.2 Entrepreneurial support in Belgium

Lambrecht and Pirnay (2005:96) evaluated small business policies and public support measures in Belgium based on a representative sample of 200 SMEs that used public financial support for the use of a private external consultancy. They found that more than half of the SMEs depended on public funding in order for them to continue working with an external private consultant. The majority (72.5 percent) of SMEs which chose their own external consultants were significantly more satisfied with the trust relationship with their consultants than those who had a consultant imposed on them (Lambrecht and Pirnay, 2005:100). A significant number of users than non-users wanted private consultants to be first certified by a public authority. Among the factors

that entrepreneurs were dissatisfied with were: the promotion of the support measures, the speed of payment of the financial support, the administrative formalities of the support application and the clarity of the support measures and entrepreneurs felt that prepayment for services was a burden to them (Lambrecht and Pirnay, 2005:101).

Entrepreneurs who used external private consultants did so for quality enhancement of their goods and services, diagnosis of the enterprise and organisational improvement. A significantly high number of users felt that it was the task of the government to finance support for the use of private external consultant (Lambrecht and Pirnay, 2005:102). Private external consultants were used as a sounding board for entrepreneurs. Private external consultants were mostly used by entrepreneurs with higher education and who belonged to the primary sector and in an industry than those with no higher education and operating in trade. Various administrations were responsible for issuing the support measures for private consultants to SMEs, with diverging characteristics thereby creating more confusion among SMEs rather than giving real assistance (Lambrecht and Pirnay, 2005:104). Lambrecht and Pirnay (2005:105) reported that the usage of private external consultants had no significant impact on net job creation, turnover or financial indicators. They suggested that there should be a single integrated office that is responsible for the promotion, administration and certification of private external consultants for general diagnosis and evaluation after the service was provided.

4.8.3 Entrepreneurial support in Europe

In a study that involved five European countries (Germany, Greece, Poland, Portugal and the United Kingdom), North and Smallborne (2006:41-42) examined the various policies which were aimed at stimulating entrepreneurship and new enterprise creation as well as strengthening the competitiveness and viability of existing rural enterprises. North and Smallborne (2006:45) found that rural enterprise policies that were applied in Germany and the UK were not transferable to Greece and Portugal. They suggested that there was a need to adjust policies to suit the local conditions of each country. They also found that the top-down programmes formulated at European and national levels could be insensitive to the needs of rural entrepreneurs as they were based on assumptions regarding the motivations of small business owners rather than

the reality. North and Smallborne (2006:48) found that there was lack of interest in cooperative arrangements among small business owners in Greece, which the researchers argued that might lead to failure of policies aimed at assisting the formation of networks of firms. These researchers asserted that in order for policies to be successful they had to allow for a high level of local involvement with regard to their formulation and implementation.

North and Smallborne (2006:49) found that the failures of some of the enterprise policies were due to tensions within and between policies. There were some policies that lacked a strategic approach in dealing with rural development problems which resulted in specific programmes and interventions underachieving and having a marginal impact (North and Smallborne, 2006:50). They noted that most rural policy interventions were directed at improving the competitiveness of existing rural enterprises rather than at raising the entrepreneurial capacity of rural regions. With regard to the encouragement of rural youth entrepreneurs, North and Smallborne (2006:54) highlighted the fact that lack of tradition of becoming self-employed would become a barrier to such efforts. As a result, these researchers suggested that business support agencies had to make adjustments to reflect the distinctive support needs of young entrepreneurs, in particular concerning the lack of resources and limited business experience. Additionally, they contended that campaigns that were aimed at changing negative perceptions about entrepreneurs and encouraging a positive social image of the entrepreneur could be helpful in stimulating rural entrepreneurship in the case study countries.

In Poland and Portugal, North and Smallborne (2006:56-57) found that the education system was the main barrier to entrepreneurship. They suggested that entrepreneurship modules should be introduced in professional training courses with eligibility criteria for such programmes being orientated towards self-employment. These researchers were of the view that the physical and social infrastructure in all the case study countries should be improved. Initiatives to help rural firms to enter non-local markets were seen as necessary for policies aimed at stimulating the innovativeness of rural enterprises.

4.8.4 Entrepreneurial support in Québec

Lorrain and Laferté (2006:39) investigated the forms of assistance needed by 371 young Québec entrepreneurs from support agencies to help them solve the problems they faced. They found that the categories of problems with the highest average out of five were: General management and obtaining funds followed by Bookkeeping, Accounting and Financial management (Lorrain and Laferté, 2006:41). Young Québec entrepreneurs identified the following solutions as relevant to their problems (Lorrain and Laferté, 2006:43):

- The establishment of information bank on services and support programmes offered by organisations to solve the problem of information on government programs.
- Young entrepreneurs required advice on management by specialists to deal with problems relating to accounting, management, and marketing.
- The need for publication of a list or directory of new businesses and the organisation of fairs or exhibitions with kiosks to solve marketing related problems.
- Access to mentoring for business advice to young entrepreneurs.

4.8.5 Entrepreneurial support in Thailand

In Thailand, Suntornpithug and Suntornpithug (2008:181) proposed a conceptual model for enhancing the success of rural entrepreneurs based on the resource-based view theory. They argued that the role of the government should be limited to a particular level to avoid jeopardising the spirit of the free market economy. They also identified the different forms of support that were necessary to the sustainability and competitiveness of the rural entrepreneurs in Thailand, such as funding, regulations, information technology and networks. They argued that the government should provide a healthy infrastructure for rural entrepreneurs in early stages of start-up, but once they have started entrepreneurs should be market-driven (Suntornpithug and Suntornpithug, 2008:191).

4.8.6 Entrepreneurial support in Italy

Meccheri and Pelloni (2006:372) examined the role of various factors in explaining the differences in the adoption of institutional assistance based on a random sample of 270 rural entrepreneurs. These authors asserted that rural entrepreneurs needed assistance due to the impediments they faced and suggested that the ability of rural entrepreneurs to exploit such assistance depended on their human capital, social anchoring in the local environment and other factors (Meccheri and Pelloni, 2006:373). They found that human capital (education) had a significant and positive influence on the decision to adopt instruments of assistance in general and finance in particular. Previous experience had a positive effect on the adoption of financial assistance (Meccheri and Pelloni, 2006:386). Their findings indicated a strong negative relationship between social capital and the probability of adopting institutional assistance (Meccheri and Pelloni, 2006:387). There was also a high probability of accessing instruments of assistance by businesses that were operating in manufacturing and construction sectors (Meccheri and Pelloni, 2006:388). It was found that other entrepreneurs were not utilising instruments of assistance because they were not able to correctly evaluate the opportunities provided by those instruments or costs of accessing these instruments in terms of time, effort and money were too high.

4.8.7 The impact of entrepreneurial support on small business success in Tanzania

Kuzilwa (2005:132) examined the effect of a special credit to small and micro enterprises on entrepreneurial activities in Tanzania. The study involved 250 firms in Arusha, Morogoro and Dar-es-Salaam in 1999-2000 which had received funding from the National Entrepreneurship Development Fund (NEDF) initiated by the government of Tanzania in 1994 (Kuzilwa, 2005:143). NEDF was aimed at providing loans to small scale businesses and industries all over Tanzania for starting new businesses or expanding existing ones and it concentrated on addressing the working capital needs of small businesses (Kuzilwa, 2005:141). There was compulsory business training that all the borrowers from the NEDF credit had to attend. Kuzilwa (2005:147) found that all respondents who attended the training considered it to be very useful and indicated that they would have attended it even if it was not a precondition for the loan. Kuzilwa

(2005:150) reported that over 87 percent of the businesses were started with funds from owners as NEDF policy was targeting ongoing businesses rather than start-ups. However, preference was given to first time applicants. The loan ceiling (value of loan) of the NEDF was found to be limiting on the expansion plans of the surveyed businesses (Kuzilwa, 2005:151). The survival rate of businesses that received the training was higher (95 percent) than those that did not receive the training (84 percent) (Kuzilwa, 2005:154). The loans that were received by businesses resulted in an average of two jobs being created per firm (Kuzilwa, 2005:155). Kuzilwa (2005:159) suggested that improvement of market conditions and infrastructure development should be considered in policy development for entrepreneurial development in Tanzania.

4.8.8 A study of the entrepreneurial support needs for women in Kenya

In a study that was conducted in five urban centres in Kenya, Ngoze, Minyacha and Gudda (2009:306) investigated special entrepreneurship support programs required by 200 women entrepreneurs. Special entrepreneurship support programs that were part of the study include: training, mentoring, counselling and consultancy, credit schemes, information and networks, incubators, marketing assistance, support activities, advocacy and empowerment activities, technical assistance and appropriate technology (Ngoze *et al.*, 2009:315). Women entrepreneurs were asked to indicate which entrepreneurship support programs they require to reduce the constraints they face and operate their businesses successfully (Ngoze *et al.*, 2009:323). The constraints that were identified included difficulty in accessing finance; lack of information on commodity markets; lack of skills to run enterprises; market saturation due to the lack of access to higher value markets and lack of innovation; lack of knowledge on government regulations; gender roles and responsibilities; occupational segregation; internal constraints and cultural values (Ngoze *et al.*, 2009:307). Ngoze *et al.* (2009:323-326) found that women entrepreneurs had a high requirement of all the identified entrepreneurship support programmes. There was a statistically significant association between all the identified entrepreneurship support programs and the constraints faced by women entrepreneurs that were surveyed (Ngoze *et al.*, 2009:327). From these findings it can be deduced that women entrepreneurs in the study required support programs such as training, mentoring, counselling and

consultancy, credit schemes, information and networks, incubators, marketing assistance, support activities, advocacy and empowerment activities, technical assistance and appropriate technology in order to run their businesses successfully.

4.8.9 The impact of entrepreneurial support in the UK

Kautonen, Down and South (2008:86) investigated the impact of enterprise support for older people in the UK based on a sample of 283 individuals. These individuals have benefited from the services of a programme called PRIME (the Prince's Initiative for Mature Enterprise) which was established in 1998 by the Prince of Wales. Kautonen *et al.* (2008:94) found that 43 percent of the people who contacted PRIME had started their businesses, another 30 percent was still considering starting a business while the remaining 27 percent had given up the idea. The reasons for those who had given up the idea included inability to get enough money and help to implement the business idea (Kautonen *et al.*, 2008:96). With regard to the type of support needed by older people, information about the sources of finance was cited by slightly over half of the respondents (Kautonen *et al.*, 2008:97).

In another study, Berry, Sweeting and Goto (2006:33) examined the relationship between business performance and the nature and the degree of a wide range of business advice used by 140 SMEs in the Manchester City region of the UK. They found that SMEs were mostly using external network contacts and external accountants as their source of business support and they used consultants and support agencies less frequently (Berry *et al.*, 2006:36). The majority (79 percent) of SMEs regarded the growth of network opportunities promoted by the government support agencies as a source of business advice and assistance. There were significant differences between the growth rates of users and non-users of external accountant services (Berry *et al.*, 2006:39). Berry *et al.* (2006:43) found that there was positive association between advice and growth. However, they could not confirm whether the use of advice led to growth or whether growth led to the need for advice.

4.8.10 The impact of entrepreneurial support in Pennsylvania

Chrisman, McMullan and Hall (2005:769) assessed the effectiveness of guided preparation in enhancing new venture performance on a sample of 159 new ventures that received outsider assistance (counselling) from Pennsylvania Small Business Development Centre. Their findings provided a weak support for the positive relationship between guided preparation and performance. There was a positive relationship between guided preparation and sales and employment (Chrisman *et al.*, 2005:784). However, the authors indicated that the usage of guided preparation had diminishing marginal returns which may have a negative effect on performance when it was too much.

4.8.11 A study of the usage of entrepreneurial support in Sweden

Using a sample of 1022 Swedish SMEs from three different regions, Boter and Lundström (2005:247-248) examined the type of support providers used by SMEs when they needed external assistance, the services available in the market and quality of business services. They found that the banks and auditors/legal advisors were the most used support providers by SMEs and they valued their contact with these support providers (Boter and Lundström, 2005:250). Boter and Lundström (2005:255) reported that few SMEs utilised publicly financed support systems. SMEs in the manufacturing sector utilised national/regional support resources to a higher extent than those in the services sector. SMEs in the services sector relied to a greater extent on private actors than manufacturing SMEs (Boter and Lundström, 2005:254-255). These authors pointed out that regional differences relating to infrastructure, distance, the economy and cultural dimensions had an influence on the utilisation of support services by SMEs.

4.8.12 Entrepreneurial support in Britain

In 1993 the British government introduced the Business Link initiative operating as Business Connect in Wales and Small Business Gateway in Scotland as a one-stop shop for business advice at the local level (Mole and Keogh, 2009:83; Bennett, 2007:436; Ramsden and Bennett, 2005:332). The services offered by Business Link

included: 1) General business information, 2) Diagnostic assessment, 3) Personal business advisor/consultants, 3) Sales and marketing assistance, 4) Export advice, 5) Finance and accounting advice, 6) Training/investors in people, 7) Product/service design advice, 8) Innovation and technology advice, 9) Educational and university links, and 10) Grants (Bennett, 2007:445).

Ramsden and Bennett (2005:227) investigated the impact of external business advice to SMEs on “soft” outcomes (improved ability to manage, ability to cope), “hard” outcomes (profitability, turnover, reduced costs), and overall satisfaction. Comparisons were made among private sector, business associations and public sector sources of advice in Britain (Ramsden and Bennet, 2005:231). The study involved a representative sample of 381 British SMEs (Ramsden and Bennett, 2005:233). They found that private sector advisors (Accountants, Bank and Solicitor) were the most frequently used sources of advice. The advice received by SMEs was rated as having more impact on soft outcomes and less impact on hard outcomes. The private sector and associations had a higher impact on hard outcomes compared to the public sector. The public sector and the private sector had similar impact on the soft outcomes. The rating of the impact on soft outcomes outweighed that of hard outcomes, with the exception of chambers of commerce where the impact of advice received on hard outcomes outweighed the impact on soft outcomes (Ramsden and Bennett, 2005:235). Public sector bodies and associations achieved the lowest satisfaction while the highest satisfaction was achieved from suppliers, customers and business angels who belonged to the private sector category (Ramsden and Bennett, 2005:237). Factors that led to high satisfaction included accessibility, proactiveness, good knowledge and usefulness of contacts while those that led to dissatisfaction were lack of capability, inappropriateness, lack of response from advisors when requested and lack of depth (Ramsden and Bennett, 2005:238-239).

Bennett (2007:435) evaluated the expectations of 746 SMEs which used Business Link and their satisfaction with the services offered. He found that 60 percent of SMEs expected any form of advice, 57 percent had multiple expectations while 18 percent of SMEs expected Business Link to be a source of grants and financial assistance (Bennett, 2007:442). SMEs indicated that 74 percent of the services fully or partially met their expectations while 40 percent of services fully met their expectations

(Bennett, 2007:445). Services that achieved the best performance (by meeting expectations by more than 40 percent of the time) were training, export advice and grants. Services that performed poorly were product and service design advice, sales and marketing advice, and innovation and technology advice. SMEs expectations that were most fully met were for brokerage/referral, provision of general information and advice, and strategic management advice while expectations for grants and finance, and contact/networking were the least well met. Bennett (2007:448) found that the outcomes of using Business Link services among SMEs were, from the highest to the lowest: planning, management and information; marketing, brand, exporting and accreditation; staff skills, staff well-being and technical input; financial help and reduced costs.

4.8.13 Factors influencing the use of entrepreneurial support in the United States

Based on sample of 564 nascent entrepreneurs from the Panel Study of Entrepreneurial Dynamics, Yusuf (2008:511) examined the factors that influenced the decision by nascent entrepreneurs on whether or not to obtain support from external assistance programmes. Yusuf (2008:516) found that 26 percent of nascent entrepreneurs used start-up assistance programmes. Among female nascent entrepreneurs contact with and the use of external assistance programmes were significantly predicted by having higher levels of education, business and/or entrepreneurial knowledge from training courses or seminars and involvement in technology-based start-ups. Gender homogeneity within women's entrepreneurial network was positively related to seeking and obtaining outside support (Yusuf, 2008:517). Female entrepreneurs who had obtained support from their start-up team had a higher probability of using start-up assistance programmes (Yusuf, 2008:518).

Among male nascent entrepreneurs obtaining outside support from business assistance programmes was significantly predicted by having worked in parents' business, entrepreneurial experience of the entrepreneur and start-up team, support received from the start-up team and the size of the entrepreneur's personal network (Yusuf, 2008:518). An additional year of industry experience for men without start-up experience increased the probability of the entrepreneur to obtain outside assistance.

Start-up experience had a positive effect on the likelihood of an entrepreneur to contact assistance programmes for support while having worked in parents' business reduced the likelihood of using external assistance.

Perry and Solomon (2008:1) analysed the effects of firm characteristics, management assistance and technical assistance on small business revenues and profitability using 447 firms. Perry and Solomon (2008:4) found that larger firms benefited more from technical assistance than small firms. The type of technical assistance assessed included financial management, promotional strategy, human resources; obtaining capital, marketing strategy, general management and international trade (Perry and Solomon, 2008:5). Increased market share, sales, and profits were more likely to be reported among larger firms as a result of technical assistance than their smaller counterparts. Technical assistance with promotional strategy had a positive financial impact only on larger firms while assistance with human resources and marketing strategy had a positive impact on smaller firms.

4.8.14 Entrepreneurial support in Ireland and the Netherlands

De Faoite, Henry, Johnston and van der Sijde (2004:440) investigated the effectiveness of training and support initiatives for entrepreneurs based on the sample of 57 entrepreneurs in Ireland and the Netherlands. They identified the type and value of support accessed by these entrepreneurs and the differences and similarities between the two samples (De Faoite *et al.*, 2004:442). Entrepreneurs in the sample received support from sources that included national and local government bodies, trade associations and third level institutions (De Faoite *et al.*, 2004:443). In terms of the types of support accessed by entrepreneurs in the sample, networking was accessed by 70 percent of entrepreneurs, followed by funding with 50 percent and mentoring accessed by 49 percent of entrepreneurs. Irish entrepreneurs accessed more support than Dutch entrepreneurs. They were three times more likely to avail themselves for start-up training and ten times more likely to engage in development training than Dutch entrepreneurs (De Faoite *et al.*, 2004:444). Entrepreneurs rated the quality of the support received positively.

4.8.15 Research on entrepreneurial support in South Africa

A number of studies have been conducted in South Africa to evaluate the effectiveness of entrepreneurial support. This section explains the successes and failures of entrepreneurial support programmes provided by the South African government. The relevance of this discussion to this study lies in the fact that those support programmes that have achieved success will be used in the questionnaire to determine the level of awareness that students have about those programmes and to what extent they influence entrepreneurial intent.

4.8.15.1 General evaluation of entrepreneurial support programmes and support measures to improve their effectiveness.

Pretorius and van Vuuren (2003:519) evaluated the goals of the DTI, IDC, Ntsika and Khula programs and their involvement in the economic development through business creation. The programs were evaluated based on their promotional material and websites of the DTI using an investigative evaluative method (Pretorius and van Vuuren, 2003:521). They evaluated the descriptions of the goals and prerequisites for each program and categorised the programs into business size and growth stage of the venture the programs were aimed at. In their evaluation, Pretorius and van Vuuren (2003:523) found that Ntsika's programs focused on service providers to a large extent and entrepreneurs to a lesser extent; the majority of programs were targeting medium and large ventures with very few aimed at micro and small businesses. Pretorius and van Vuuren (2003:525) stated that the core focuses of Khula, IDC and DTI included finance, growth, expansion and competitiveness (through exports) which are more relevant for existing businesses than for start-ups. They stated that while some programs focused on start-ups their prerequisites were more relevant for larger ventures.

Molapo, Mears and Viljoen (2008:27) conducted an investigation on the successes and shortcomings of the support services provided by the different small business support institutions of the government during the period 1996 to 2003. They reported that Khula assistance programmes had a significant impact on employment creation, with RFIs having created more jobs than other assistance programmes (Molapo *et al.*,

2008:34). The shortcomings of small business support institutions identified by these researchers included: inability to meet the needs of the small business sector; many small businesses could not access support due to lack of awareness of the existence of these institutions; the criteria for accessing funding were too strict and the cost of funding was too high; and there was limited support to small and micro enterprises (Molapo *et al.*, 2008:35). Molapo *et al.* (2008:38) assert that through SAMAF micro enterprises and SMMEs in rural areas would be able to access affordable funding.

The DTI conducted a review of the business support programmes provided to SMMEs since 1994 to 2004. In its report it highlights some of the successes and failures in implementing some of the programmes aimed at SMMEs in South Africa. Of the initial institutions established to provide small business support, the DTI (2004:24) reports that there was a lack of professional expertise among the people employed in NSBC and an overlap between the NSBC debates and in those which were made in parliament which led to its discontinuation.

In a review of the programmes to support SMMEs in KwaZulu-Natal, Mkhize (2008:3) reports that there have been weaknesses in the support systems; lack of skills development in areas of business, financial management and marketing; inappropriateness of financial models; and the lack of mentorship and incubation to assist SMMEs through difficult times. There were also failures among departments in meeting the targets set for preferential procurement spending on SMMEs and co-operatives. Mkhize (2005:6) further indicates that the efforts to ensure that entrepreneurs or aspirant business people have access to the types of support services are not enough and that there is a need for facilities for new business development in rural areas.

According to Mhlongo (2010:7-9), the Provincial government of KwaZulu-Natal provides an integrated support to SMMEs through initiatives that include: 1) Offering general business advice, business incubation, training with a focus on business management and technical skills, and mentoring to small and emerging businesses; 2) Assisting groups of individuals to start co-operatives, skills development for the members of the co-operatives, and access to markets; and 3) Finance for new and established businesses.

The Western Cape Department of Economic Development and Tourism has initiated the Real Enterprise Development (RED) Door project as a one-stop centre where SMMEs are able to access a single point to seek assistance (RED Door, 2005:i). In an impact study of the RED Door's services among its pre-selected successful 41 clients across 11 office regions, the Human Sciences Research Council (HSRC) (2008:7) found that the RED Door impacted positively on clients at the business start-up phase. The RED Door clients highly valued the assistance given, the assistance provided with business documentation and the formal registration of new businesses. The top four services that the clients sought from the RED Door were: 1) Start-up advice, 2) Company registration, 3) Start-up capital, and 4) Working capital (HSRC, 2008:41). The findings indicate that the RED Door has been unable to provide long-term support to fledging businesses and has been weak in promoting its services (HSRC, 2008:8).

The majority (48.8 percent) of clients knew about the RED Door through word of mouth compared to 24.4 percent who were informed by the media. The top four services that the clients sought from the RED Door were: 1) Start-up advice, 2) Company registration, 3) Start-up capital, and 4) Working capital (HSRC, 2008:41). In terms of the frequency of visits 80.5 percent indicated that they 'often' (as opposed to 'seldom') visited the RED Door offices. The RED Door assisted 41.5 percent of clients with access to finance from the other institutions and 22 percent of clients with tenders (HSRC, 2008:43).

The Gauteng Department of Economic Development established the Gauteng Enterprise Propeller (GEP) as a provincial government agency to provide non-financial support; financial support; and to co-ordinate stakeholders for the benefit of SMMEs in Gauteng (GEP, 2009:1). Finmark Trust and GEP (2006:2) measured the impact of support initiatives and government assistance using 2001 small enterprises in Gauteng. They found that access to finance was one of the major obstacles to the development of the informal sector (Finmark Trust and GEP, 2006:20). The findings indicated that there was an extremely low level of credit extension to Gauteng small businesses in the survey (Finmark Trust and GEP, 2006:26). The survey determined the level of awareness of small business owners about the various support organisations in which 28 percent of the small business owners indicated that they

were aware of organisations that supported small businesses. The Umsobomvu Youth Fund was the most popular organisation followed by Khula, Banks, National Federated Chamber of Commerce (NAFCOC), Business Partners, Seda, SETAs, DTI, Development Bank of South Africa (DBSA), IDC, GEP, NEF, Business Place, ITC, Women's Development Bank and SAMAF. Business support was used only by informal businesses. The top six services that small businesses were aware of included: 1) Financing, 2) Training, 3) Legal advice, 4) Business planning assistance, 5) Marketing assistance and 6) Tendering advice (Finmark Trust and GEP, 2006:28). According to Finmark Trust and GEP (2006:35), only eight percent of small businesses were using government support mechanisms.

With regard to the assessment on the effectiveness of government small enterprise support, Tips (2005:18) reports that even though government has put considerable effort in supporting small enterprises, it has failed to meet its objectives. In an analysis of the SME survey of 2004 which involved 2500 small and medium enterprises which focused on SME perceptions of government support, Tips (2005:18-19) found that 60 percent of businesses were aware of the Sector Education and Training Authorities (SETAs), 45 percent of businesses were aware of the IDC and less than a third of businesses were aware of the Competitiveness Fund. Less than 15 percent had heard about any other government support structures and there was a low usage of government support structures. The number of those who used Ntsika, the Manufacturing Advisory Centres (MACs), Khula, Business Referral and Information Network (BRAIN) and Umsobomvu was equivalent to one percent. In terms of usage, the SETAs and the Competitiveness Fund were used by more than 10 percent of the businesses surveyed. The factors that led to low usage included poor communication of incentives, suspicion about the quality, usefulness and the accessibility of these programmes amongst small businesses.

Berry *et al.* (2002 in Tips, 2005:19) report that Ntsika's LBSC programme performed poorly. This was due to the lack of capacity and funding from Ntsika which led to LBSCs raising service fees to generate funds. LBSCs also offered a wide range of services for which they were unable to mobilise the necessary expertise. MACs achieved better results compared to LBSCs because they were more focused and utilised expert service providers; they were run like businesses with targets, deadlines

and tight budgets; they had diagnostic tools and clients paid for some of the cost of the services (Tips, 2005:20 & 23). The success of the Khula Mentorship programme was hindered by the use of many mentors who had little or no business experience, had difficulty in understanding basic accounting concepts and were unable to add value to their clients.

Tips (2005:22) found that the TEP was successful in providing support to the tourism sector by enabling small businesses in the sector to win new deals and grow. TEP's success was due to the fact that it had a narrow focus; it offered limited services; it focused on clients' needs; it had clear and limited objectives; the programme was delivered by the private sector and used people who had business and industry experience to serve small businesses and clients contributed 50 percent of the cost of the support.

From the findings, Tips (2005:23) suggested the following issues as critical ingredients for successful small enterprise promotion initiatives:

- People who deliver services to small enterprises should have business experience, understand small enterprises and empathise with their clients.
- Programmes should focus on particular objectives instead of trying to achieve a wide range of objectives.
- There should be partnerships between the government and the private sector to share costs and to reduce risks.
- There should be buy-in by clients to the services offered by paying for part of the service.
- Public interventions should be designed to contribute towards efficient business development services markets.

Orford *et al.* (2004:4) point out that government programmes aimed at supporting small businesses reach only a few and most businesses are either unaware of or have used any of these programmes. Many small business owners are largely unimpressed with the support offered by government. Maas and Herrington (2006:13) postulate that the promotion and support of entrepreneurship in South Africa is generally below standard. As a result, they suggest that these programmes have to be improved in

order to maximise their impact. Orford *et al.* (2004:35) suggest the need to identify suitable criteria that can be used to enable programmes to target clusters of enterprises with similar needs.

According to Monkman (2003 in Ligthelm, 2008:368-369), the various state-backed entities to provide support to SMMEs have been established with little apparent success. The major deficiencies identified in these entities are:

- Gaps between the needs of the businesses and the types of services offered
- The failure of programmes to develop an entrepreneurial culture
- A tendency to focus on potentially viable firms
- A tendency to serve larger small and medium enterprises better than smaller ones
- Low usage of the DTI and agency programmes
- Cumbersome administration.

Rogerson (2004:1) conducted a ten-year review (1994-2003) of the impact of the South African government's SMME programmes. On the basis of the analysis of the different programmes offered by government, Rogerson (2004:781-782) reports that:

- Official data on the actual numbers of SMMEs and the performance as well as the impact of the government's programmes are scarce and weak.
- There are no reliable indicators on the success of SMMEs in terms of growth of the enterprises.
- Data on the growth in enterprise numbers as a measure of successful government SMME programmes are unreliable.
- There is no useful spatial data on the SMME economy.
- SMMEs make a small contribution to employment creation because most SMMEs do not grow.
- More attention has been given to the medium and small-sized enterprises with little or no attention paid to micro-enterprises and the informal economy.
- Programmes offered by LBSCs, Khula and NAMAC should be improved to ensure their positive impact on SMMEs.

4.8.15.2 Research on entrepreneurial support for the youth

Ahwireng-Obeng (2003:2) conducted a nation-wide study to determine the entrepreneurial skills development and business support needs of the youth. The study involved 240 youth split into 120 rural youth and 120 urban youth. Of the 240 youth 60 were existing young entrepreneurs, 60 were unemployed young graduates, 60 were unemployed youth and 60 were employed youth (Ahwireng-Obeng, 2003:5). The youth were asked questions that focused on the three stages of the entrepreneurial process: 1) Inception, 2) Start-up and 3) Early development (Ahwireng-Obeng, 2003:5).

He found that the youth lacked community support and exposure to activities of entrepreneurs; access to information; markets; networking exposure and affordable transport (Ahwireng-Obeng, 2003:7). Similarly, the UYF (2002:2) concur that youth experience specific limitations such as: 1) Limited life and work experience, 2) Limited financial resources, 3) Limited networks and contacts, 4) Limited exposure to relevant role models, and 5) Limited credibility due to age discrimination. The youth had the desire to be their own bosses, make money and support their families and their communities. They lacked significantly in life/entrepreneurial skills and general business skills especially financial management. Potential entrepreneurs reported that they were weak in good decision-making, conflict management and assertiveness. Both potential and existing young entrepreneurs indicated that they were very weak in business skills, the ability to obtain finance, business plan development, information technology and knowledge of legal requirements (Ahwireng-Obeng, 2003:11). Problems relating to lack of finance were similar during the start-up stage and early development stage.

Ahwireng-Obeng (2003:15) reports that there were a number of critical factors that were common to all three stages of the entrepreneurial process which included the roles of social networks and work experience in motivating entrepreneurs and providing them with entrepreneurial competencies and commercial networks. Through networks the youth entrepreneurs were able to identify business opportunities, and access to monetary and non-monetary resources and support. The youth were inspired by role models of established entrepreneurs and the potential awareness-

creating role of the media. The youth lacked the skill-based competencies which weighted negatively on the decision to found an enterprise. The youth were also not aware of the existence of funding agencies and they lacked the knowledge about the requirements for finance readiness. On the basis of his findings, Ahwireng-Obeng (2003:16) made a number of suggestions to promote and support youth entrepreneurship:

- The number of youth-owned enterprises must be increased and the conditions for their growth must be improved. This can be achieved through entrepreneurship policy that promotes a business-friendly environment and the implementation of support programmes that minimise the period of maturation and encourage rapid expansion.
- Mass media has to create awareness of the successes of role models and the innovative entrepreneurship education programmes should be introduced at all levels to motivate, stimulate and equip the youth with the competencies to start new businesses.
- Special efforts are needed to promote contact networks.
- There should be mentorship programmes for the youth who lack prior work experience.
- Linkages among existing and potential entrepreneurs have to be established to increase sources of business opportunities.
- Red tape and compliance costs must be reduced to facilitate formalisation of existing informal and new enterprises.
- Business support programmes should be designed to meet the specific needs of start-ups and early development.
- Existing incentives should be modified to meet the specific needs of new businesses.
- The media should be used to create awareness of existing business support programmes.
- Partnerships should be established among existing institutions such as the UYF (organisation for youth development), Khula (for finance) and Ntsika (for business support) in order to provide an integrated business support for the youth.

4.8.15.3 A study of entrepreneurial support for rural SMMEs

In a study that was conducted in the Limpopo Province, Ladzani and Netswera (2009:226) determined whether there were support services for small businesses in the rural areas; whether rural entrepreneurs required support in running their businesses; whether small businesses were aware of the available support services; whether they made use of these support services and the perceptions of small businesses regarding SMME support services. The study involved 600 SMMEs from the five district municipalities in the Limpopo Province. Ladzani and Netswera (2009:233) found that the types of business support received by 348 SMMEs after start-up were mostly finance (72.7%), followed by training (17.8%), tendering and procurement (6%), marketing information (3.2%) and business counselling (0.3%). These SMMEs ranked finance and training for skills development as the two most important support services. The majority (84 percent) of SMMEs were started without any external funding, with three percent of them have received loans from commercial banks (Ladzani and Netswera, 2009:235). They could not utilise the available support programmes due to lack of access to information about these support programmes. Of those who utilised business support programmes, three percent received marketing support, six percent received tendering and procurement support, and 18 percent received training support.

4.8.15.4 Entrepreneurial support needs of informal businesses

Ligthelm (2008:368) examined the magnitude of informal sector employment and business formation and the extent of entrepreneurial acumen in informal businesses in South Africa. The level of entrepreneurship was measured by analysing the surveys of the GEM 2006, Bureau of Market Research 2004 and FinMark Trust 2006 (Ligthelm, 2008:375). In terms of the contribution to employment, Ligthelm (2008:372) reports that the share of informal workers between 1995 and 2005 was just over 20 percent of the total employment. Ligthelm (2008:379) found that a fairly large number of informal small businesses were established mostly for survival purposes and operate at basic survival level. The findings indicate that between 10 and 15 percent of informal businesses show the growth potential to trade up to higher and more formal business echelons (Ligthelm, 2008:380). On the basis of these findings, Ligthelm suggested that

initiatives to support small business development and survival should target small businesses with growth potential on an individual basis with traditional programmes that include financial, training and counselling support; and that collective support programmes should be designed for survivalist businesses with limited growth potential such as provision of shelters and basic infrastructure.

4.8.15.5 An evaluation of micro-finance programmes

Makina and Malobola (2004:800) conducted an impact assessment of the products of Khula with specific reference to micro-finance using interviews with micro-finance providers and the beneficiaries of the services. Their findings indicated that (Makina and Malobola, 2004:808-811):

- The majority of beneficiaries were serviced by RFIs, followed by the KhulaStart programme and commercial banks through the credit guarantee schemes.
- The outreach of the KhulaStart programme which was meant for rural areas was poor compared to the outreach of RFIs which was targeted at the not-so-poor areas.
- There was an insignificant number of the beneficiaries of the Khula Mentorship programme with the majority (76.8 percent) coming from urban areas.
- A significant number of loans was allocated to the retail sector, followed by the manufacturing sector and personal services sector.
- All beneficiaries depended on a Khula-supported loan.
- Most microloans from the KhulaStart programme were used for extending existing businesses while urban areas that are serviced by RFIs used most loans to start up new businesses.
- From the 1.52 million people who benefited from Khula's programmes, a higher number (1.3 million) of beneficiaries was in urban areas than in rural areas.
- More women benefited from the KhulaStart programme where a target of 70 percent was set than in other programmes where there were no set targets.
- There was a low commitment of risk capital to rural areas than urban areas with 6.7 percent and 93.3 percent respectively.

4.9 FACTORS THAT CAN CONTRIBUTE TOWARDS THE DEVELOPMENT OF RURAL ENTREPRENEURSHIP

Having highlighted some of the factors that inhibit rural entrepreneurial activity, researchers suggested measures that could be put in place to stimulate rural entrepreneurial activity. These measures may also impact on the development of entrepreneurial intent among the rural youth.

4.9.1 Government policies targeted at promoting and supporting rural entrepreneurship and enterprises

While there is no doubt that government should play its role in supporting and promoting entrepreneurial behaviour, entrepreneurial support policies of governments have different dimensions which include: 1) Policies to encourage and support entrepreneurship (promotion of an entrepreneurial culture, entrepreneurship education and helping individuals through the nascent and initial stages of starting a business) and 2) More traditional enterprise support policies dealing with the growth, survival and competitiveness of existing SMMEs (North and Smallborne, 2006:43). These policies are illustrated in Table 4.9.

Table 4.9: Policies to promote and support rural entrepreneurship and enterprise

Entrepreneurship policies dealing with building-up entrepreneurial capacity	Enterprise policies dealing with the competitiveness and viability of existing SMEs to increase their chances of survival and growth
<ul style="list-style-type: none"> • Policies that seek to influence the attitudes and motivations of individuals towards entrepreneurship and to provide opportunities for the acquisition of business and management skills through education and training. • Policies directed at potential sources of entrepreneurs which include attracting in-migrants with entrepreneurial skills and ambitions or increasing the proportion of entrepreneurship from under-represented groups (young people and women). • Policies that support the process of starting new business ventures through pre-start-up advice, appraisal of the business idea and assistance with setting up a new business. 	<ul style="list-style-type: none"> • Policies on the provision of generic support to rural businesses including advice on different aspects of running a business. • Policies relating to the provision of specialist support to enterprises in particular sectors. • Policies regarding the provision of infrastructure that supports enterprise formation and development in rural areas.

Source: North and Smallborne (2006:43-44)

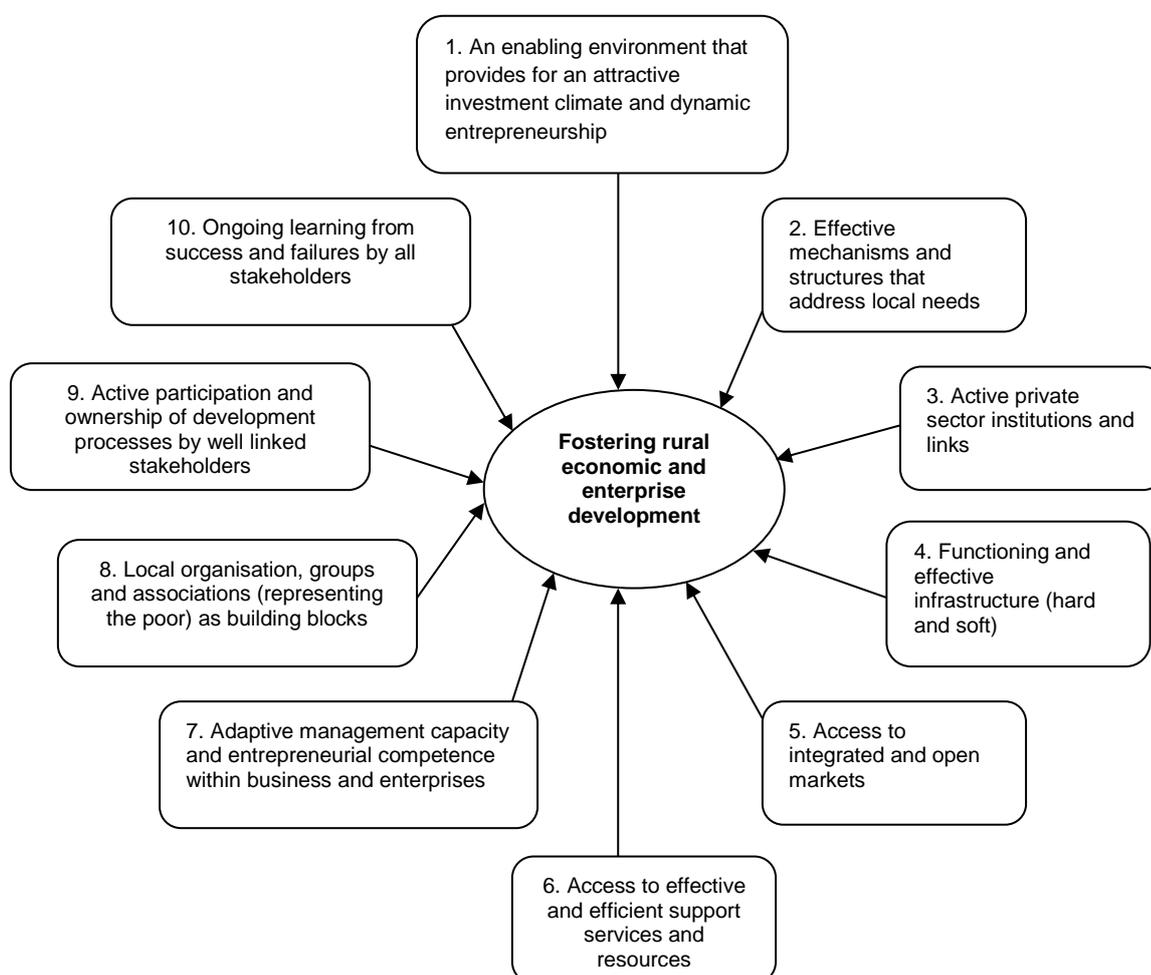
4.9.2 A model of rural economic and enterprise development

In a review of trends on entrepreneurship and the contribution of small enterprises to the economy of South Africa, Seda (2007a:34) found that 80 percent of female-owned businesses were informal and that very rural provinces had a far larger share in informal businesses (14 percent) than in formal businesses (3 percent). More specifically, the highest numbers of informal businesses were found in Limpopo and Mpumalanga (Seda, 2007a:37). Seda (2007a:41) found that there was a positive correlation between urbanisation and formal business density. Seda (2007a:42) reports that opportunity entrepreneurship was four or more times higher in towns and cities than in rural areas.

According to Diale (2009:197), LBSCs face a major challenge in developing rural SMMEs. This is due to the fact that rural SMMEs operate in poverty stricken areas with high unemployment rates, poor infrastructure, outflow of wealth to larger urban

centres and reduced access to markets. Therefore, there is a need for a targeted strategic set of interventions which is supported from the national, provincial and local levels of government. The UYF (2008:23) proposed a Rural Economic Enterprise Framework Approach (Figure 4.11) in which co-operatives; organisation of youth formations to supply information in the rural set-ups and involvement of every player in serving rural enterprises are regarded as mechanisms to develop rural entrepreneurship.

Figure 4.11: Model of rural economic enterprise development



Source: UYF (2008:23)

However, the UYF (2008:24) points out some challenges experienced in stimulating rural entrepreneurship which include:

- Existing knowledge relating to rural entrepreneurship is too academic.

- Problems facing co-operatives and language barriers encountered by those who seek to educate rural entrepreneurs and
- Lack of private sector participation in rural areas.

Based on the above challenges, the UYF (2008:24) made the following recommendations to help develop rural entrepreneurship:

- Government should assist in information dissemination to help the rural people identify opportunities.
- Rural area leaders should be set as targets that would assist in influencing such communities.
- Existing structures such as municipalities should be used to reach out to rural areas. Rural entrepreneurs who have succeeded should encourage their rural folks.
- Entrepreneurship education has to be implemented in early school education.

4.10 CONCLUSION

The discussion in this chapter is based on the premise that prospective entrepreneurs need support in order to translate their entrepreneurial intent into action. Entrepreneurial support can play a vital role in stimulating entrepreneurial activity. Firstly, by equipping entrepreneurs with the necessary entrepreneurial skills and competencies entrepreneurial support can contribute to the survival of start-ups and the growth of existing businesses. The perception of having the necessary skills to start a business influences opportunity identification and pursuit and increases the likelihood of entrepreneurial activity. Secondly, through the provision of information about how to start a business, where to obtain the different kinds of resources and market opportunities, entrepreneurial support can make the execution of the entrepreneurial process easier than when that support is not available. This can also help minimise the barriers and uncertainty during the process of starting a business. Without opportunities and resources, entrepreneurs cannot start a business. Previous research found that lack of access to resources, networking and management incompetence have a negative effect on the survival and growth of new ventures while perceived financial barriers lead to a reduction in start-up probability. Access to capital,

availability of information, perceived availability of market opportunities, supply of skilled labour and networking influence the intention to start a business and outsider assistance positively affects the creation of new ventures. It follows from the literature that the support needs of entrepreneurs are varied and some programmes do have a positive impact on small businesses. Therefore, regularly reviewing and tailoring support programmes to the needs of different groups of entrepreneurs will help maximise the impact of these programmes.

Effective entrepreneurial support is particularly important in developing rural entrepreneurial activity as it has been reported to be lower than in urban areas. Research indicates that entrepreneurial support programmes for rural areas should be based on the realities that rural entrepreneurs find themselves in rather than assumptions about their circumstances.

Although a variety of entrepreneurial support programmes exist in South Africa, the majority of these programmes have not been successful. This has been due to poor communication about their availability, inaccessibility of these programmes, the usage of mentors with little or no business experience, having a wide range of objectives, cumbersome administration, and the gaps between the needs of the businesses and the types of services offered. Most of these programmes paid more attention to medium and small-sized enterprises while ignoring micro and informal enterprises.

The different entrepreneurial support programmes that are offered by the South African government as discussed in this chapter will be used in the questionnaire to determine the level of awareness students have about these programmes and the impact of this awareness on entrepreneurial intent.

The next chapter examines the role of social capital in the development of entrepreneurial intent.

CHAPTER 5: SOCIAL CAPITAL AND THE FORMATION OF ENTREPRENEURIAL INTENT

5.1 INTRODUCTION

Entrepreneurial activity is viewed as a social role that is embedded in networks of interpersonal relationships (Hisrich *et al.*, 2008:62). Anderson and Miller (2003:17-18) concur that entrepreneurship is a socio-economic process which draws upon the social context in two distinct ways: 1) Entrepreneurs are products of their social environments; they are conditioned by that environment and the manner in which they perceive opportunities is influenced by their social background; and 2) Entrepreneurship is a social activity in which customers and suppliers are part of the social web within which the economic elements of entrepreneurship are conducted. As a result, the presence, or absence, and the form of social capital are more likely to influence the nature of the business initiated.

The social dimension of entrepreneurship has resulted in social capital gaining importance as a core concept in the field of entrepreneurship in recent years (Neergaard *et al.*, 2005:341). Dakhli and De Clercq (2004:110) postulate that social capital is based on the sociological view of human action and considers individuals as actors who are shaped by social factors. According to Cook and Willis (1999 in Swinney and Runyan, 2008:1666), social capital in small firms can be described in terms of the relationships between fellow business owners and those between business owners and the local consumers. It may also include interdependency between business owners that is valued in terms of the prevailing norms and expectations of social interaction.

In his theory of planned behaviour (TPB) Ajzen (1991, 2005:118) proposed that attitudes towards the behaviour, subjective norms and perceived behavioural control predict intentions (detail in Chapter 2 section 2.3.2). However, the direct effect of subjective norms on entrepreneurial intent was not supported in the majority of studies that attempted to test this theory (for example Ajzen, 1991 in Liñán and Santos, 2007:445; Krueger *et al.*, 2000:422; Emin, 2003:13; Brännback *et al.*, 2005:7; Liñán *et al.*, 2005:11 and Li, 2006:6). It was found that subjective norms has a positive impact

on the attitude towards the behaviour/personal attraction and perceived behavioural control which in turn were consistently reported as having a significant influence on entrepreneurial intent (for example, Oruoch 2006:24; Liñán and Chen, 2006:13; Liñán *et al.*, 2007:7; Liñán, 2008:266; Guerrero, Lavín and Álvarez, 2009:92; Liñán and Chen, 2009:609). Given these findings, Liñán and Santos (2007:445) suggested that there is need to include different constructs representing social relationships of an individual (not only social norms) in order to improve the explanatory power of intention-based models. Thus the concept of social capital is proposed (Liñán and Santos, 2007:446). Oruoch (2006:11) views social norms as an aspect of social capital. Liao and Welsch (2005:348) assert that an analysis of the impact of social capital on entrepreneurial activity takes into consideration the social context in which new ventures are created.

The purpose of this chapter is to investigate the extent to which social capital impacts on entrepreneurial activity in terms of new venture start-up and performance and how it influences the development of entrepreneurial intent. The discussion begins with the different definitions of social capital. The relationship between social capital and social networks is explained; the dimensions of social capital and the benefits of social capital in terms of resources that entrepreneurs can derive from it to start and ensure new venture survival as well as to achieve its growth are highlighted. The chapter concludes with the influence of social capital on entrepreneurial intent. With regard to the focus of this study on entrepreneurial intent, this chapter aims to determine, based on Liñán and Santos's (2007:448) measures of social capital, whether approval for start-up in closer environment, knowing family entrepreneur, knowing non-family entrepreneur, valuation of entrepreneurial option and contact with entrepreneurial environment influence entrepreneurial intent.

5.2 DEFINING SOCIAL CAPITAL

While the existence of social capital dates as far back as the nineteenth century, there seems to be a lack of agreement among researchers concerning the definition of social capital. Most researchers define social capital based on its relationship with social networks (for example Neergaard *et al.*, 2005:342; Fayolle, 2007:205). Chou

(2006:891) points out that there are many different meanings of social capital. He further indicates that social capital has been defined in terms of trust and norms of civic cooperation, cultural values such as compassion, altruism and tolerance; and the quality and quantity of “associational” life. Durlauf and Fafchamps (2006 in Sabatini, 2009:431) state that the definition of social capital suffers from conceptual vagueness, the coexistence of multiple definitions and the constant lack of suitable data which impede theoretical and empirical research of phenomena in which social capital may play a role. Additionally, Adler and Kwon (2002:19) report that the differences in defining social capital depend on whether the focus is on the substance, the sources or the effects of social capital; and whether it is based on the relations an actor maintains with other actors, the structure of relations among actors within a collective or both types of linkages.

In an attempt to conceptualise social capital, Anderson, Park and Jack (2007:264) found that social capital is not owned but it is a pool of goodwill residing in a social network. Social capital is a social thing that operates through norms that include values and worthiness. It is dependent on trust, social interaction, associability, sociability, interdependency between individuals and the utility of social networks. Social capital is created and activated by at least two people; like other forms of capital, it is not costless to produce and requires a significant amount of time and effort to develop (Chou, 2006:892). Anderson and Jack (2002:207) argue that social capital is not a “thing” but a process which only exists between people and involves creating a condition for the effective exchange of information and resources. Table 5.1 represents some of the definitions of social capital used in entrepreneurship research and other disciplines.

Table 5.1: Definitions of social capital

Author(s)	Definition
Bourdieu (1986 in Bowey and Easton, 2007:275)	A resource belonging to individuals or groups linked together through durable networks.
Burt (1992 in De Carolis and Saporito, 2006:42)	An asset that resides in an individual's relationships and consists of goodwill flowing from friends, colleagues, and other general contacts.
Bourdieu and Wacquant (1992 in Anderson <i>et al.</i> , 2007:246)	The sum of the resources, actual or virtual, that accrue to an individual or group by virtue of possessing a durable network of more or less institutionalised relationships of mutual acquaintance and recognition.
Nahapiet and Ghoshal (1998 in Wu, 2008:124)	The sum of actual and potential resources embedded within, available through, and derived from the network of relationships possessed by individual entrepreneurs.
Gabbay and Leenders (1999 in Greve and Salaff, 2003:2)	The set of tangible or virtual resources that accrue to actors through the social structure.
Putman (2000 in Tau, 2003:1)	Connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them.
Maskell (2000 in Chou, 2006:891)	The values and beliefs that citizens share in their everyday dealings and which give meaning and provide design for all sorts of rules.
Woolcock (2001 in Anderson <i>et al.</i> , 2007:247)	The cumulative capacity of social groups to cooperate and work together for the common good.
Commins and Meredith (2002 in Stathopoulou, Psaltopoulou and Skuras, 2004:407)	Qualitative characteristics of civic society, based on certain social values and norms supporting associational behaviour, networks of cooperation and civic activity.
Dodd and Patra (2002 in Tata and Prasad, 2008:374)	The sum of total networks in which entrepreneurs participate accumulated through a variety of avenues such as links with suppliers, distributors and customers, membership in formal organisations, family connections and social contacts.
Wiklund <i>et al.</i> (2002:3)	The ability of a person to extract benefits from their social networks and memberships.
Adler and Kwon (2002:23)	The goodwill available to individuals or groups. Its source lies in the structure and content of the actor's social relations. Its effects flow from information, influence, and solidarity it makes available to the actor.
Lin (2003 in Liñán and Santos, 2007:446)	Relationships either formal or informal, generated by individuals in their interaction with other individuals trying to obtain expected reward in the market. It is capital captured in the form of relationships.

Table 5.1 continued

Inkpen and Tsang (2005:151)	Aggregate of resources embedded within, available through, and derived from the network of relationships possessed by an individual or organisation.
Wu (2008:125)	Features that are embedded in social organisations such as network ties, norms, and trust that facilitate coordination and cooperation for mutual benefit.
Kickul, Gundry and Sampson (2007:172)	Connections with outside parties providing access to resources and includes structural, relational and cognitive dimensions.
Casson and Giusta (2007:221)	The capitalised value of improvements in economic performance that can be attributed to high-trust social networks.
De Carolis, Litzky and Eddleston (2009:530)	The goodwill and resources that emanate from an individual's network of social relationships.

Source: Table created by the author

From Table 5.1, it can be deduced that social capital is part of the network of social relationships that an individual has with other individuals and involves shared social values, norms and beliefs, trust, goodwill, benefits and resources that flow from these relationships. Anderson and Jack (2002:195) assert that the notion of resources in the definition of social capital is suited to entrepreneurial networks as entrepreneurship operates within constrained circumstances. In order to overcome the constraints they may face, entrepreneurs acquire knowledge and resources by tapping into an extended pool that exists outside the business. An entrepreneur's network of resources offers a rich source of explicit and implicit knowledge, experience and privileged access to physical resources. According to Sriram *et al.* (2007:241), social and organisational networks can provide start-ups with the resources they need immediately and effectively more than government-sponsored programs. They play a critical role in the early stages of start-up where entrepreneurs experience very limited internal resources. Watson (2007:853) concurs that through networking SME owners can tap the needed resources that are external to the firm thereby lowering the risks of failure and increasing the chances of success. Adler and Kwon (2002:18) suggest that social capital is guided by the core intuition that the goodwill (sympathy, trust and forgiveness offered by friends and acquaintances) that others have towards other individuals is a valuable resource. Having defined social capital, the relationship between social capital and social networks is now explored.

5.3 THE RELATIONSHIP BETWEEN SOCIAL CAPITAL AND SOCIAL NETWORKS

Neergaard *et al.* (2005:341) propose that social network analysis can provide an appropriate framework for understanding the social capital of business owners. Researchers suggest that a social network helps build social capital (for example Katz and Green, 2007:43; Putnam, 1993 in Swinney and Runyan, 2008:1666) as social capital is a resource within a social network (De Carolis and Saporito, 2006:43). Bueno, Salmador and Rodríguez (2004:569) posit that social capital is relational capital. Anderson *et al.* (2007:264) hypothesized that only individuals who are part of a social network can draw on the social capital that resides within a particular network. Social networks refer to “the sum of relationships that a person maintains with other people as a result of a social activity” (Schaper and Volery, 2007:46). An entrepreneur’s social networks and relationships may include people who play different roles such as family members, friends, current or ex-colleagues and business connections (Klyver, 2007:259). Anderson and Miller (2003:21) opined that social capital is embodied within personal networks of social relations which assist in the resource-acquisition strategies required for new venture creation and success. Nohria (1992 in Greve and Salaff, 2003:3) contends that when potential entrepreneurs plan to establish their own businesses, they look for relations with other people on the basis of common interest or experience in establishing and running a business. They discuss their new enterprise with a number of individuals who give them leads regarding where to obtain resources such as information, property, capital and credit. The next section examines the different levels of social capital and the level of social capital that is relevant for influencing entrepreneurial intent.

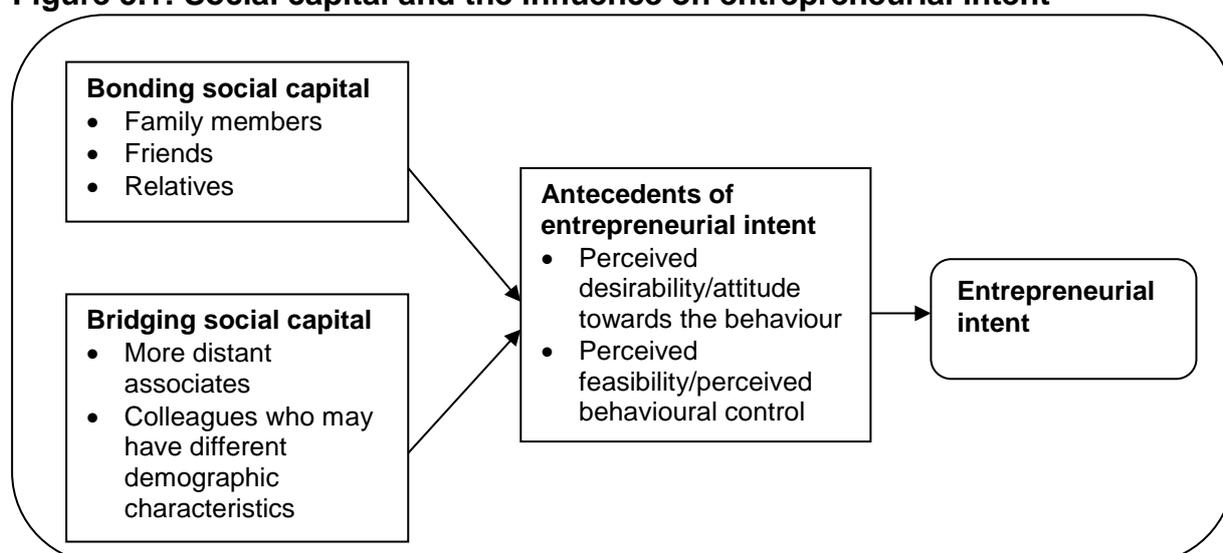
5.4 THE LEVELS OF SOCIAL CAPITAL

Social capital is reported to be having existence at three levels (Chou, 2006:892): 1) Micro-level, 2) Meso level, and 3) Macro level. The micro-level entails bonding social capital (relations between family members, close friends and neighbours) and bridging social capital (more distant associates and colleagues who may have different demographic characteristics). This author suggests that bonding social capital contributes to human capital accumulation while bridging social capital builds collective

trust which enhances financial development. Adler and Kwon (2002:19) opined that bridging social capital is a resource that inheres in the social network tying a focal actor to other actors, which help in explaining the differential success of individuals and firms in their competitive rivalry. Bonding social capital focuses on the internal characteristics of collective actors which involve those features that give the collective cohesiveness resulting in the pursuit of collective goals (Adler and Kwon, 2002:21).

The meso level consists of vertical and horizontal associations and behaviour within and among firms which are referred to as linking relationships that strengthen linkages between the group and other organisations. The macro level refers to formalised institutionalised relationships and structures such as the political regime, the rule of law, the court system, and civil and political liberties (Chou, 2006:893). Since this study focuses on entrepreneurial intent of students, the micro-level bonding and bridging social capital seem relevant for use in understanding how social capital influences entrepreneurial intent, as illustrated in figure 5.1. Based on this figure, this study hypothesizes that both bonding and bridging social capital will impact on perceived desirability and perceived feasibility which in turn influence entrepreneurial intent directly. This hypothesis is tested in the empirical research.

Figure 5.1: Social capital and the influence on entrepreneurial intent



Source: Created by the author

Figure 5.1 is based on research findings in Chapter 2, section 2.3.5.1 which demonstrated that perceived desirability and perceived feasibility have a significant

direct impact on entrepreneurial intent. On the other hand it draws from the discussion of the micro-level of social capital which consists of bonding and bridging social capital and hypothesizes a relationship.

Having discussed the levels of social capital, how social capital differs from or shares similarities with other forms of capital is explained next.

5.5 THE DIFFERENCES AND SIMILARITIES BETWEEN SOCIAL CAPITAL AND OTHER FORMS OF CAPITAL

Apart from social capital, entrepreneurs can be influenced by the availability of or access to natural, physical, human and financial capital. This section explains how social capital compares with these forms of capital. Social capital is a resource that belongs to individuals or groups linked together by durable networks (Bourdieu, 1986 in Bowey and Easton, 2007:275). Fine (2003:35) asserts that social capital consists of all those resources that are not already included in natural, physical, human and financial capital. It differs from other forms of capital because it increases rather than decreases with use (Putnam, 1995 in Bowey and Easton, 2007:275; Adler and Kwon, 2002:22). Adler and Kwon (2002:21-22) compare social capital with other forms of capital as follows:

- Like all other forms of capital, social capital is a long-lived asset into which other resources can be invested with the expectation of a future flow of benefits. Investment in building a network of external relations enable both individual and collective actors to augment their social capital and gain benefits such as superior access to information, power and solidarity, collective identity and enhanced capacity for collective action.
- Social capital is appropriable and convertible. An actor's network can be used for different purposes and the advantages conferred by one's position in the social network can be converted to economic or other advantages.
- Social capital can substitute or complement other resources such as human capital or financial capital.
- Like physical and human capital, social capital needs to be maintained. This means periodically renewing and reconfirming one's social bonds.

- Some forms of social capital are collective goods in that one person's use of it does not diminish its availability for others.
- Social capital is not located in the actors but in the relations that one actor has with other actors.
- Investment in the development of social capital cannot be measured compared to other assets which are called capital.

Social capital seems to share some similarities with other forms of capital. It differs from other forms of capital by being a collective good; it is located in the relationships one individual has with other individuals; and unlike other assets that are called capital, investment in the development of social capital cannot be measured. Social capital can be described using the different dimensions as discussed in the next section.

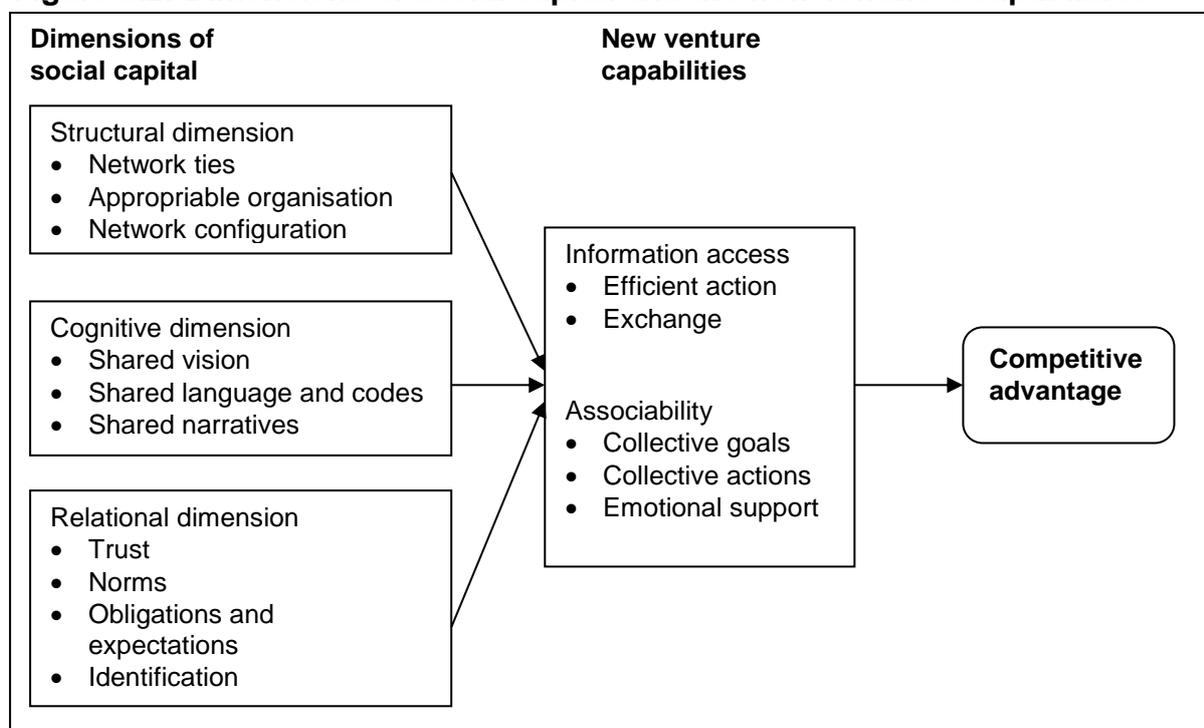
5.6 DIMENSIONS OF SOCIAL CAPITAL

Social capital is made up of three dimensions that include: 1) Structural dimension, 2) Relational dimension, and 3) Cognitive dimension (Nahapiet and Ghoshal, 1998 in De Carolis and Saporito, 2006:44-45). Structural dimension is the network structure's overall pattern of connections between actors and includes factors such as the existence or absence of direct connections between the focal actor and others, and the pattern and number of indirect ties between a focal actor and others. It contains the density and connectivity of social ties as well as the ability of members to use and re-use social networks (Pearson, Carr and Shaw, 2008:957). Structural dimension of social capital is regarded as the basis for relational and cognitive dimensions in the sense that individuals develop trust, norms and identity, and believe in a common vision and purpose as a result of shared experiences and interactions that they had over time (Tsai and Ghoshal, 1998 in Pearson *et al.*, 2008:958). According to the social support theory, the structural dimensions of a network and the type of support (contents) provided by network ties and the context or interactions by which support is acquired influence individual action and behaviour (Neergaard *et al.*, 2005:343).

Relational dimension refers to the nature of the personal relationship that develops between specific people as manifested in “strong” versus “weak” ties. Through relational dimension aspects such as trust, norms, obligations and identity are created, which lead to unique and often lasting attachments among individuals in a collective that influence behaviour such as cooperation, communication and commitment to a common purpose (Nahapiet and Ghoshal, 1998 in Pearson *et al.*, 2008:958). Klyver and Schott (2008:3) report that trust between actors increases the chances of entrepreneurs to obtain sensitive information and emotional support.

Cognitive dimension refers to those aspects of social capital that provide shared representations, interpretations and systems of meaning among parties that enable network members to make sense of information and to classify it into perceptual categories (Nahapiet and Ghoshal, 1998 in De Carolis and Saporito, 2006:45). Swinney and Runyan (2008:1668) suggest that shared vision promotes collective interest or values of business owners. These three dimensions of social capital contribute to the capabilities of a new business which in turn lead to competitive advantage (Pearson *et al.*, 2008:956 & 962), as illustrated in Figure 5.2.

Figure 5.2: Dimensions of social capital and the new venture’s capabilities



Source: Pearson *et al.* (2008: 956 & 960) and Tötterman and Sten (2005:490)

Moreover, Adler and Kwon (2002:18) proposed three dimensions of social capital rooted in different types of relations that include: 1) Market relations that involve exchanging products and services for money or bartering, 2) Hierarchical relations that deal with the exchange of obedience to authority for material and spiritual security, and 3) Social relations involving the exchange of favours and gifts.

Liao and Welsch (2002:1) investigated the influence of Nahapiet and Ghoshal's (1998) structural, relational and cognitive dimensions of social capital on the growth intentions of technology-based new ventures and non-technology-related businesses using the National Panel Study of Business Start-ups. They found that "the greater the structural capital, the higher the growth aspiration for non-technology-related entrepreneurs; the greater the relational and cognitive dimensions of social capital, the higher the growth aspiration of nascent entrepreneurs". Structural capital had a lesser effect on the growth aspiration of technology-based nascent entrepreneurs than their non-technology-based counterparts while relational capital had a greater effect on the growth aspiration for technology-based nascent entrepreneurs than their non-technology-based counterparts. Structural capital had a significant and positive effect on relational capital for the technology-based sample and was positively related to cognitive capital for both samples. The findings also indicate that cognitive capital is positively and significantly related to relational capital (Liao and Welsch, 2002:6).

In another study, Liao and Welsch (2005:345) examined the interaction between structural, relational and cognitive dimensions of social capital based on the data set from a Panel Study of Entrepreneurial Dynamics. They found that structural capital had a significant and positive effect on cognitive capital and cognitive capital was positively related to relational capital (Liao and Welsch, 2005:357). In view of their findings, they suggested that strong shared norms and values formed by entrepreneurs in the sample enabled them to develop trustful relationships and receive support from their networks (Liao and Welsch, 2005:358).

Social capital may have many benefits for entrepreneurs and can be viewed as a means to accessing the different resources that entrepreneurs require to identify and exploit opportunities that lead to new venture start-up, survival and growth, as discussed in the following section.

5.7 SOCIAL CAPITAL AS AN ALTERNATIVE TO THE RESOURCE-BASED VIEW OF THE FIRM AND ITS POTENTIAL BENEFITS FOR ENTREPRENEURS

The role of resources in the entrepreneurial process and the influence of perceived access to resources on entrepreneurial intent were explained in Chapter 4, section 4.5.1. According to the resource-based view (RBV) (Barney, 1991 in Wu, 2008:125 and Lavie, 2006:643), a firm achieves competitive advantage when not all firms possess the same amount and kinds of resources and when such resources are non-tradable or less valuable to users other than the firm that owns them. Wu (2008:125) points out that today's increasingly dynamic business world makes it difficult for more and more firms to maintain their competitive advantage with their existing firm-specific resources and competencies.

Lavie (2006:649-650) proposed an extension of the RBV by integrating it with the social network theory. This author argues that interconnected firms can gain and sustain competitive advantage through their relational capability (the capacity to form and maintain valuable interactive relationships with alliance partners). This proposition is based on the limitations of the RBV in that it underemphasises the costs associated with developing and acquiring resources and its static perspective on rent generation (Lavie, 2006:651). Researchers have recently recognised social capital as an important source in creating inimitable value-generating resources that are inherent in a firm's network of relationships (Wu, 2008:125). Street and Cameron (2007:254) view external relationships as resources. Following the RBV, they argue that the partnering decision is a direct function of both the resources that the small business is currently lacking and the assets and resources that a partnering firm can offer. Hence the organisational characteristics (resources, assets and capabilities) of both a small business and its partner determine the formation of a relationship and its resulting success. As a result, the expected outcomes of external relationships will be access to more resources, competitive advantage and increased economic value.

5.7.1 The benefits of social capital at the different stages of the business life-cycle of new ventures

Hampton, Cooper and McGowan (2009:193) investigated the network development and networking activities of 18 women new technology-based firms in Northern Ireland. They found that networking was of key importance to these entrepreneurs throughout the different stages of the business life cycle. Entrepreneurs who were at the pre-start stage considered networking as a valuable means of gaining information to establish the validity of their business ideas. Networking prevented isolation among new venture entrepreneurs and provided support in the early stages. It benefited more established entrepreneurs by promoting their companies and developing a sound reputation (Hampton *et al.*, 2009:200). At the start-up stage women entrepreneurs in the study relied on personal contacts that were known to them mainly for advice and signposting to other entrepreneurs. Family and friends provided these entrepreneurs with the much-needed moral support in the early stages of their ventures (Hampton *et al.*, 2009:200-201).

5.7.2 Social networks as a means to access resources and to identify and exploit entrepreneurial opportunities

According to Klyver *et al.* (2008:332), the most important resources that entrepreneurs can derive from networks include:

- Information
- Access to finance
- Access to skills, knowledge and advice
- Social legitimacy
- Reputation and credibility

Casson and Giusta (2007:230) suggest that social networks can influence different aspects of entrepreneurship such as opportunity seeking, resource acquisition and establishment of a business. Katz and Green (2007:43) state that successful entrepreneurship begins with recognising that others have the expertise needed and

then establishing relationships that give an entrepreneur the benefits of that expertise. Social networks help to build entrepreneur's expertise by convincing others to share their skills and knowledge with the entrepreneur's business. Bowey and Easton (2007:274) posit that entrepreneurs' network is a learning habitat through which they gain understanding about opportunities and resources. Networks offer entrepreneurs a means of accessing resources and a predictable environment for social and economic exchange activities. Similarly, Schaper and Volery (2007:70) suggest that through network relationships and contacts, individuals can identify opportunities and obtain knowledge and resources required to exploit opportunities. Networks are also a source of new ideas to the aspirant entrepreneur (Timmons and Spinelli, 2007:138). Baron and Markman (2000 in Green, 2007:2) assert that the ability of individuals to access information that facilitates the discovery of opportunities is dependent on the quantity and quality of social networks. In a study of 270 rural entrepreneurs in Italy (detail in Chapter 4 section 4.8.6), Meccheri and Pelloni (2006:387) found that there was a strong negative relationship between social capital and the probability of adopting institutional assistance. Ramayah and Harun (2005:18) and Taormina and Lao (2007:203) observe that entrepreneurs who do not have a favourable attitude towards networks are likely to fail.

Social networks make it easier for their members to take advantage of opportunities in areas they do not have direct expertise without even having to put more effort in searching for these opportunities. They provide resources and information on entrepreneurial opportunities and can be used to fill information gaps (De Carolis *et al.*, 2007:1). Gordon (2007:565) investigated the relationships between trust, vigilance and the specific process of opportunity recognition within entrepreneurship based on a sample of 571 directors of Queensland-based information and communication technology companies in Australia. He found that dispositional trust and vigilance were significant predictors of the number of business ideas recognised and disposition to trust was significantly associated with the number of business opportunities recognised by an entrepreneur (Gordon, 2007:578). Gordon (2007:578) reports that disposition to vigilance was negatively associated with the number of opportunities pursued by an entrepreneur. In addition, it was found that the number of social contacts an entrepreneur has is positively associated with a change in entrepreneurial opportunity (Gordon, 2007:580). A change in entrepreneurial opportunity means the

extent to which entrepreneurs have adapted their opportunity as they receive more information from a large social network (Gordon, 2007:568).

Ozgen and Baron (2007:174) investigated the effects of social sources of opportunity related information on opportunity recognition based on a sample of 2170 Information Technology companies. The social sources of information included mentors, informal industry networks and participation in professional forums. They found that there were significant direct links between having a mentor, reliance on informal industry networks, and participation in professional forums and recognition of opportunities by entrepreneurs in the study. The findings indicated that reliance on informal industry networks was significantly related to opportunity recognition while reliance on family and close friends was not (Ozgen and Baron, 2007:185). Reliance on informal industry networks was significantly related to self-efficacy which in turn was significantly related to opportunity recognition (Ozgen and Baron, 2007:187). These findings support Shane and Venkataraman (2000 in Swinney and Runyan, 2008:1667) who postulated that the direct benefits of social capital relevant to entrepreneurs was information, which is critical in identifying entrepreneurial opportunities.

In a study that was conducted in Sweden using 7256 new enterprises, Wiklund *et al.* (2002:5) found that entrepreneurs who belonged to a business network were more likely to be involved in new business activities. According to Barringer and Ireland (2008:49), network entrepreneurs are more likely to identify significantly more opportunities than solo entrepreneurs. Network entrepreneurs do not need to be creative like solo entrepreneurs as they have access to a wider range of information and creativity through their network ties.

Fuller-Love and Thomas (2004:244) explored the main advantages of business networks for small and medium sized manufacturing businesses in Mid Wales, based on a sample of 50 companies. They found that the main advantages of networking among the sample were to establish personal contacts, obtaining and sharing information, getting better or more ideas for the business, problem solving, and improving effectiveness (Fuller-Love and Thomas, 2004:249). Fuller-Love and Thomas (2004:251) reported that other practical advantages of being a member of a network for these companies were economies of scale (an increase in the scale that the

business operated on or a reduction in the cost per unit), being able to compete at a different level and sharing skills, information and resources.

Anderson *et al.* (2007:245) investigated the social interactions of entrepreneurs from 10 technology firms in Aberdeen, in the United Kingdom. They found that entrepreneurs used social capital for connectivity, credibility, market opportunities and contacts (Anderson *et al.*, 2007:256). They reported that connectivity helped create new connections and perpetuated old friendships in new ways and involved friendships that could be transferred from one context to the entrepreneurial one (Anderson *et al.*, 2007:256-257). Entrepreneurs in the study wanted to build their own credibility and sought out credibility in others. They were able to identify market opportunities through their contacts (Anderson *et al.*, 2007:258-259). Through their contacts, respondents were able to identify market opportunities, avoided isolation and they obtained information about what was happening in the business environment and business advice (Anderson *et al.*, 2007:260).

5.7.3 Social capital as a means of reducing environmental uncertainty

In Chapter 4, section 4.3.7, it was highlighted that high levels of uncertainty and ambiguity surrounding the start-up phase can prevent entrepreneurial action but through learning effects and encouragement of others, entrepreneurs can overcome doubt and act. Wood and Pearson (2009:118) examined how different levels of uncertainty, knowledge relatedness and media richness impact on entrepreneurial action based on 82 participants. Mitchell (2006 in Wood and Pearson, 2009:120) defines knowledge relatedness as “the degree to which knowledge that is perceived as necessary to exploit an opportunity is similar to the knowledge already possessed by the potential entrepreneur”. Media richness has been described in terms of the ability of the medium to transmit multiple cues, speed of feedback, language diversity, and personal focus of the media (Dennis and Kinney, 1998 in Wood and Pearson, 2009:120-121). They found that participants were more willing to invest in an opportunity when knowledge relatedness was high than when it was low; participants were more willing to invest in an opportunity when information was rich than when it was moderate or when it was lean; in the face of high levels of uncertainty, participants were more willing to invest in an opportunity when the source of information was rich

than when it was lean; and participants were more likely to invest in an opportunity when uncertainty was low and knowledge relatedness was high. They concluded that a high degree of knowledge relatedness and obtaining information from rich sources (personal contacts) assisted entrepreneurs in the study to cope with high levels of uncertainty.

As social capital is a resource that flows from networks of social relationships, it is appropriate to distinguish between the types of networks and the benefits and resources that each network type holds for entrepreneurs and their businesses.

5.7.4 The types of networks and their benefits for entrepreneurs

Networks can be differentiated in terms of density and diversity of network contacts (Klyver and Schøtt, 2008:5). The density of network contacts refers to the extent to which the contacts know each other whereas the diversity of network contacts is the extent to which the contacts differ from each other on one or more attributes such as gender, age, education, experience, job or values. Burt (2000 in Klyver and Schøtt, 2008:5) posits that low density networks increase access to non-redundant information and resources which contribute to the recognition of opportunity and the intention to pursue these opportunities. Diverse social ties provides entrepreneurs with a variety of knowledge sources such as information about markets, sources of capital, employees and experts, customer needs and wants (Johansson, 2000 in Green, 2007:2). In their qualitative study involving 14 entrepreneurs, Anderson and Miller (2003:26-28) found that entrepreneurs' social capital played a vital role in starting a business and acquiring human capital. Dependence on dense social networks alone did not allow for variety of information flows and also limited access to business advice and physical resources (Anderson and Miller, 2003:29).

In addition, Sabatini (2009:439) distinguishes between three types of networks: 1) Strong family ties which may be termed bonding social capital, 2) Strong and weak ties that connect friends, acquaintances and neighbours referred to as bridging social capital, and 3) Weak ties that connect people belonging to different socio-economic backgrounds within the activity of voluntary organisations, called linking social capital. West and Bamford (2006:4) maintain that bridging social capital provides

entrepreneurs with new and more valuable information that can assist them in their efforts to start and grow their businesses. This view is shared by Julien, Andriambeloson and Ramangalahy (2004:254-255) who suggest that since strong tie networks are composed of the same type of people, they often provide redundant or repetitive information. As a result, they are not a channel for new ideas but they serve to confirm the opinions of their members and to consolidate business decisions. Owing to the fact that weak ties consist of people who are not used to working together, they facilitate the circulation of new ideas.

Hisrich *et al.* (2008:61) identified two types of networks that could be of benefit to entrepreneurs, namely, moral support network and professional support network. Friends and relatives who are entrepreneurs are regarded as a strong source of moral support for entrepreneurs. Entrepreneurs can rely on their friends for encouragement, understanding and assistance. Professional support network include mentors, business associates, trade associations or personal affiliations who provide advice and counselling during the establishment of a new venture (Hisrich *et al.*, 2008:62). Similarly, Madsen, Neergaard and Ulhøi (2008:74) distinguish between personal and professional networks. Personal networks entail strong relationships that are close to individual entrepreneurs. They include relatives, close friends and colleagues that may provide initial capital or human resources. Professional networks enable entrepreneurs to access resources that may be difficult to obtain through other channels and include bankers, accountants and other individuals. Using a sample of 155 individuals from 130 ventures from the Danish knowledge-intensive sectors, Madsen *et al.* (2008:81) found that social capital played an important role in establishing and developing a new venture in the knowledge-intensive sectors.

Entrepreneurs can through their strong extended family access inter-generational capital flows that may compensate for a lack of bank finance (Casson and Giusta, 2007:221). Kiggundu (2002:248) postulates that most SMEs do not have sufficient capital and face enormous difficulties in accessing additional capital after having started with their ventures. As a result, they rely on their own or family savings. This view is supported by findings in a study that was conducted in Kenya by Kamau-Maina (2007:36) which indicates that 27 entrepreneurs who were interviewed were able to obtain capital from friends and relatives, from savings or by pooling resources with

business partners. A study by Indarti and Langenberg (2004:12) on the factors affecting business success that involved 100 small and medium enterprises in Indonesia found that entrepreneurs who took advantage of family investment enjoyed a higher level of success than those who used other sources of capital. In China Zhang and Yang (2006:168) found that in their sample of 1500 individuals involving Master of Business Administration (MBA) students and the general public the highest percent of new ventures was financed from entrepreneurs' social capital compared to other sources such as venture capital and financial institutions. However, Au and Kwan (2009:890) point out that despite the fact that there is consensus that family and friends play a vital role in providing entrepreneurial ventures with start-up capital, these sources do not necessary appeal equally to entrepreneurs. In their study that involved 202 would-be entrepreneurs and 130 ethnic entrepreneurs in China, they found that respondents tended to seek capital from parents if they expected a high level of transparency in doing business with family members and when they perceived a low level of parental interference (Au and Kwan, 2009:898). Their findings show that respondents who perceived more parental control on them and more parental interference in business were more likely to approach friends for initial capital.

In a study that was conducted by Hanlon and Saunders (2007:630) using 50 entrepreneurs in a Canadian province, it was found that family was the most frequent type of supporter, followed distantly by friends and then the government. The family and friends provided advice and served as a sounding board. Hanlon and Saunders (2007:631) found that entrepreneurs acquired significantly more resources from closer relationships than from distant relationships. Rose, Kumar and Yen (2006:6) postulate that strong ties or informal networks such as friends, relatives, previous employers and acquaintances provide support that benefits the business.

Robinson and Stubberud (2009:83) examined the sources of advice used by 287,837 entrepreneurs in the European Union. These entrepreneurs were asked to indicate if they had used each of the sources of advice listed in the survey (Robinson and Stubberud, 2009:87). These sources were categorised as informal sources (family and friends; professional acquaintances), formal sources (professional consultants; training course for entrepreneurs; organisations specialising in business start-ups; unemployment administrations; financial institutions), and no sources (no access to

relevant sources; no need for advice). They found that informal sources of advice were the most commonly used by both women and men. There were significant gender differences on the sources of advice used, with women most often using family and friends, and men using professional acquaintances, and to a lesser extent, family and friends (Robinson and Stubberud, 2009:96).

The next section explains how social skills/competencies enhance the ability of entrepreneurs to access the benefits and resources that are generated by their social networks.

5.8 THE ROLE OF SOCIAL SKILLS/COMPETENCIES IN ACCESSING THE BENEFITS AND RESOURCES FLOWING FROM SOCIAL NETWORKS

Baron and Markman (2000 in Jenssen and Kristiansen, 2004:7) suggest that the kind of social capital that can be linked to entrepreneurship is closely related to social skills. Bender and Hill (2007:6) assert that by encouraging entrepreneurs to develop skills that contribute to the establishment of their networks and build social capital is vital to the evolution of the entrepreneurial process. Patel *et al.* (2007:1) investigated the role of social capital and social skills in enhancing a firm's legitimacy and facilitating resource assembly based on 492 cases from the Panel Study of Entrepreneurial Dynamics. They found that social skills and social capital increased the influence of legitimacy-building and resource assembly. Witt (2004:401-402) and Anderson and Miller (2003:30-31) found that human capital and social competencies determined the extent to which entrepreneurs could derive benefits from their existing networks. According to West and Bamford (2006:4), feeling comfortable in and having a propensity for networking may contribute to the success of individuals in generating flows of unique information through their networking and other information gathering behaviour.

Baron and Markman (2003:42) investigated the role of an entrepreneur's social competence in achieving financial success using 159 owners of cosmetics distribution organisations and 71 top executives in high-technology entrepreneurial firms. Social competence was defined as the entrepreneur's overall effectiveness in interacting with others. Social competence was used as a summary term for the combined effects of

various social skills such as the ability to perceive others accurately, make a good first impression on them or to persuade them to change their views or behaviour (Baron and Markman, 2003:43-44). Baron and Markman (2003:46-47) identified the following social skills as useful to entrepreneurs:

- *Social perception* – accuracy in perceiving others.
- *Impression management* – a wide range of techniques for inducing positive reactions in others.
- *Persuasiveness* – the ability to change others' views or behaviour in face-to-face encounters.
- *Social adaptability* – the ability to adapt to or feel comfortable in a wide range of social situations.
- *Expressiveness* – the ability to express one's emotions and feelings clearly to generate enthusiasm in others.
- *Emotional intelligence* – a cluster of skills relating to the emotional side of life such as the ability to regulate one's own emotions, influence the emotions of others, motivate oneself, and develop satisfactory long-term relationships.

They found that social perception was significantly related to financial success for both samples while social adaptability was related to financial success of entrepreneurs in the cosmetics industry and expressiveness was significantly related to financial success of entrepreneurs in the high-technology industry (Baron and Markman, 2003:53).

Baron and Tang (2009:284) extended Baron and Markman's study by investigating the impact of entrepreneurs' social skills on the performance of 500 Chinese new ventures. They found that entrepreneurs' social perception, self-promotion (an aspect of impression management) and expressiveness were positively related to the financial performance of new ventures. Entrepreneurs' effectiveness in obtaining information and resources mediated the influence of social skills on new venture performance (Baron and Tang, 2009:295). It was found that effectiveness in acquiring information was significantly related to social perception and social adaptability; and social adaptability, expressiveness and ingratiation (an aspect of impression

management) were significantly related to effectiveness in acquiring essential resources (Baron and Tang, 2009:295).

Kirzner (1979 in Tang, 2008b:1417) postulated that due to individual differences in facts, knowledge or information, some individuals are better in identifying opportunities than others, referred to as entrepreneurial alertness. In line with the arguments relating to the contribution of human capital and social capital in identifying opportunities, Tang (2008b:1422-1423) proposed that: 1) Prior knowledge and work experience of entrepreneurs will be positively associated with entrepreneurial alertness; 2) Structural social capital and relational social capital of entrepreneurs will be positively associated with entrepreneurial alertness; and 3) Social perception, social adaptability, expressiveness, and impression management of entrepreneurs will be positively associated with entrepreneurial alertness. However, Tang did not actually test his propositions.

Based on a representative sample of 100 United States nascent entrepreneurs, Fiet and Patel (2008:467-487) investigated the relationship between the use of systematic search and success in founding new firms. They compared the effects of entrepreneurial alertness and systematic search on firm founding. Their investigation was based on the argument that the alertness view fails to incorporate a growing body of knowledge of the findings regarding how repeatedly successful entrepreneurs actually find discoveries. They found a positive direct relationship between systematic search and firm founding more so than alertness. Systematic search had a significant indirect effect on firm founding by intensifying the use of the diverse resources available through social capital. They suggested that by systematically searching, entrepreneurs in the study accessed information channels which provided them with more informed access to resource providers who were the key to founding a firm. Systematic search also reduced the negative effect of environmental uncertainty on firm founding by increasing an entrepreneur's ability to assess the environment and adapt to it.

The social skills of entrepreneurs play an important role in developing and accessing the benefits flowing from social relationships. The following section investigates the impact of social capital on entrepreneurial activity.

5.9 THE RELATIONSHIP BETWEEN SOCIAL CAPITAL AND ENTREPRENEURIAL ACTIVITY

This section examines the role of social capital in the different phases of business life-cycle, from the start-up phase through the survival phase up to the growth phase. Specifically, it looks at the contribution of the different types of social capital to entrepreneurial activity with a view to understanding whether the benefits they offer match the needs of each phase that a new venture passes through in its life-cycle.

5.9.1 The development and use of social capital in the early phases of establishing a new venture

Greve and Salaff (2003:1) examined how entrepreneurs develop and maintain social contacts during the three early phases of establishing a business in four countries. The three phases included 1) Motivation, 2) Planning, and 3) Establishment/Taking-over-a-firm (Greve and Salaff, 2003:5). The sample consisted of 52 Italians, 62 Norwegians, 261 Swedish respondents and 213 United States respondents (Greve and Salaff, 2003:8-9). They found that entrepreneurs in different cultural environments accessed their social relations in similar ways to discuss the aspects of establishing a business. In the motivation phase entrepreneurs in the study limited their discussions to their closest relations due to the need to share ideas in a protected environment. The discussion network increased in the planning phase in order to procure the necessary knowledge and resources to set up a business. In the establishment/taking-over-a-firm phase entrepreneurs reduced the size of their social networks to important, helpful members and they spent less time networking (Greve and Salaff, 2003:16).

5.9.2 The relationship between social capital, new venture start-up and survival

Attitudes towards social capital seem to be important for the survival of a new venture. Witt (2004:392- 401) reviewed existing literature on the relationship between networking activities, structure of entrepreneurial networks, the services provided by network partners and start-up success. He found that the decision to start a new business was significantly and positively correlated with the accessibility of network

resources. The findings indicated that the size and the density of the active network were significantly and positively correlated with the start-up success (Witt, 2004:400). The size of the network was the number of different people with whom entrepreneurs had talked about their business plans or business ideas. The support that entrepreneurs received from their personal networks had a significant impact on increasing the chances of survival and growing sales (Witt, 2004:401).

5.9.2.1 The relationship between social capital, new venture start-up and survival in Europe

Klyver, Hindle and Meyer (2008:331) investigated differences in social networks and entrepreneurship participation using representative samples of entrepreneurs from 20 European countries that had participated in the GEM from 2000-2004. They found that having entrepreneurs in one's social network significantly increased the probability or odds of being an entrepreneur (Klyver *et al.*, 2008:339). The findings indicated that entrepreneurial networking played different roles at various stages of the entrepreneurial process (Klyver *et al.*, 2008:340). Entrepreneurial networking had a greater impact in the start-up stage and the lowest impact during the discovery stage and the young business stage. There were differences among European countries regarding the effect of knowing someone who started a business within the last two years of entrepreneurship participation (Klyver *et al.*, 2008:341).

5.9.2.2 The relationship between social capital, new venture start-up and survival in New Zealand

In New Zealand, Cruickshank and Rolland (2006:69) assessed how networking relates to the development of social capital in entrepreneurial enterprises based on the 2003 GEM data. They found that personal networks were essential in establishing a business and building social capital, which enabled businesses to continue and grow, through expansion of knowledge, skills, access to finance, and the use of mentors. Entrepreneurs were able to raise start-up funds and obtain labour from extended family members and friends. Parents were regarded as instrumental in providing encouragement and practical support during the start-up stage (Cruickshank and Rolland, 2006:73).

5.9.2.3 The relationship between social capital, new venture start-up and survival in Germany

Welter and Kautonen (2005:367) investigated the role of social networks and trust in enterprise development in East and West Germany based on a sample of 197 enterprises. They found that around a third of the surveyed entrepreneurs relied on social networks and personal trust for help in dealing with problems at the start-up phase, with most of entrepreneurs turning to regular business partners or family, followed by consultants and employees (Welter and Kautonen, 2005:373). Business associations and chambers of commerce as well as regular business partners were the most important sources for entrepreneurs for help and support in solving the business problems (Welter and Kautonen, 2005:375).

5.9.2.4 The relationship between social capital, new venture start-up and survival in Seville province, Spain

Rodríguez and Santos (2009:45) examined gender differences and the role of cognitive and structural endowments of social capital in the process of firm creation using a sample of 48 entrepreneurs in Seville province. They asked both groups of entrepreneurs about the support provided to them for the decision to create a new firm by people in their close environment. Their findings indicated that men felt more supported by their families, friends and colleagues whereas women reported that they received less support from their families, and their family members and friends rejected the decision for the start-up (Rodríguez and Santos, 2009:58). They found that men and women differed significantly with regard to the sources of support and financing used during the process of firm creation. Women mainly preferred the support of family and friends and men established contacts with financing institutions and government agencies. Female entrepreneurs relied on personal savings, support from the family and friends and subsidies for the start-up while men used bank loans (Rodríguez and Santos, 2009:59-60).

5.9.2.5 *The relationship between social capital, new venture start-up and survival in the United States*

De Carolis *et al.* (2009:527) developed and tested the model of the interplay of social capital and cognition and their relationship to the progress of new venture creation using a sample of 269 entrepreneurs in the United States. According to Soanes and Stevenson (2008:278), cognition refers to “the mental action or process of acquiring knowledge through thought, experiences, and the senses”. De Carolis *et al.* (2009:528) focused on how cognitive biases such as illusion of control and risk propensity are related to the progress of new venture creation. Baron and Markman (2003 in De Carolis *et al.*, 2009:530) define cognitive biases as “the way in which entrepreneurs think, reason, and reach decisions”. De Carolis *et al.* (2009:536) found that social networks were positively related to relational capital, illusion of control and progress of new venture creation; relational capital was positively related to illusion of control, risk propensity and progress of new venture creation; and illusion of control was positively related to risk propensity and progress of new venture creation. In another study, De Carolis *et al.* (2007:1) found that an individual’s cognition mediates the connection between social capital and new venture creation. Social capital has been found to enhance overconfidence and to lower risk perception which make individuals feel capable of creating a new venture.

West and Bamford (2006:1) investigated the relative importance of knowledge resources, the role of prior industry and start-up experience and the impact of social networks in the creation of knowledge resource positions based on a sample of 200 start-up firms in a midsouth city in the United States of America. They asserted that since entrepreneurs possess no resources at the beginning but only their ideas about a possible opportunity that could lead to the founding of a new venture, knowledge resources are the foundation for the success of new ventures (West and Bamford, 2006:3). They found that knowledge resource positions are better developed than other types of resources in early stage new ventures and Chief Executive Officers’ (CEOs) experience relatedness and networking intensity were significantly related to start-up knowledge resources (West and Bamford, 2006:5-6). Experience relatedness was measured in terms of how the previous experience of the CEOs is related with the new venture (West and Bamford, 2006:5).

5.9.2.6 The relationship between social capital, new venture start-up and survival in the United Kingdom

In the United Kingdom, Lee and Jones (2008:559) examined the characteristics of nascent entrepreneurs' cognitive social capital created via face-to-face and electronic communication. They defined cognitive social capital as "language-based resources that provide shared representations, interpretations, and systems of meaning between parties" (Lee and Jones, 2008:562). The study involved six nascent entrepreneurs who were trained through distinct courses namely: Science Enterprise Challenge (SEC) and the New Entrepreneur Scholarship (NES). The SEC group was well educated while the NES group had little formal education. They found that the effective use of cognitive social capital made it possible for nascent entrepreneurs in the study to build trust, mutual expectations and obligations. They concluded that cognitive social capital forms the basis for relational capital (Lee and Jones, 2008:584). The SEC entrepreneurs established effective and trusting relationships via electronic communications which allowed them to bridge across industry contacts and gain access to more extensive resources than their NES counterparts.

5.9.2.7 The relationship between social capital, new venture start-up and survival in Sweden

Davidsson and Honig (2003:304) investigated the influence of human and social capital in the emergent phases of the entrepreneurial process using a sample of 49,979 individuals in Sweden. The human capital was measured using years of education, years of experience as a manager, years of work experience and previous start-up experience. Social capital was measured in terms of parents in business, friends or family, and close friends and neighbours who ran businesses as well as encouragement by family, relatives and close friends to start a business (Davidsson and Honig, 2003:314). They found that human capital had a positive effect on the probability of nascent entrepreneurship (Davidsson and Honig, 2003:317). With regard to social capital, the findings indicated that bonding social capital (having parents, close friends or neighbours in business and being encouraged by friends and family) increased the odds of being a nascent entrepreneur. Social capital was positively

associated with successful exploitation of entrepreneurial opportunities. Membership in a business network was positively associated with successful exploitation of entrepreneurial opportunities in terms of achieving a first sale and profitability (Davidsson and Honig, 2003:320). Kuehn (2008:93) suggested that the interaction between students and entrepreneurs was essential to influencing the desirability and feasibility perceptions of students (detailed in Chapter 3, section 3.6.3.3).

5.9.3 The role of family members in the stages of the entrepreneurial process

Klyver (2007:258) investigated the involvement of family members during the early phases of the entrepreneurial process based on the 2003 Danish GEM population survey. The phases of the entrepreneurial process that were part of this study included: 1) Discovery phase, firm emergence phase, baby-business phase and operating phase (Klyver, 2007:262). The findings of the study indicated that family members followed by friends from elsewhere and colleagues were the most frequent role-relationships (Klyver, 2007:266). Family members featured most frequently in the firm emergence phase (Klyver, 2007:267). It was found that “the frequency of family involvement increased from the discovery phase towards the firm emergence phase and then decreased through the baby-business phase to the operating phase” (Klyver, 2007:268). According to Klyver (2007:269), the discovery phase which deals with the discovery of new opportunities calls for weaker bridging ties whereas the firm emergence phase that is concerned with making the final decision to go into business calls for stronger ties. He suggested that once the business was established, the entrepreneur had to establish more business contacts in addition to family members in order to ensure the survival of the business (Klyver, 2007:270).

5.9.4 The relationship between social capital and new venture performance

According to Bowey and Easton (2007:276), trust is a dominant component of social capital and reliable networks. Klyver and Schøtt (2008:3) assert that the likelihood of the entrepreneur to obtain sensitive information and emotional support depends on trust between actors. Wu, Wang, Chen and Pan (2008:530-531) examined the influence of trust relationships and firm resources on the competitiveness of high-tech firms during the growth stage using a random sample of 1000 Taiwanese firms. They

found that the willingness of support firms to cooperate increased significantly with trust in high-tech entrepreneurs; the competitiveness of firms during the growth stage increased significantly with firm resources; and the competitiveness of firms during the growth stage increased significantly with support firms' willingness to cooperate (Wu *et al.*, 2008:541).

Wu (2008:123) investigated the role of information sharing in mediating the relationships between the dimensions of social capital and firm competitiveness based on a sample of 108 Hong Kong-based firms. The dimensions of social capital included repeated transactions, network ties and trust (Wu, 2008:128). Wu (2008:136) found that these dimensions of social capital were positively and significantly related to information sharing and information sharing had a positive and significant effect on competitiveness improvement.

In Australia, Watson (2007:854) explored the relationship between networking activities of owners and SME performance of 5014 firms. He found that there was a significant relationship between networking and firm survival and growth (Watson, 2007:864). Firm survival and growth was strongly associated with the owner's involvement in formal rather than informal networks (Watson, 2007:865). Informal networks included family and friends, local businesses and others in the industry while formal networks consisted of banks, business consultants, external accountants, industry associations, Small Business Development Corporation, solicitors and tax office (Watson, 2007:862). Watson (2007:870) concluded that his findings confirmed the importance of social capital in providing SME owners with information critical to the success of their ventures.

Kickul *et al.* (2007:170) examined how 421 women entrepreneurs in New Hampshire, United States of America sought and utilised informal and formal social capital for additional knowledge, expertise and information to develop and grow their businesses. Formal social capital was measured in terms of reliance on accountants, lawyers, bankers, state/federal agencies, and women's business organisations for assistance with the business. Informal social capital included reliance on family, friends, and other entrepreneurs for advice (Kickul *et al.*, 2007:175). They found that both high- and low-growth resources businesses relied on informal social capital but businesses with

higher levels of growth resources used more formal social capital and membership in women's business organisation to network (Kickul *et al.*, 2007:176). Growth resources refer to the amount of start-up funding needed to grow the business, the amount of additional funding required in the next years to grow and the level of sales revenues (Kickul *et al.*, 2007:175).

Zhang and Fung (2006:198) investigated the effects of social capital on the performance of 3600 Chinese private enterprises. They found that membership in various organisations was insignificant in explaining the performance of respondents. The findings indicated that investment in social capital in terms of entertainment cost and donation played a significant role in the performance of Chinese private enterprises in the study (Zhang and Fung, 2006:202).

While there is evidence that social capital positively influences new venture start-up, survival and growth/performance, the next section examines how social capital affects perceptions of desirability and feasibility of entrepreneurship which in turn predict entrepreneurial intent.

5.10 THE INFLUENCE OF SOCIAL CAPITAL ON ENTREPRENEURIAL INTENT

Rodríguez and Santos (2009:49) suggest that the behaviour of nascent entrepreneurs and their entrepreneurial intentions are the result of their socio-cultural environmental characteristics. The socio-cultural environmental characteristics of nascent entrepreneurs affect their motivation, expectations and attitudes directly through the socialisation process in which they have been since they were born. Research findings from different countries that demonstrate the influence of social capital on entrepreneurial intent are discussed in the following sections.

5.10.1 Entrepreneurial role models as a source of social capital and their effect on entrepreneurial intent

Bridge *et al.* (2009:124) postulate that social capital can also include enterprising role models which can serve as examples to follow. Driga *et al.* (2005:5) define role models as "persons that by their attitudes, behaviours and actions establish the desirability

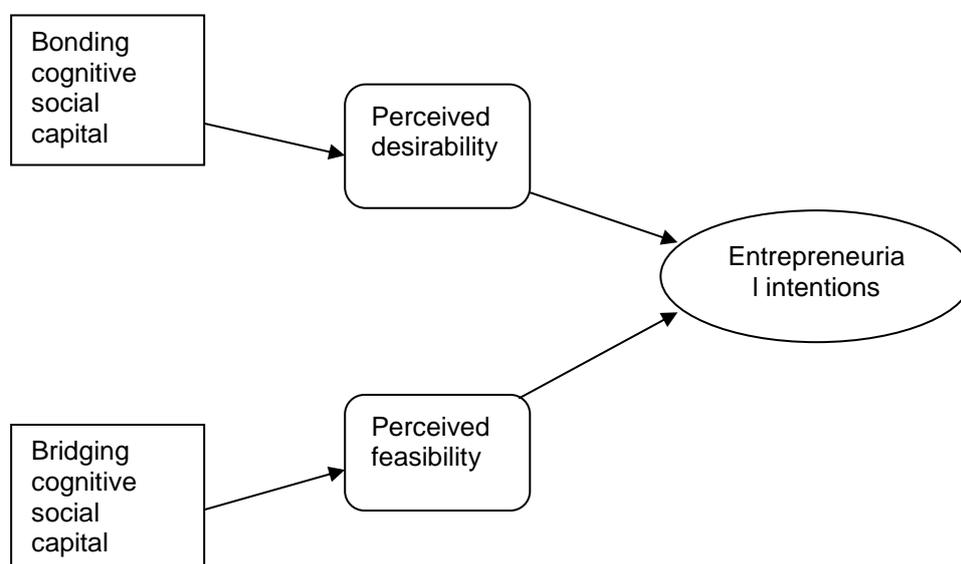
and credibility of a choice for an individual". Milward (2005 in Nabi *et al.*, 2006:377) postulates that career decisions are based on social learning and that people choose careers on the basis of positive and consistent reinforcement from observing significant occupational role models and being exposed to images related to a specific career. This view is supported by Boyd and Vozikis (1994 in Laviolette and Radu, 2008:3) who argue that exposure to successful role models could be a valuable tool to entrepreneurial learning and career development. Hisrich *et al.* (2008:61) are of the view that the choice of role models plays an important role in influencing entrepreneurs in their career path. Role models do not only increase the propensity towards entrepreneurship but they serve as mentors during and after the launch of a new venture and they provide a strong support and advisory system in every phase of the new venture. Role models provide information, advice, and guidance on matters such as the organisational structure, obtaining financial resources, marketing and market segments. These role models can include parents, brothers or sisters, other relatives, or other entrepreneurs.

5.10.2 The influence of social capital on entrepreneurial intent in Seville, Spain

Liñán and Santos (2007:447) argue that the kind of social capital to be incorporated into entrepreneurial intention models should be cognitive rather than structural as intentions precede the performance of any specific behaviour. Cognitive social capital can emerge both from the close contact with relatives or friends (bonding cognitive social capital) and from sporadic contacts with other people or organisations in which the individual does not actively participate (bridging cognitive social capital). They assert that bonding social capital based on strong ties from family or other relationships and bridging social capital based on weak ties may contribute to the formation of different values, beliefs or trust favourable to the desirability or feasibility to create a new firm. They analysed the influence of social capital on the formation of entrepreneurial intention using a sample of 354 students in Seville. Liñán and Santos (2007:450) found that both bridging and bonding cognitive social capital had a significant influence on entrepreneurial intention indirectly and explained 57 percent of variance in entrepreneurial intention. Bonding cognitive social capital affected entrepreneurial intention indirectly through perceived desirability (Liñán and Santos, 2007:450-451). Its effect is through knowing family entrepreneurs, knowing non-family

entrepreneurs, positive valuation of entrepreneurship as a career in the closer environment and approval of the decision to start a business. Bonding cognitive social capital (knowing non-family entrepreneurs and approval of entrepreneurial career in closer environment) also had a significant impact on perceived feasibility (Liñan and Santos, 2007:450). Bridging cognitive social capital through contacts with entrepreneurial networks and start-up support bodies had a significant influence on perceived feasibility (Liñan and Santos, 2007:452). These findings are illustrated in Figure 5.3.

Figure 5.3: The influence of bonding cognitive social capital and bridging cognitive social capital on entrepreneurial intent



Source: Liñan and Santos (2007:448)

5.10.3 The influence of social capital on entrepreneurial intent in Spain and Puerto Rico

Adler and Kwon (2002:33) contend that norms and beliefs function as sources of social capital because the norms and beliefs in an individual's environment influence the value of given stock of social capital. In a study that was conducted in Spanish regions, Catalonia and Andalusia (detail in Chapter 2, section 2.4.1), Liñan *et al.* (2007:8) found that closer valuation of entrepreneurship had a significant positive effect on personal attraction and subjective norms. Subjective norms had a positive impact on personal attraction and perceived behavioural control independently of the

region. However, subjective norms did not have a significant effect on entrepreneurial intention in both Catalonia and Andalusia (Liñán *et al.*, 2007:7). The motivational factors determining entrepreneurial intention (attitude towards the behaviour/personal attraction, perceived behavioural control and subjective norms) were influenced by perceptions regarding the general-society and closer-environment values. Perceived behavioural control was influenced by social valuation of entrepreneurship (Liñán *et al.*, 2007:8). In both Catalonia and Andalusia personal attitude towards entrepreneurship was strongly influenced by closer valuation of entrepreneurship. This is consistent with the findings by Liñán (2008:272) using a sample of 249 university students in Spain. The sample in Catalonia experienced a more favourable social valuation of entrepreneurship than the sample in Andalusia which exerted a stronger influence on subjective norms.

In a study that compared 837 university students from Catalonia and 435 students from Puerto Rico, Veciana *et al.* (2005:179) found that there was a positive relationship between having entrepreneurs among relatives and the intention to create a new firm in the Catalonia sample.

5.10.4 The influence of social capital on entrepreneurial intent in the United States, Mexico, Spain and China

Sequeira *et al.* (2007:275) examined how social network ties and self-efficacy affected entrepreneurial intentions based on a sample of 308 undergraduate students in the United States. They assessed the level of emotional support respondents received from strong ties (parent, spouse, sibling, other relative and close friend) and the extent to which strong and weak ties (co-worker, acquaintance, banker and community organisation) were potentially helpful by contributing business knowledge, skills or experience (Sequeira *et al.*, 2007:283-284). They found that entrepreneurial self-efficacy and supportive strong ties had a positive and statistically significant effect on entrepreneurial intentions and on nascent behaviour (Sequeira *et al.*, 2007:286). Business weak ties had a positive and statistically significant effect on nascent behaviour while business strong ties had a negative and statistically significant effect on nascent behaviour (Sequeira *et al.*, 2007:286-287). Business-helpful strong ties

and business-helpful weak ties had no effect on entrepreneurial intentions (Sequeira *et al.*, 2007:288).

Based on a sample of 213 United States and 87 Mexican students Van Auken *et al.* (2005:2) examined the influence of business owner role models on entrepreneurial intentions. They found that role models (mostly relatives and parents) had a significantly greater influence on career thinking of the United States students than the Mexican students (Van Auken *et al.*, 2005:6). According to Van Auken *et al.* (2005:7) “having a role model that owned a business significantly increased United States and Mexican students’ ranking of interest in wanting to start a business after graduation”. They observed that specific activities of business owner role models and the active inclusion of observers in activities influence entrepreneurial intentions significantly. Fry and Van Auken (2005:1) examined the relative influence of role models who owned businesses and those who did not own businesses on entrepreneurial intentions of 213 students. They found that role models who owned businesses exerted significantly more influence on respondents than did role models who did not own businesses. “Role models who owned businesses had greater influence on the career thinking of respondents than role models who did not own a business regardless of the students’ intended career” (Fry and Van Auken, 2005:6-7). Respondents whose role models owned businesses had significantly higher entrepreneurial intentions than respondents whose role models did not own businesses (Fry and Van Auken, 2005:8).

An analysis of the drivers of entrepreneurial intentions of 1000 university students in the United States, Spain and China revealed that a respondent’s country; the presence of entrepreneurs in the immediate family; and expectation of family support were significantly related to entrepreneurial intentions and entrepreneurial disposition was positively and significantly related to respondents’ entrepreneurial intentions (Pruett *et al.*, 2007:6; Pruet, Shinnar, Toney, Llopis and Fox, 2009:585). Students who expected that their family members would react negatively were less likely to intend to pursue entrepreneurship (Pruett *et al.*, 2007:6; Pruet *et al.*, 2009:590).

In an investigation of the influence of informal institutional factors involving 3508 men and 3492 women in Spain, Driga *et al.* (2005:10-11) found that the personal acquaintance of an entrepreneurial role model exerted a positive impact on the

decision to create a business. They report that the effect of entrepreneurial role models on the decision to start-up a new business was greater for men than for women. These gender differences according to the authors might be attributed to the lack of a tradition of positive female entrepreneurial role models in Spain.

In China, Zhang and Yang (2006:169) found that knowledge of entrepreneurs had a significant relationship with entrepreneurship with regard to opportunity recognition, entrepreneurial intention production and entrepreneurial behaviour of their sample of 1500 involving MBA students and the general public who participated in the study. In another study that involved 337 Chinese respondents who were divided into three groups (detail in Chapter 2 section 2.5.3.4), Taormina and Lao (2007:209) found that the motivation to start a business was positively and significantly correlated with social networking.

5.10.5 The relationship between social capital and entrepreneurial intent in Norway, Denmark and Finland

In an investigation of the antecedents to business start-up based on Nordic (Norwegian, Danish and Finnish) GEM data, Alsos *et al.* (2007:7) found that individuals who knew other entrepreneurs were more likely to be infant entrepreneurs (engage in new business start-up).

Klyver and Schøtt (2008:1) investigated how social networks shaped entrepreneurial intentions based on a random sample of 2001 adults in Denmark. They found that low density networks promoted the intention to become an entrepreneur (no direction given) whereas business contacts among the members of a person's social circle and contacts to entrepreneurs have a positive effect on the intention to become an entrepreneur (Klyver and Schøtt, 2008:12). The density of the network refers to the extent to which contacts know each other (Klyver and Schøtt, 2008:5). Klyver and Schøtt (2008:13) reported that a social network structure had an indirect influence on entrepreneurial intention through increased likelihood of discovering opportunities and through increased self-efficacy as well as perceived feasibility of starting a business.

Based on a sample of 4536 individuals in Belgium or Finland, De Clercq and Arenius (2004:1) examined the effects of human capital and social capital on the likelihood to engage in new venture creation. They found that exposure to existing entrepreneurs and specific human capital (the perception of having the necessary skills to start a new business) enhanced the likelihood to engage in entrepreneurial activity (De Clercq and Arenius, 2004:6). It is suggested that this exposure increases the individuals' awareness of their own capabilities and their confidence to pursue entrepreneurship. These authors asserted that entrepreneurs who were known to potential entrepreneurs might be a source of advice, information and resources in preparing to get started with a new venture.

In a study that involved 4000 academically educated employees and 1000 entrepreneurs in Finland, Paasio and Pukkinen (2005:5) found that entrepreneurial role models were a pull factor towards entrepreneurship. Entrepreneurial parents and close friends had a significant impact on the respondents' interest in becoming entrepreneurs. Another Finnish study that involved 1165 respondents, Hytti *et al.* (2005:9) found that entrepreneurial role models in the family (parents, sisters and brothers) increased the likelihood for setting up the firm. They found that parents as entrepreneurs increased the intent and feasibility of the entrepreneurial career but not the desirability. The findings indicated that having the spouse as an entrepreneur influenced perceived personal desirability, feasibility and intent to set up the firm (Hytti *et al.*, 2005:9-10).

In contrast to the findings presented above, the study that involved 271 nascent entrepreneurs and a case study of six recently established technology-based firms in Finland, Grundstén (2004:115) found no significant effect of role models and the perceived availability of networks on entrepreneurial intentions (detail in Chapter 2, section 2.3.5.1).

5.10.6 The influence of social capital on entrepreneurial intent in Kenya

In Kenya, Oruoch (2006:24) (detail in Chapter 2, section 2.4.1) found that perceived social support networks had a positive effect on perceived feasibility and perceived desirability and perceived social norms had a positive effect on perceived feasibility

and perceived desirability of new venture creation. In another Kenyan study, Kamau-Maina (2007:36-37) found that nine entrepreneurs out of 27 who participated in her study were able to identify local role models or mentors from relatives, neighbours and friends who inspired and guided them along the way. Prior exposure to entrepreneurship through businesses run by members of important referent groups influenced entrepreneurial self-efficacy which directly impacted on entrepreneurial intention and actual business set up (Kamau-Maina, 2007:42-43).

5.10.7 The influence of social capital on entrepreneurial intent in Malaysia

Based on a sample of 1281 students at Universiti Sains Malaysia, Ramayah and Harun (2005:11-12) assessed the impact of instrumental readiness which was measured in terms of access to capital, availability of information and networking on the intention to start a business (detail in Chapter 4 section 4.5.1). They found that instrumental readiness was positively related to entrepreneurial intention (Ramayah and Harun, 2005:18).

5.10.8 The relationship between social capital and entrepreneurial intent in Indonesia and Norway

Kristiansen and Indarti (2004:71) conducted a similar study that used a sample of 130 Indonesian and 121 Norwegian students. They found that instrumental readiness was a positive significant predictor of entrepreneurial intention. In addition, instrumental readiness was significantly correlated with self-efficacy among the Indonesian sample (Kristiansen and indarti, 2004:69).

5.10.9 Social capital and entrepreneurial intent in Yorkshire

In a study that was conducted in Yorkshire, Wilkinson (2004:6) found that of the 697 respondents who had the intention to be self-employed, one third had parents who ran their own businesses. He reported that there was strong parental influence on the intention to become self-employed. Wilkinson (2004:9) also found that those who definitely wanted to be self-employed valued family support in setting up their own businesses significantly than those who did not want to be self-employed.

5.10.10 Social capital and entrepreneurial intent in New Zealand

Using a sample of 50 entrepreneurs (25 men and 25 women) in New Zealand, Kirkwood (2007:39) investigated the influence of parents on their children's subsequent decision to start a new venture. Kirkwood (2007:46) found that 26 participants whose parents owned businesses were motivated by their parents to start a new venture. In conclusion, Kirkwood (2007:52) stated that an entrepreneur's upbringing appeared to be the seedbed for the decision to start a new venture as parents were a source of inspiration for many participants in their decisions to start new ventures.

5.10.11 The impact of social capital on renascent entrepreneurship in the Netherlands

Stam, Audretsch and Meijaard (2007:1) examined the role of human and social capital in inducing renascent entrepreneurship in the Netherlands using 240 ex-entrepreneurs. They found that human capital (general human capital and prior entrepreneurial experience) and social capital (having entrepreneurial role models) were positively related to renascent entrepreneurship (Stam *et al.*, 2007:5).

5.10.12 The role of social capital in the pre-start up stage of the new venture

Social capital can make individuals move from no or little awareness of start-up as an option to active engagement in and commitment to starting a new venture. Based on a qualitative study that involved interviews with seven entrepreneurs, Atherton (2003:7-8) and Atherton (2007:408) found that there were three groups of individuals that become involved in the pre-start phase:

- (1) Those who have not previously thought about or considered starting a business and are stimulated to do so by an event or influence such as a friend or colleague starting a business. These individuals moved from no awareness or interest in start-up to some awareness.
- (2) Those who have thought about the start-up option in broad or general terms, but have not examined it as a genuine or strong possibility or have not assessed the

potential in detail. They shifted from some awareness and interest to actively testing their actual interest and motivation to start a business.

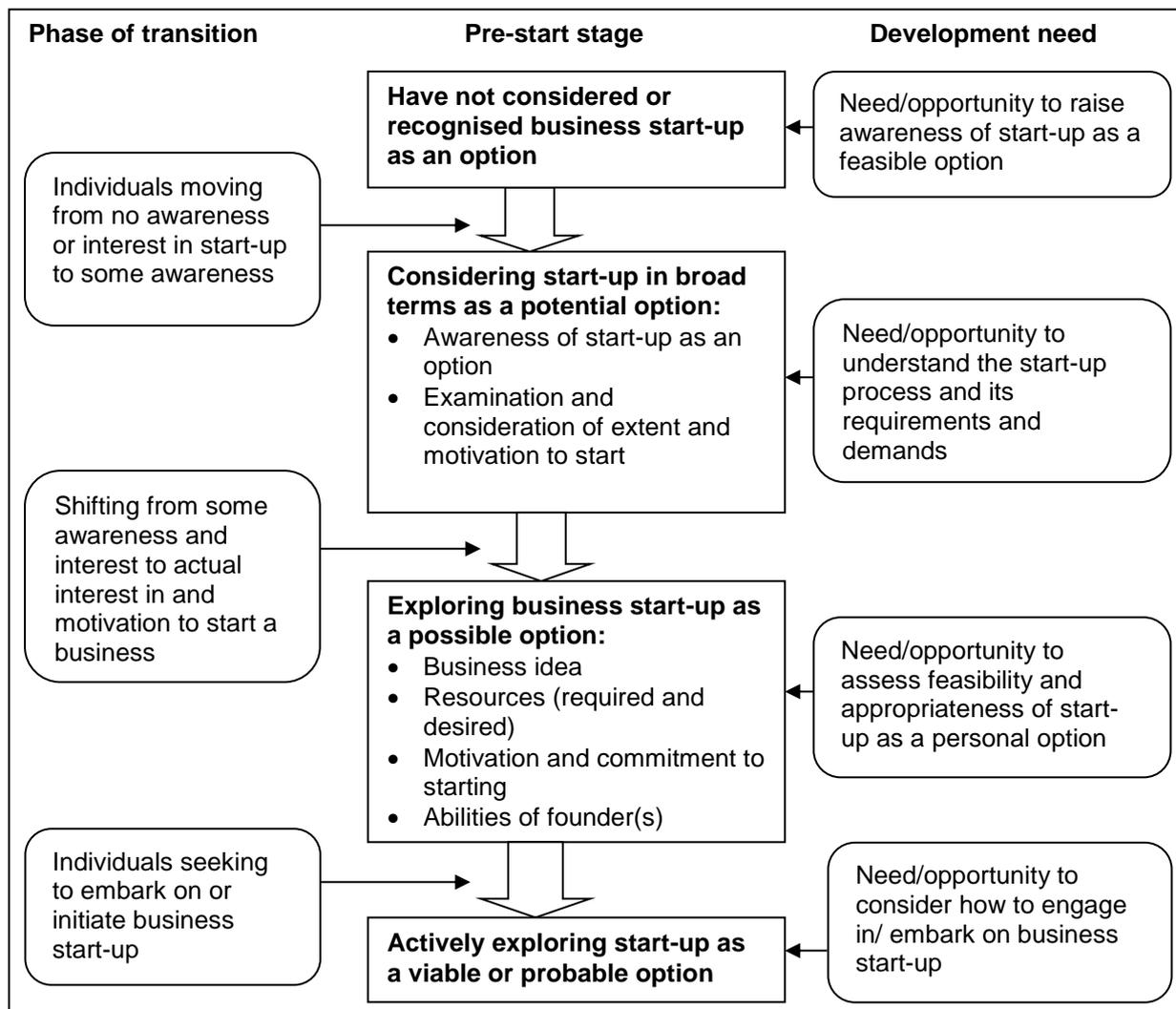
- (3) Individuals who had a strong desire or commitment to start a business and who wanted to explore how to undertake the start-up process and what is required. They have moved from exploration to active commitment to starting a business.

Atherton (2003:8) and Atherton (2007:408) identified four specific states that individuals move through towards engagement in business start-up:

- (1) Having not considered or recognised start-up as a personal option
- (2) Considering start-up as a potential option
- (3) Exploring start-up as a personal option
- (4) Actively exploring start-up as a viable and realistic option

Individuals who have not considered or recognised start-up a personal option are those who had had little exposure to entrepreneurs and owner-managers and were seeking out or had found stable employment. These individuals had little motivation, no examples or stimuli to push them to consider business start-up as an option. According to Atherton (2007:408-409), due to interaction with a family member, friend or acquaintance who started a business; job loss; dissatisfaction with a job; or identification of an idea or business opportunity individuals make transition from no awareness or interest to some awareness or interest in business start-up. The awareness state was followed by consideration of the business start-up option as a possibility. Once individuals see the business start-up option as a possibility that is appropriate for them, they make transition into exploration of business start-up as a personal option. In this state they assess the desirability and feasibility of and the requirements for starting their own businesses. Atherton (2007:411) found that during transitions from no awareness to awareness, then from interest to exploration and engagement, the personal commitment to business start-up grew. Entrepreneurs in the study became actively engaged in the process of starting a business as a result of the positive appearance of the potential for starting up. Figure 5.4 illustrates the process flow model of the pre-start stage of entrepreneurial development.

Figure 5.4: The process flow model of the pre-start stage of entrepreneurial development



Source: Atherton (2003:9 & 11) and Atherton (2007:409)

It seems from Figure 5.4 that social capital can play a vital role in assisting people who have no awareness or interest in the start-up option to develop awareness, interest and commitment to actively engage in new venture creation. Drawing from the findings presented in this chapter, social capital through entrepreneurial role models can lead to the development of entrepreneurial intent by affecting perceived desirability and feasibility of entrepreneurship. Once entrepreneurial intent is formed both strong and weak ties can assist the potential entrepreneur in assessing the feasibility of the start-up process by sharing and refining business ideas and providing information on market opportunities and resources to exploit those opportunities. The social capital of potential entrepreneurs can enable them to share the knowledge with others on how to

exploit opportunities, thereby resulting in the confidence and commitment to engage in new venture start-up.

5.10.13 The negative effect of role models on entrepreneurial intent

While role models can impact positively on entrepreneurial intent, they may also have a negative influence. Frazier and Niehm (2006:6) report that having a family member who owns a business can affect entrepreneurial intentions negatively because of the exposure to the negative side of being self-employed, such as long hours and stress. Sequeira *et al.* (2007:288-289) suggest that entrepreneurial strong ties may portray a full picture of the difficulties associated with launching and managing a new venture thereby preventing the formation of entrepreneurial intentions.

5.10.14 A global study of the impact of human capital and social capital on export intentions

Evald, Klyver and Christensen (2008:1) used a sample of 7190 respondents from 45 countries to investigate the influence of human capital, social capital and perceptual values on nascent entrepreneurs' export intentions. These nascent entrepreneurs are individuals who prior to the establishment of their businesses considered whether they should engage in exporting from the very start of their business ventures. They found that human capital measured in terms of education and export experience of the owner manager was significantly correlated with the intended level of export. Social capital measured in terms of knowledge of someone who started a business was significantly correlated with the level of export intention from the inception of the business (Evald *et al.*, 2008:8).

5.11 CONCLUSION

In this chapter the role of social capital in the development of entrepreneurial activity and entrepreneurial intent has been examined. This investigation is based on the view that entrepreneurial activity is a social phenomenon that is embedded in networks of interpersonal relationships. From the discussion it seems that this view has contributed to the increased importance of social capital as a core concept in the field of

entrepreneurship in recent years. Proponents of social capital based their arguments on the sociological view of human action that considers entrepreneurs as actors who are shaped by social factors.

Social network analysis has been hailed as an appropriate framework for learning how social capital influences entrepreneurial activity and entrepreneurial intent. This is because social capital is part of the network of social relationships that an individual has with other individuals and involves shared social values, norms and beliefs, trust, goodwill, benefits and resources that flow from these relationships. It appears that the personal networks of social relations of entrepreneurs assist them in acquiring resources required for new venture creation and success. The structural, relational and cognitive dimensions of social capital seem to be the foundation for new venture capabilities which result in its competitive advantage. Social capital is regarded as an important source in creating inimitable value-generating resources that are inherent in a network of relationships.

From the research findings it follows that social capital benefits entrepreneurs throughout the different phases of the entrepreneurial process in terms of providing them with information to establish the validity of their business ideas, providing advice and moral support; preventing isolation; developing a sound reputation; and connection to other entrepreneurs. Social capital lessens the impact of environmental uncertainty which prevents entrepreneurs from taking action to start new ventures. It enables entrepreneurs to recognise and act on opportunities, share skills and obtain resources required to exploit opportunities. However, it seems there are differences in the benefits that can be derived from strong and weak network ties. Strong network ties, referred to as bonding social capital are a source of moral support, encouragement, understanding and assistance with initial capital or human resources. They also provide an opportunity for entrepreneurs to share their ideas in a protected environment as well as assistance in consolidating business decisions. On the other hand weak ties, also called bridging social capital are valuable in providing entrepreneurs with a variety of knowledge sources such as information about markets, sources of capital, employees and experts, and customer needs and wants. They provide advice and counselling during the establishment of a new venture and enhance entrepreneurs' self-efficacy in recognising opportunities and developing the

intention to act on them. The social skills or competence of entrepreneurs appear to be critical in enabling entrepreneurs to derive benefits from their existing social networks thereby leading to financial success, effectiveness in acquiring resources and entrepreneurial alertness (ability to discover opportunities). Social capital has a positive effect on new venture creation, survival and growth/performance. While strong network ties/informal social capital play a vital role in the early phases of new venture start-up, it appears that the survival and growth of a new venture depends on weak network ties/formal social capital.

With regard to entrepreneurial intent, the existence of entrepreneurial role models which include knowledge of entrepreneurs, entrepreneurial parents, sisters and brothers, spouse and close friends and the expected supportiveness of family members have a significant influence on entrepreneurial intent, entrepreneurial self-efficacy and actual business set-up. Social capital in the form of bonding and bridging cognitive social capital has a significant influence on perceived desirability and feasibility which directly influence entrepreneurial intent. Having supportive strong ties is positively associated with entrepreneurial intent and nascent behaviour. Entrepreneurial intent is dependent on the social valuation and closer valuation of entrepreneurship and perceived social support networks. These factors impact on the antecedents of entrepreneurial intent (personal attitude/perceived desirability and perceived behavioural control/perceived feasibility) which in turn affect entrepreneurial intent. Social capital of an individual can make it possible to move from no awareness or interest in start-up as an option to awareness, interest and commitment to start a new business venture.

The next chapter will investigate the link between entrepreneurship and small, micro and medium enterprises.

CHAPTER 6: THE LINK BETWEEN ENTREPRENEURSHIP AND THE ESTABLISHMENT OF SMALL, MEDIUM AND MICRO ENTERPRISES (SMMEs)

6.1 INTRODUCTION

Entrepreneurship is regarded as an important mechanism for economic development through job creation, innovation and the welfare of a country (Herrington *et al.*, 2008:13). Its benefits have attracted the attention of many scholars from diverse backgrounds. As a field of study, scholars examining entrepreneurship draw from multiple disciplines, a broad range of theories, approaches and methods (Ireland and Webb, 2007:917; Raposo *et al.*, 2008:405-406). This chapter focuses on the link between entrepreneurship and SMMEs. The central issues are the role of opportunities in entrepreneurship, the determinants of opportunity recognition and exploitation, and how entrepreneurs' actions and competencies lead to the formation and growth of SMMEs. While the focus of this study is on entrepreneurial intent, the issues that are raised in this chapter seem to be relevant because once prospective entrepreneurs have decided to actively engage in entrepreneurship they must identify, evaluate and exploit opportunities in the market by starting, managing and growing their ventures. The discussion begins with the definition of entrepreneurship, followed by the role of opportunities in entrepreneurship, and then the entrepreneurial process and the relationship between entrepreneurship and small business are explained. The chapter concludes with perspectives on small business growth and the factors influencing small business growth.

6.2 DEFINING ENTREPRENEURSHIP

Entrepreneurship has become a difficult concept to define because it is a multi-faceted phenomenon that cuts across many disciplines (Schaper and Volery, 2007:4). Morris, Kuratko and Covin (2008:9) assert that diverse views exist concerning who is an entrepreneur, what an entrepreneurial venture looks like, and the nature of the activities that constitute entrepreneurial behaviour. Despite the diversity of definitions, Stokes and Wilson (2006:29) point out that there is a general consensus that entrepreneurship involves a transformational process of market change by a particular

breed of managers. Kuratko and Hodgetts (2007:33) offer an integrated definition that describes entrepreneurship as follows:

“Entrepreneurship is a dynamic process of vision, change and creation. It requires an application of energy and passion towards the creation and implementation of new ideas and creative solutions. Essential ingredients include the willingness to take calculated risks-in terms of time, equity or career; the ability to formulate an effective venture team; the creative skill to marshal needed resources; the fundamental skill of building a solid business plan; and, finally, the vision to recognise opportunity where others see chaos, contradiction, and confusion”.

In a study that performed a content analysis of 75 contemporary definitions of entrepreneurship, 18 key terms appeared more than five times (Morris *et al.*, 2008:10). Table 6.1 presents the seven perspectives on the nature of entrepreneurship and the key terms found in the definitions of entrepreneurship.

Table 6.1: Seven perspectives on the nature of entrepreneurship and key terms in the definition of entrepreneurship

Seven perspectives on the nature of entrepreneurship	
<ul style="list-style-type: none"> • Entrepreneurship involves assuming the risks associated with the facilitation of production in exchange for profit. • Entrepreneurship entails the founding of a new venture where none existed before. • Entrepreneurship is concerned with unique combinations of resources that make existing methods or products obsolete. • Entrepreneurship involves creating change by adjusting, adapting, and modifying one's personal repertoire, approaches, and skills to meet different opportunities available in the environment. • Entrepreneurship is concerned with employing, managing, and developing factors of production, including the labour force. • Entrepreneurship is a process of creating value for customers by exploiting untapped opportunities. • Entrepreneurship is defined as a strong and positive orientation towards growth in sales, income, assets and employment. 	
Key terms in 75 contemporary definitions of entrepreneurship	
1. Starting/founding/creating	10. Marshalling resources
2. New business/new venture	11. Initiative-taking/proactiveness
3. Strategy formulation	12. Create change
4. Pursuit of opportunity	13. Ownership
5. Value creation	14. Responsibility/source of authority
6. Pursuit of growth	15. Risk-taking/risk management/uncertainty
7. A process activity	16. Profit-seeking/personal benefit
8. Existing enterprise	17. New combinations of resources
9. Management	18. Innovation/new products/new market

Source: Adapted from Morris *et al.* (2008:9-10)

From Table 6.1 it can be deduced that entrepreneurship is a process of change that involves assuming risk to create, manage and grow a new venture by combining resources in a unique way in order to create value for customers in terms of new products and services and rewards for entrepreneurs in terms of profit. The role of opportunities in facilitating this process follows.

6.3 ENTREPRENEURSHIP AS A NEXUS OF OPPORTUNITY AND ENTERPRISING INDIVIDUALS

According to Eckhardt and Shane (2003:345), an opportunity-based perspective on entrepreneurship appears to be valuable in providing researchers with the general framework that explains many parts of the entrepreneurial process. Researchers can utilise this framework to move beyond studies that test theories from other fields in entrepreneurial settings to studies that test the central questions about the discovery, evaluation and exploitation of opportunities. Short, Ketchen, Shook and Ireland (2010:42) posit that entrepreneurship research based on the opportunity construct is theoretically rich and embraces a multitude of theories. As a result, it holds a great promise for theory building. Corbett (2005:473-474) report that Shane and Venkataraman's work had been warmly received and has led to a great deal of interest in examining the entrepreneurship process from a cognitive perspective. Crump *et al.* (2009:523) concur that following Shane and Venkataraman's publication there has been a substantial increase in research relating to opportunity recognition.

In order for entrepreneurship to occur there must be entrepreneurial opportunities (Shane and Venkataraman, 2000:220; Short *et al.*, 2010:40). Entrepreneurial opportunities are "situations in which new goods, raw materials, markets and organisational methods can be introduced through the formation of new means, ends or means-ends relationships" (Moreno, 2008:13). According to Shane and Venkataraman (2000:218), researchers in entrepreneurship examine how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated and exploited. Entrepreneurship is concerned with "the study of *sources* of opportunities; the *processes* of discovery, evaluation and exploitation of opportunities; and the set of *individuals* who discover, evaluate, and exploit them". This view has been adopted as a point of reference by recent researchers such as Davidsson and Honig (2003:303); Shook *et al.* (2003:380); Sarason, Dean and Dillard (2006:286) and Tang (2008b:1418).

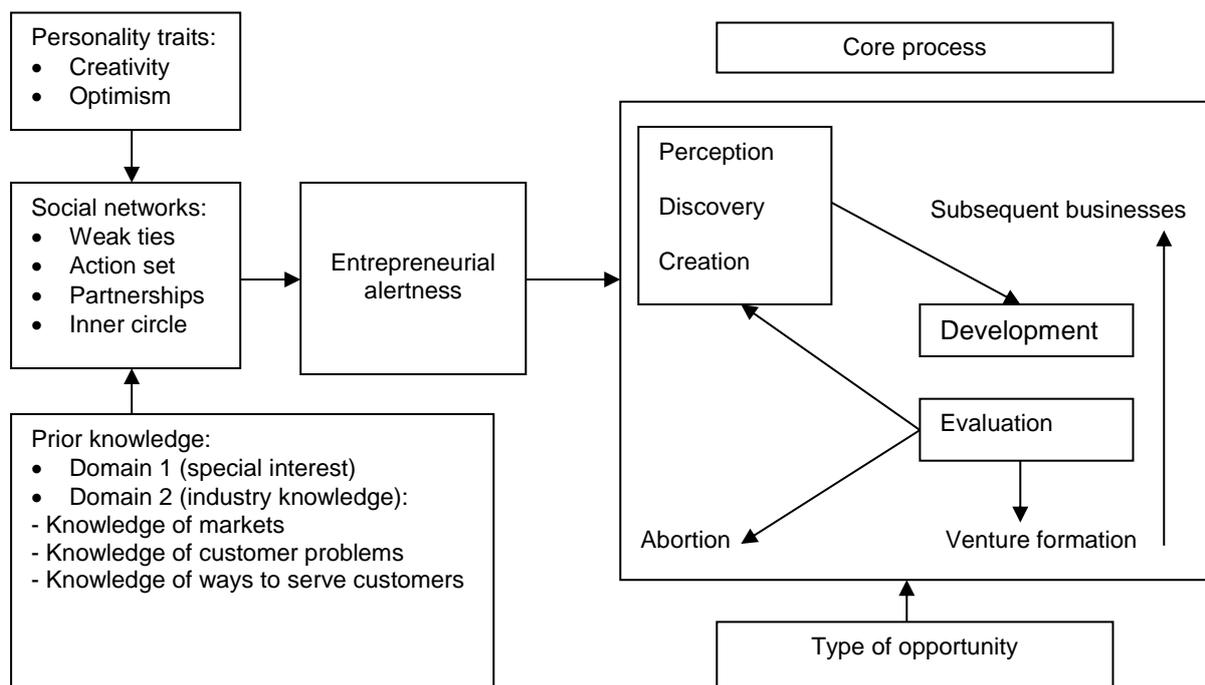
Baron (2004:226-227) contends that the decision to establish a new venture is dependent on entrepreneurs' beliefs that they have identified an economic opportunity no one else has yet recognised and that they can benefit from being the first to enter

the marketplace. Environmental trends and personal characteristics of an entrepreneur influence the opportunity recognition process (Barringer and Ireland, 2008:50). Entrepreneurs have to observe trends such as economic factors, social factors, technological advances, political and regulatory changes and study how they create opportunities for them to pursue (Barringer and Ireland, 2008:41). A study that involved a sample of 94 countries based on the GEM data from 2003 to 2005 found that higher entrepreneurial activity was associated with the perception of more opportunities in the environment (Salvato *et al.*, 2007:7). These findings are consistent with those of Edelman *et al.* (2005:6) and those of research on entrepreneurial intent that has found a significant relationship between entrepreneurial intent/self-employment intentions and the recognition of market opportunities (Kolvereid and Isaksen, 2006:880; Zhang and Yang, 2006:167) (detail in Chapter 4 section 4.5.2). The theories associated with how entrepreneurs discover and create opportunities as well as the factors leading to the start-up of a new venture are discussed next.

6.3.1 The opposing views on the discovery and the creation of opportunities

Wickham (2006:7) argues that while new opportunities exist all the time, they do not necessarily present themselves to entrepreneurs. Entrepreneurs must be active in searching for opportunities. Schaper and Volery (2007:5-6) and Ardichvili, Cardozo and Ray (2003:113) report that active search of opportunities versus discovery, entrepreneurial alertness, information asymmetry and prior knowledge, social networks and personality traits including risk-taking, optimism and self-efficacy and creativity were found in entrepreneurship literature as major factors that influence the way entrepreneurs recognise and exploit opportunities. Ardichvili *et al.* (2003:118) suggest that new ventures result from successful opportunity development process which includes recognition of an opportunity, its evaluation and development. Figure 6.1 illustrates the relationships between entrepreneurial alertness and the core process that leads to new venture formation.

Figure 6.1: The model and units for the opportunity identification and development theory



Source: Ardichvili *et al.* (2003:118)

Ardichvili *et al.* (2003:118) posit that a high level of entrepreneurial alertness is determined by the coincidence of certain personality traits such as creativity and optimism, relevant prior knowledge and experience, and social networks. Prior knowledge consists of two domains that include: Domain 1 (special interest) and Domain 2 (knowledge and experience in a specific product and customer market). Tang (2008b:1422-1423) hypothesised a positive association between entrepreneurs' prior knowledge, previous work experience and entrepreneurial alertness.

Schumpeter (1936) and Kirzner (1973) in Leach (2007:2-3) hold different views regarding the role of entrepreneurs in the economy. Schumpeter maintains that entrepreneurs create market disequilibria through innovation and then take advantage of it while Kirzner asserts that entrepreneurs constantly look for economic disequilibria to pursue. Alvarez and Barney (2005:2) and Alvarez and Barney (2007:2) posit that entrepreneurs through their actions may create opportunities (creation theory) while on the other hand opportunities may exist independent of entrepreneurs' actions (discovery theory). What differentiates entrepreneurs from non-entrepreneurs in the discovery theory according to Kirzner (1973 in Alvarez and Barney, 2007:6) is that

entrepreneurs are more alert to the existence of entrepreneurial opportunities than non-entrepreneurs. Contrary to the discovery theory that suggests that entrepreneurs re-combine old and new information in novel ways to discover and exploit opportunities (Alvarez and Barney, 2005:5; Alvarez and Barney, 2007:7), the creation theory maintains that entrepreneurs create new knowledge about previously non-existent opportunities through their actions, by watching the market's responses to their actions and by learning and reacting (Alvarez and Barney, 2005:8; Alvarez and Barney, 2007:12). The view that opportunities are not merely discovered but created by entrepreneurs coincides with the structuration theory (Sarason *et al.*, 2006:296).

Shane (2000 in Shook *et al.*, 2003:387) found that entrepreneurial opportunities could be discovered without searching for them and that not all individuals were equally likely to recognise a given opportunity. However, Baumol (1993 in Fiet, 2007:593) criticised the alertness perspective on the basis of fact that it does not offer practical guidance to aspiring entrepreneurs other than to advise them to stay alert. Fiet (2007:594) adds to this criticism by arguing that the alertness perspective lacks clarity on how aspiring entrepreneurs can be taught either to be more alert or to use cognitive rules to increase their capacity for alertness of finding a discovery. In his proposition for the systematic search for discoveries, Fiet (2007:596) postulates that entrepreneurial discovery occurs as a result of a fit between an entrepreneur's specific knowledge and particular venture idea. Fiet (2007:607-608) suggests that areas of competence that aspiring entrepreneurs can develop when they are taught systematic search are: learning how to formulate consideration sets and use them to search for ideas and learning to identify ideas during the search process that fit their prior knowledge and have the potential to create new wealth.

Contrary to the traditional view that entrepreneurs fill market gaps, entrepreneurship is regarded as a recursive process between the entrepreneur and the social system wherein entrepreneurs as much as they discover opportunities they also create them (Sarason *et al.*, 2006:289). Based on the structuration viewpoint, Sarason *et al.* (2006:292) argue that the process of entrepreneurship can be constructively viewed as a duality because entrepreneurs both create and are created by the process of entrepreneurship. In the structuration theory the entrepreneur is not separated from opportunities due to the fact that opportunities take the form as defined by the

entrepreneur, and through the process of defining and evaluating opportunities, the entrepreneurial process emerges (Sarason *et al.*, 2006:293). Sarason *et al.* (2006:300) propose a structuration theory perspective to entrepreneurship which views the social and economic system as dynamic and subject to change as a result of entrepreneurial action. These authors contend that entrepreneurial behaviour is about dynamically creating opportunities and new ventures through actions based on subjective interpretations rather than merely being alert to static opportunities. Entrepreneurial ventures emerge as a result of the combined influences of the social and economic structure and the individual entrepreneur (Sarason *et al.*, 2006:301). It is argued that entrepreneurial ventures are not designed *ex ante* by the entrepreneur to exploit objective opportunities but they co-evolve within the nexus of interaction between the entrepreneur and the social and economic system over time. In this theory the success of entrepreneurial ventures depends on both the co-alignment with the external environment and the extent to which entrepreneurs are able to manipulate/influence the socio-economic system to their advantage (Sarason *et al.*, 2006:302).

Smith, Matthews and Schenkel (2009:38) examined the role of tacit knowledge and codified knowledge in the identification of entrepreneurial opportunities based on the Panel Study of Entrepreneurial Dynamics. Based on Cowan, David and Foray's (2000) definition, Smith *et al.* (2009:43) describe codified knowledge as the degree to which knowledge can be made explicit or documented primarily through codes. Codified knowledge can be articulated or transmitted in formal or symbolic language whereas tacit knowledge is context specific and more challenging to articulate due to the absence of agreed upon language. From these descriptions Smith *et al.* (2009:44) distinguished between a codified opportunity and a tacit opportunity. They defined a codified opportunity as a "well-documented, articulated or communicated profit-seeking situation in which a person seeks to exploit market inefficiency in a less-than-saturated market". A tacit opportunity is a "profit-seeking situation that is difficult to codify, articulate or communicate in which a person seeks to exploit market inefficiency in a less-than-saturated market". Smith *et al.* (2009:45) argue that systematic search is more applicable when the opportunity is codified because the articulable nature of the opportunity facilitates the search process. They found that higher levels of systematic search were associated with the identification of relatively more codified rather than tacit opportunities (Smith *et al.*, 2009:47). Prior industry

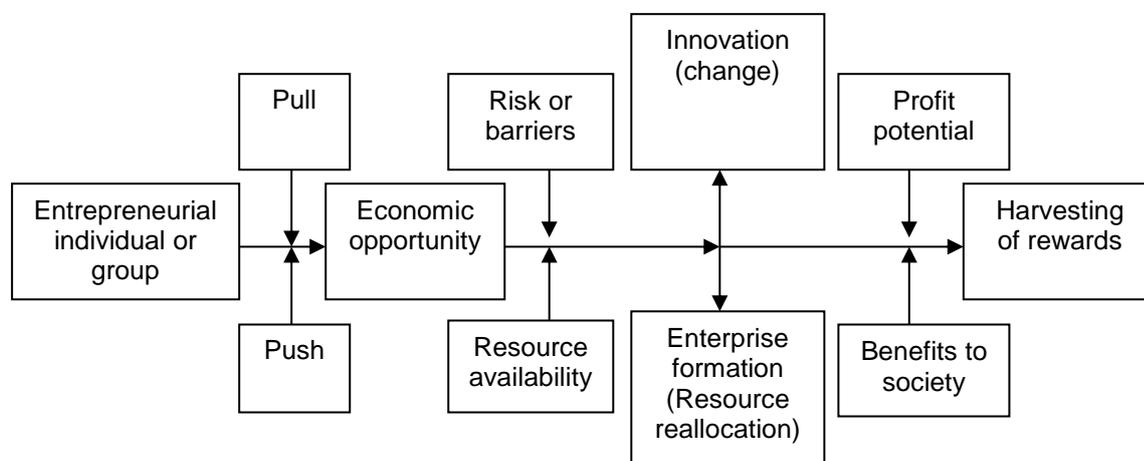
experience was found to be significantly related to the identification of relatively more tacit opportunities (Smith *et al.*, 2009:48).

Having discussed the link between opportunities and the entrepreneur, the following section highlights individual and environmental factors impacting on the start-up process.

6.3.2 The role of individuals and environmental factors on the start-up process

Solymossy (2005:503) notes an area of commonality in the literature regarding some critical elements for conceptualising the process of entrepreneurship which include: an entrepreneurial individual or group of individuals, an economic opportunity, an innovation to capitalise on the opportunity, formation of an enterprise to reallocate resources, and harvesting of rewards. This author proposed an expanded entrepreneurship model that is based on these elements as illustrated in Figure 6.2.

Figure 6.2: Expanded entrepreneurship model



Source: Solymossy (2005:505)

Figure 6.2 shows that entrepreneurship begins with the entrepreneur who forms the cornerstone of the entrepreneurial process. This is because the entrepreneur is regarded as the chief conductor in perceiving an opportunity, marshalling the resources to pursue this opportunity and building an organisation which combines the resources necessary to exploit the opportunity (Schaper and Volery, 2007:5). Venter *et al.* (2008:129) assert that since the beginning of the study of the field of

entrepreneurship there has been a link between opportunities and entrepreneurs. Ward (2005:9) states that an entrepreneur requires creative ability to identify an opportunity which has to be balanced against the available resources and facilities in the local environment.

Ward (2005:9) posits that an individual has to pass through the 'disposition to act' and the 'decision to act' gates before taking action. The 'disposition to act' is influenced by societal and personality factors. The 'decision to act' gate requires an individual to have access to resources in order to convert an opportunity into a practicable business proposition. When making the choice on whether or not to exploit an identified entrepreneurial opportunity, entrepreneurs assess the risk, the profit potential, the elements of excitement and competitiveness. A high level of risk, low profit potential, or a lack of excitement and competitiveness will make the entrepreneur to decline pursuing the opportunity and to begin the search for another opportunity (Pech and Cameron, 2006:73-74). Being motivated by the push and pull factors, (elaborated on in Chapter 2 section 2.5.2), the enterprising individual or group may decide to pursue the perceived economic opportunity and establish a new venture (Solymossy, 2005:506). Through their innovative abilities and risk-taking propensity entrepreneurs organise and reorganise economic activity which results in new products and services for the society. At the end the enterprising individual or group receives profit or different forms of reward (Solymossy, 2005:507).

Tang and Tang (2007:451) proposed and tested a model of the entrepreneurial process that examined the influence of individual and environmental factors on the start-up process using 1261 United States respondents (830 nascent entrepreneurs and 431 comparison group). Their study focused on the interaction between entrepreneurs' achievement motivation, risk-taking propensity and entrepreneurial munificence in determining new venture performance (Tang and Tang, 2007:452). They described a highly munificent environment as the one in which financial assistance and support services that facilitate the entrepreneurial process are highly available and low munificent environment as the one that lacks solid financial community or skilled resources (Tang and Tang, 2007:455). They found that entrepreneurs' achievement motivation to start a business has a significant influence on risk-taking propensity; and entrepreneurs' achievement motivation was positively

associated with the new venture performance (Tang and Tang, 2007:459). Risk-taking propensity had a negative and significant relationship with performance in a low munificent environment and minimally related to performance in a highly munificent environment (Tang and Tang, 2007:461). New venture performance was measured in terms of being able to: obtain start-up and working capital; attract customers; compete with other firms; comply with local, state and federal regulations; and keep up with technological advances (Tang and Tang, 2007:470).

Innovation and the creation of a new business have been found among the key terms associated with entrepreneurship. The next section explains how these factors fit into entrepreneurship.

6.3.3 The role of entrepreneurs' human capital in the identification and exploitation of entrepreneurial opportunities and new venture start-up

In Chapter 4, section 4.3.5, the human capital of entrepreneurs, measured in terms of general human capital (overall educational attainment) and specific human capital (perception about the capability to launch a new venture) was reported as pivotal in identifying and exploiting opportunities. DeTienne and Chandler (2007:365) examined gender differences in opportunity identification using a sample of 95 university students and 189 entrepreneurs in two high-technology industries. They found that there were significant differences between men and women on human capital. Men reported higher levels of industry experience and technical experience than women (DeTienne and Chandler, 2007:378). DeTienne and Chandler (2007:380) reported that men and women used these unique stocks of human capital to identify opportunities and utilised different opportunity identification processes.

A survey of 701 firms located in Madrid (Spain) has found that entrepreneurs' work experience, previous experience in activities related to the present business activity and the level of education determine the type of business opportunity identified and exploited by entrepreneurs (Moreno, 2008:32). Higher level of education and more experience were associated with the exploitation of more creative opportunities (Moreno, 2008:33).

6.3.4 Entrepreneurship as an innovative activity and the creation of a new business

Entrepreneurship is a process that integrates concepts such as innovation (the act of introducing something new) and newness (Hisrich *et al.*, 2008:7). As a process, it causes changes in the economic system through innovations of individuals who respond to opportunities in the market (Nieman, 2006:3; Nieman and Nieuwenhuizen, 2009:9). Wickham (2006:236-239) states that opportunities can be exploited through innovation which may include important areas such as:

- New products
- New services
- New production techniques
- New operating practices
- New ways of delivering the product or service to the consumer
- New means of informing the customer about the product
- New ways of managing relationships within the organisation
- New ways of managing relationships between organisations
- Multiple innovation

According to the 2008 South African GEM report (Herrington *et al.*, 2008:10), people engage in any behaviour related to new business creation, no matter how modest they are regarded as having an impact on the national level of entrepreneurship. As a result, also based on the GEM definition, Bridge *et al.* (2009:36) report that entrepreneurship has been used to refer mainly to the process of starting or running a business. Nieman (2006:3) and Nieman and Nieuwenhuizen (2009:9) explain entrepreneurship in terms of the emergence and growth of new business. Gaillard (2005:31) argue that the human factor plays a vital role in blending specific competences and high level intentionality with opportunities of value creation which result in the creation of a new organisation. This author views entrepreneurship as a process that involves the interaction of individuals (or teams) and resources, in an environment of opportunities (and threats), in a specific organisational context, that results in value creation in terms of a new organisation and/or entrepreneurial performance within firms and economies.

Entrepreneurial behaviour occurs in both small and large businesses (Thurik and Wennekers, 2004:140). Timmons and Spinelli (2007:79) assert that entrepreneurship can occur in both old and new firms, small and large, fast and slow growing, in the private, not-for-profit, and public sectors, in all geographic areas, and in all stages of a nation's development, regardless of politics. In exploiting opportunities entrepreneurs may follow different types of organisational arrangements including start-ups, corporate ventures, franchises, joint ventures and business acquisitions (Schaper and Volery, 2007:7). Additionally, Zhang and Yang (2006:162) suggest that entrepreneurship consists of new venture creation and entrepreneurial behaviour in established organisations.

The entrepreneurial process appears to be a valuable framework for understanding how entrepreneurial behaviour occurs in businesses. It consists of critical aspects that are relevant for both intending and existing entrepreneurs. The following section explains this process and the factors and theories relating to the discovery, creation and exploitation of opportunities.

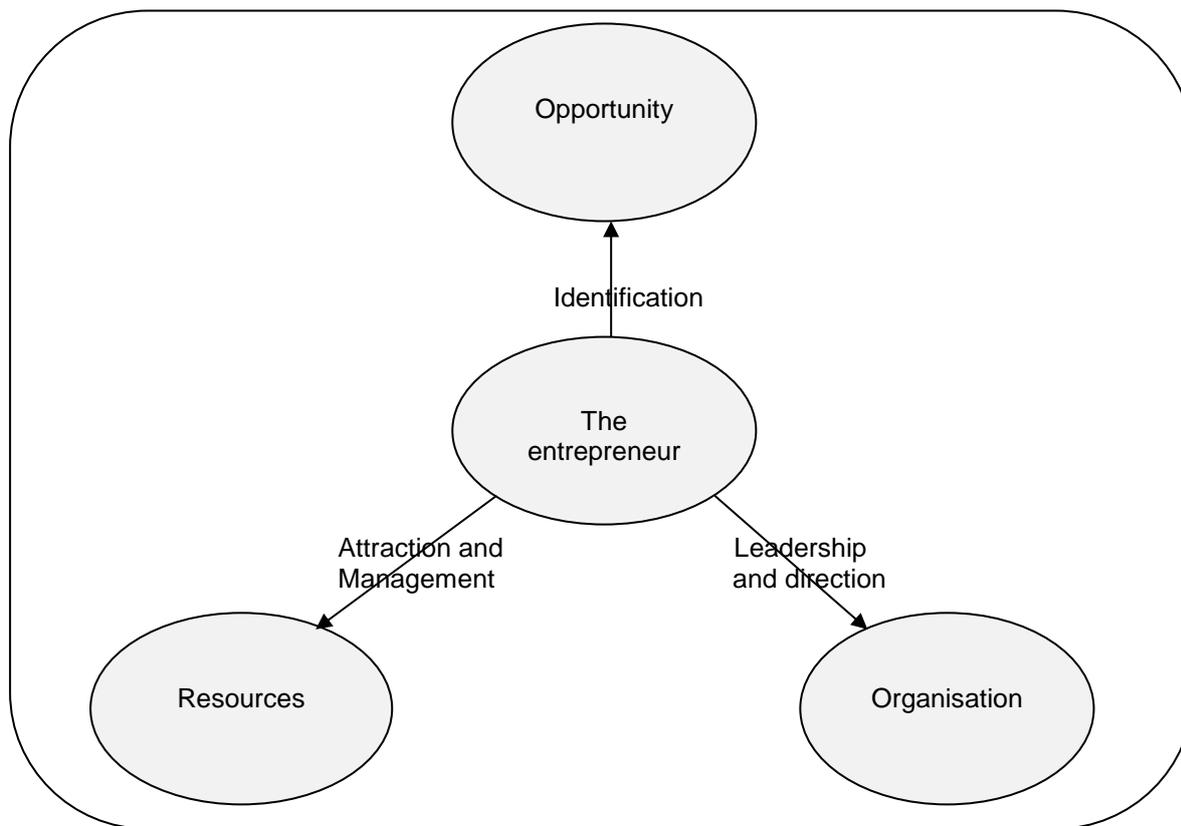
6.4 THE ENTREPRENEURIAL PROCESS

Activities that lead to starting a new venture are embodied in the entrepreneurial process. This process consists of four distinct phases (Hisrich *et al.*, 2008:9):

- Identify and evaluate an opportunity
- Develop the business plan
- Determine the resources required
- Start and manage the enterprise

According to Wickham (2006:223), the entrepreneurial process is based on four interacting contingencies, as illustrated in Figure 6.3. These contingencies include the entrepreneur, an opportunity, resources and a business organisation.

Figure 6.3: The entrepreneurial process: opportunity, resources and organisation



Source: Wickham (2006:224)

Wickham (2006:223-225) explains the interacting contingencies of the entrepreneurial process as follows:

- The entrepreneur* – the individual who lies at the heart of the process and who is the manager that drives the whole process forward (Wickham, 2006:223). The entrepreneur's role is to identify and evaluate a viable opportunity, build and lead the organisation, and attract and manage resources. The entrepreneur must have the ability and skills to pursue the identified opportunity. Kickul and D'Intino, (2005:39) postulate that initiating a new venture requires unique skills and abilities while Dionco-Adetayo (2004:4) is of the view that successful entrepreneurship is an outcome of an entrepreneur's ability and skills. Fayolle (2007:95) suggests that in order for an entrepreneurial act to occur there should be coherence and harmony (congruence or fit) between entrepreneurial actors' aspirations, the state of the environment – present and future – and their capacities, skills and internal resources.

- *Opportunity* – a gap left in a market by those who currently serve it (Wickham, 2006:223). Perception of a market opportunity was found to be significantly related to the number of venture creation activities pursued and is also related to start-up success (Edelman *et al.*, 2005:6). The opportunity identified by the entrepreneur must be attractive, durable, timely and anchored in a product, service, or business that creates or adds value for its buyer (Barringer and Ireland, 2008:39).
- *Organisation* – entrepreneurs coordinate the activities of other people to bring innovation to the market (Wickham, 2006:224). Their role is to exercise leadership in order to give direction to the organisation and to design the organisation in such a way that it fits the market gap that defines the opportunity (Wickham, 2006:226).
- *Resources* – Nieman and Nieuwenhuizen (2009:126-128) define resources as the things an entrepreneur needs to pursue a business opportunity and these include financial, human, physical and information resources. Resources are the money that is invested in the business; the people who contribute their efforts, knowledge and skills to it; the physical assets such as equipment and machinery, buildings and vehicles (Wickham, 2006:225); and the information used to make decisions.

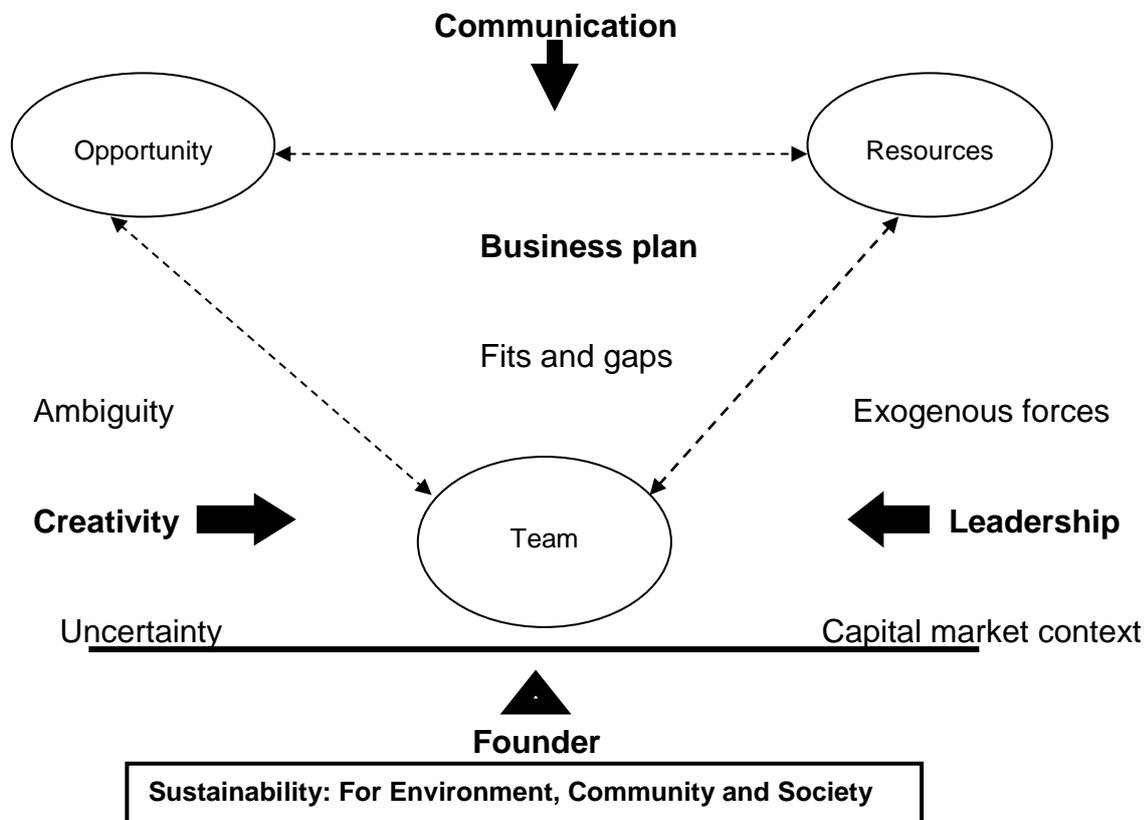
Barringer and Ireland (2008:21) view the entrepreneurial process as based on four steps that include:

- Deciding to become an entrepreneur
- Developing successful business ideas
- Moving from an idea to an entrepreneurial firm
- Managing and growing the entrepreneurial firm

Timmons and Spinelli (2007:88) suggest that the entrepreneurial process is a dynamic process that is dominated by the following forces: 1) Opportunity, 2) Resources and 3) Entrepreneurial team. The process begins with the identification of a high potential opportunity by the entrepreneurial team/lead entrepreneur who then marshals and

gains control of resources (Timmons and Spinelli, 2007:90). Figure 6.4 shows Timmons' model of the entrepreneurial process.

Figure 6.4: Timmons' model of the entrepreneur process



Source: Timmons and Spinelli (2007:89)

Timmons and Spinelli (2007:89) suggest that the shape, size and depth of the opportunity determine the shape, size and depth of both resources and the team. The entrepreneurial team/lead entrepreneur ensures that the process is sustainable by managing and redefining the risk-reward equation. The concept of sustainability has been added to the model to emphasise that the entrepreneur/entrepreneurial team create a positive impact without harming the environment, the community or society. The entrepreneurial team/lead entrepreneur ensures that there is fit and balance among resources and the opportunity (Timmons and Spinelli, 2007:91). Ardichvili *et al.* (2003:111) share this view by suggesting that there should be a match between the business concept, the market needs and resources.

From the preceding discussion it seems that the opportunity, the entrepreneur or entrepreneurial team and resources must exist in order for entrepreneurship to occur.

Based on the identified opportunity and available resources the entrepreneur then starts, manages and grows the business. Success in entrepreneurial efforts is dependent on matching the business concept, resources and market needs which represent an opportunity.

By exploiting opportunities in the market, SMMEs become an important source of job creation and a contributor to the national economic growth and development of both developed and developing countries as indicated in Chapter 1 section 1.2. The next section explains the relationship between entrepreneurship and small business.

6.5 THE RELATIONSHIP BETWEEN ENTREPRENEURSHIP AND SMALL BUSINESS

Researchers report a relationship between entrepreneurship and small business (Thurik and Wennekers, 2004:140; Bridge *et al.*, 2009:41; Hisrich and Dronvsek, 2002 in Klapper, 2004:129). Although there is an association between the two concepts, they are not synonymous as some small businesses are not entrepreneurial (Hisrich *et al.*, 2008:36). Van Aardt, Hewitt, Bendeman, Bezuidenhout, Janse van Rensburg, Naidoo, van Aardt, van der Bank and Visser (2011:4) contend that a small business that is aimed only at its owner's survival cannot be considered as an entrepreneurial venture. However, "Some entrepreneurial endeavours, for example, begin small but grow quickly into large businesses" (Longenecker *et al.*, 2006:6). Small businesses are regarded as a vehicle for both Schumpeterian entrepreneurs who introduce new products and processes that change the industry and for people who simply run and own a business for a living (Thurik and Wennekers, 2004:140). Thurik and Wennekers (2004:142) report that there has been a shift in focus from small businesses as a social good that should be maintained at an economic cost to small businesses as a vehicle for entrepreneurship. This shift has resulted in the renewed perception of the importance of entrepreneurship. The different categories of small business are explained in the following section.

6.5.1 Classification of small businesses

A universally agreed upon definition of small business does not exist (Schaper and Volery, 2007:83; Moore, Petty, Palich and Longenecker, 2010:5). Defining a small business depends on the criteria for determining what is small and what qualifies as a business. The widely used common criteria involve the number of employees, sales revenues, total value of assets, and the value of owners' equity (Hatten, 2006:4). In South Africa, the National Small Business Amendment Act 29 of (2004:2) defines a small business as "a separate and distinct business entity, together with its branches or subsidiaries, if any, including co-operative enterprises and non-governmental organisations, managed by one owner or more individuals which, includes its branches or subsidiaries, if any, and is predominantly carried on in any sector or subsector of the economy". Table 6.2 classifies small business according to size.

Table 6.2: Classification of small businesses

Class	Full-time employees less than	Annual turnover less than	Total gross asset value (property excluded)
Micro-enterprise	5	R150 000	R100 000
Very small	*10-20	*R0.4m-R4m	*R200 000-R1.5m
Small	*50	*R5m-R25m	*R1m-R4.5m
Medium	*100-200	*R4m-R50m	*R2m-R18m

*Minimum and maximum figures depend on the economic sector in which the business operates. Source: Nieuwenhuizen (2007:2).

6.5.2 The difference between a small business and an entrepreneurial venture

The terms "small businesses" and "entrepreneurial ventures" are often used interchangeably. However, they are defined differently (Bamford and Bruton, 2006:8). Entrepreneurial ventures and small businesses differ in that they serve different economic functions, "they pursue and create opportunities differently and they fulfil the ambitions of their founders and managers in different ways" (Wickham, 2006:39). An entrepreneurial venture is distinguished from a small business on the basis of the following three essential characteristics (Wickham, 2006:41-42):

- *Innovation* - successful entrepreneurial ventures are usually based on a significant innovation which may be in the form of new products, or a new way of producing it, offering a new service, the way it is marketed or distributed, the way the organisation is structured or managed or the way relationships are maintained between organisations. The small business is involved in delivering an established product or service and may include delivering it to people who may not be having access to it either at a low cost or with a higher level of service.
- *Potential for growth* - an entrepreneurial venture has more potential for growth than a small business. A small business operates within a given market whereas an entrepreneurial venture is in a position to create its own market.
- *Strategic objectives* - entrepreneurial ventures set themselves strategic objectives such as growth targets (year-on-year increases in sales, profits and other financial targets), market development (creating and stimulating growth and shaping the firm's market), market share (proportion of the market the business serves), and market position (maintaining the firm's position in its market relative to competitors).

In addition to the foregoing, small businesses and entrepreneurial ventures may differ on the basis of the orientations of their owners. Runyan, Droge and Swinney (2008:567) examined the relationship between entrepreneurial orientation (EO) and small business orientation (SBO) and firm performance using 267 small business owners from four Midwestern towns in the United States. They explained EO in terms of entrepreneurial tendencies towards innovativeness, proactiveness and risk-taking. SBO was measured using the emotional relationship or attachment of the owner to the business and the attitudes of the small business owner (Runyan *et al.*, 2008:569). They found that measures of innovativeness, proactiveness and risk-taking were significant and positive indicators of EO and that emotional attachment and goals are significant and positive indicators of SBO. EO and SBO are confirmed to be distinct constructs (Runyan *et al.*, 2008:577). Runyan *et al.* (2009:579) report that SBO is a significant and positive predictor of small business performance. Their findings also indicate that EO significantly and positively predicts firm performance in young firms whereas SBO significantly and positively predicts performance of old firms.

Given that the difference between a small business and an entrepreneurial venture lies in growth, the following section highlights the role of high-growth businesses in the economy and the factors that affect small business performance. The knowledge regarding the role of high-growth businesses and the factors that impact on new venture performance may be helpful in developing and supporting entrepreneurs who have growth expectations rather than those who will just start a business for their own survival. The relevance of this section lies in the fact that the factors associated with small business growth may contribute towards the development of effective entrepreneurship education and entrepreneurial support which are the focus of this study.

6.5.3 Perspectives on small business growth

Wolff and Pett (2006:269) emphasise that small and medium enterprises (SMEs) and entrepreneurial businesses are a key segment and key driver for most national economies. However, in terms of employment creation, not all small businesses create employment. Only a small percentage of high-growth small businesses accounts for a meaningful contribution to employment creation (Organisation for Economic Cooperation and Development (OECD), 2003:1; Dess, Lumpkin and Eisner, 2007:472). Similarly, Sadler-Smith, Hampson, Chaston and Badger (2003:49) concur that much employment growth is attributable to the minority of businesses that grow quickly. For example, a study of 40 rural small businesses in the Aganang Municipality in the Limpopo province revealed that growth businesses create more employment in rural communities than non-growth businesses (Malebana, 2004:66; Malebana, 2009:12). As a result, in recent years there has been a shift in emphasis in entrepreneurship to the growth of small businesses in particular. This shift is based on the premise that high growth small businesses account for a meaningful contribution to employment creation than their larger counterparts (OECD, 2003:1; Morrison *et al.*, 2003:417).

Growth in business means different things to different people, as there are various measures for growth. Some people view growth and performance as interchangeable concepts (Nieman and Pretorius, 2004:23-24). For example, it can be measured using perceived growth in market share, growth in cash flow and growth in sales (Wang and

Ang, 2004:353). A literature study on the main conceptualisations of growth conducted by Janssen (2009:41) reveals that employment and sales are the most frequently used measures of growth. He suggests that employment criterion is relevant from a societal point of view while sales criterion is relevant from the manager's point of view. Haber and Reichel (2005:275) found that profitability, revenues, sales growth, return on investment and number of employees are the frequently used measures of performance.

Herrington *et al.* (2008:27) suggest that the potential of small businesses to create jobs is a crucial factor in South Africa due to high levels of unemployment. These authors found that the vast majority of early-stage entrepreneurs lack job creation aspirations. They posit that entrepreneurs with realistic high-growth aspirations should be identified and supported in order to optimise their impact on economic growth and job creation. In South Africa, it was found that entrepreneurs who were motivated by opportunity contributed to more employment creation than those who were motivated by necessity (Von Broembsen *et al.*, 2005:25). Herrington *et al.* (2008:24) found that start-ups and necessity-driven firms make lower contributions, if any, to the economy and generated less income for their owners. Aidis and Mickiewicz (2005:7) suggest that growth is a key indicator of business performance and entrepreneurship and it is also an important factor in overall economic development.

Growth businesses contribute to poverty alleviation through job creation. Based on this view, it is argued that the most appropriate use of SMME resources should be to focus SMME support on job creation (Von Broembsen *et al.*, 2005:29-30). The growth of SMMEs is particularly even more important in rural provinces where employment prospects are low and poverty is rife. Hence it is only when these small businesses aim towards high growth that real employment creation becomes a reality (Van Aardt *et al.*, 2009:276). Morrison *et al.* (2003:417) highlight that small business support resources are limited and the only way to maximize results is to apply those finite resources to businesses that meet criteria such as the demonstration of growth and employment generation. As Shane (2009:5) puts it, economic growth and job creation cannot be achieved through a large number of start-ups, but by encouraging the founding of high quality and high growth businesses. Wolff and Pett (2006:269) argue that knowledge on how small businesses achieve growth, the factors contributing to

growth and the mechanisms of growth are desirable and have significant implications for entrepreneurs, their employees and the economies in which they operate. Therefore, highlighting the factors that influence small business growth/performance can assist in the efforts to develop entrepreneurs with high growth potential.

6.5.4 Factors affecting small business performance

In chapter 3, section 3.6.2 the role of entrepreneurial skills and competencies in contributing to effective entrepreneurial behaviour has been highlighted. The development of a high-growth venture also requires the management skills of the entrepreneur (Van Aardt *et al.*, 2009:284). Small business growth is reported as the result of clear positively motivated business intentions and actions on the part of the entrepreneur driven by the belief that the entrepreneur can produce desired outcomes (Morrison *et al.*, 2003:418). The factors affecting the growth of small businesses, according to Nieman (2006:191), include: the ability of management to plan and implement, the motivation of the entrepreneur, knowledge of and position in the market, competition and government support of small businesses. Table 6.3 indicates empirical studies on the factors that have been found to be associated with small business growth. This table is a summary of research findings but it is not discussed as the focus of this research is not on business growth factors.

Table 6.3: Factors influencing small business growth – a summary of research results

Author(s)	Focus of study	Sample	Findings
Wiklund (2002:1-5)	The effect of growth intention on small business growth.	808 Swedish small firms	Greater growth intention and greater access to financial capital are associated with higher business growth.
Wiklund and Shepherd (2003:1919-1937)	The relationship between small business managers' growth aspirations and actual growth achieved.	630 Swedish small business managers	Greater growth aspirations are significantly associated with higher business growth. Growth aspirations accompanied by higher levels of education and experience lead to higher growth. Access to financial capital has a direct effect on growth.
Wiklund <i>et al.</i> (2003:247-264)	The relationship between small business managers' beliefs concerning the expected consequences of growth and their overall attitude towards growth.	1740 Swedish small business managers	Small business managers' beliefs about the expected consequences of growth affect their attitudes towards growth.
Cassar (2005:1-4)	The relationship between career reasons of nascent entrepreneurs and their growth preferences.	Panel Study of Entrepreneurial Dynamics	Self-realisation, financial success and innovation are significantly related to the growth intention in terms of intended future sales.
Wang and Ang (2004:348-360)	The influence of external and internal resource-based capabilities on firm performance.	131 Singapore venture capital-backed firms	The environment, resource-based capabilities and involvement of venture capitalists have a significant effect on firm performance
Verhees and Meulenbergh (2004:134-149)	The combined effect of market orientation and product innovation on small firm performance.	152 rose growers in the Netherlands	Market orientation and innovativeness have a positive effect on small firm performance.

Table 6.3 continued

Author(s)	Focus of study	Sample	Findings
Aidis and Mickiewicz (2005:1-8)	Factors affecting enterprise growth.	399 SME owners in Lithuania	SMEs have more high growth expectations than micro firms and self-employed people; taxation and corruption are significant barriers to the growth aspirations; private business experience has a significant influence on the intention to grow the current business; and higher education is correlated with higher growth expectations.
Clover and Darroch (2005:238)	Factors constraining business survival and growth.	44 agribusiness SMMEs in KwaZulu-Natal	Lack of access to services; funding constraints at start-up; lack of management capacity in the enterprise; access to tender contracts; compliance costs associated with value-added tax and labour legislation; liquidity stress; lack of collateral; and lack of institutional support were identified as factors constraining business survival and growth.
Kara, Spillan and DeShields (2005:105-112)	The influence of market orientation on small-sized service retailer performance.	153 enterprises in the United States of America (Maryland, New York and Pennsylvania)	Intelligence generation, intelligence dissemination and responsiveness and market orientation are associated with the performance of small-sized service retailers.

Table 6.3 continued

Carlson, Upton and Seaman (2006:531-537)	The consequences of human resource practices on sales growth performance.	168 family-owned fast growth SMEs in the United States	High performing family firms place a significantly greater importance on training and development, performance appraisals, recruitment package, maintaining morale and setting compensation levels than low performing family firms and these practices had a positive impact on performance.
Segal, Borgia and Schoenfeld (2007:63-64)	The effect of the founders' level of education and industry managerial experience on small firm performance.	Small firms in the United States natural food industry	Higher level of education and greater founder experience are significantly correlated with firm performance.
Coleman (2007:1-5)	Factors contributing to the growth of women-owned firms.	1230 growth businesses and 820 non-growth businesses in the United States	Human capital in the form of prior business experience and financial capital in terms of access to debt capital are predictors of growth for both women and men-owned firms
Delmar and Wiklund (2008:449-452)	The effect of growth motivation on firm growth.	1893 Swedish respondents	Growth motivation has a significant influence on firm growth.
Malebana (2009:1-19)	Determinants of small business growth.	40 small business owners in the Aganang Municipality, Limpopo Province	Small business owners' motivation, human capital and management practices are significantly correlated with business growth. Competition, poor debt collection, burglary, lack of funds, embezzlement by staff and other factors are barriers influencing small business growth.

Source: Compiled by the author

6.6 CONCLUSION

The purpose of this chapter is to demonstrate the link between entrepreneurship and SMMEs. From the literature study it seems that entrepreneurship is a process that rests on opportunity identification, evaluation and exploitation by entrepreneurs. Upon identification and evaluation of an opportunity, the entrepreneur who may be driven by the pull or push factors, takes the risk of bringing innovation in the market by gathering and allocating resources to establish a new venture which results in profit for the entrepreneur and benefits for the society in terms of products and services, jobs and reduced poverty levels. Entrepreneurship encompasses the creation and growth of new businesses and can occur in both small and large businesses.

Entrepreneurship research shows that the entrepreneurial process is the result of an interaction of the opportunity, the entrepreneur or entrepreneurial team and resources that leads to the formation, management and growth of the business. Success in entrepreneurial efforts is dependent on matching the business concept, resources and market needs which represent an opportunity.

The identification of opportunities in the market occurs due to environmental and personal characteristics of entrepreneurs. Entrepreneurial opportunities are not only discovered but are created through entrepreneurs' actions. What seems evident from the theories that deal with the creation and discovery of opportunities is that entrepreneurs' prior experience and knowledge, alertness to opportunities and systematic search, social networks, information asymmetry, risk-taking, optimism, self-efficacy and creativity influence opportunity identification and exploitation.

Previous research shows that entrepreneurship is related to a small business and on the other hand small business and entrepreneurial ventures are used interchangeably. What seems to differentiate between these two types of businesses is that small businesses are not growth oriented while entrepreneurial ventures have the potential for growth and their founders are driven by growth targets. Entrepreneurial ventures create more jobs than ordinary small businesses. In order to stimulate more growth, more efforts are needed to improve the education levels and increase the growth

motivation of SMME entrepreneurs as well as to remove the barriers that impact on growth.

The next chapter deals with the research methodology followed in this research.

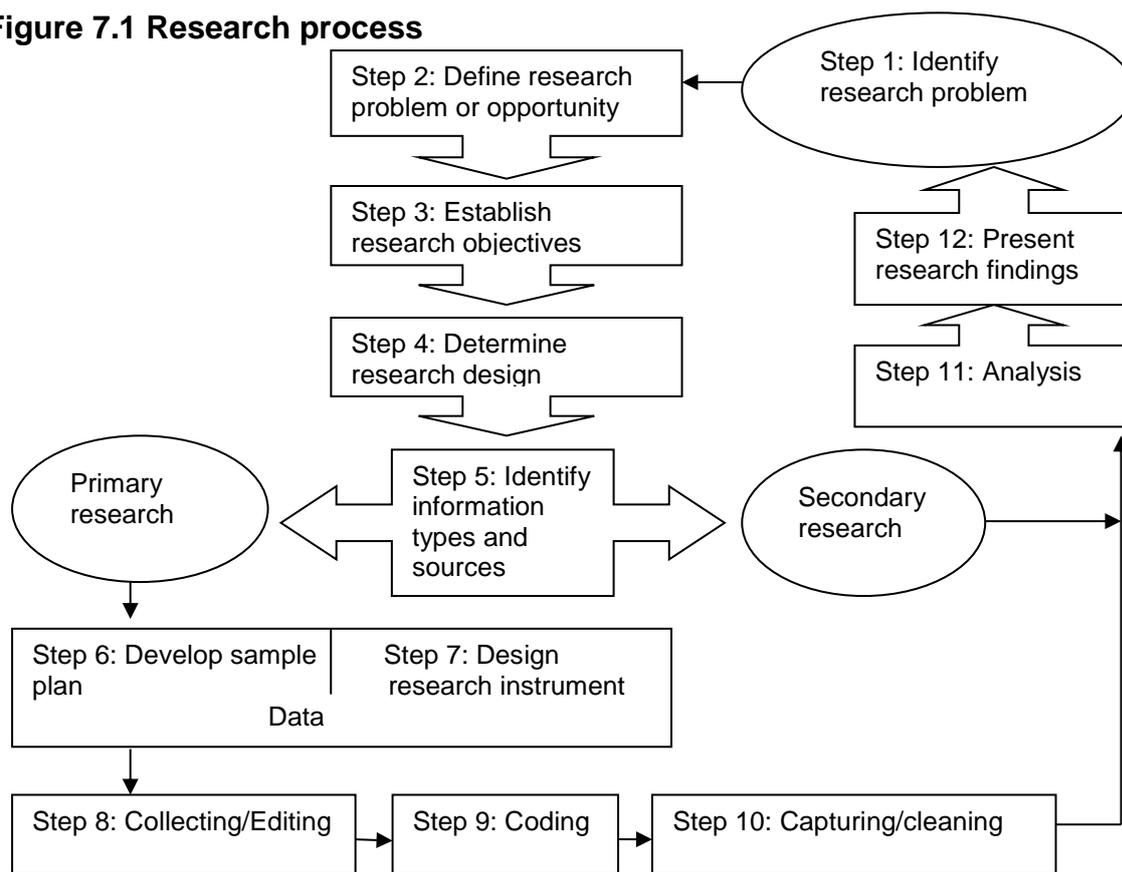
CHAPTER 7: RESEARCH METHODOLOGY

7.1 INTRODUCTION

The purpose of this chapter is to explain how the empirical research of this study was carried out. The research process that was followed, the objectives of the study and the research methodology are also discussed.

7.2 STEPS IN THE RESEARCH PROCESS

Welman, Kruger and Mitchell (2008:2) define research as a process through which scientific knowledge is obtained by means of various objective methods and procedures. This means that specific methods are used at each stage of the research process that include procedures for drawing the sample, measuring variables, collecting information and analysing this information. Empirical research is based on the steps in the research process proposed by Tustin, Ligthelm, Martins and Van Wyk (2005:76) as illustrated in Figure 7.1.

Figure 7.1 Research process

Source: Adapted from Tustin *et al.* (2005:76)

This study followed the steps as indicated in Figure 7.1. In chapter 1 steps 1, 2, 3 and 4 were completed. The secondary research component of step 5 was addressed in Chapters 2, 3, 4, 5 and 6. In these chapters, theories and research about entrepreneurial intent, entrepreneurship education, entrepreneurial support, social capital and the link between entrepreneurship and the establishment of SMMEs were reviewed. The primary research component of step 5 including steps 6, 7, 8, 9 and 10 are discussed in detail in this chapter. These steps are discussed under the headings that follow:

7.2.1 Identify the research problem/opportunity

In this step the researcher identifies the research problem that should be resolved (Tustin *et al.*, 2005:77). A research problem is defined as “some difficulty that the researcher experiences in the context of either a theoretical or practical situation and to which he or she wants to find a solution” (Welman *et al.*, 2008:14). Brynard and Hanekom (2006:16-17) suggest that a research problem can be posed in the form of a

statement or question that serves to define the boundaries of the research problem. The research problem for this study is that high unemployment in predominantly rural areas, specifically in the Limpopo Province and the Eastern Cape Province, can be combated by increased entrepreneurial activity. New businesses should be started in these provinces in order to create more jobs. Hence the purpose of this research is to establish whether final-year commerce students in the Limpopo Province and the Eastern Cape Province have the intention to start their own businesses.

The primary research problem can be encapsulated in the following research question: “do final-year commerce students in predominantly rural provinces of the Limpopo and the Eastern Cape have the intention to start a business?” In other words, does exposure to entrepreneurship education, awareness of entrepreneurial support and social capital make a difference to students’ intention to start a business of their own?

7.2.2 Define the research problem/opportunity

This step should be considered together with step 1. The researcher clearly establishes the problem that has been observed and precisely defines what it is. The research problem is defined broadly by considering its possible causes or influential variables (Tustin *et al.*, 2005:77-78). By defining the research problem the general interest in a research topic is narrowed down to a research problem that is small enough to be investigated (Welman *et al.*, 2008:13). The problem statement and the research question were described in Chapter 1 and have been summarised as follows: The purpose of this research is to determine whether exposure to entrepreneurship education, social capital and entrepreneurial support will influence the intention of final-year commerce students in the Limpopo Province and the Eastern Cape Province to start their own businesses.

7.2.3 Establish the research objectives

After the definition of the problem research objectives are formulated (Tustin *et al.*, 2005:81). These objectives specify the information that is required to address the research problem. Research objectives state what the researcher wants to achieve and systematically sets out the key aims and purposes of the study (Pellissier,

2007:50). The research objectives that were formulated in Chapter 1 are repeated below:

The primary objective

The primary objective of this research is to assess the entrepreneurial intent of final-year commerce students in the predominantly rural provinces of Limpopo and Eastern Cape in South Africa.

The secondary objectives

The secondary objectives to achieve the primary objective of this research are as follows:

- To determine the relationship between students' perceptions of their own entrepreneurial competencies and entrepreneurial intentions as determined by exposure to entrepreneurship education.
- To determine how the level of awareness of entrepreneurial support initiatives affects students' entrepreneurial intentions.
- To determine the relationship between students' social capital and entrepreneurial intentions.
- To investigate the relationship between exposure to entrepreneurship education and entrepreneurial self-efficacy (ESE).
- To develop a model of entrepreneurship development based on exposure to entrepreneurship education, awareness of entrepreneurial support and social capital as determinants of entrepreneurial intentions.

Following the formulation of the problem statement one or more hypotheses are formulated about what may be discovered (Leedy and Ormrod, 2010:4). A hypothesis is a logical supposition, a reasonable guess or an educated conjecture that provides a tentative explanation for the problem under investigation. On the other hand a hypothesis can be referred to as a proposition that is formulated for empirical testing (Cooper and Schindler, 2008:64). The formulation of hypotheses ensures that the

research problem or question is investigated in the most economical manner possible (Welman *et al.*, 2008:28).

The following hypotheses derived from the objectives were proposed:

Hypotheses relating to demographic characteristics:

H₀₁ – No institutional differences exist between students with regard to entrepreneurial intent.

H₁₁ – Institutional differences exist between students regarding entrepreneurial intent.

H₀₂ – No gender differences exist between students in entrepreneurial intent.

H₁₂ – Male students differ from female students in entrepreneurial intent.

H₀₃ – No relationship exists between entrepreneurial intent and entrepreneurial knowledge and work experience.

H₁₃ – A relationship exists between entrepreneurial intent and entrepreneurial knowledge and work experience.

Hypotheses relating to entrepreneurial intent:

H₀₄ – No differences exist in entrepreneurial intent between students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H₁₄ – Students who have had exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in entrepreneurial intent.

H_{04a} – No differences exist in entrepreneurial intent between students who have had three years exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{14a} – Students who have had three years exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in entrepreneurial intent.

H_{04b} – No differences exist in entrepreneurial intent between students who have had six months exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{14b} - Students who have had six months exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in entrepreneurial intent.

H_{04c} – No differences exist in entrepreneurial intent between students who have had three years exposure to entrepreneurship education and those who have had six months exposure to entrepreneurship education.

H_{14c} - Students who have had three years exposure to entrepreneurship education differ from students who have had six months exposure to entrepreneurship education in entrepreneurial intent.

Hypotheses relating to the attitude towards becoming an entrepreneur.

H₀₅ – No differences exist in the attitude towards becoming an entrepreneur between students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H₁₅ – Students who have had exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in the attitude towards becoming an entrepreneur.

H_{05a} – No differences exist in the attitude towards becoming an entrepreneur between students who have had three years exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{15a} - Students who have had three years exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in the attitude towards becoming an entrepreneur.

H_{05b} – No differences exist in the attitude towards becoming an entrepreneur between students who have had six months exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{15b} - Students who have had six months exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in the attitude towards becoming an entrepreneur.

H_{05c} – No differences exist in the attitude towards becoming an entrepreneur between students who have had three years exposure to entrepreneurship education and those who have had six months exposure to entrepreneurship education.

H_{15c} - Students who have had three years exposure to entrepreneurship education differ from students who have had six months exposure to entrepreneurship education in the attitude towards becoming an entrepreneur.

Hypotheses relating to perceived behavioural control:

H₀₆ – No differences exist in perceived behavioural control between students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H₁₆ – Students who have had exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in perceived behavioural control.

H_{06a} – No differences exist in perceived behavioural control between students who have had three years exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{16a} – Students who have had three years exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in perceived behavioural control.

H_{06b} – No differences exist in perceived behavioural control between students who have had six months exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{16b} – Students who have had six months exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in perceived behavioural control.

H_{06c} – No differences exist in perceived behavioural control between students who have had three years exposure to entrepreneurship education and those who have had six months exposure to entrepreneurship education.

H_{16c} – Students who have had three years exposure to entrepreneurship education differ from students who have had six months exposure to entrepreneurship education in perceived behavioural control.

Hypotheses relating to level of awareness of entrepreneurial support initiatives:

H₀₇ – No relationship exists between the level of awareness of entrepreneurial support initiatives and the intention of starting a business.

H₁₇ - A relationship exists between the level of awareness of entrepreneurial support initiatives and the intention of starting a business.

H_{07a} - No relationship exists between the level of awareness of entrepreneurial support initiatives and the attitude towards becoming an entrepreneur.

H_{17a} - A relationship exists between the level of awareness of entrepreneurial support initiatives and the attitude towards becoming an entrepreneur.

H_{07b} - No relationship exists between the level of awareness of entrepreneurial support initiatives and perceived behavioural control.

H_{17b} - A relationship exists between the level of awareness of entrepreneurial support initiatives and perceived behavioural control.

Hypotheses relating to perceptions of social capital:

H₀₈ – No relationship exists between perceptions of social capital as determined by being a member of a social network and the intention of starting a business.

H₁₈ – Perceptions of social capital as determined by being a member of a social network is related to the intention of starting a business.

H_{08a} - No relationship exists between perceptions of social capital as determined by being a member of a social network and the attitude towards becoming an entrepreneur.

H_{18a} – A relationship exists between perceptions of social capital as determined by being a member of a social network and the attitude towards becoming an entrepreneur.

H_{08b} - No relationship exists between perceptions of social capital as determined by being a member of a social network and perceived behavioural control.

H_{18b} - A relationship exists between perceptions of social capital as determined by being a member of a social network and perceived behavioural control.

Hypotheses relating to perceived entrepreneurial self-efficacy:

H₀₉ – No relationship exists between exposure to entrepreneurship education and perceived entrepreneurial self-efficacy (ESE).

H₁₉ – A relationship exists between exposure to entrepreneurship education and perceived ESE.

Hypotheses relating to perceptions of own entrepreneurial competencies:

H₀₁₀ – No differences exist in the perceptions of own entrepreneurial competencies among students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H₁₁₀ – Students who have had exposure to entrepreneurship education perceive their own entrepreneurial competencies differently from students who have not had exposure to entrepreneurship education.

7.2.4 Determine the research design

The researcher has to determine the plan that will be followed to realise the research objectives or hypotheses. This plan indicates the methods and procedures for collecting and analysing the required information to be used to address the research problem (Tustin *et al.*, 2005:82). Tustin *et al.* (2005:83) classify research designs into three types:

- *Exploratory research* is used to search for insights into the general nature of the problem, the possible decision alternatives and relevant variables that need to be

considered. It is based on highly flexible, unstructured and qualitative research methods and uses approaches such as literature reviews and individual and group unstructured interviews (Tustin *et al.*, 2005:84). This type of research is conducted when little is known about a particular research topic (Bless, Higson-Smith and Kagee, 2007:43). The primary aim of exploratory research is to formulate more specific research questions or hypotheses relating to that phenomenon (Bless *et al.*, 2007:182). This type of research is carried out by reviewing literature, interviewing experts in the subject and conducting focus group interviews (Saunders, Lewis and Thornhill, 2009:140).

- *Descriptive research* is carried out to answer who, what, when, where and how questions (Cooper and Schindler, 2008:144). This type of research is based on structured and quantitative research methods. It uses research approaches that include in-house personal interviews, intercept surveys, landline telephone interviewing, regular mail surveys and on-line quantitative surveys (Tustin *et al.*, 2005:86). The objectives of descriptive research are to describe the phenomena or characteristics associated with a subject population; to estimate proportions of a population that have these characteristics and to discover associations among different variables (Cooper and Schindler, 2008:151). Researchers who conduct descriptive research examine the situation as it is. They do not change or modify the situation under investigation and do not determine the cause-and-effect relationships (Leedy and Ormrod, 2010:182).
- *Causal research* is conducted to determine the cause-and-effect relationships between variables using experiments (Tustin *et al.*, 2005:87; Leedy and Ormrod, 2010:223).

This study focused on secondary research (literature study) and empirical research and was carried out by means of a descriptive research design. A survey was used as the data collection method. Cooper and Schindler (2008:215) define a survey as a “measurement process used to collect information during a highly structured interview.” Surveys may be used in studies that are usually quantitative in nature and which are aimed at providing a broad overview of a representative sample of a large

population (Mouton, 2008:152). Surveys are used to provide answers to who, what, where, how much and how many questions (Saunders *et al.*, 2009:144). The appropriateness of the survey research in this study was mainly because the respondents were required to give self reported answers about their attitudes, opinions, characteristics, pieces of information about the conditions of life and the categories that define and differentiate them (Gravetter and Forzano, 2006:331). The responses of the participants in survey research are summarised with percentages, frequency counts or more sophisticated statistical indexes which enable the researcher to draw inferences about a particular population from the responses of the sample (Leedy and Ormrod, 2010:187).

7.2.5 Identify the information types and sources

The researcher can address the research problem using secondary data or primary data. When the value of secondary research is inadequate to address the research objectives, the researcher conducts primary research or even uses a combination of both (Tustin *et al.*, 2005:89). Secondary data is data that has been collected by other researchers for the purpose of addressing different research problems (Bless *et al.*, 2007:185). Primary data is data that is collected by the researcher to specifically address the research objective (Tustin *et al.*, 2005:89). This study involved the use of both secondary and primary data.

Secondary data was obtained for the literature study in Chapters 2, 3, 4, 5 and 6. It entailed searching through the relevant databases which contained peer-reviewed published conference proceedings and journals to gain insight into what previous research has found regarding the role of the identified key variables in influencing entrepreneurial intent. From the secondary data it was possible to formulate the research objectives and the hypotheses.

When primary research is conducted, decisions have to be made regarding the appropriate quantitative or qualitative research approaches and primary data collection methods that will be used in the study. In quantitative research primary data is collected from large numbers of individuals with the intention of projecting the results to a wider population. The research methods that are used in quantitative research

include experiments and surveys (Brynard and Hanekom, 2006:37). Quantitative research is carried out by requesting the target population to answer very structured questions which are statistically analysed to arrive at the findings (Pellissier, 2007:19). Quantitative research is suited to research that is aimed at hypotheses testing (Leedy and Ormrod, 2010:95). Researchers using this type of research define concepts, variables, hypotheses and methods of measurement in advance and they remain the same throughout the study. Quantitative research is carried out by means of structured questionnaires and produces results that are considered to be valid and reliable (Pellissier, 2007:19). Quantitative research requires researchers to identify, develop and standardise the methods of measuring each variable while paying considerable attention to the validity and reliability of the measuring instruments (Leedy and Ormrod, 2010:95-96). On the other hand qualitative research collects data that are frequently difficult to quantify (Tustin *et al.*, 2005:90). It uses methods such as group discussions and in-depth interviews to generate loosely structured and verbal data. This study followed the quantitative approach and used structured questionnaires to collect the primary data.

7.2.6 Develop a sampling plan

Cooper and Schindler (2008:584) suggest that the target population that is being studied and the sampling methods used must be explicitly defined. Sampling consists of five stages which are discussed below (Tustin *et al.*, 2005:96-97):

(1) Define the population or universe

The population is a group from which the sample will be drawn while a sample is a subset of the population. Cooper and Schindler (2008:374) define a population as the total collection of elements about which the researcher wants to make some inferences. When the researcher cannot involve all members of the population in the study, a sample that best represents a population may be drawn to allow for an accurate generalisation of results (Bless *et al.*, 2007:100; Tustin *et al.*, 2005:337). The population consisted of all third year students registered in 2010 for the three diplomas (National Diploma: Entrepreneurship/small business management, National Diploma: Internal auditing, Cost and management accounting and Financial information systems and National Diploma: Management (ND: E/SBM, ND: IAUD, CMA and FIS and ND:

Management) (as detailed below) at TUT (Polokwane campus) in the Limpopo Province and WSU in the Eastern Cape Province. From the 23 universities in South Africa only five offer all three diploma courses, namely the University of South Africa, WSU, Cape Peninsula University of Technology, Durban University of Technology and TUT. Other universities that offer some of these courses are the University of Johannesburg that offered ND: Entrepreneurship and ND: Management; Nelson Mandela Metropolitan University (ND: Management and ND: IAUD, CMA and FIS); and the Vaal University of Technology and Central University of Technology (ND: IAUD, CMA and FIS).

Only two of these universities are considered to enrol students from the selected predominantly rural areas, namely TUT (Polokwane campus) in the Limpopo Province and WSU in the Eastern Cape Province. From these two universities, the population for this research project included the following three groups of students registered in 2010:

- A total number of 120 third-year students in ND: E/SBM who had a full three years of exposure to entrepreneurship education.
- A total number of 180 third-year students in ND: Management who had no exposure to entrepreneurship education. These students were used as a control group to determine whether exposure to entrepreneurship education impacts on entrepreneurial intentions, entrepreneurial self-efficacy and entrepreneurial competencies.
- A total number of 514 third-year students in ND: IAUD, CMA and FIS who were exposed to a six months module in entrepreneurship.

At WSU third year students for Management diploma were drawn from three campuses (Ibika campus = 60, Zamukulungisa campus = 45 and Potsdam campus = 45). Third year ND: IAUD, CMA and FIS students were drawn from four campuses (Ibika campus = 100, Zamukulungisa campus = 109, Queenstown campus = 60 and Potsdam Campus = 200). At the Potsdam campus 90 third year students were registered for the ND: E/SBM. A total number of 709 students formed the population from WSU. From TUT 45 third year Internal auditing diploma students, 30 third year students for Entrepreneurship/small business management diploma, and 30 third year

students for management diploma, resulting in a total of 105 students formed the population for this study.

(2) Specify the sample frame

A sample frame is the list or directory from which the sample will be drawn. It is normally required for the researcher to draw a probability sample. The sample frame for this study included the lists of all the students at WSU and TUT who were registered in 2010 for ND: E/SBM, ND: IAUD, CMA and FIS and ND: Management which consisted of 814 students.

(3) Select the sampling method

The researcher must determine whether a probability or non-probability approach will be used to obtain the sample and how the sample units will be selected. In probability sampling every element of the population has a non-zero probability of being selected whereas under non-probability sampling researchers use their discretion to select sampling units. This study made use of the convenient sampling method. When using convenience sampling the researcher selects population elements because they are easily and conveniently available (Maree, 2010:177). This sampling method was used because ND: E/SBM, ND: IAUD, CMA and FIS and ND: Management students were suitable for learning about the relationships between their qualifications and the key variables of the study and were readily available. The abovementioned students were used for a number of reasons, namely:

- Firstly, they were the youth from rural provinces which were quite poor.
- Secondly, they were suitable for studying entrepreneurial intentions, because as final year students they were facing important career decisions on completion of their studies which could include starting their own businesses. The use of final year students is in line with other similar studies such as Krueger *et al.* (2000:420); Liñán *et al.* (2007:5); Liñán (2008:263) and Liñán and Chen, (2009:602). Liñán and Chen (2006:14) and Liñán and Chen (2009:610) argue that this practice offers the advantage of similar age and qualifications resulting in a more homogeneous group.

- Thirdly, their different levels of exposure to entrepreneurship education suited the requirements of the present study and therefore made comparisons easier.
- Fourthly, these student groups were homogeneous in terms of age and year of study. They were all final year students who had to decide about their career on completion of their degrees.
- Lastly, they could be reached with minimum cost and in a short time.

(4) Determine the sample size

This stage involves the specification of the number of sample elements that will be included in the final sample. This study was initially planned to include a total number of 814 third year students at WSU and TUT who were registered in 2010 for ND: E/SBM, ND: IAUD, CMA and FIS and ND: Management. This means that a census rather than a sample was used. Of the 814 students only 355 students participated in the survey. According to Welman *et al.* (2008:101) and Cooper and Schindler (2008:90), a census is supposed to include every member of the target population. The researcher has to collect and analyse the data from every member of the population (Saunders *et al.*, 2009:210). Owing to a low response rate, the respondents may not be representative of the total population. This further means that the findings may be negatively impacted by the non-response bias. The main reasons for all the students not completing the questionnaire can be ascribed to strikes at the two campuses of WSU (Butterworth and Queenstown) during the data collection period and students' absenteeism on the days when the lecturers were distributing questionnaires at WSU and TUT. Although two lecturers of the ND: Management students at Ibika (Butterworth) Campus and Potsdam (East London) Campus had initially agreed to assist the researcher with data collection when formal requests and calls were made for assistance on 15/04/2010, they could not be located when the researcher visited them during the period 10/05-14/05/2010 to collect the questionnaires. Several attempts to contact them were in vain and the researcher was forced to abandon these two groups. As a result of the problems that were encountered, the response rate was 58.3 percent (70 students) for the ND: E/SBM sample, 43 percent (221 students) for the ND: IAUD, CMA and FIS and 35.6 percent

(64 students) for the ND: Management sample. Table 7.1 illustrates the actual number of third year students who were registered in 2010 who qualified to be included in this study as well as the actual response rate.

Table 7.1: Profile of sample and respondents

Exposure to entrepreneurship education	TUT students			WSU students			Total number of respondents/ Total response rate (%)
	Sample size	Actual number surveyed	Response rate (%)	Sample size	Actual number surveyed	Response rate	
Three years' exposure: ND E/SBM	30	17	56.7%	90	53	58.9%	70 (58.3%)
Six months' exposure: ND IAUD, CMA and FIS	45	38	84.4%	469	183	39%	221 (43%)
No exposure: ND Management	30	24	80%	150	40	26.7%	64 (35.6%)
Total number of students	105	79	75.2%	709	276	38.9%	355 (43.6%)

7.2.7 Designing the research instrument

This step involves the design of the questionnaire which deals with the construction of questions and response options based on the research objectives that will be used to address the research problem (Tustin *et al.*, 2005:98). Questions can include structured and unstructured questions while responses can include open-ended and close-ended responses. Structured questions are designed prior to interviewing and are used in quantitative research as discussed earlier. Structured questionnaires are commonly used in surveys to ensure comparability of responses (Mouton, 2008:153). Unstructured questions can be formulated from structured questions or can be designed during the interview for use in qualitative research. Open-ended responses allow respondents to reply in their own words while close-ended responses provide respondents with the opportunity to choose between two or more answers.

According to Leedy and Ormrod (2010:188), data in survey research is collected by means of face-to-face interview, telephone interview or a written questionnaire. The

design of the questionnaire was based on validated questionnaires that were used in previous entrepreneurial intent studies that have covered the key variables of this study and included exposure to entrepreneurship education, awareness of entrepreneurial support, entrepreneurial competencies, social capital and ESE. All the questions relating to entrepreneurial support were formulated based on government (national and Eastern Cape and Limpopo provincial support) institutions that provide entrepreneurial support and research findings as discussed in the literature study (Chapter 4).

The questionnaire consisted of nine sections with 103 questions numbered from A to I as follows:

- Section A obtained biographical details of the respondents such as gender, age and qualifications enrolled for (3 questions).
- Section B focused on work experience, entrepreneurial experience and entrepreneurial knowledge (7 questions).
- Section C measured the entrepreneurial intent of the respondents (9 questions).
- Section D determined the respondents' attitude towards becoming an entrepreneur or starting a business (6 questions).
- Section E was aimed at collecting data on perceived behavioural control (9 questions).
- Section F measured the respondents' level of knowledge about government institutions that provide entrepreneurial support and the services they offer (26 questions).
- Section G assessed the respondents' social capital (15 questions).
- Section H evaluated the ESE of the respondents (24 questions).
- Section I determined the entrepreneurial competencies of the respondents (4 questions).

Questions in sections A and B were based on a nominal scale (yes or no types of responses) while those in sections C to I were based on a five-point Likert scale (1=strongly disagree to 5=strongly agree). All the questions in sections C, D and E were adopted with no alterations from the Entrepreneurial Intent Questionnaire that was developed by Liñán and Chen (2006:6) and Liñán and Chen (2009:612-613) and used by Liñán (2008:270); Liñán *et al.* (2007:9) and Guerrero, Lavín and Álvarez,

(2009:8). The reason for using these questions is because they have been validated in other studies which increase the reliability of the designed questionnaire. For example Liñán and Chen (2006:14) initially developed and tested their entrepreneurial intention questionnaire on a Spanish sample and it was subsequently tested on respondents from two different cultural environments (Spanish and Taiwanese) (Liñán and Chen; 2006:14; Liñán and Chen, 2009:611). Due to satisfactory results of their validation of the questionnaire, Liñán and Chen (2006:16) and Liñán and Chen (2009:609) maintain that their questionnaire may be generally adequate to analyse entrepreneurial intentions. Questions that focused on the key variables of this study are discussed in detail in the next sections.

(1) Exposure to entrepreneurship education

Data on the levels of exposure to entrepreneurship education (section A of the questionnaire) was collected by means of a nominal scale. These types of data indicated those students who had been exposed to entrepreneurship education for a period of three years (ND: E/SBM=1), those who had not been exposed to entrepreneurship education (ND: Management=2) and those who had been exposed to entrepreneurship education for a period of six months (ND: IAUD, CMA and FIS=3).

(2) Entrepreneurial intent and its antecedents

In this study the two antecedents of entrepreneurial intent (attitude towards the behaviour/perceived desirability and perceived behavioural control/perceived feasibility) were measured using a five-point Likert scale (1= Strongly disagree to 5= Strongly agree). Measures of subjective norms/social norms were incorporated into social capital. The use of five-point Likert scales is also found in previous entrepreneurial intent studies such as Gupta, Turban, Wasti and Sikdar (2009:404); Schwarz, Wdowiak, Almer-Jarz and Breitenecker (2009:281); Urban (2006:177); Oruoch (2006:15); and Van Auken *et al.* (2005:5). Table 7.2 shows the items that were used to measure entrepreneurial intent, attitude towards the behaviour and perceived behavioural control in sections C, D and E.

Table 7.2 Questions measuring entrepreneurial intent and its antecedents

Variable	Items
Entrepreneurial intent.	<ol style="list-style-type: none"> 1. I am ready to do anything to be an entrepreneur. 2. My professional goal is to be an entrepreneur. 3. I will make every effort to start and run my own business. 4. I am determined to create a business venture in the future. 5. I do not have doubts about ever starting my own business in the future. 6. I have very seriously thought of starting a business in the future. 7. I have a strong intention of ever starting a business in the future. 8. My qualification has contributed positively towards my interest to start a business. 9. I had a strong intention to start my own business before I started with my qualification.
Attitude towards becoming an entrepreneur or starting a business.	<ol style="list-style-type: none"> 1. Being an entrepreneur implies more advantages than disadvantages to me. 2. A career as an entrepreneur is totally attractive to me. 3. If I had the opportunity and resources, I would like to start a business. 4. Amongst various options, I would rather be an entrepreneur. 5. Being an entrepreneur would give me great satisfaction. 6. My qualification has contributed positively to my attitude towards becoming an entrepreneur.
Perceived behavioural control.	<ol style="list-style-type: none"> 1. To start a business and keep it working would be easy for me. 2. I am able to control the creation process of a new business. 3. I believe I would be completely able to start a business. 4. I am prepared to do anything to be an entrepreneur. 5. I know all about the necessary practical details needed to start a business. 6. If I wanted to, I could easily start and run a business. 7. If I tried to start a business, I would have a high chance of being successful. 8. It would be very easy for me to develop a business idea. 9. My qualification has provided me with sufficient knowledge required to start a business.

Source: Liñán and Chen (2006:6); Liñán and Chen (2009:612-613); Liñán *et al.* (2007:9); Liñán (2008:269); Guerrero *et al.* (2009:8)

(3) Awareness of entrepreneurial support

In section F questions were formulated to assess the level of awareness of the types of entrepreneurial support provided by the government (national and Eastern Cape and Limpopo provincial support) and institutions that provide entrepreneurial support. These questions were derived from existing literature and copied from previous research by Liao and Welsch (2002:5 & 2005:354). Data was collected using five-point Likert type response format questions. Students were asked to indicate their level of

agreement or disagreement with the statements that relate to entrepreneurial support (1 = Strongly disagree to 5 = Strongly agree) and to rate their level of knowledge regarding the different government institutions that provide entrepreneurial support and the services they offer (1=Very low knowledge to 5=Very high knowledge), as shown in table 7.3.

7.3 Questions measuring the level of awareness of entrepreneurial support provided by government institutions and their services

Statements about government support:

1. The government provides good support for people who want to start a business.
2. I know the different types of support that is offered to people who want to start their own businesses.
3. It would be easy for me to access support from government institutions.
4. Information about government support for people who want to start their own businesses is easily accessible.
5. It would be easier for me to receive support from the people that I know than from the government.

Knowledge about government institutions that provide entrepreneurial support and their services:

6. The Small Enterprise Development Agency (Seda) and the services offered by Seda.
7. The Industrial Development Corporation (IDC) and the services offered by IDC.
8. Khula Enterprise Finance (Khula) and the services offered by Khula.
9. Companies and Intellectual Property Registration Office (CIPRO) and the services offered by CIPRO (now called Companies and Intellectual Property Commission (CIPC)).
10. The National Empowerment Fund (NEF) and the services offered by NEF.
11. The South African Micro-Finance Apex Fund (SAMAF) and the services offered by SAMAF.
12. Umsobomvu Youth Fund (UYF) and the services that were offered by UYF.
13. The National Youth Development Agency (NYDA).
14. Limpopo Economic Development Enterprise (LIMDEV) and the services offered by LIMDEV.
15. Limpopo Business Support Agency (LIBSA) and the services offered by LIBSA.
16. Eastern Cape Development Corporation (ECDC) and the services offered by ECDC.

Source: Own compilation

(4) Social capital

Questions in Section G were based on the measures of social capital as suggested by Liñán and Santos (2008:448) and included approval for start-up in the closer environment, knowing a family entrepreneur, knowing a non-family entrepreneur, valuation of an entrepreneurial option in the closer environment and having contact with the entrepreneur environment. Questions 1 to 12 on social and closer valuation of entrepreneurship have been adopted with no alterations from Liñán (2008:270); Liñán

et al. (2007:9); Liñán and Chen (2009:612-613); Liao and Welsch (2002:5); Liao and Welsch (2005:354) and Guerrero *et al.* (2009:8). Questions 13-15 were adapted with minor alterations from Kickul, Gundry and Sampson (2007:175) and Gird and Bagraim (2008:715). Gird and Bagraim (2008:715) measured social capital by asking the respondents to indicate the extent to which they believed they could rely on parents or close family for business advice, information and start-up capital; and whether they could rely on friends for business advice and information, while Kickul *et al.* (2007:175) operationalised social capital in terms of formal social capital (reliance on accountants, lawyers, bankers, state or federal agencies, and women's business organisations for assistance with the business) and informal social capital (reliance on family, friends, and other entrepreneurs for advice). Questions that were adapted from these authors are: "I can rely on my family for assistance in starting a business"; "I can rely on my friends for assistance in starting a business" and "I can rely on other entrepreneurs for assistance in starting a business".

Social capital was measured on a five-point Likert scale (1= Strongly disagree to 5=Strongly agree) as explained earlier. Table 7.4 shows the measures of social capital used in this study as adopted from validated questionnaires used by various sources.

Table 7.4 Measures of social capital and the sources of these measures

	Source(s)
Knowledge of family and non-family entrepreneurs: <ul style="list-style-type: none"> • I personally know someone who is an entrepreneur in my family. • I have a friend who is an entrepreneur. • I personally know other people who are entrepreneurs. 	Liñán and Santos (2007:448); Klyver and Schøtt (2008:8); Liao and Welsch (2002:5); Liao and Welsch (2005:354)
Approval of the decision to start a business by close family, friends or colleagues: <ul style="list-style-type: none"> • My immediate family would approve of my decision to start a business. • My friends would approve of my decision to start a business. • My colleagues would approve of my decision to start a business. 	Ajzen (2005:124); Liñán and Santos (2007:448); Kolvereid and Isaksen (2006:876); Liñán and Chen (2009:612); Ramayah and Harun (2005:15)
Knowledge of successful entrepreneurs in one's immediate environment: <ul style="list-style-type: none"> • I personally know successful entrepreneurs in my community. 	Liao and Welsch (2002:5); Liao and Welsch (2005:354)
Valuation of the entrepreneurial career in the closer environment: <ul style="list-style-type: none"> • My immediate family values entrepreneurial activity above other activities and careers. • The culture in my country is highly favourable towards the entrepreneurial activity. • My friends value entrepreneurial activity above other activities and careers. • My colleagues value entrepreneurial activity above other activities and careers. • In my country, entrepreneurial activity is considered to be worthwhile, despite the risks. 	Liñán and Santos (2007:448); Liñán <i>et al.</i> (2007:9); Liñán (2008:270); Guerrero <i>et al.</i> (2009:8)
Reliance on family, friends or other entrepreneurs for assistance in starting a business: <ul style="list-style-type: none"> • I can rely on my family for assistance in starting a business. • I can rely on my friends for assistance in starting a business. • I can rely on other entrepreneurs for assistance in starting a business. 	Kickul <i>et al.</i> (2007:175); Gird and Bagraim (2008:715)

Source: Created by the author

(5) Entrepreneurial self-efficacy

Questions that deal with ESE in section H were adopted with no alterations from existing questionnaires that were developed by researchers in the field of ESE. Questions 1-10, 14-18, 22-24 were adopted from McGee, Peterson, Mueller and Sequeira (2009:978) who developed a new measure of ESE based on the four phases of new venture creation process which were also tested by Kickul and D'Intino (2005:40) based on Cox, Mueller and Moss's (2002) work. Questions 11-13 and 19-21 were adopted from Kolvereid and Isaksen (2006:877) and Kickul and D'Intino (2005:42) who adopted measures of ESE from the first authors on ESE (Chen, Greene and Crick, 1998 and De Noble, Jung and Ehrlich, 1999) as alluded to in Chapter 3, section 3.6.3. Previous research that had used Chen *et al.* and De Noble *et al.*'s measures of ESE include for example, Kickul and Krueger (2005:3); Zhao *et al.* (2005:1268); Schenkel *et al.* (2007:5); Barbosa *et al.* (2007:92); Wilson *et al.* (2007:394) and Liñán (2008:263).

Researchers suggest that the measurement of ESE should focus on the perceptions of respondents regarding their ability to perform entrepreneurial tasks (Kickul, Gundry, Barbosa and Whitcanack, 2009:446; Kickul and D'intino, 2005:40) or those items that relate to the skills required to launch a new venture (Sequeira *et al.*, 2007:284). Due to the multi-faceted nature of the entrepreneurial process, it is argued that the measures of ESE should consist of multiple items that cover the different aspects of venture creation (Wilson *et al.*, 2007:394).

ESE was measured (Section H of questionnaire) by asking students to indicate their level of confidence in their ability to carry out entrepreneurial tasks using a five-point Likert scale (1=Very low confidence to 5=Very high confidence) based on a newly refined ESE scale developed and tested by McGee *et al.* (2009:972 & 978). This ESE scale was designed to eliminate the weaknesses identified in earlier ESE scales (McGee *et al.*, 2009:971). In addition, this ESE scale validates instrumental tasks associated with each phase of the entrepreneurial life-cycle as identified by Cox, Mueller and Moss (2002) and the association between ESE and these instrumental tasks was tested in Kickul and D'Intino (2005:43-44). Table 7.5 shows the measures of ESE within each phase of the entrepreneurial life-cycle as adopted from McGee *et al.* (2009:978); Kickul and D'Intino (2005:42-43) and Kolvereid and Isaksen (2006:877).

Tasks that involve developing relationships with key people who are connected to sources of capital, developing and maintaining favourable relationships with potential investors, and identifying potential sources of funding for investment in the business (questions 11, 12 and 13) are about the identification and maintenance of resources required to launch the new venture. These tasks were added to the tasks in the marshalling phase which McGee *et al.* (2009:972) define as the phase that “involves assembling resources to bring the venture into existence”. The implementing phase deals with the application of good management skills and principles to ensure that the new venture is sustained to pass its infancy stage. Since the tasks that include developing a working environment that encourages people to try out new things, persisting in the face of adversity and making decisions under uncertainty and risk relate to the implementing phase (Questions 19-21), they were added to this phase.

Table 7.5 Measures of ESE associated with each phase of the entrepreneurial life-cycle

<p>Searching phase</p> <ol style="list-style-type: none"> 1. Generate a new idea for a product or service. 2. Identify the need for a new product or service. 3. Design a product or service that will satisfy customer needs and wants.
<p>Planning phase</p> <ol style="list-style-type: none"> 1. Estimate customer demand for a new product or service. 2. Determine a competitive price for a new product or service. 3. Estimate the amount of start-up funds and working capital necessary to start a business. 4. Design an effective marketing/advertising campaign for a new product or service.
<p>Marshalling phase</p> <ol style="list-style-type: none"> 1. Get others to identify with and believe in the vision and plans for a new business. 2. Make contact with and exchange information with others. 3. Clearly and concisely explain verbally/in writing the business idea in simple terms. 4. Develop relationships with key people who are connected to sources of capital. 5. Develop and maintain favourable relationships with potential investors. 6. Identify potential sources of funding for investment in the business.

Table 7.5 continued

Implementing phase	
1.	Recruit and train new employees.
2.	Delegate tasks and responsibilities to employees in the business.
3.	Supervise employees.
4.	Deal effectively with day-to-day problems and crises.
5.	Inspire, encourage and motivate employees.
6.	Develop a working environment that encourages people to try out new things.
7.	Persist in the face of adversity.
8.	Make decisions under uncertainty and risk.
9.	Organise and maintain the financial records of the business.
10.	Manage financial assets of the business.
11.	Read and interpret financial statements.

Source: McGee *et al.* (2009:978); Kickul and D'Intino (2005:42-43) and Kolvereid and Isaksen (2006:877).

(6) Entrepreneurial competencies

The formulation of questions in section I on entrepreneurial competencies was based on the literature study of Izquierdo and Buyens (2008:18-19); Onstenk (2003:78-79) and Man *et al.* (2002:132). As defined in Chapter 3, entrepreneurial competence refers to “a higher-level characteristic encompassing personality traits, skills and knowledge that can be seen as the total ability of the entrepreneur to perform a job role successfully” (Man *et al.*, 2002:124). Brice and Spencer (2007:47) found that individuals with strong entrepreneurial intentions can be successfully discriminated from those who do not have these intentions by utilising entrepreneurial competencies to assess self-efficacy. Some of the questions that have been used in the entrepreneurial intent questionnaire to measure entrepreneurial competencies seem to be similar to some of those used to measure ESE. The reason for this is mainly because previous studies that have been consulted for both ESE and entrepreneurial competencies in Chapter 3 and in this chapter have not yet established the similarities between these concepts. For example, Izquierdo and Buyens (2008:18 & 21) used different measures for entrepreneurial competencies and ESE. They found that students who exhibited higher levels of entrepreneurial competencies reported higher levels of ESE after completing an entrepreneurship course (Izquierdo and Buyens, 2008:24). In another study Izquierdo and Buelens (2008:17) report that perceived competencies are significantly related to ESE. Their findings support those of Izquierdo and Buyens as they found that individuals who reported higher levels of

entrepreneurial competencies also reported higher levels of ESE (Izquierdo and Buelens, 2008:18).

Entrepreneurial competencies that are crucial to the entrepreneurial process were measured in order to evaluate their relationship with the different levels of exposure to entrepreneurship education. According to Izquierdo and Buyens (2008:18) and Onstenk (2003:78-79), these competencies include: Identification and evaluation of opportunities, networking/social and communication competencies. On the other hand, prospective entrepreneurs should be able to make personal sacrifices to ensure that their businesses get started. This means that they must possess commitment competencies (Brice and Spencer, 2007:53; Man *et al.*, 2002:132). Students were asked to indicate their levels of confidence in their own entrepreneurial competencies based on a five-point Likert scale (1=Very low confidence to 5=Very high confidence), as illustrated in Table 7.6.

Table 7.6 Measures of entrepreneurial competencies

Entrepreneurial competency	Description
Opportunity competency	The ability to recognise and evaluate opportunities in the market.
Networking/social competencies	The ability to develop relationships with other business people and stakeholders for mutual learning and collaborative working aimed at achieving common objectives.
Communication competencies	The ability to persuade and discuss with various stakeholders about the issues that involve the business.
Commitment competencies	The ability to make sacrifices to ensure that the business gets started.

Source: Created by the author from Man *et al.* (2002:132); Onstenk (2003:78-79); Brice and Spencer (2007:53) and Izquierdo and Buyens (2008:19).

7.2.8 Pilot study

Tustin *et al.* (2005:99) state that a questionnaire should be piloted before the survey commences in order to ensure that: respondents participate and cooperate in the study, relevant and accurate data are collected, and data collection and analysis

proceed as smoothly as possible. According to Welman *et al.* (2008:148), a pilot study is carried out for the following reasons:

- To detect possible flaws in the measurement procedures that may include among others, aspects such as ambiguous instructions or inadequate time limits.
- To identify unclear or ambiguously formulated items.
- To notice non-verbal behaviour on the part of respondents.

The questionnaire was piloted on ten third year students who were exposed to a one year entrepreneurship module and ten third year students who were not exposed to that module in another rural university. Students who were exposed to a one year entrepreneurship module were taught by the researcher while the other group of students was lectured by a colleague in the School of Management Sciences. They completed their questionnaires during the lecture and returned them immediately upon completion. It took a minimum of 15 minutes and a maximum of 20 minutes for students to complete the questionnaires. Although the questionnaires were not analysed statistically, the researcher compared the responses on the questionnaires and found that there were no unanswered questions and as a result was satisfied that the questionnaire was suitable for use by the targeted sample at WSU and TUT. No changes were made to the questionnaire after the pilot study since it was not newly designed and most of its items were adopted from questionnaires that were validated in multiple countries.

7.2.9 Collecting and editing the data

During this step the researcher conducts the fieldwork whereby questionnaires are distributed to the sample or interviews take place (Tustin *et al.*, 2005:99). Questionnaires can be interviewer-administered or self-administered (Tustin *et al.*, 2005:100). The researcher may edit the data during and after the fieldwork by following up incorrect or uncertain responses after the interviews. The researcher approached the Heads of Departments at the two selected institutions to ask for their permission to involve their lecturers and students in the research project. Requests for assistance in the form of letters and telephone calls were made to Heads of Departments and lecturers from 12/04/2010 and follow up calls and reminders were

made until 05/05/2010. Lecturers were requested to encourage their students to participate in the study and to distribute questionnaires for completion by students during the lectures and collect them immediately from students after completion. Six lecturers of management, entrepreneurship and accounting subjects informed the respondents about the objectives of the research. The respondents were asked to participate voluntarily in the study by completing the questionnaire and they were assured of complete anonymity. The collection of questionnaires from the six lecturers (four from WSU and two from TUT) took place during the period 10/05-14/05/2010. According to five of the lecturers (two at TUT and three at WSU) students completed their questionnaires in the classrooms and it took up to a maximum of 25 minutes to complete the questionnaires. The only group that was given the questionnaires to complete at home was the ND: E/SBM students at WSU.

7.2.10 Coding data

Coding enables the researcher to analyse and make sense of the data that has been collected (Welman *et al.*, 2008:214). Completed and edited questionnaires are coded by allocating numerical values to the responses. This simply means transforming responses into computer-readable format. Once the codes have been assigned to all responses they are transferred to the computer manually or electronically (Tustin *et al.*, 2005:100). According to Cooper and Schindler (2008:419), questionnaires can be precoded during the design stage. This makes it possible to access the codes for variable categories directly from the questionnaire. However, pre-coding was not done in this study. Questionnaires were given to the statistician to do the coding on SPSS after they were completed by the respondents.

7.2.11 Data capturing, cleaning and storing

In this step coded data are captured electronically. The researcher has to ensure that there are no discrepancies between the total number of cases in the data matrix and the size of the sample (Tustin *et al.*, 2005:102). The coded questionnaires were given to the data capturers in the statistics department to capture the data using SPSS.

7.2.12 Data analysis

Cooper and Schindler (2008:702) define data analysis as “the process of editing and reducing accumulated data to a manageable size, developing summaries, looking for patterns, and applying statistical techniques”. Data analysis follows data capturing and cleaning and is aimed at interpreting and drawing conclusions from the mass of collected data (Tustin *et al.*, 2005:102). Tustin *et al.* (2005:103-105) suggest that the contents of analysis conducted depend on the variables that have been included in the study. They indicate that the focus of analysis can take one of the following three forms:

- (1) Descriptive analysis which provides a summary of the sample in terms of variables of interest.
- (2) Estimation that involves using the information one has of the sample to estimate the situation that could possibly exist in the population as a whole.
- (3) Hypothesis testing that is aimed at testing specific proportions of the variables of interest and using the evidence provided by the sample to draw conclusions regarding these proportions for the population as a whole.

In the study, descriptive analysis was used to provide a summary of the sample in terms of the demographic characteristics such as the number of the respondents per institution, their qualifications, gender and age. The analysis assisted in determining how aspects such as exposure to entrepreneurship education, social capital and awareness of entrepreneurial support were associated with the intention of the population at WSU and TUT to start a business. Hypothesis testing was used to determine whether significant differences existed between the students enrolled for different degrees and located in different geographic areas with regard to the different constructs.

7.2.12.1 Types of data and the choice of statistical techniques

Tustin *et al.* (2005:592) point out that the type of measurement scale that is used dictates the choice of the type of statistical tests to use for analysis. The data in this study was collected using the nominal and ordinal scales. Nominal measurement involves assigning numbers to individuals in order to distinguish them in terms of the

attribute measured whereas in ordinal measurement numbers are assigned to individuals in order to reflect differences among individuals and the rank order. Individuals to whom higher numbers are assigned exhibit more of the particular attribute than those to whom lower numbers are assigned (Welman *et al.*, 2008:138-139). Cooper and Schindler (2008:479) and Tustin *et al.* (2005:594) suggest the use of nonparametric tests in testing hypotheses with nominal and ordinal data. The choice of an appropriate statistical technique is further determined by the distribution of the data, whether normal or not. Should the data not have a normal distribution (as is the case in this study), non-parametric statistics can be applied. The use of non-parametric statistics was also dictated by ordinal data. Saunders *et al.* (2009:448) define non-parametric statistics as the statistics that has been designed for use when the data are not normally distributed.

Both descriptive and nonparametric statistics were used to analyse the data in this study. The independent variables of the study are exposure to entrepreneurship education, social capital, and awareness of entrepreneurial support. Based on the four hypotheses that were stated in section 7.5 the dependent variables included entrepreneurial intent, ESE and entrepreneurial competencies. Additional dependent variables whose relationship with exposure to entrepreneurship education, social capital, and awareness of entrepreneurial support were tested are the theoretical determinants of entrepreneurial intent in the theory of planned behaviour, namely, attitude towards becoming an entrepreneur or starting a business and perceived behavioural control. ESE and entrepreneurial competencies were also used as independent variables to establish whether they related to entrepreneurial intent.

7.2.12.2 Descriptive statistics

Descriptive statistics are “statistical computations describing either the characteristics of a sample or the relationship among variables in a sample” (Babbie, 2004:442). Descriptive statistics have been used for the following reasons (Tustin *et al.*, 2005:522-523):

- To provide preliminary insights into the nature of the responses obtained for each variable in the study.

- To detect errors in the coding and capturing of the data.
- To present the data by means of tables and graphs.
- To provide summaries of responses and the extent of variation in the responses for each variable.
- To evaluate whether the distributional assumptions of subsequent statistical tests were going to be satisfactory.

Frequency tables were constructed to show in numbers and percentages how the respondents had responded to the questions relating to each variable, for example their age, gender, types of qualification enrolled for (measuring exposure to entrepreneurship education), entrepreneurial knowledge and work experience, entrepreneurial intent, attitude towards becoming an entrepreneur or starting a business, perceived behavioural control, level of awareness of entrepreneurial support, social capital, ESE and entrepreneurial competencies. Bar charts were also used to represent the data graphically (See results in Chapter 8). The following statistical techniques that fall under descriptive statistics were used to analyse the relationship between variables in the study:

- Goodman and Kruskal's tau (a Proportional Reduction in Error measure) was used to test the strength of the relationship between gender and entrepreneurial intent; the strength of the relationship between exposure to entrepreneurship education and entrepreneurial intent; the strength of the relationship between exposure to entrepreneurship education and attitude towards becoming an entrepreneur; the strength of the relationship between exposure to entrepreneurship education and perceived behavioural control and the strength of the relationship between exposure to entrepreneurship education and ESE. "Goodman and Kruskal's tau uses table marginals to reduce prediction errors" (Cooper and Schindler, 2008:533). Should there be a strong association between the variables in the study, there will be a substantial reduction in error from knowing the joint distribution of X and Y. Thus, having knowledge about the independent variable reduced the error in predicting the dependent variable by the percentage value of the measure over having no knowledge about the independent variable.

- Cramer's V is a technique that is used to test the relationship between variables (Saunders *et al.*, 2009:451). This technique was used to test the relationship between the entrepreneurial knowledge and work experience of the respondents, entrepreneurial intent, attitude towards becoming an entrepreneur and perceived behavioural control. Cramer's V can be used to measure the strength of the relationship between one nominal variable with either another nominal variable or with an ordinal variable. In this case measures of entrepreneurial knowledge and experience were nominal variables whereas entrepreneurial intent, attitude towards becoming an entrepreneur and perceived behavioural control were ordinal variables.

Somer's d is "a measure of association for ordinal data that compensates for "tied" ranks and adjusts for direction of the independent variable" (Cooper and Schindler, 2008:712). Somer's d is an asymmetric extension of gamma that differs only in the inclusion of the number of pairs not tied on the independent variable. This nonparametric test was used to test the strength and statistical significance of the association between the variables in the study as follows:

- To test the strength and statistical significance of the association between the attitude of the respondents towards becoming entrepreneurs and their intention to start a business.
- To test the strength and statistical significance of the association between perceived behavioural control and the intention of the respondents to start a business.
- To test the strength and statistical significance of the association between the level of awareness of entrepreneurial support and the intention of the respondents to start a business.
- To test the strength and statistical significance of the association between the level of awareness of entrepreneurial support and the attitude of the respondents towards becoming entrepreneurs.
- To test the strength and statistical significance of the association between the level of awareness of entrepreneurial support and perceived behavioural control.

- To test the strength and statistical significance of the association between entrepreneurial competencies and the intention of the respondents to start a business.
- To test the strength and statistical significance of the association between ESE and the intention of the respondents to start a business.
- Somer's d was used to test the strength and statistical significance of the association between social capital and the intention of the respondents to start a business.
- To test the strength and statistical significance of the association between social capital and the attitude of the respondents towards becoming entrepreneurs.
- To test the strength and statistical significance of the association between social capital and perceived behavioural control.

7.2.12.3 Non-parametric statistical techniques that were used to analyse the data

The collected data was analysed by means of Statistical Package for the Social Sciences (SPSS). Non-parametric statistical techniques used in this study include the Mann-Whitney U test and the Kruskal-Wallis test. These techniques are explained as follows:

- Mann-Whitney U test is a nonparametric counterpart of the t test in parametric statistics and is used to test for statistically significant differences between two groups when the data are ordinal in nature (Leedy and Ormrod, 2010:282, Saunders *et al.*, 2009:451). Firstly, this technique was used to test for statistically significant differences between the samples of students at TUT in the Limpopo Province and students at WSU in the Eastern Cape Province in their intention to start a business. Secondly, it was used to test for statistically significant gender differences in entrepreneurial intent among the sample. Thirdly, it was used to test for statistically significant differences in entrepreneurial intent, attitude towards becoming an entrepreneur, perceived behavioural control, entrepreneurial competencies and ESE between the groups based on their qualifications. Lastly, Mann-Whitney U test was used to test for statistically significant differences in the level of awareness of entrepreneurial support

between students at TUT in the Limpopo Province and students at WSU in the Eastern Cape Province.

- Kruskal-Wallis test is a nonparametric counterpart of analysis of variance (ANOVA) that is used to compare the medians of three or more groups when the data are ordinal (Leedy and Ormrod, 2010:282; Welman *et al.*, 2008:230; Cooper and Schindler, 2008:482 & 500). Kruskal-Wallis was used because it is not so sensitive to unequal sample sizes and can be used with ordinal data. This technique was used to test whether there were statistically significant differences in the medians of the ND: E/SBM students, ND: IAUD, CMA and FIS students and ND: Management students in their intention to start a business, their attitudes towards becoming entrepreneurs, their perceived behavioural control and in how they perceived their own entrepreneurial competencies and ESE.

7.2.13 Presentation of research findings

This step deals with the effective communication of research results. In this step the researcher writes a research report to share the research findings and makes an oral presentation of the findings (Tustin *et al.*, 2005:106-107). The research findings of this study are discussed and presented in the form of tables and bar charts in Chapter 8 while conclusions and recommendations based on survey results are explained in Chapter 9.

7.3 VALIDITY OF RESEARCH FINDINGS

7.3.1 Validity

Leedy and Ormrod (2010:28) define validity as “the extent to which the instrument measures what it is intended to measure”. The validity of the research study relates to whether sufficient controls were exercised to ensure that the conclusions drawn are truly warranted by the data and whether what has been observed in the research situation can be used to make generalisations about the world beyond that specific situation (Leedy and Ormrod, 2010:97). This statement addresses the internal validity

and external validity. Internal validity refers to whether there was sufficient control over the variables other than the treatment so that it can be concluded that a change in the dependent variable was caused by the treatment alone (Maree, 2010:151). External validity measures the extent to which the research results can be generalised to a broader population (Bless *et al.*, 2007:182). According to Leedy and Ormrod (2010:99), research that is conducted in a real-life setting may be more valid because it produces results which apply broadly to other real-world contexts. The study was conducted in a real-life setting. The respondents were final year students who had to decide about their future career options. Although the instruction to the researchers (lecturers) was to allow all the students in the identified courses to complete the questionnaire, this did not materialise owing to factors beyond the control of the researcher, namely, students' absenteeism from lectures and strikes at the two campuses of WSU. Although these factors reduced the number of actual respondents, the respondents were still from the designated courses at the selected universities.

The different forms of validity are explained as follows (Leedy and Ormrod, 2010:92; Bless *et al.*, 2007:156-160):

- *Face validity* deals with how the questionnaire appears to the participants. This form of validity requires the measurement instrument to be tailored to the needs of participants for whom it is designed (Bless *et al.*, 2007:160). The questionnaire was in simple English so that all the respondents would easily understand it. Most of these respondents had English as a second language. Respondents merely had to select an appropriate option, which substantially reduced the time to complete the questionnaire, even though it was lengthy. Respondents were allowed time during normal class period to complete the questionnaire.
- *Criterion validity* is the extent to which the data collected with the measuring instrument closely matches the data collected using the measuring instrument that is known to be valid (criterion measure) (Bless *et al.*, 2007:157). The validity of the measuring instrument had been tested as discussed in section 7.2.8.
- *Content validity* refers to whether a measurement instrument is a representative sample of the content area that is being measured (Leedy and Ormrod, 2010:92).

In order to ensure the content validity of the research questionnaire, questions that covered all components or information that is related to the study were formulated based on the literature study and the questionnaires that have been validated in the previous entrepreneurial intent studies. This is in line with the guidelines provided by Bless *et al.* (2007:157) with regard to content validity.

- *Construct validity* which deals with whether a measurement instrument is closely linked with the known theory in the area of study and with other related concepts (Bless *et al.*, 2007:159) was ensured by linking the items in the questionnaire to the theoretical components of the research topic. This ensured that the questionnaire measured the intended constructs rather than irrelevant constructs.

7.3.2 Reliability

Reliability refers to the consistency of measures (Bless *et al.*, 2007:150) and relates to the credibility of findings (Welman *et al.*, 2008:145). Leedy and Ormrod (2010:93) recommend the following three ways to ensure the reliability of a measurement instrument:

- (1) Consistency in administering the instrument, meaning that there should be standardisation in the use of the instrument from one situation or person to the next. Five of the six lecturers allowed students to complete the questionnaire during the class period while one lecturer gave the questionnaires to the students to complete at home and to return the following day. All the respondents were allowed enough time to complete the questionnaire, whether in or outside of the classroom.
- (2) To the extent that subjective judgements are required, specific criteria should be established that dictate the kinds of judgements the researcher makes. Subjective judgements by the researchers were not possible because the measurement instrument was a self-administered instrument and the researcher was not involved in the completion of the questionnaire.
- (3) Any research assistants who are using the instrument should be well trained so that they obtain similar results. Data was collected by six lecturers who were

given identical instructions. This ensured that there were no differences in the instructions that were given to the respondents with regard to the completion of the questionnaire.

The internal consistency of items in a questionnaire is normally calculated by means of Cronbach's coefficient alpha for reliability. Internal consistency "is a measure of the homogeneity of the items" (Bless *et al.*, 2007:155). High internal consistency is achieved when there is inter-correlation among the scores for the various items. Welman *et al.* (2008:147) state that Cronbach's coefficient alpha indicates the extent to which all the items in a measurement instrument measure the same attribute. According to Wu and Wu (2008:761), the threshold value for Cronbach's coefficient alpha is 0.60.

This study used validated questionnaires from previous studies and Cronbach's coefficient alpha was calculated for each:

- *Entrepreneurial intent.* The questionnaires used had Cronbach's coefficient alpha values ranging from 0.773 to 0.943 (Liñán and Chen, 2009:602) and from 0.839 to 0.891 (Liñán, 2008:266). The modified version of Liñán and Chen's questionnaire on entrepreneurial intent that was used by Guerrero *et al.* (2009:8) had Cronbach's coefficient alpha values that ranged from 0.796 to 0.930.
- *ESE scale.* The Cronbach's coefficient alpha values of the ESE scale incorporated in the questionnaire range from 0.84 to 0.91 in Mcgee *et al.* (2009:978); from 0.75 to 0.88 in Kickul *et al.* (2009:446) and from 0.89 to 0.94 in Kolvereid and Isaksen (2006:876-877).
- *Social capital.* The Cronbach's coefficient alpha values of the measures of social capital ranged from 0.72 to 0.89 in Liñán and Santos (2007:449) with the exception of the item 'knowing non-family entrepreneur' having only a 0.27 value. Gird and Bagraim's (2008:715-716) overall Cronbach's coefficient alpha values of the two measures of social support, reliance on parents or close family for business advice, information and start-up capital and reliance on friends for business advice and information was 0.67 (used as social capital in Kickul *et al.*

2007:175). Liao and Welsch's (2005:357) Cronbach's coefficient alpha values of the included measures of social capital were 0.71 and 0.68. Measures of subjective norms as included in social capital had overall Cronbach's coefficient alpha values of 0.86 in Ramayah and Harun (2005:13); 0.77 in Liñán and Chen (2009:603) and 0.77 in Kolvereid and Isaksen (2006:876). The overall measures that incorporate subjective norms and valuations of entrepreneurship were 0.82 and 0.79 respectively in Guerrero *et al*, (2009:8) and from 0.84 to 0.89 in Liñán (2008:266).

Cronbach's coefficient alpha was calculated for the questionnaire used in this study and for the different constructs. The alpha values ranged from 0.818 to 0.940 as shown in Table 7.7.

Table 7.7 Reliability analysis scores of the constructs in the questionnaire used in this study

Variable	Number of items	Number of respondents	Cronbach's Coefficient Alpha scores
Section C: Entrepreneurial intent	Nine items: C1 to C9	N=330	0.903
Section D: Attitude towards starting a business/becoming an entrepreneur	Six items: D1 to D6	N=333	0.872
Section E: Perceived behavioural control	Nine items: E1 to E9	N=331	0.818
Section F: Entrepreneurial support	26 items: F1 to F16b	N=311	0.926
Section G: Social capital	15 items: G1 to G15	N=315	0.854
Section H: Entrepreneurial self-efficacy	24 items: H1 to H24	N=203	0.940
Section I: Entrepreneurial competencies	Four items: I1 to I4	N=221	0.819

The reliability scores for the constructs in the questionnaire used in this study were higher than the cut-off value of 0.60 as suggested by Wu and Wu (2008:761). Therefore, given the high reliability scores of the constructs the questionnaire was considered to be reliable.

7.4 SUMMARY

The purpose of this chapter was to explain the different steps in the research process that were followed in this study. The research problem, objectives and the hypotheses were reviewed. This study used a descriptive research design that was carried out by means of a survey. Structured questionnaires that were based on nominal scales and ordinal scales were used for data collection. Problems that were encountered during the data collection stage were highlighted. Data was collected from a total number of 355 third year students who were registered in 2010 for ND: E/SBM, ND: IAUD, CMA and FIS and ND: Management. The reasons for using these groups of students were mentioned. Data analysis techniques that were used include descriptive statistics and nonparametric statistics.

The findings of the survey are presented in the next chapter.

CHAPTER 8: ANALYSIS AND INTERPRETATION OF THE RESEARCH FINDINGS

8.1 INTRODUCTION

The research methodology that was followed in this study was discussed in the previous chapter. This chapter deals with the analysis and interpretation of the survey data. The results of the research are presented by means of tables and charts. The presentation of the results begins with the demographic characteristics of the respondents and their entrepreneurial knowledge and work experience. This is then followed by the presentation of the findings according to the objectives and hypotheses that were formulated in sections 1.5.1 to 1.5.3 of Chapter 1. The main purpose of this chapter is to present the findings on whether final-year commerce students in the predominantly rural provinces, in particular, the Eastern Cape and Limpopo, have the intention to start their own businesses in the future. Additionally, it serves to confirm or refute whether the level of awareness of entrepreneurial support, social capital, perceived entrepreneurial self-efficacy (ESE) and entrepreneurial competencies are related to entrepreneurial intent; and whether students who were exposed to entrepreneurship education perceive their own entrepreneurial self-efficacy and entrepreneurial competencies differently from those who were not exposed to entrepreneurship education.

8.2 DEMOGRAPHIC CHARACTERISTICS

Data relating to the demographic characteristics of the respondents were part of section A of the questionnaire (Appendix 1). A total number of 355 final year students who were registered for the academic year 2010 completed the entrepreneurial intent questionnaire. Of this number 276 were from Walter Sisulu University (WSU) in the Eastern Cape Province and 79 from Tshwane University of Technology (TUT) Polokwane Campus in the Limpopo Province. Table 8.1 shows the number of the respondents from WSU and TUT and their different levels of exposure to entrepreneurship education. The respondents who were registered for the National Diploma (ND): Entrepreneurship/small Business Management (E/SBM) had had three

years exposure to entrepreneurship education. The respondents from the ND: Internal Auditing, Cost and Management Accounting and Financial information systems (IAUD, CMA and FIS) had had six months exposure to entrepreneurship education whereas the respondents registered for the ND: Management did not have exposure to entrepreneurship education. These different levels of exposure to entrepreneurship education were used to determine whether students who were exposed to entrepreneurship education would perceive their own entrepreneurial competencies differently from those who were not exposed to entrepreneurship education; whether there were differences between the respondents in their intention to start a business based on their exposure to entrepreneurship education and whether there was a relationship between exposure to entrepreneurship education and perceived entrepreneurial self-efficacy (ESE).

Table 8.1: Distribution of respondents by institution, province and qualifications enrolled for

Institution	Qualification	Frequency	Percentage (%)
TUT Limpopo	ND: E/SBM (3yrs exposure to entrepreneurship education)	17	21.5
	ND: IAUD (6 months exposure to entrepreneurship education)	38	48.1
	ND: Management (no exposure to entrepreneurship education)	24	30.4
	Total number of TUT respondents	79	100
WSU Eastern Cape	ND: E/SBM (3yrs exposure to entrepreneurship education)	53	19.2
	ND: IAUD, CMA & FIS (6 months exposure to entrepreneurship education)	183	66.3
	ND: Management (no exposure to entrepreneurship education)	40	14.5
	Total number of WSU respondents	276	100
TUT Limpopo – total number of respondents		79	22.3
WSU Eastern Cape – total number of respondents		276	77.7
Total number of respondents		355	100.0

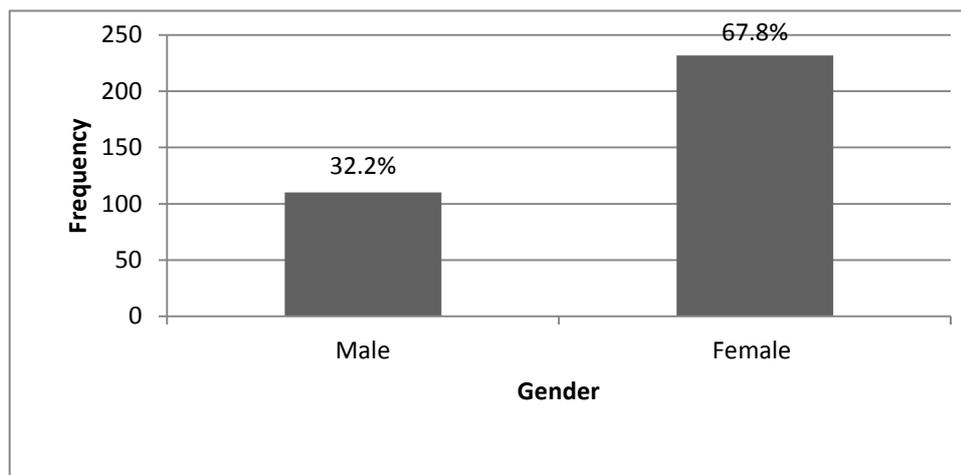
In terms of the qualifications enrolled for at the two institutions, 70 respondents (19.7%) were enrolled for the ND: E/SBM, 64 respondents (18.0%) were enrolled for the ND: Management and 221 respondents (62.3%) were enrolled for the ND: IAUD,

CMA and FIS, as illustrated in Table 8.2. TUT had students who were registered for ND: IAUD only. Statistical test results are discussed in sections 8.9 and 8.10 to indicate whether these groups of respondents are statistically significantly different with regard to their intention to start a business, perceived ESE (H_{09} and H_{19}) and entrepreneurial competencies (H_{010} and H_{110}) based on their exposure to entrepreneurship education. It will also be possible on the basis of the results, to explain whether the respondents are statistically significantly different in their attitudes towards becoming entrepreneurs and perceived behavioural control, which have been reported in Chapter 2 to be robust predictors of entrepreneurial intent. Since Management students had no exposure to entrepreneurship courses in their studies, they served as a control group.

Table 8.2: Distribution of respondents by qualification enrolled for

Qualification	Frequency	Percentage (%)
ND: E/SBM (3yrs exposure to entrepreneurship education)	70	19.7
ND: IAUD, CMA & FIS (6 months exposure to entrepreneurship education)	221	62.3
ND: Management (no exposure to entrepreneurship education)	64	18.0
Total	355	100.0

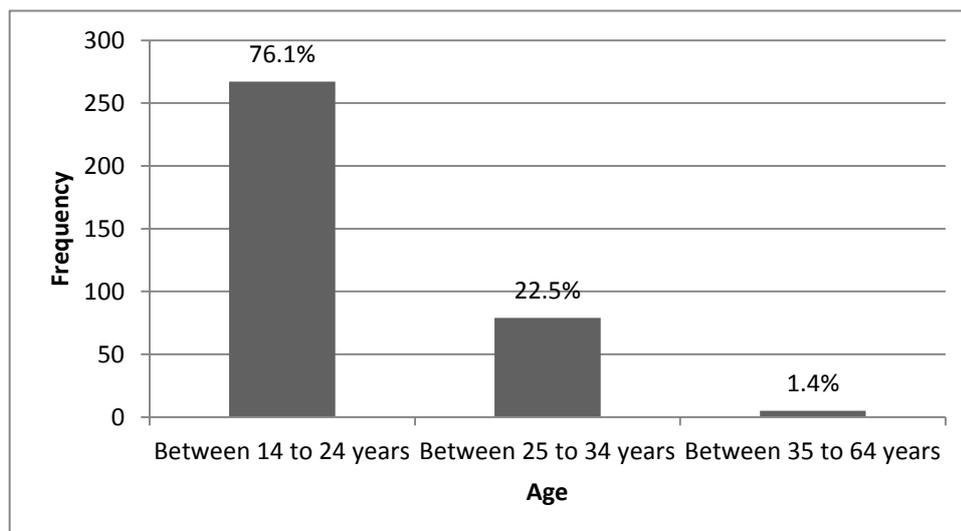
Of all the respondents, 67.8 percent were female and 32.2 percent were male students, as illustrated in Figure 8.1 (see Table 1 in Appendix 2). As shown in Table 8.3, the majority of the respondents in all the qualifications at WSU were female students while more female students at TUT were found in the ND: Management and ND: E/SBM with the exception of the ND: IAUD where the percentage of male students was slightly higher than that of female students.

Figure 8.1: Distribution of respondents by gender**Table 8.3: Distribution of the respondents by gender and qualification**

WSU*						TUT*					
ND: Management		ND:E/SBM		ND:IAUD, CMA & FIS		ND: Management		ND:E/SBM		ND:IAUD	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
14	26	12	39	49	123	9	15	6	11	20	18
35%	65%	23.5%	76.5%	28.5%	71.5%	37.5%	62.5%	35.3%	64.7%	52.6%	47.4%

* Number of respondents per qualification may be slightly different owing to 13 WSU respondents who did not indicate their gender.

The majority (76.1%) of these respondents were between 14 and 24 years, 22.5 percent were between 25 and 34 years and just above one percent were between 35 and 64 years, as shown in Figure 8.2 (see Table 2 in Appendix 2). With 98.6 percent of the respondents falling below the age of 35 years, it means that the respondents were an ideal group for studying the entrepreneurial intent of the youth. Thus, the results could be valuable for policy makers dealing with youth entrepreneurship development issues, particularly the rural youth.

Figure 8.2: Distribution of respondents by age

8.3 WORK EXPERIENCE AND ENTREPRENEURIAL KNOWLEDGE

This section presents the findings relating to the entrepreneurial knowledge and work experience of the respondents (Section B of the questionnaire - Appendix 1). The relevance of these findings in this research lies in the fact that entrepreneurial knowledge and work experience were found in the literature to be positively related to entrepreneurial intent and its antecedents (as discussed in Chapter 2, sections 2.4.1, 2.4.4 & 2.5.1.1). Of all the respondents, 4.1 percent were 'currently employed' (B1) while 30.2 percent 'had been previously employed' (B2) as shown in Table 8.4. Of the responding students, 6.6 percent were 'currently running their own businesses' (B3), 34 percent 'had family members running a business' (B4), 28.1 percent 'had friends who are currently running businesses' (B5), 57.8 percent 'knew other people who are entrepreneurs' (B6), and 26.7 percent 'had tried to start a business before' (B7). The statistical significance of the relationship between these attributes and entrepreneurial intent were tested and are discussed in sections 8.4.3, 8.5.4 and 8.6.4.

Table 8.4: Entrepreneurial knowledge and work experience of the respondents

Knowledge and experience factors	Frequency	Percentage (%)		Total
		Yes	No	
<i>Work experience</i>				
B1 - Are you currently employed?	345	4.1	95.9	100
B2 - Have you ever been employed before?	344	30.2	69.8	100
<i>Entrepreneurial knowledge</i>				
B3 - Are you currently running a business?	351	6.6	93.4	100
B4 - Are any of your family members running a business?	350	34.0	66.0	100
B5 - Are any of your friends running a business?	349	28.1	71.9	100
B6 - Do you know any other person who is an entrepreneur?	344	57.8	42.2	100
B7 - Have you ever tried to start a business before?	345	26.7	73.3	100

8.4 ENTREPRENEURIAL INTENT

The primary aim of this study was to assess whether final-year commerce students in the Eastern Cape Province and Limpopo Province had the intention to start a business. In this section the responses to the questions relating to entrepreneurial intent (Table 8.5) are presented and followed by a discussion of the significance testing of the relationships between entrepreneurial intent and the demographic data.

The respondents were asked to indicate whether they had the intention to start a business by answering nine questions on entrepreneurial intent (C1 to C9 of Appendix 1) on a five-point Likert scale ranging from “1 = strongly disagree” to “5 = strongly agree”. The results in Table 8.5 show that the majority of the respondents had the intention to start their own businesses in the future. Based on a combination of scores on ‘agree’ and ‘strongly agree’, the highest percentage of the respondents who had the intention to start their own businesses has been observed on “I am determined to create a business venture in the future” (C4) (80%) followed by “I will make every effort to start and run my own business” (C3) (78.1%), “I have very seriously thought of starting a business in the future” (C6) (77%), “My qualification has contributed positively towards my interest to start a business” (C8) (76.5%), “I have a strong intention of ever starting a business in the future” (C7) (72.5%), “I do not have doubts

about ever starting my own business in the future” (C5) (71.8%), “I am ready to do anything to be an entrepreneur” (C1) (62.3%) and “My professional goal is to be an entrepreneur” (C2) (54.8%).

The lowest percentage was observed on “I had a strong intention to start my own business before I started with my qualification” (C9) with 38.9 percent. A comparison of the entrepreneurial intent of the respondents before they started with their qualifications (question C9, 38.9%) and the contribution of the qualification to the formation of entrepreneurial intent (question C8, 76.5%) reveals that exposure to education (the majority received at least 6 months entrepreneurship education) contributed positively to their interest in starting their own businesses.

Furthermore, it seems from Table 8.5 that the respondents differentiated between becoming an entrepreneur (C1 & C2) and starting their own business (C3 & C7). With regard to starting their own business, higher percentages of the respondents ‘agreed’ and ‘strongly agreed’ to “I will make every effort to start and run my own business” (C3) up to “I have a strong intention of ever starting a business in the future” (C7). With regard to becoming an entrepreneur, lower percentages of the respondents ‘agreed’ and ‘strongly agreed’ to “I am ready to do anything to be an entrepreneur” (C1) and “My professional goal is to be an entrepreneur” (C2).

Table 8.5: Entrepreneurial intent of the respondents

Entrepreneurial intent factors	Frequency	Percentage (%)					Total
		Strongly disagree	Disagree	Unsure	Agree	Strongly agree	
C1 - I am ready to do anything to be an entrepreneur.	350	4.3	6.5	26.9	32.9	29.4	100
C2 – My professional goal is to be an entrepreneur.	348	7.2	15.2	22.7	28.4	26.4	100
C3 - I will make every effort to start and run my own business.	347	3.5	6.6	11.8	34.6	43.5	100
C4 - I am determined to create a business venture in the future.	350	2.0	2.6	15.4	41.7	38.3	100
C5 - I do not have doubts about ever starting my own business in the future.	348	3.4	6.3	18.4	31.3	40.5	100
C6 - I have very seriously thought of starting a business in the future.	347	2.9	7.5	12.7	37.5	39.5	100
C7 - I have a strong intention of ever starting a business in the future.	346	2.9	7.2	17.3	37.0	35.5	100
C8 - My qualification has contributed positively towards my interest to start a business.	345	3.5	7.5	12.5	36.5	40.0	100
C9 - I had a strong intention to start my own business before I started with my qualification.	347	8.9	27.4	24.8	23.9	15.0	100

8.4.1 Institutional differences with regard to entrepreneurial intent

In chapter 1, it was reported that the Eastern Cape Province and the Limpopo Province have high unemployment rates and are regarded as the poorest provinces in South Africa. Knowledge about the differences in entrepreneurial intent of the

respondents from WSU and TUT based in these provinces, respectively, would lead to a better understanding of their views regarding entrepreneurship, which has been widely recognised as a source of employment and a means of poverty reduction. The first null hypothesis (H_{01}) which states that “*No institutional differences exist between students with regard to entrepreneurial intent*” was tested using the nonparametric Mann-Whitney U test (data were collected on an ordinal scale). Statistically significant differences were found between the respondents at WSU and TUT with regard to three of the nine questions. The responses of the respondents at WSU differed statistically significantly (at the 1% and 5% level of significance) from those at TUT with regard to the factors “I have seriously thought of starting a business in the future” (C6, $p = 0.0060$), “I have a strong intention of ever starting a business in the future” (C7, $p = 0.0126$) and “My qualification has contributed positively towards my interest to start a business” (C8, $p = 0.0043$) as shown in Table 8.6. From the values of the mean rank it seems that the respondents from WSU (Eastern Cape) agree stronger with the three entrepreneurial intent factors listed above than the respondents from TUT (Limpopo). Since the respondents are not statistically significantly different on all nine entrepreneurial intent factors (C1 to C9 in Table 8.5) the null hypothesis cannot be rejected. Therefore, the conclusion cannot be made that institutional differences exist between the respondents with regard to entrepreneurial intent.

Table 8.6: Differences of responses on selected entrepreneurial intent factors by institution

Entrepreneurial intent factors	Mean rank	p-value	Statistical significance
C6 - I have very seriously thought of starting a business in the future.	TUT Limpopo = 147.72 WSU Eastern Cape = 181.37	0.0060	Significant at the 1% level of significance
C7 - I have a strong intention of ever starting a business in the future.	TUT Limpopo = 149.31 WSU Eastern Cape = 179.81	0.0126	Significant at the 5% level of significance
C8 - My qualification has contributed positively towards my interest to start a business.	TUT Limpopo = 146.31 WSU Eastern Cape = 180.80	0.0043	Significant at the 1% level of significance

8.4.2 Entrepreneurial intent of the respondents based on their gender

In a male dominated society, it may be expected that the males would have a greater entrepreneurial intent than the females. This would not be surprising given the findings from multiple countries indicating that men have higher entrepreneurial intent than women (section 2.4.3 of Chapter 2). When comparing the percentage of respondents who had 'strongly agreed' with all the entrepreneurial intent factors, C1 to C9 (Table 8.7), it is evident that the male respondents score higher on entrepreneurial intent than their female counterparts.

Table 8.7: Entrepreneurial intent of the respondents by gender

Male								Female							
Variables	N	Percentage (%)					Total	Variables	N	Percentage (%)					Total
		*SD	*D	*U	*A	*SA				SD	D	U	A	SA	
C1	108	3	1	15	32	49	100	C1	231	4	7	33	33	23	100
C2	105	4	10	22	31	33	100	C2	230	7	17	24	28	24	100
C3	105	3	1	9	29	59	100	C3	230	3	7	14	39	37	100
C4	105	0	3	9	39	50	100	C4	231	3	1	16	44	36	100
C5	105	1	5	16	30	49	100	C5	232	4	6	19	35	36	100
C6	104	0	3	11	40	46	100	C6	230	4	9	13	36	38	100
C7	102	0	4	13	42	41	100	C7	225	4	9	20	36	32	100
C8	104	3	19	7	41	44	100	C8	230	3	7	15	35	40	100
C9	104	7	21	27	29	16	100	C9	233	10	31	25	22	12	100

* SD = Strongly disagree, * D = Disagree, * U = Unsure, * A = Agree, * SA = Strongly agree.

The second null hypothesis (H_{02}) states that “*No gender differences exist between students in entrepreneurial intent*”. The statistical significance of gender differences among the respondents with regard to their entrepreneurial intent were tested using the nonparametric Mann-Whitney U test. The test results revealed that male respondents differed statistically significantly (at the 1%, 5% and 10% level of significance) from female respondents with regard to eight of the nine factors of entrepreneurial intent. These include “I am ready to do anything to be an entrepreneur” (C1, $p = 0.000$); “My professional goal is to be an entrepreneur” (C2, $p = 0.0029$); “I will make every effort to start and run my own business” (C3, $p = 0.0013$); “I am determined to create a business venture in the future” (C4, $p = 0.0117$); “I do not have doubts about ever starting my own business in the future” (C5, $p = 0.0563$); “I have very seriously thought of starting a business in the future” (C6, $p = 0.0308$); “I have a

strong intention of ever starting a business in the future” (C7, $p = 0.0066$) and “I had a strong intention to start my own business before I started with my qualification” (C9, $p = 0.0074$). For all these entrepreneurial intent factors male respondents had a higher mean rank values than female respondents. With regard to the factor “My qualification has contributed positively towards my interest to start a business” (C8), males and females responded similarly (Table 8.7). The results for C8 do not appear in Table 8.8 because there was no statistically significant difference between male and female respondents. The results suggest that the qualifications of respondents irrespective of whether they had content related to entrepreneurship enhanced entrepreneurial intent of female respondents. Therefore, the conclusion cannot be made that male and female respondents differ in entrepreneurial intent. Such differences only exist when the influence of the qualifications on the entrepreneurial intent of the respondents is not taken into account.

Table 8.8: Gender differences in entrepreneurial intent

Entrepreneurial intent factors	Mean rank	p-value	Statistical significance
C1 - I am ready to do anything to be an entrepreneur.	Male = 201.7 Female = 153.37	0.0000	Significant at the 1% level of significance
C2 – My professional goal is to be an entrepreneur.	Male = 190.17 Female = 157.45	0.0029	Significant at the 1% level of significance
C3 - I will make every effort to start and run my own business.	Male = 190.62 Female = 156.6	0.0013	Significant at the 1% level of significance
C4 - I am determined to create a business venture in the future.	Male = 187.67 Female = 160.97	0.0117	Significant at the 5% level of significance
C5 - I do not have doubts about ever starting my own business in the future.	Male = 182.49 Female = 161.96	0.0563	Significant at the 10% level of significance
C6 - I have very seriously thought of starting a business in the future.	Male = 183.67 Female = 160.65	0.0308	Significant at the 5% level of significance
C7 - I have a strong intention of ever starting a business in the future.	Male = 186.85 Female = 157.73	0.0066	Significant at the 1% level of significance
C9 - I had a strong intention to start my own business before I started with my qualification.	Male = 188.23 Female = 158.64	0.0074	Significant at the 1% level of significance

Since statistically significant gender differences were found in entrepreneurial intent, it was also necessary to know about the strength of the association between gender and entrepreneurial intent. The Goodman and Kruskal tau test (a proportional reduction in

error measure) was used to test the strength of the association between gender and entrepreneurial intent. A statistically significant relationship between entrepreneurial intent and gender was found (at the 1% and 5% level of significance) on three entrepreneurial intent factors namely, “I am ready to do anything to be an entrepreneur” (C1, $p = 0.00002$); “I will make every effort to start and run my own business” (C3, $p = 0.00064$) and “I am determined to create a business venture in the future” (C4, $p = 0.02701$). However, the Goodman and Kruskal tau values were quite low (C1 = 0.02016; C3 = 0.01461; C4 = 0.00813), meaning that very little is gained by knowing gender in predicting these three entrepreneurial intent factors.

8.4.3 The relationship between entrepreneurial intent and entrepreneurial knowledge and work experience of the respondents

Owing to the fact that entrepreneurial knowledge, prior start-up experience and work experience were found to be significantly related to entrepreneurial intent and its antecedents (section 2.5.1.1 in Chapter 2), it was interesting to find out how these factors were associated with entrepreneurial intent of the respondents at WSU in the Eastern Cape Province and TUT in the Limpopo Province. Testing these factors in a different context would help confirm or dispute the previous findings and shed light into other factors associated with entrepreneurial intent other than the ones identified in this study. The third null hypothesis (H_{03}) to test the association between entrepreneurial intent and entrepreneurial knowledge and work experience states that *“No relationship exists between entrepreneurial intent and entrepreneurial knowledge and work experience”*. To measure the strength of the association between the entrepreneurial knowledge and work experience (from Table 8.4) of the respondents and entrepreneurial intent, Cramer’s V test was used. The reason for using this statistical technique was because the Pearson correlation could not be calculated for a nominal value (entrepreneurial knowledge and work experience, section B of appendix 1) and ordinal value (entrepreneurial intent, section C of Appendix 1) combination. The Pearson correlation can only be calculated if both variables are measured on either an interval or ratio scale. Cramer’s V test is a statistical technique that is used to measure the strength of the association between one nominal variable with either another nominal variable, or with an ordinal variable.

Each of the seven aspects (B1 to B7) constituting entrepreneurial knowledge and work experience was tested individually against the nine entrepreneurial intent factors (C1 to C9). The test results (in Table 8.9) revealed that only three aspects of the entrepreneurial knowledge and work experience of the respondents were statistically significantly associated with only one of the nine factors of entrepreneurial intent, namely “I have a strong intention of ever starting a business” (C7). However, this relationship is moderate as only one of the Cramer’s V test values is just above 0.2. “Having tried to start a business before” (B7) had a moderate association with one of the entrepreneurial intent factors namely – “I have a strong intention of ever starting a business in the future” (C7) (Cramer’s V test value = 0.21374, $p = 0.00403$). No statistically significant relationships were found between entrepreneurial knowledge and work experience as measured in section B of the questionnaire and any of the other eight factors of entrepreneurial intent detailed in Table 8.5. Therefore, the null hypothesis cannot be rejected and thus the conclusion cannot be made that entrepreneurial knowledge and work experience are related to entrepreneurial intent.

Table 8.9: The relationship between the entrepreneurial knowledge and work experience of the respondents and their intention to start a business

Correlations with entrepreneurial intent (C7 – I have a strong intention of ever starting a business)	Cramer’s V	Approximate significance (p-value)	Statistical significance
<i>Work experience</i>			
B2. Have you ever been employed before?	0.16860	0.04986	Significant at the 5% level of significance
<i>Entrepreneurial knowledge</i>			
B6. Do you know any other person who is an entrepreneur?	0.17396	0.03865	Significant at the 5% level of significance
B7. Have you ever tried to start a business before?	0.21374	0.00403	Significant at the 1% level of significance

8.4.4 Entrepreneurial intent of the respondents based on their exposure to entrepreneurship education

Previous research has found the existence of a significant relationship between exposure to entrepreneurship education and entrepreneurial intent as well as start-up of new ventures (section 3.6 of Chapter 3). In line with the objectives of this research, this section focuses on the analysis to determine whether students who had six months exposure to entrepreneurship education and three years exposure to entrepreneurship education would differ from those who did not have exposure to entrepreneurship education in entrepreneurial intent. The null hypothesis that was tested for these differences states that *“No differences exist in entrepreneurial intent between students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education”*.

From Table 8.10 below the results show that the ND: E/SBM students (3-years exposure to entrepreneurship education) had stronger intentions to start their own businesses than the ND: IAUD/CMA/FIS (6-months exposure to entrepreneurship education) and the ND: Management students (no exposure to entrepreneurship education). This is particularly evident when the percentages for ‘agree’ and ‘strongly agree’ are combined for the three categories of respondents for entrepreneurial intent factors C1 to C8. For the combined data, no difference exists between the ND: E/SBM students and the ND: Management students with regard to “I had a strong intention to start my own business before I started with my qualification” (C9).

Interestingly, the entrepreneurial intent of the ND: Management students (who did not have exposure to entrepreneurship education) was found to be stronger than that of ND: IAUD/CMA/FIS students (who had 6-months exposure to entrepreneurship education) for: “I am ready to do anything to be an entrepreneur” (C1), “My professional goal is to be an entrepreneur” (C2), “I will make every effort to start and run my own business” (C3), “I am determined to create a business venture in the future” (C4), “I do not have doubts about ever starting my own business in the future” (C5), “I have very seriously thought of starting a business in the future” (C6), and “I have a strong intention of ever starting a business in the future” (C7). A possible factor that may have contributed to this phenomenon is that the ND: Management students

had a stronger intention to start their own businesses, before they had even started their studies. They scored substantially higher (48.4%) on “I had a strong intention to start my own business before I started with my qualification” (C9) than the ND: IAUD/CMA/FIS students (30.7%) on the combined scores. It does not seem if the education that the students had received had contributed to this phenomenon. A material difference does not exist between the combined scores (‘agree’ and ‘strongly agree’ combined) for these two groups (ND: Management students – 77.4%, ND: IAUD/CMA/FIS – 73.5%) with regard to “My qualification has contributed positively towards my interest to start a business” (C8).

The results revealed that even though entrepreneurial intent of the three groups of students had improved as a result of the qualifications they enrolled for, students who had three years of exposure to entrepreneurship education (ND: E/SBM students) had stronger intentions to start their own businesses than the ND: IAUD/CMA/FIS students with six months exposure to entrepreneurship education and the ND: Management students without exposure to entrepreneurship education. Nevertheless, the majority in all three qualification groups ‘agree’ and ‘strongly agree’ (91%, 74% and 77% respectively) that “My qualification has contributed positively towards my interest to start a business”.

Table 8.10: Entrepreneurial intent of the respondents by qualification

Entrepreneurial intent factors	ND: E/SBM (3 years exposure to entrepreneurship education)				ND: IAUD/CMA/FIS (6 months exposure to entrepreneurship education)				ND: MANAGEMENT (no exposure to entrepreneurship education)			
	N	Percentage (%)		Total (%)	N	Percentage (%)		Total (%)	N	Percentage (%)		Total (%)
		*A	*SA			A	SA			A	SA	
C1 - I am ready to do anything to be an entrepreneur.	67	44.8	41.8	87	219	27.4	27.8	55	63	38.1	30.2	68
C2 – My professional goal is to be an entrepreneur.	67	38.8	46.3	85	215	24.2	19	43	63	30.2	27	57
C3 - I will make every effort to start and run my own business.	68	36.8	58.8	96	214	35	35.5	71	63	34.9	49.2	84
C4 - I am determined to create a business venture in the future.	68	50	47.1	97	215	40	37.2	77	63	36.5	42.9	79
C5 - I do not have doubts about ever starting my own business in the future.	68	30.9	50	81	216	33.3	36.1	69	62	33.9	40.3	74
C6 - I have very seriously thought of starting a business in the future.	67	32.8	56.7	90	215	37.2	36.7	74	62	41.9	35.5	77
C7 - I have a strong intention of ever starting a business in the future.	66	37.9	48.5	86	211	36.5	31.3	68	60	41.7	30	72
C8 - My qualification has contributed positively towards my interest to start a business.	67	31.3	59.7	91	215	36.3	37.2	74	62	43.5	33.9	77
C9 - I had a strong intention to start my own business before I started with my qualification.	67	29.9	17.9	48	218	18.8	11.9	31	62	33.9	14.5	48

* A = Agree, * SA = Strongly agree.

The fourth null hypothesis (H_{04}) states that “*No differences exist in entrepreneurial intent between students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education*”. Statistical tests for the differences between the ND: E/SBM students, the ND: IAUD, CMA and FIS students and the ND: Management students in their intention to start their own businesses were conducted by means of the Kruskal-Wallis test. The results of these tests in Table 8.11 indicate that the ND: E/SBM students, the ND: IAUD, CMA and FIS students and the ND: Management students were statistically significantly different (at the 1% level of significance) in their intention to start a business in respect of the following entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1, $p = 0.0004$); “My professional goal is to be an entrepreneur” (C2, $p = 0.0000$); “I will make every effort to start and run my own business” (C3, $p = 0.0002$); “I am determined to create a business venture in the future” (C4, $p = 0.0100$); “I have very seriously thought of starting a business in the future” (C6, $p = 0.0034$); “I have a strong intention of ever starting a business in the future” (C7, $p = 0.0008$); “My qualification has contributed positively towards my interest to start a business” (C8, $p = 0.0004$) and “I had a strong intention to start my own business before I started with my qualification” (C9, $p = 0.0054$). The three groups were similar in their entrepreneurial intent with respect to “I do not have doubts about ever starting my own business in the future” (C5). The results for this entrepreneurial intent factor were not included in Table 8.11 because they were not statistically significant. Since the three groups of respondents were not statistically significantly different on all nine entrepreneurial intent factors the null hypothesis cannot be rejected. Therefore, the conclusion cannot be made that the ND: E/SBM students, the ND: IAUD, CMA and FIS students and the ND: Management students differed in their intention to start a business.

Table 8.11: Differences between the ND: E/SBM students, the ND: IAUD, CMA and FIS students and the ND: Management students in their intention to start a business

Entrepreneurial intent factors	Chi-square	Degrees of freedom	p-value	Statistical significance
C1 - I am ready to do anything to be an entrepreneur.	15.7498	2	0.0004	Significant at the 1% level of significance
C2 – My professional goal is to be an entrepreneur.	34.3408	2	0.0000	Significant at the 1% level of significance
C3 - I will make every effort to start and run my own business.	17.5011	2	0.0002	Significant at the 1% level of significance
C4 - I am determined to create a business venture in the future.	9.2140	2	0.0100	Significant at the 1% level of significance
C6 - I have very seriously thought of starting a business in the future.	11.3769	2	0.0034	Significant at the 1% level of significance
C7 - I have a strong intention of ever starting a business in the future.	14.3833	2	0.0008	Significant at the 1% level of significance
C8 - My qualification has contributed positively towards my interest to start a business.	15.9107	2	0.0004	Significant at the 1% level of significance
C9 - I had a strong intention to start my own business before I started with my qualification.	10.4608	2	0.0054	Significant at the 1% level of significance

In order to provide a meaningful interpretation of the differences evident in Table 8.11, comparisons of the mean ranks are made of two qualification groups at a time. Firstly, the entrepreneurial intent of the ND: E/SBM students and the ND: Management students are compared. The second comparison involves the ND: Management and the ND: IAUD, CMA and FIS students. Lastly, the ND: E/SBM students and the ND: IAUD, CMA and FIS students are compared.

ND: E/SBM students compared with the ND: Management students with regard to their entrepreneurial intent

The nonparametric Mann-Whitney U test was used to test the statistical significance of the differences between the ND: E/SBM students (who had three years exposure to entrepreneurship education) and the ND: Management students (who did not have exposure to entrepreneurship education) in entrepreneurial intent. This statistical technique was used in order to accept or reject the null hypothesis (H_{04a}) which states *“No differences exist in entrepreneurial intent between students who have had three years exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education”*. The ND: E/SBM students differed statistically significantly (at the 1% and 5% level of significance) from the ND: Management students on six entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1, $p = 0.0139$); “My professional goal is to be an entrepreneur” (C2, $p = 0.0001$); “I am determined to create a business venture in the future” (C4, $p = 0.0341$); “I have very seriously thought of starting a business in the future” (C6, $p = 0.0031$); “I have a strong intention of ever starting a business in the future” (C7, $p = 0.0008$) and “My qualification has contributed positively towards my interest to start a business” (C8, $p = 0.0006$) (Table 8.12). From these significant test results and the value of the mean rank scores, it follows that the ND: E/SBM group who had three years exposure to entrepreneurship education had a stronger entrepreneurial intent than the ND: Management group who had no exposure to entrepreneurship education. Entrepreneurship education seems to have made a significant difference as the ND: E/SBM group’s mean rank value for “My qualification has contributed positively towards my interest to start a business” (C8) is substantially higher than that of the ND: Management group (75.63 and 54.73 respectively – Table 8.12). In spite of the fact that both groups started off with identical and rather low scores (48% for a combined ‘agree’ and ‘strongly agree’ – Table 8.10) on the factor “I had a strong intention to start my own business before I started with my qualification” (C9), the ND: E/SBM group have significantly changed their entrepreneurial intent as evident from Tables 8.10 and 8.12. In the light of these results the null hypothesis cannot be rejected. Therefore, the conclusion cannot be made that ND: E/SBM students and the ND: Management students were different in entrepreneurial intent.

Table 8.12: Differences between the ND: E/SBM students and the ND: Management students in their intention to start a business

Entrepreneurial intent factors	Mean rank	p-value	Statistical significance
C1 - I am ready to do anything to be an entrepreneur.	ND: E/SBM = 73.98 ND: Management = 58.55	0.0139	Significant at the 5% level of significance
C2 – My professional goal is to be an entrepreneur.	ND: E/SBM = 78.37 ND: Management = 53.89	0.0001	Significant at the 1% level of significance
C4 - I am determined to create a business venture in the future.	ND: E/SBM = 72.76 ND: Management = 59.84	0.0341	Significant at the 5% level of significance
C6 - I have very seriously thought of starting a business in the future.	ND: E/SBM = 74.76 ND: Management = 56.54	0.0031	Significant at the 1% level of significance
C7 - I have a strong intention of ever starting a business in the future.	ND: E/SBM = 75.60 ND: Management = 54.75	0.0008	Significant at the 1% level of significance
C8 - My qualification has contributed positively towards my interest to start a business.	ND: E/SBM = 75.63 ND: Management = 54.73	0.0006	Significant at the 1% level of significance

ND: Management students compared with the ND: IAUD, CMA and FIS students with regard to their entrepreneurial intent

The null hypothesis (H_{04b}) which states that “*No differences exist in entrepreneurial intent between students who have had six months exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education*” was tested using the nonparametric Mann-Whitney U test. The results (Table 8.13) reveal that the ND: Management students (who had no exposure to entrepreneurship education) differed statistically significantly from the ND: IAUD, CMA and FIS students (who had six months exposure to entrepreneurship education) (at the 5% level of significance) with regard to only one entrepreneurial intent factor, namely “I had a strong intention to start my own business before I started with my qualification” (C9, $p = 0.0216$) (the null hypothesis cannot be rejected). The ND: Management students (control group) had stronger intentions to start their own business before they started with their qualification more so than the group that had been exposed to a six-month module in entrepreneurship – the ND: IAUD, CMA and FIS students. The ND: Management students had a higher mean rank value of 160.34 compared to the ND:

IAUD, CMA and FIS students with the mean rank value of 134.62. Although the ND: Management students had a stronger intention to start a business than the ND: IAUD, CMA and FIS students before they started with their qualification, the results suggest that the respondents who have had six months exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education were similar in entrepreneurial intent in terms of the remaining eight factors. This is based on the fact that no statistical significant differences were found between the ND: IAUD, CMA and FIS students and the ND: Management students on the remaining eight entrepreneurial intent factors. Therefore, the conclusion cannot be made that the ND: IAUD, CMA and FIS students and the ND: Management students were different in entrepreneurial intent.

Table 8.13: Differences between the ND: Management students and the ND: IAUD, CMA and FIS students in their intention to start a business

Entrepreneurial intent factors	Mean rank	p-value	Statistical significance
C9 - I had a strong intention to start my own business before I started with my qualification.	ND: Management = 160.34 ND: IAUD, CMA and FIS = 134.62	0.0216	Significant at the 5% level of significance

ND: E/SBM students compared with the ND: IAUD, CMA and FIS students with regard to their entrepreneurial intent

The nonparametric Mann-Whitney U test was used to test the null hypothesis (H_{04c}) which states that *“No differences exist in entrepreneurial intent between students who have had three years exposure to entrepreneurship education and those who have had six months exposure to entrepreneurship education”*. The results (Table 8.14) indicate that the ND: E/SBM students (who had three years exposure to entrepreneurship education) differed statistically significantly (mostly at the 1% level of significance) from the ND: IAUD, CMA and FIS students (who had six months exposure to entrepreneurship education) in entrepreneurial intent on all nine factors, namely “I am ready to do anything to be an entrepreneur” (C1, $p = 0.0001$); “My professional goal is to be an entrepreneur” (C2, $p = 0.0000$); “I will make every effort to

start and run my own business” (C3, $p = 0.0000$); “I am determined to create a business venture in the future” (C4, $p = 0.0024$); “I do not have doubts about ever starting my own business in the future” (C5, $p = 0.0192$); “I have very seriously thought of starting a business in the future” (C6, $p = 0.0017$); “I have a strong intention of ever starting a business in the future” (C7, $p = 0.0005$); “My qualification has contributed positively towards my interest to start a business” (C8, $p = 0.0002$) and “I had a strong intention to start my own business before I started with my qualification” (C9, $p = 0.0062$). For each one of these factors, the mean rank values of the ND: E/SBM group are significantly higher than that of the ND: IAUD, CMA and FIS group even though the latter had a six months exposure to entrepreneurship education. This indicates that the three years exposure to entrepreneurship education had a stronger positive effect on entrepreneurial intent than the six months exposure to entrepreneurship education. Therefore, the null hypothesis (H_{04c}) is rejected in favour of the alternative hypothesis and the conclusion is that the entrepreneurial intent of students who had had three years exposure to entrepreneurship education differed from those who had had six months exposure to entrepreneurship education.

Table 8.14: Differences between the ND: E/SBM students and the ND: IAUD, CMA and FIS students in their entrepreneurial intent

Entrepreneurial intent factors	Mean rank	p-value	Statistical significance
C1 - I am ready to do anything to be an entrepreneur.	ND: E/SBM = 176.71 ND: IAUD, CMA and FIS = 133.14	0.0001	Significant at the 1% level of significance
C2 – My professional goal is to be an entrepreneur.	ND: E/SBM = 191.64 ND: IAUD, CMA and FIS = 127.03	0.0000	Significant at the 1% level of significance
C3 - I will make every effort to start and run my own business.	ND: E/SBM = 174.59 ND: IAUD, CMA and FIS = 131.49	0.0000	Significant at the 1% level of significance
C4 - I am determined to create a business venture in the future.	ND: E/SBM = 168.18 ND: IAUD, CMA and FIS = 135.80	0.0024	Significant at the 1% level of significance
C5 - I do not have doubts about ever starting my own business in the future.	ND: E/SBM = 162.34 ND: IAUD, CMA and FIS = 136.94	0.0192	Significant at the 5% level of significance
C6 - I have very seriously thought of starting a business in the future.	ND: E/SBM = 168.06 ND: IAUD, CMA and FIS = 134.45	0.0017	Significant at the 1% level of significance

Table 8.14 continued

C7 - I have a strong intention of ever starting a business in the future.	ND: E/SBM = 170.24 ND: IAUD, CMA and FIS = 132.54	0.0005	Significant at the 1% level of significance
C8 - My qualification has contributed positively towards my interest to start a business.	ND: E/SBM = 172.34 ND: IAUD, CMA and FIS = 131.89	0.0002	Significant at the 1% level of significance
C9 - I had a strong intention to start my own business before I started with my qualification.	ND: E/SBM = 165.28 ND: IAUD, CMA and FIS = 134.78	0.0062	Significant at the 1% level of significance

In summary, it can be deduced that even though all the respondents in the study irrespective of the type of qualification they enrolled for, had the intention to start their own businesses (see Table 8.8 presented earlier), those who had three years exposure to entrepreneurship education scored higher on entrepreneurial intent, than those who had six months exposure to entrepreneurship education and those who had no exposure to entrepreneurship education.

8.4.5 The strength of the relationship between entrepreneurial intent and exposure to entrepreneurship education

The Goodman and Kruskal tau measure of association was used to test the strength of the association between exposure to entrepreneurship education and the intention to start a business among the respondents. The analysis involved exposure to entrepreneurship education (measured on a nominal scale: 1 = ND: E/SBM with three years exposure; 2 = ND: Management with no exposure, and 3 = ND: IAUD, CMA and FIS with six months exposure) and the intention of the respondents to start a business (measured on an ordinal scale: 1 = “strongly disagree” to 5 = “strongly agree”). The results, as illustrated in Table 8.15, show that a statistically significant relationship (at the 1% and 5% level of significance) exists between exposure to entrepreneurship education and seven entrepreneurial intent factors that include: “I am ready to do anything to be an entrepreneur” (C1, Goodman and Kruskal tau value = 0.01979, $p = 0.00055$); “My professional goal is to be an entrepreneur” (C2, Goodman and Kruskal

tau value = 0.02669, $p = 0.00001$); “I will make every effort to start and run my own business” (C3, Goodman and Kruskal tau value = 0.01803, $p = 0.00158$); “I am determined to create a business venture in the future” (C4, Goodman and Kruskal tau value = 0.01248, $p = 0.02605$); “I have very seriously thought of starting a business in the future” (C6, Goodman and Kruskal tau value = 0.01406, $p = 0.01257$); “I have a strong intention of ever starting a business in the future” (C7, Goodman and Kruskal tau value = 0.01360, $p = 0.01651$); and “My qualification has contributed positively towards my interest to start a business” (C8, Goodman and Kruskal tau value = 0.01979, $p = 0.00065$). Since the Goodman and Kruskal tau values were very low the results mean that having knowledge about the exposure of the respondents to entrepreneurship education has reduced the error in predicting their intention to start a business by between one percent and close to three percent. Therefore, little was gained by knowing about exposure of the respondents to entrepreneurship education in predicting their intention to start a business.

Table 8.15: The relationship between entrepreneurial intent and exposure to entrepreneurship education

Entrepreneurial intent	Goodman and Kruskal tau value	Approximate significance (p-value)	Statistical significance
C1 - I am ready to do anything to be an entrepreneur.	0.01979	0.00055	Significant at the 1% level of significance
C2 – My professional goal is to be an entrepreneur.	0.02669	0.00001	Significant at the 1% level of significance
C3 - I will make every effort to start and run my own business.	0.01803	0.00158	Significant at the 1% level of significance
C4 - I am determined to create a business venture in the future.	0.01248	0.02605	Significant at the 5% level of significance
C6 - I have very seriously thought of starting a business in the future.	0.01406	0.01257	Significant at the 5% level of significance
C7 - I have a strong intention of ever starting a business in the future.	0.01360	0.01651	Significant at the 5% level of significance
C8 - My qualification has contributed positively towards my interest to start a business.	0.01979	0.00065	Significant at the 1% level of significance

8.5 ATTITUDE TOWARDS BECOMING AN ENTREPRENEUR

Attitude towards becoming an entrepreneur has been reported in previous research as one of the robust predictors of the intention to start a business (section 2.3 in Chapter 2). Since this study deals with the entrepreneurial intent, it was necessary to know about the attitudes of the respondents towards becoming an entrepreneur. Given the low percentage of South Africans who have the intention to start a business (section 2.6 in Chapter 2), it would be expected that the respondents in this study would have negative or unfavourable attitudes towards becoming entrepreneurs. On the contrary, the results in Table 8.16 indicate that the majority of the respondents had favourable or positive attitudes towards becoming entrepreneurs. This is evident when comparing the percentages of the respondents who 'agreed' and 'strongly agreed' against the percentages of those who 'disagreed' and 'strongly disagreed' to the factors relating to the attitude towards becoming an entrepreneur (section D of Appendix 1). The results revealed that the majority of the respondents 'agreed' more than they 'strongly agreed' to the factors measuring the attitude towards becoming entrepreneurs. This is evident when looking at the percentages scored on the six factors: "Being an entrepreneur implies more advantages than disadvantages to me" (D1); "A career as an entrepreneur is totally attractive to me" (D2); "Amongst various options, I would rather be an entrepreneur" (D4); "Being an entrepreneur would give me great satisfaction" (D5); and "My qualification has contributed positively to my attitude towards becoming an entrepreneur" (D6). Additionally, while the combined percentage of the respondents who 'agreed' and 'strongly agreed' to the factor "If I had the opportunity and resources, I would like to start a business" (D3) was higher than the combined percentages of the other five factors, the percentage of the respondents who 'strongly agreed' to this factor was also higher than the percentages of the respondents who 'strongly agreed' to the other five factors. This means that the respondents perceived having an opportunity and resources to be important in becoming an entrepreneur. The scores of the respondents (on D4) indicated that when various options were available, greater disagreement and uncertainty existed about entrepreneurship as an option. More than half of the respondents (57.4% on the combined scores on 'agreed' and 'strongly agreed'), though, still opted for 'amongst various options, I would rather be an entrepreneur'.

Table 8.16: Attitude of the respondents towards becoming an entrepreneur

Attitude towards becoming an entrepreneur	Frequency	Percentage (%)					Total
		Strongly disagree	Disagree	Unsure	Agree	Strongly agree	
D1 - Being an entrepreneur implies more advantages than disadvantages to me.	349	3.7	8.0	22.9	44.1	21.2	100
D2 - A career as an entrepreneur is totally attractive to me.	347	2.6	11.0	17.3	43.2	25.9	100
D3 - If I had the opportunity and resources, I would like to start a business.	349	1.4	3.4	8.6	39.0	47.6	100
D4 - Amongst various options, I would rather be an entrepreneur.	345	4.3	14.5	23.8	34.2	23.2	100
D5 - Being an entrepreneur would give me great satisfaction.	341	2.3	10.6	24.0	39.9	23.2	100
D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	345	5.5	9.0	18.3	38.8	28.4	100

8.5.1 Differences in the attitude of the respondents towards becoming an entrepreneur based on their exposure to entrepreneurship education

Previous research has found that exposure to entrepreneurship education influences the attitude towards becoming an entrepreneur, which in turn directly affects the intention to start a business (section 3.6 in Chapter 3). In this study the differences in the attitude towards becoming an entrepreneur between students who had had three years exposure to entrepreneurship education, those who had had six months

exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education were tested in the fifth null hypothesis (H_{05}) which states that *“No differences exist in the attitude towards becoming an entrepreneur between students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education”*. The Kruskal-Wallis test was conducted to determine whether the ND: E/SBM students, the ND: IAUD, CMA and FIS students and the ND: Management students were statistically significantly different in their attitudes towards becoming entrepreneurs. This statistical technique was chosen because it is relevant for comparing the medians of three or more groups when the data are ordinal. The results in Table 8.17 reveal that these three groups of students differed statistically significantly (mostly at the 1% level of significance) for all six factors that constitute the attitude towards becoming an entrepreneur. Therefore, the null hypothesis is rejected in favour of the alternative hypothesis (H_{15}) which states that *“Students who have had exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in the attitude towards becoming an entrepreneur”*. Differences between these groups of students were found on: “Being an entrepreneur implies more advantages than disadvantages to me” (D1, $p = 0.0126$); “A career as an entrepreneur is totally attractive to me” (D2, $p = 0.0000$); “If I had the opportunity and resources, I would like to start a business” (D3, $p = 0.0000$); “Amongst various options, I would rather be an entrepreneur” (D4, $p = 0.0000$); “Being an entrepreneur would give me great satisfaction” (D5, $p = 0.0000$) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6, $p = 0.0000$). It follows from the findings that in the search for ways to stimulate entrepreneurial activity entrepreneurship education can play a vital role in the development of positive attitudes regarding entrepreneurship.

Table 8.17: Differences between the respondents in their attitude towards becoming an entrepreneur based on their exposure to entrepreneurship education

Attitude towards becoming an entrepreneur	Chi-square	Df*	p-value	Statistical significance
D1 - Being an entrepreneur implies more advantages than disadvantages to me.	8.747	2	0.0126	Significant at the 5% level of significance
D2 - A career as an entrepreneur is totally attractive to me.	26.9162	2	0.0000	Significant at the 1% level of significance
D3 - If I had the opportunity and resources, I would like to start a business.	19.8795	2	0.0000	Significant at the 1% level of significance
D4 - Amongst various options, I would rather be an entrepreneur.	29.0862	2	0.0000	Significant at the 1% level of significance
D5 - Being an entrepreneur would give me great satisfaction.	33.3892	2	0.0000	Significant at the 1% level of significance
D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	25.018	2	0.0000	Significant at the 1% level of significance

*Df = degrees of freedom

Given the foregoing results of the Kruskal-Wallis test, it was necessary to determine how the groups of students differed from each other in the attitude towards becoming an entrepreneur based on their exposure to entrepreneurship education. In the next sections comparisons are made of the mean ranks of two qualification groups at a time for a meaningful interpretation of the differences evident in Table 8.16 (and proven in Table 8.17). Firstly, the attitude of the ND: E/SBM students towards becoming an entrepreneur is compared with that of the ND: Management students. The second comparison involves the ND: Management and the ND: IAUD, CMA and FIS students. Lastly, the attitude of the ND: E/SBM students towards becoming an entrepreneur, is compared with that of the ND: IAUD, CMA and FIS students.

ND: E/SBM students compared with the ND: Management students with regard to their attitude towards becoming an entrepreneur

The null hypothesis (H_{05a}) that applies to testing the differences between the ND: E/SBM students and the ND: Management students in their attitude towards becoming an entrepreneur states that *“No differences exist in the attitude towards becoming an entrepreneur between students who have had three years exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education”*. Statistical significance of the differences between the ND: E/SBM students and the ND: Management students with regard to the attitude of the respondents towards becoming entrepreneurs were tested by means of the nonparametric Mann-Whitney U test. The reason for using this statistical test is because it is suited to testing for differences between two groups when the data are ordinal in nature. The results in Table 8.18 indicate that the attitudes of the ND: E/SBM students towards becoming entrepreneurs differed statistically significantly (at the 1% and 5% level of significance) from that of the ND: Management students in all six attitude factors that include: “Being an entrepreneur implies more advantages than disadvantages to me” (D1, $p = 0.0284$); “A career as an entrepreneur is totally attractive to me” (D2, $p = 0.0009$); “If I had the opportunity and resources, I would like to start a business” (D3, $p = 0.0012$); “Amongst various options, I would rather be an entrepreneur” (D4, $p = 0.0002$), “Being an entrepreneur would give me great satisfaction” (D5, $p = 0.0000$) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6, $p = 0.0000$). Therefore, the null hypothesis is rejected in favour of the alternative hypothesis (H_{15a}) which states that *“Students who have had exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in the attitude towards becoming an entrepreneur”*. ND: E/SBM students who had three years exposure to entrepreneurship education had higher mean rank values than the ND: Management students who had no exposure to entrepreneurship education for all these factors, suggesting that entrepreneurship education had a positive effect on the attitude of the ND: E/SBM students towards becoming entrepreneurs.

Table 8.18: Differences between the ND: E/SBM students and the ND: Management students in their attitude towards becoming an entrepreneur

Attitude towards becoming an Entrepreneur	Mean rank	p-value	Statistical significance
D1 - Being an entrepreneur implies more advantages than disadvantages to me.	ND: E/SBM = 72.74 ND: Management = 58.95	0.0284	Significant at the 5% level of significance
D2 - A career as an entrepreneur is totally attractive to me.	ND: E/SBM = 75.85 ND: Management = 55.37	0.0009	Significant at the 1% level of significance
D3 - If I had the opportunity and resources, I would like to start a business.	ND: E/SBM = 75.02 ND: Management = 56.26	0.0012	Significant at the 1% level of significance
D4 - Amongst various options, I would rather be an entrepreneur.	ND: E/SBM = 76.62 ND: Management = 52.83	0.0002	Significant at the 1% level of significance
D5 - Being an entrepreneur would give me great satisfaction.	ND: E/SBM = 76.75 ND: Management = 50.64	0.0000	Significant at the 1% level of significance
D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	ND: E/SBM = 77.97 ND: Management = 51.41	0.0000	Significant at the 1% level of significance

ND: IAUD, CMA and FIS students compared with the ND: Management students with regard to their attitude towards becoming an entrepreneur

The differences between the ND: IAUD, CMA and FIS students and the ND: Management students in their attitudes towards becoming entrepreneurs was tested in the hypothesis (H_{05b}) which states that “*No differences exist in the attitude towards becoming an entrepreneur between students who have had six months exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education*”. As already mentioned statistical significant differences between the ND: IAUD, CMA and FIS students and the ND: Management students with regard to the attitude towards becoming an entrepreneur were tested by means of the nonparametric Mann-Whitney U test. This is because this statistical test is suited to testing the differences between two groups when the data are ordinal in nature. No statistically significant differences were found between the ND: Management students and the ND: IAUD, CMA and FIS students in their attitudes towards becoming entrepreneurs, indicating that the six months exposure to entrepreneurship education

had a minimal or no impact on the attitude towards becoming an entrepreneur. The results suggest that the ND: IAUD, CMA and FIS students (with six months exposure to entrepreneurship education) and the ND: Management students (without exposure to entrepreneurship education) had similar attitudes towards becoming entrepreneurs. Given these findings the null hypothesis cannot be rejected in favour of the alternate hypothesis.

ND: E/SBM students compared with the ND: IAUD, CMA and FIS students with regard to their attitude towards becoming an entrepreneur

The null hypothesis (H_{05c}) for the differences between the ND: E/SBM students and the ND: IAUD, CMA and FIS students with regard to their attitudes towards becoming entrepreneurs states that *“No differences exist in the attitude towards becoming an entrepreneur between students who have had three years exposure to entrepreneurship education and those who have had six months exposure to entrepreneurship education”*. The nonparametric Mann-Whitney U test was used to test for statistical significant differences between the ND: E/SBM students and the ND: IAUD, CMA and FIS students with regard to their attitudes towards becoming entrepreneurs. The results in Table 8.19 show that statistically significant differences (at the 1% level of significance) existed between the ND: E/SBM students and the ND: IAUD, CMA and FIS students in their attitudes towards becoming entrepreneurs. These differences were found in all six attitude factors that include: “Being an entrepreneur implies more advantages than disadvantages to me” (D1, $p = 0.0034$); “A career as an entrepreneur is totally attractive to me” (D2, $p = 0.0000$); “If I had the opportunity and resources, I would like to start a business” (D3, $p = 0.0000$); “Amongst various options, I would rather be an entrepreneur” (D4, $p = 0.0000$); “Being an entrepreneur would give me great satisfaction” (D5, $p = 0.0000$) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6, $p = 0.0000$). ND: E/SBM students had higher mean rank values for all these factors than the ND: IAUD, CMA and FIS students. From the results, it can be deduced that the ND: E/SBM students who had three years’ exposure to entrepreneurship education had stronger favourable attitudes towards becoming entrepreneurs than the students who had six months exposure to entrepreneurship education. Therefore, the null hypothesis is rejected in favour of the alternative hypothesis (H_{15c}) which states that

“Students who have had three years exposure to entrepreneurship education differ from students who have had six months exposure to entrepreneurship education in the attitude towards becoming an entrepreneur”. Thus the results suggest that entrepreneurship education that was offered over a period of three years could play a vital role in raising positive entrepreneurial attitudes.

Table 8.19: Differences between the ND: E/SBM students and the ND: IAUD, CMA and FIS students in their attitude towards becoming an entrepreneur

Attitude towards becoming an Entrepreneur	Mean rank	p-value	Statistical significance
D1 - Being an entrepreneur implies more advantages than disadvantages to me.	ND: E/SBM = 167.21 ND: IAUD, CMA and FIS = 135.56	0.0034	Significant at the 1% level of significance
D2 - A career as an entrepreneur is totally attractive to me.	ND: E/SBM = 185.63 ND: IAUD, CMA and FIS = 128.92	0.0000	Significant at the 1% level of significance
D3 - If I had the opportunity and resources, I would like to start a business.	ND: E/SBM = 178.82 ND: IAUD, CMA and FIS = 132.48	0.0000	Significant at the 1% level of significance
D4 - Amongst various options, I would rather be an entrepreneur.	ND: E/SBM = 186.73 ND: IAUD, CMA and FIS = 127.68	0.0000	Significant at the 1% level of significance
D5 - Being an entrepreneur would give me great satisfaction.	ND: E/SBM = 187.56 ND: IAUD, CMA and FIS = 125.55	0.0000	Significant at the 1% level of significance
D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	ND: E/SBM = 180.92 ND: IAUD, CMA and FIS = 129.46	0.0000	Significant at the 1% level of significance

8.5.2 The strength of the relationship between the attitude of the respondents towards becoming an entrepreneur and exposure to entrepreneurship education

Given the fact that the respondents who had three years exposure to entrepreneurship education differed statistically significantly from those who had six months exposure (Table 8.19) and those who had no exposure to entrepreneurship education (Table

8.18) in their attitudes towards becoming entrepreneurs, it was therefore necessary to test the strength of the relationship between exposure to entrepreneurship education and the attitude towards becoming an entrepreneur. The Goodman and Kruskal tau measure of association was used to test the strength of the association between exposure to entrepreneurship education and the attitude of the respondents towards becoming entrepreneurs. The analysis involved exposure to entrepreneurship education that was measured on a nominal scale (1 = ND: E/SBM with three-years exposure; 2 = ND: Management with no exposure, and 3 = ND: IAUD, CMA and FIS with six months exposure) and the attitude of the respondents towards becoming an entrepreneur that was measured on an ordinal scale (1 = "strongly disagree" to 5 = "strongly agree"). The results in Table 8.20 show that exposure to entrepreneurship education is statistically significantly related (at the 1% level of significance) to the attitude of the respondents towards becoming an entrepreneur on factors that include: "A career as an entrepreneur is totally attractive to me" (D2, Goodman and Kruskal tau value = 0.02754, $p = 0.00001$); "If I had the opportunity and resources, I would like to start a business" (D3, Goodman and Kruskal tau value = 0.02794; $p = 0.0000$); "Amongst various options, I would rather be an entrepreneur" (D4, Goodman and Kruskal tau value = 0.02935; $p = 0.0000$); "Being an entrepreneur would give me great satisfaction" (D5, Goodman and Kruskal tau value = 0.03324, $p = 0.0000$); and "My qualification has contributed positively to my attitude towards becoming an entrepreneur" (D6, Goodman and Kruskal tau value = 0.02296, $p = 0.00011$). Since the Goodman and Kruskal tau values are very low the results therefore, mean that having knowledge about exposure of the respondents to entrepreneurship education has reduced the error in predicting their attitude towards becoming an entrepreneur by between two percent and just above three percent.

Table 8.20: The relationship between exposure to entrepreneurship education and the attitude towards becoming an entrepreneur

Attitude towards becoming an Entrepreneur	Goodman and Kruskal tau value	Approximate significance (p-value)	Statistical significance
D2 - A career as an entrepreneur is totally attractive to me.	0.02754	0.00001	Significant at the 1% level of significance
D3 - If I had the opportunity and resources, I would like to start a business.	0.02794	0.0000	Significant at the 1% level of significance
D4 - Amongst various options, I would rather be an entrepreneur.	0.02935	0.0000	Significant at the 1% level of significance
D5 - Being an entrepreneur would give me great satisfaction.	0.03324	0.0000	Significant at the 1% level of significance
D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.02296	0.00011	Significant at the 1% level of significance

8.5.3 The relationship between the attitude of the respondents towards becoming an entrepreneur and their entrepreneurial intent

Since previous research has reported that the attitudes towards becoming entrepreneurs accurately predict the intention to become an entrepreneur, it was necessary to establish whether the attitude towards becoming an entrepreneur was statistically significantly related to the entrepreneurial intent of the groups under study in South Africa. This study is mainly interested in the strength of the relationship between the dependent variables and the independent variables and does not intend to make predictions. The Somer's d test statistic was used to determine if statistically significant relationships existed between the attitudes of the respondents towards becoming entrepreneurs (section D in Appendix 1) – the independent variable and their intention to start a business (section C in Appendix 1) – the dependent variable. The reason for using this test statistic was because the attitude towards becoming an entrepreneur and the intention to start a business consisted of only ordinal data and Somer's d test is a directional measure of association between two ordinal variables. Each of the six statements (D1 to D6) representing the attitude towards becoming an

entrepreneur was tested individually against the nine entrepreneurial intent factors (C1 to C9). The results in Table 8.21 (summarised from Table 3 in Appendix 2) reveal that statistically significant (at the 1% level of significance) relationships, albeit moderate (Somer's d values between 0.4 and 0.6) and weak (Somer's d values between 0.2 and 0.4), exist between each of the nine entrepreneurial intent factors and each of the six attitudes towards becoming an entrepreneur.

Table 8.21: Summary of significance testing of the relationship between the attitude towards becoming an entrepreneur and entrepreneurial intent (Somer's d test used for significance testing – significant at the 1% level of significance)

Entrepreneurial intent	Attitude towards becoming an entrepreneur (significant relationships)					
	D1	D2	D3	D4	D5	D6
C1 - I am ready to do anything to be an entrepreneur.	W	M	M	M	M	W
C2 – My professional goal is to be an entrepreneur.	W	M	M	M	M	M
C3 - I will make every effort to start and run my own business.	W	M	M	M	M	W
C4 - I am determined to create a business venture in the future.	W	M	M	W	M	W
C5 - I do not have doubts about ever starting my own business in the future.	W	W	M	W	W	W
C6 - I have very seriously thought of starting a business in the future.	W	M	M	M	M	W
C7 - I have strong intention of ever starting a business in the future.	W	M	M	M	M	M
C8 - My qualification has contributed positively towards my interest to start a business.	W	W	M	W	W	M
C9 - I had a strong intention to start my own business before I started with my qualification.	W	W	W	W	W	W
Statistically significant relationship (significant at the 1% level) but either M = moderate or W = weak						
D1 - Being an entrepreneur implies more advantages than disadvantages to me.						
D2 - A career as an entrepreneur is totally attractive to me.						
D3 - If I had the opportunity and resources, I would like to start a business.						
D4 - Amongst various options, I would rather be an entrepreneur.						
D5 - Being an entrepreneur would give me great satisfaction.						
D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.						

Detailed discussion of the results for weak relationships between the attitudes towards becoming entrepreneurs and entrepreneurial intent is found in Appendix 3. The moderate relationships existing between some of the factors measuring the attitudes of the respondents towards becoming entrepreneurs and the factors measuring their intention to start a business (see Table 3 in Appendix 2 for more results) are as follows:

- The entrepreneurial intent factor “I am ready to do anything to be an entrepreneur” (C1) was moderately related to the following attitudes D2, D3, D4 and D5: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.42223, $p = 0.0000$); “If I had the opportunity and resources, I would like to start a business” (D3, Somer’s d value = 0.46919, $p = 0.0000$); “Amongst various options, I would rather be an entrepreneur” (D4, Somer’s d value = 0.42910, $p = 0.0000$) and “Being an entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.46761, $p = 0.0000$) (see Table 3 in appendix 2).
- The entrepreneurial intent factor “My professional goal is to be an entrepreneur” (C2) was moderately related to the following attitudes D2, D3, D4, D5 and D6: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.59799, $p = 0.0000$); “If I had the opportunity and resources, I would like to start a business” (D3, Somer’s d value = 0.53655, $p = 0.0000$); “Amongst various options, I would rather be an entrepreneur” (D4, Somer’s d value = 0.53053, $p = 0.0000$); “Being an entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.53744, $p = 0.0000$) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6, Somer’s d value = 0.43218, $p = 0.0000$) (see Table 3 in appendix 2).
- The entrepreneurial intent factor “I will make every effort to start and run my own business” (C3) was moderately related to the following attitudes D2, D3, D4 and D5: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.50193, $p = 0.0000$); “If I had the opportunity and resources, I would like to start a business” (D3, Somer’s d value = 0.55887, $p = 0.0000$); “Amongst various options, I would rather be an entrepreneur” (D4, Somer’s d value = 0.43858, $p =$

0.0000) and “Being an entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.47253, $p = 0.0000$) (see Table 3 in appendix 2).

- The entrepreneurial intent factor “I am determined to create a business venture in the future” (C4) was moderately related to the following attitudes D2, D3 and D5: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.43934, $p = 0.0000$); “If I had the opportunity and resources, I would like to start a business” (D3, Somer’s d value = 0.50898, $p = 0.0000$) and “Being an entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.40631, $p = 0.0000$) (see Table 3 in appendix 2).
- The entrepreneurial intent factor “I do not have doubts about ever starting my own business in the future” (C5) was moderately related to only one of the attitudes, D3: “If I had the opportunity and resources, I would like to start a business” (D3, Somer’s d value = 0.46033, $p = 0.0000$) (see Table 3 in appendix 2).
- The entrepreneurial intent factor “I have very seriously thought of starting a business in the future” (C6) was moderately related to the following attitudes D2, D3, D4 and D5: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.49182, $p = 0.0000$), “If I had the opportunity and resources, I would like to start a business” (D3, Somer’s d value = 0.52257, $p = 0.0000$), “Amongst various options, I would rather be an entrepreneur” (D4, Somer’s d value = 0.40905, $p = 0.0000$) and “Being an entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.45985, $p = 0.0000$) (see Table 3 in appendix 2).
- The entrepreneurial intent factor “I have a strong intention of ever starting a business in the future” (C7) was moderately related to the following attitudes D2, D3, D4, D5 and D6: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.52324, $p = 0.0000$); “If I had the opportunity and resources, I would like to start a business” (D3, Somer’s d value = 0.53826, $p = 0.0000$); “Amongst various options, I would rather be an entrepreneur” (D4, Somer’s d

value = 0.47660, $p = 0.0000$); “Being an entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.49552, $p = 0.0000$) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6, Somer’s d value = 0.40655, $p = 0.0000$) (see Table 3 in appendix 2).

- The entrepreneurial intent factor “My qualification has contributed positively towards my interest to start a business” (C8) was moderately related to the following attitudes D3 and D6: “If I had the opportunity and resources, I would like to start a business” (D3, Somer’s d value = 0.42246, $p = 0.0000$) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6, Somer’s d value = 0.52453, $p = 0.0000$) (see Table 3 in appendix 2).
- The relationship between the entrepreneurial intent factor “I had a strong intention to start my own business before I started with my qualification” (C9) and the attitude towards becoming an entrepreneur had low Somer’s d values of below 0.4 which implied a weak but statistically significant relationship ($p = 0.0000$) (see Table 3 in appendix 2).

From these results it can be deduced that the attitudes of the respondents towards becoming entrepreneurs were statistically significantly (at the 1% level of significance) related to their intention to start a business. All six attitude factors (D1 to D6 in Appendix 1) that were used in this study were statistically significantly related to all nine entrepreneurial intent factors (C1 to C9 in appendix 1). Furthermore, based on the strength of the relationships found, the attitude towards becoming an entrepreneur seems to have a weak to moderate relationship with the intention to start a business.

8.5.4 The relationship between the attitude towards becoming an entrepreneur and entrepreneurial knowledge and work experience of the respondents

Previous research findings indicate that entrepreneurial knowledge is significantly related to the attitude towards becoming an entrepreneur (Chapter 2, section 2.4.1). Cramer's V test was used to test the correlation between entrepreneurial knowledge and work experience of the respondents and their attitude towards becoming an entrepreneur. The reason for using this statistical technique was because the Pearson correlation could not be calculated for a nominal value (entrepreneurial knowledge and work experience, section B of Appendix 1) and ordinal value (attitude towards becoming an entrepreneur, section D of Appendix 1) combination (only if both are interval or ratio data can it be used). Cramer's V test is a statistical technique that is used to measure the strength of the association between one nominal variable with either another nominal variable, or with an ordinal variable.

Each of the six statements (D1 to D6) representing the attitude towards becoming an entrepreneur was tested individually against the seven statements pertaining to entrepreneurial knowledge and work experience (B1 to B7). Owing to the fact that the respondents were undergraduate students and had no or little work experience, as evident from Table 8.4, the correlations show that only one of the six attitude factors ("A career as an entrepreneur is totally attractive to me" (D2)) is statistically significantly but moderately related to 'current ownership of the business' (B3), 'having friends who are running businesses' (B5), 'knowledge of any other person who is an entrepreneur' (B6) and 'having tried to start a business before' (B7). From the findings it is evident that individuals who currently own a business, have friends who run a business, know other people who are entrepreneurs and those who have tried to start a business before are more likely to view a career as an entrepreneur to be attractive to them than those who do not have these attributes. A detailed discussion of the findings appears in Appendix 3.

8.6 PERCEIVED BEHAVIOURAL CONTROL

Perceived behavioural control involves individuals' judgement regarding their capability of performing a given behaviour, the extent to which they have the requisite resources

and believe they can overcome whatever obstacles they may encounter (section 2.3.2.1 in Chapter 2). The respondents were asked to indicate on a five-point Likert scale ranging from 'strongly disagree' to 'strongly agree' their capability in starting a business (section E of Appendix 1). The scores on these questions reveal a reticence on the part of the respondents, with the higher scores falling in the columns 'unsure' or 'agree'. The results in Table 8.22 show that 40.1 percent of the respondents were unsure while 18.2 percent 'disagreed' about whether "to start a business and keep it working would be easy for them" (E1). In terms of agreement with this statement, 27.7 percent 'agreed' while 8.6 percent 'strongly agreed' that "to start a business and keep it working would be easy for them" (E1). Regarding being "able to control the creation process of a new business" (E2), 40.4 percent were unsure while 36.9 percent 'agreed' and 10.8 percent 'strongly agreed'. With regard to the fourth perceived behavioural control factor, 39.9 percent of the respondents 'agreed' while 22.8 percent 'strongly agreed' that "I am prepared to do anything to be an entrepreneur" (E4). For the fifth and the sixth perceived behavioural control factors, about a third of the respondents were 'unsure' while another third 'agreed' that "I know all about the necessary practical details needed to start a business" (E5) and "If I wanted to, I could easily start and run a business" (E6). The three factors exhibiting the highest levels of perceived behavioural control, albeit cautiously positive with higher scores on 'agree' than 'strongly agree', are "I believe I would be completely able to start a business" (E3 – 53.2% 'agree'), "If I tried to start a business, I would have a high chance of being successful" (E7 – 45.1% 'agree') and "It would be very easy for me to develop a business idea" (E8 – 45.9% 'agree'). In comparison with the first eight factors the ninth perceived behavioural control factor "My qualification has provided me with sufficient knowledge to start a business" (E9) had the lowest percentage of 11.5 percent of the respondents who were 'unsure', 44.1 percent of the respondents who 'agreed' and the highest 33.7 percent of the respondents who 'strongly agreed'.

Table 8.22: Perceived behavioural control of the respondents

Perceived behavioural control	Frequency	Strongly disagree	Disagree	Unsure	Agree	Strongly agree	Total
E1 - To start a business and keep it working would be easy for me.	347	5.5	18.2	40.1	27.7	8.6	100
E2 - I am able to control the creation process of a new business.	344	2.6	9.3	40.4	36.9	10.8	100
E3 - I believe I would be completely able to start a business.	346	1.7	4.3	22.0	53.2	18.8	100
E4 - I am prepared to do anything to be an entrepreneur.	346	3.5	10.4	23.4	39.9	22.8	100
E5 - I know all about the necessary practical details needed to start a business.	345	3.5	12.8	33.0	36.8	13.9	100
E6 - If I wanted to, I could easily start and run a business.	341	4.1	17.3	33.7	33.1	11.7	100
E7 - If I tried to start a business, I would have a high chance of being successful.	344	1.5	4.4	25.0	45.1	24.1	100
E8 - It would be very easy for me to develop a business idea.	342	0.9	7.6	28.4	45.9	17.3	100
E9 - My qualification has provided me with sufficient knowledge to start a business.	342	1.2	9.5	11.5	44.1	33.7	100

8.6.1 Differences in perceived behavioural control of the respondents based on their exposure to entrepreneurship education

Perceived behavioural control has been reported (in section 2.3.2.1 of Chapter 2) as the sense of self-efficacy or ability to perform the behaviour that can influence the behaviour indirectly via intentions and it can on the other hand predict behaviour directly by serving as a proxy for actual control. Previous research also indicate that exposure to entrepreneurship education has a strong, measurable impact on perceived behavioural control (section 3.8.1 in Chapter 3). In this study the Kruskal-Wallis test was conducted to test the sixth null hypothesis (H_{06}) which states that “*No differences exist in perceived behavioural control between students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education*”. As shown in Table 8.23 the results reveal that the ND: E/SBM students (who had three years exposure to entrepreneurship education), the ND: IAUD, CMA and FIS students (who had six months exposure to entrepreneurship education) and the ND: Management students (who had no exposure to entrepreneurship education) differed statistically significantly (at the 1% and 5% level of significance) in perceived behavioural control. Of the nine perceived behavioural control factors (E1 to E9 in appendix 1) significant differences between the ND: E/SBM students, the ND: IAUD, CMA and FIS students and the ND: Management students were noted on six perceived behavioural control factors “I believe I would be completely able to start a new business” (E3, $p = 0.0027$); “I am prepared to do anything to be an entrepreneur” (E4, $p = 0.0001$); “I know all about the necessary practical details needed to start a business” (E5, $p = 0.0012$); “If I tried to start a business, I would have a high chance of being successful” (E7, $p = 0.0464$); “It would be very easy for me to develop a business idea” (E8, $p = 0.0351$) and “My qualification has provided me with sufficient knowledge to start a business” (E9, $p = 0.0000$). Therefore, the null hypothesis cannot be rejected and the conclusion cannot be made that the students who had had three years exposure to entrepreneurship education, those who had had six months exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education differed in perceived behavioural control.

Table 8.23: Differences between the respondents in perceived behavioural control based on their exposure to entrepreneurship education

Perceived behavioural control factors	Chi-square	Degrees of freedom	p-value	Statistical significance
E3 - I believe I would be completely able to start a new business.	11.8412	2	0.0027	Significant at the 1% level of significance
E4 - I am prepared to do anything to be an entrepreneur.	19.469	2	0.0001	Significant at the 1% level of significance?
E5 - I know all about the necessary practical details needed to start a business.	13.4029	2	0.0012	Significant at the 1% level of significance
E7 - If I tried to start a business, I would have a high chance of being successful.	6.1391	2	0.0464	Significant at the 5% level of significance
E8 - It would be very easy for me to develop a business idea.	6.7017	2	0.0351	Significant at the 5% level of significance
E9 - My qualification has provided me with sufficient knowledge to start a business.	28.1695	2	0.0000	Significant at the 1% level of significance

As it is evident from the foregoing discussion that the respondents differed significantly in their perceived behavioural control, the nonparametric Mann-Whitney U tests were conducted for two qualification groups at a time for a meaningful interpretation of the differences evident in Table 8.23. Firstly, perceived behavioural control of the ND: E/SBM students was compared with that of the ND: Management students. The second comparison involved the ND: Management and the ND: IAUD, CMA and FIS students. Lastly, perceived behavioural control of the ND: E/SBM was compared with that of the ND: IAUD, CMA and FIS students.

ND: E/SBM students compared with the ND: Management students with regard to their perceived behavioural control

The null hypothesis (H_{06a}) that was tested for the differences between the ND: E/SBM students and the ND: Management students with regard to perceived behavioural control states that *“No differences exist in perceived behavioural control between*

students who have had three years exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education". ND: E/SBM students were statistically significantly different (at the 1% and 5% level of significance) from the ND: Management students in respect of five perceived behavioural control factors. The results in Table 8.24 show that the ND: E/SBM students, differed from the ND: Management students on five perceived behavioural control factors that included: "I believe I would be completely able to start a new business" (E3, $p = 0.0129$); "I am prepared to do anything to be an entrepreneur" (E4, $p = 0.0195$); "I know all about the necessary practical details needed to start a business" (E5, $p = 0.0005$); "It would be very easy for me to develop a business idea" (E8, $p = 0.0160$) and "My qualification has provided me with sufficient knowledge to start a business" (E9, $p = 0.0000$). For all the mentioned perceived behavioural control factors the mean rank values of the ND: E/SBM students are significantly higher than the mean rank values of the ND: Management students, meaning that their three years exposure to entrepreneurship education had a positive effect on their perceived behavioural control. Therefore, the null hypothesis cannot be rejected and the conclusion cannot be made that the students who had had three years exposure to entrepreneurship education differed from those who did not have exposure to entrepreneurship education in perceived behavioural control.

Table 8.24: Differences between ND: E/SBM students and ND: Management students in their perceived behavioural control

Perceived behavioural control	Mean rank	p-value	Statistical significance
E3 - I believe I would be completely able to start a new business.	ND: E/SBM = 73.17 ND: Management = 58.26	0.0129	Significant at the 5% level of significance
E4 - I am prepared to do anything to be an entrepreneur.	ND: E/SBM = 72.46 ND: Management = 58.10	0.0195	Significant at the 5% level of significance
E5 - I know all about the necessary practical details needed to start a business.	ND: E/SBM = 75.98 ND: Management = 54.36	0.0005	Significant at the 1% level of significance
E8 - It would be very easy for me to develop a business idea.	ND: E/SBM = 71.62 ND: Management = 56.92	0.0160	Significant at the 5% level of significance
E9 - My qualification has provided me with sufficient knowledge to start a business.	ND: E/SBM = 78.87 ND: Management = 52.52	0.0000	Significant at the 1% level of significance

ND: IAUD, CMA and FIS students compared with the ND: Management students with regard to their perceived behavioural control

The hypothesis (H_{06b}) that was tested for the differences between ND: IAUD, CMA and FIS students and the ND: Management students with regard to their perceived behavioural control states that *“No differences exist in perceived behavioural control between students who have had six months exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education”*. No statistically significant differences were found with regard to nine perceived behavioural control factors between the ND: Management students and the ND: IAUD, CMA and FIS students. Based on the findings, the null hypothesis cannot be rejected in favour of the alternate hypothesis.

ND: E/SBM students compared with the ND: IAUD, CMA and FIS students with regard to their perceived behavioural control

The differences between the ND: E/SBM students and the ND: IAUD, CMA and FIS students with regard to their perceived behavioural control was tested for the hypothesis (H_{06c}) which states that *“No differences exist in perceived behavioural control between students who have had three years exposure to entrepreneurship education and those who have had six months exposure to entrepreneurship education”*. ND: E/SBM students differed statistically significantly (at the 1% and 5% level of significance) from the ND: IAUD, CMA and FIS students in perceived behavioural control on six of the nine perceived behavioural control factors: “I believe I would be completely able to start a new business” (E3, $p = 0.0007$); “I am prepared to do anything to be an entrepreneur” (E4, $p = 0.0000$); “I know all about the necessary practical details needed to start a business” (E5, $p = 0.0012$); “If I tried to start a business, I would have a high chance of being successful” (E7, $p = 0.0152$); “It would be very easy for me to develop a business idea” (E8, $p = 0.0248$); and “My qualification has provided me with sufficient knowledge to start a business” (E9, $p = 0.0000$), as shown in Table 8.25. ND: E/SBM students had significantly higher mean rank values than the ND: Management students for all the mentioned perceived behavioural control factors, suggesting the positive influence of three years exposure to entrepreneurship education. Since the groups did not differ significantly in all nine

perceived behavioural control factors, the null hypothesis cannot be rejected. Therefore, the conclusion cannot be made that those students who had had three years exposure to entrepreneurship education differed from those who had had six months exposure to entrepreneurship education in perceived behavioural control.

Table 8.25: Differences between the ND: E/SBM students and the ND: IAUD, CMA and FIS students in their perceived behavioural control

Perceived behavioural control	Mean rank	p-value	Statistical significance
E3 - I believe I would be completely able to start a new business.	ND: E/SBM = 168.82 ND: IAUD, CMA and FIS = 133.52	0.0007	Significant at the 1% level of significance
E4 - I am prepared to do anything to be an entrepreneur.	ND: E/SBM = 178.44 ND: IAUD, CMA and FIS = 130.70	0.0000	Significant at the 1% level of significance
E5 - I know all about the necessary practical details needed to start a business.	ND: E/SBM = 168.25 ND: IAUD, CMA and FIS = 133.16	0.0012	Significant at the 1% level of significance
E7 - If I tried to start a business, I would have a high chance of being successful.	ND: E/SBM = 161.00 ND: IAUD, CMA and FIS = 134.86	0.0152	Significant at the 5% level of significance
E8 - It would be very easy for me to develop a business idea.	ND: E/SBM = 158.81 ND: IAUD, CMA and FIS = 134.85	0.0248	Significant at the 5% level of significance
E9 - My qualification has provided me with sufficient knowledge to start a business.	ND: E/SBM = 183.68 ND: IAUD, CMA and FIS = 129.07	0.0000	Significant at the 1% level of significance

8.6.2 The strength of the relationship between perceived behavioural control and exposure to entrepreneurship education

Given the fact that the respondents who had had three years exposure to entrepreneurship education were statistically significantly different from those who had had six months exposure and those who did not have exposure to entrepreneurship education in perceived behavioural control, the next step was to test the strength of the relationship between exposure to entrepreneurship education and perceived behavioural control (sections A and E of Appendix 1). This was done by means of the Goodman and Kruskal tau measure of association. The findings in Table 8.26 show

that a statistically significant relationship (at the 1% percent level of significance) exists between exposure to entrepreneurship education and perceived behavioural control on “I am prepared to do anything to be an entrepreneur” (E4, $p = 0.00214$); “I know all about the necessary practical details needed to start a business” (E5, $p = 0.00427$); “If I tried to start a business, I would have a high chance of being successful” (E7, $p = 0.00004$) and “My qualification has provided me with sufficient knowledge to start a business” (E9, $p = 0.00000$). Since the Goodman and Kruskal tau values are very low, the results therefore, mean that having knowledge about exposure of the respondents to entrepreneurship education has reduced the error in predicting their perceived behavioural control by between 1.7% and 2.8%.

Table 8.26: The relationship between exposure to entrepreneurship education and perceived behavioural control

Perceived behavioural control	Goodman and Kruskal tau value	Approximate significance (p-value)	Statistical significance
E4 - I am prepared to do anything to be an entrepreneur.	0.01752	0.00214	Significant at the 1% level of significance
E5 - I know all about the necessary practical details needed to start a business.	0.01626	0.00427	Significant at the 1% level of significance
E7 - If I tried to start a business, I would have a high chance of being successful.	0.02464	0.00004	Significant at the 1% level of significance
E9 - My qualification has provided me with sufficient knowledge to start a business.	0.02826	0.00000	Significant at the 1% level of significance

8.6.3 The relationship between perceived behavioural control of the respondents and their intention to start a business

As already mentioned, perceived behavioural control is a robust predictor of entrepreneurial intent that can influence the behaviour indirectly via intentions and it can on the other hand predict behaviour directly by serving as a proxy for actual control. Given that the primary aim of this study is to assess the entrepreneurial intent of final-year commerce students and whether the majority of the respondents had the

intention to start their own businesses in the future, it was relevant to determine whether perceived behavioural control was significantly related to the entrepreneurial intent of these respondents. This relationship was tested by means of Somer's d test statistic. The reason for using this test statistic was because perceived behavioural control and the intention to start a business (sections E and C of Appendix 1) consisted of only ordinal data and Somer's d test is a directional measure of association between two ordinal variables. Each of the nine perceived behavioural control factors (E1 to E9) was tested individually against the nine entrepreneurial intent factors (C1 to C9). The results in Table 8.27 (summarised from Table 4 of Appendix 2) reveal that some statistically significant relationships (at the 1% and 5% level of significance) exist between the perceived behavioural control factors (E1 to E9) – the independent variable and the intention to start a business (factors C1 to C9) – the dependent variable. However, where statistically significant relationships between perceived behavioural control and entrepreneurial intent existed, these varied in strength from moderate (Somer's d values between 0.4 and 0.6), to weak (Somer's d values between 0.2 and 0.4) and to very weak relationships (Somer's d values between 0 and 0.2). From the results, summarised in Table 8.27, it follows that for the respondents, all nine factors of entrepreneurial intent related significantly with seven of the nine factors constituting perceived behavioural control, namely E1, E2, E3, E4, E7, E8 and E9. Two of the entrepreneurial intent factors, C5 and C9, were statistically significantly related to all of the perceived behavioural control factors (E1 to E9).

Table 8.27: Summary of significance testing of the relationship between entrepreneurial intent and perceived behavioural control (Somer's d test used for significance testing – significant at the 1% and 5% level of significance)

Entrepreneurial intent	Perceived behavioural control (significant relationships)								
	E1	E2	E3	E4	E5	E6	E7	E8	E9
C1 - I am ready to do anything to be an entrepreneur.	W	W	M	M	---	---	W	VW	W
C2 – My professional goal is to be an entrepreneur.	W	W	M	M	---	VW	W	W	W
C3 - I will make every effort to start and run my own business.	W	W	W	M	VW	---	W	VW	W
C4 - I am determined to create a business venture in the future.	W	W	W	W	---	---	W	VW	VW
C5 - I do not have doubts about ever starting my own business in the future.	W	W	M	W	VW	VW	W	W	W
C6 - I have very seriously thought of starting a business in the future.	W	W	M	M	VW	---	VW	W	W
C7 - I have strong intention of ever starting a business in the future.	W	W	M	M	W	---	W	W	W
C8 - My qualification has contributed positively towards my interest to start a business.	VW	W	W	W	VW	---	W	VW	W
C9 - I had a strong intention to start my own business before I started with my qualification.	W	W	W	W	VW	VW	W	W	W
Statistically significant relationship (significant at the 1% and 5% level) but either M = moderate or W = weak or VW = very weak									
E1 - To start a business and keep it working would be easy for me.									
E2 - I am able to control the creation process of a new business.									
E3 - I believe I would be completely able to start a business.									
E4 - I am prepared to do anything to be an entrepreneur.									
E5 - I know all about the necessary practical details needed to start a business.									
E6 - If I wanted to, I could easily start and run a business.									
E7 - If I tried to start a business, I would have a high chance of being successful.									
E8 - It would be very easy for me to develop a business idea.									
E9 - My qualification has provided me with sufficient knowledge to start a business.									

Detailed discussion of the results for weak and very weak relationships between entrepreneurial intent and perceived behavioural control is found in Appendix 3.

Significant but moderate relationships were found on the following:

- The entrepreneurial intent factor “I am ready to do anything to be an entrepreneur” (C1) was moderately related to the perceived behavioural control factors: “I believe I would be completely able to start a new business” (E3, Somer’s d value = 0.42492, $p = 0.0000$) and “I am prepared to do anything to be an entrepreneur” (E4, Somer’s d value = 0.47840, $p = 0.0000$).
- The entrepreneurial intent factor “My professional goal is to be an entrepreneur” (C2) was moderately related to the perceived behavioural control factors: “I believe I would be completely able to start a new business” (E3, Somer’s d value = 0.42667, $p = 0.0000$) and “I am prepared to do anything to be an entrepreneur” (E4, Somer’s d value = 0.48919, $p = 0.0000$).
- The entrepreneurial intent factor “I will make every effort to start and run my own business” (C3) was moderately related to the perceived behavioural control factor: “I am prepared to do anything to be an entrepreneur” (E4, Somer’s d value = 0.48020, $p = 0.0000$).
- The entrepreneurial intent factor “I am determined to create a business venture in the future” (C4) had no moderate relation to any of the perceived behavioural control factors.
- The entrepreneurial intent factor “I do not have doubts about ever starting my own business in the future” (C5) was moderately related to the perceived behavioural control factor: “I believe I would be completely able to start a new business” (E3, Somer’s d value = 0.41736, $p = 0.0000$).
- The entrepreneurial intent factor “I have very seriously thought of starting a business in the future” (C6) was moderately related to the perceived behavioural control factors: “I believe I would be completely able to start a new business” (E3,

Somer's d value = 0.42536, $p = 0.0000$) and "I am prepared to do anything to be an entrepreneur" (E4, Somer's d value = 0.41129, $p = 0.0000$).

- The entrepreneurial intent factor "I have a strong intention of ever starting a business in the future" (C7) was moderately related to the perceived behavioural control factors: "I believe I would be completely able to start a new business" (E3, Somer's d value = 0.40993, $p = 0.0000$) and "I am prepared to do anything to be an entrepreneur" (E4, Somer's d value = 0.45762, $p = 0.0000$).
- The entrepreneurial intent factor "My qualification has contributed positively towards my interest to start a business" (C8) had no moderate relation to any of the perceived behavioural control factors.
- The entrepreneurial intent factor "I had a strong intention to start my own business before I started with my qualification" (C9) had no moderate relation to any of the perceived behavioural control factors.

From the findings it follows that some significant relationships existed between entrepreneurial intent factors and perceived behavioural control factors. In line with the discussion in section 2.3.2.1, it can be deduced from the findings that individuals form intentions to start a business based on perceptions that they have the ability to perform the behaviour (that is their ability to perform the activities associated with starting a business).

8.6.4 The relationship between perceived behavioural control and entrepreneurial knowledge and work experience of the respondents

Entrepreneurial knowledge and work experience were reported in previous research to be significantly related to perceived feasibility which is similar to perceived self-efficacy or behavioural control (sections 2.4.1, 2.4.2, 2.4.4 & 2.5.1.1). This relationship was tested in this study in order to confirm or disprove whether the same would apply to the sample selected for this study. Cramer's V test was used to test the correlation between entrepreneurial knowledge and work experience of the respondents and their

perceived behavioural control (sections B and E of Appendix 1). Each of the nine perceived behavioural control statements (E1 to E9) was tested individually against the seven statements representing entrepreneurial knowledge and work experience (B1 to B7). However, owing to the fact that the respondents were undergraduate students and had no or little work experience, as evident from Table 8.4, the correlations revealed that five of the seven factors of entrepreneurial knowledge and work experience were statistically significantly associated (at the 1% and 5% level of significance) with only one factor of perceived behavioural control, namely “I know all about the necessary practical details needed to start a business” (E5). These five factors include ‘current ownership of the business’ (B3); ‘having family members who are running a business’ (B4); ‘having friends who are running businesses’ (B5); ‘knowledge of any other person who is an entrepreneur’ (B6) and ‘having tried to start a business before’ (B7) (detailed discussion of the findings appears in Appendix 3). Thus the results suggest that current ownership of the business, having family members and friends who are running a business, knowing other people who are entrepreneurs and having tried to start a business before can play a vital role in enhancing perceived behavioural control by providing individuals with an opportunity to acquire the practical knowledge needed to start a business.

8.7 ENTREPRENEURIAL SUPPORT

In chapter 4 it was argued that potential entrepreneurs need support in order to implement their intentions by launching new ventures. In this study entrepreneurial support is viewed as a vital component that influences entrepreneurial intent and the success of the entrepreneur in executing the entrepreneurial process. The first part of this section reports on the descriptive statistics of the respondents in terms of their level of awareness of entrepreneurial support. The second part deals with hypothesis testing of the relationship between the level of awareness of entrepreneurial support and entrepreneurial intent (H_{07} and H_{17}). Thirdly, the relationship between the level of awareness of entrepreneurial support and the antecedents of entrepreneurial intent is tested (H_{07a} and H_{17a} ; H_{07b} and H_{17b}).

8.7.1 Descriptive statistics of the respondents regarding their level of awareness of entrepreneurial support

Based on a five-point Likert scale the respondents were asked to indicate the extent to which they 'strongly agreed' to 'strongly disagreed' with the questions relating to their level of awareness of entrepreneurial support provided by the government (section F of Appendix 1). The findings in Table 8.28 reveal that the respondents were unsure or cautiously positive about their knowledge of entrepreneurial support offered by the government. Although the respondents were cautiously positive about "The government provides good support for people who want to start a business" (F1, 34.8% - 'agree' and 22.6% - 'strongly agree' but 26.1% 'unsure'), they were not quite so confident about knowing "the different types of support that are offered to people who want to start their own businesses" (F2 – 36.4% 'agree', 12.8% 'strongly agree' but 32.7% 'unsure'). Regarding accessing the support from government institutions, the respondents exhibited a fairly high level of uncertainty (F3 – 42.9% 'unsure', 25.7% 'agree'). This same sentiment was reflected concerning "Information about government support for people who want to start their own businesses is easily accessible" (F4, 38.6% 'unsure', 30.7% 'agree'). In the final analysis, the respondents tended to perceive that "It would be easier for me to receive support from the people that I know than from the government" (F5, 31.7% 'agree' and 19.6% 'strongly agree' while 27.3% 'unsure'), thus in line with the literature (sections 4.8.1, 4.8.2 and 5.93) which shows that individuals are more likely to receive support from closer relationships than distant relationships when starting a business.

Table 8.28: Respondents' level of knowledge about entrepreneurial support

General questions on entrepreneurial support	Frequency	Percentage (%)					Total
		Strongly disagree	Disagree	Unsure	Agree	Strongly agree	
F1 – The government provides good support for people who want to start a business.	345	5.5	11.0	26.1	34.8	22.6	100
F2 - I know the different types of support that are offered to people who want to start their own businesses.	343	5.0	13.1	32.7	36.4	12.8	100
F3 - It would be easy for me to access support from government institutions.	343	6.4	16.6	42.9	25.7	8.5	100
F4 - Information about government support for people who want to start their own businesses is easily accessible.	339	7.7	12.7	38.6	30.7	10.3	100
F5 - It would be easier for me to receive support from the people that I know than from the government.	341	7.3	14.1	27.3	31.7	19.6	100

The majority of the respondents in Table 8.29 had little knowledge about government institutions that provide entrepreneurial support and the services they offer (see Appendix 1 F6a to F16b) with the exception of the Umsobomvu Youth Fund (UYF) and its services (F12a & F12b) but this fund ceased to exist in 2009. About 39.4 percent of the respondents indicated that they had some knowledge about the UYF while 27.3 percent knew the UYF well. With regard to the services that were offered by the UYF, 33.6 percent of the respondents had some knowledge about these services while 24.9 percent knew these services well. With regard to all the other listed government institutions and funds and their services, the majority (around 50-60%) of the respondents claimed to have 'very little knowledge' and 'little knowledge' (combined), with about 25 percent being 'unsure' and a similar percentage 'some knowledge'. It

seems that in each case the respondents had less knowledge of the services offered by an institution or fund than an awareness of the existence of such institution or fund.

Table 8.29: Respondents' level of knowledge about government institutions providing entrepreneurial support and their services

Government institutions providing entrepreneurial support and their services/funds	Frequency	Percentage (%)					Total
		Very little knowledge	Little knowledge	Unsure	Some knowledge	Know (it) them well	
F6a - The Small Enterprise Development Agency (Seda).	344	29.9	20.9	9.9	30.8	8.4	100
F6b - The services offered by Seda.	344	29.9	20.9	9.9	25.3	6.1	100
F7a - The Industrial Development Corporation (IDC).	344	28.8	19.2	22.4	23.5	6.1	100
F7b - The services offered by the IDC.	343	29.2	21.6	23.6	21.9	3.8	100
F8a - Khula Enterprise Finance (Khula).	344	32.8	19.8	20.9	21.5	4.9	100
F8b - The services offered by Khula.	345	33.9	18.0	24.6	18.3	5.2	100
F9a - Companies and Intellectual Property Registration Office (CIPRO). Now called Companies and Intellectual Property Commission (CIPC)	346	42.2	14.7	21.4	14.2	7.5	100
F9b - The services offered by CIPRO.	342	42.7	15.5	23.1	11.7	7.0	100
F10a -The National Empowerment Fund (NEF).	345	41.2	17.7	20.6	16.2	4.3	100
F10b - The services offered by the NEF.	345	43.5	16.5	23.2	14.8	2.0	100
F11a - The South African Micro-Finance Apex Fund (SAMAF).	345	45.8	14.2	24.9	12.2	2.9	100
F11b - The services offered by SAMAF.	344	45.1	13.4	26.7	9.6	5.2	100

Table 8.29 continued

F12a – The Umsobomvu Youth Fund (UYF).	348	10.1	17.0	6.3	39.4	27.3	100
F12b -The services that were offered by the UYF.	342	16.7	15.8	9.1	33.6	24.9	100
F13 - The National Youth Development Agency (NYDA).	345	30.1	15.7	20.0	19.4	14.8	100
F14a - Limpopo Economic Development Enterprise (LIMDEV).	344	44.5	12.5	20.1	14.8	8.1	100
F14b - The services offered by LIMDEV.	343	48.7	10.8	23.0	10.5	7.0	100
F15a – LIBSA.	345	49.0	12.8	21.2	11.6	5.5	100
F15b - The services offered by LIBSA.	345	50.0	11.9	19.5	12.2	6.4	100
F16a – The Eastern Cape Development Corporation (ECDC).	344	27.3	14.8	18.3	25.3	14.2	100
F16b - The services offered by the ECDC.	341	30.8	16.1	19.4	21.1	12.6	100

8.7.2 The relationship between the level of awareness of entrepreneurial support initiatives and entrepreneurial intent

Previous research (section 4.5.3 in Chapter 4) indicated that institutional support provided to start-ups increased the number of people entering self-employment. This study aims to determine whether the level of awareness of entrepreneurial support (section F of Appendix 1) is related to the intention to start a business (section C of Appendix 1). The seventh null hypothesis (H_{07}) which states that “*No relationship exists between the level of awareness of individual entrepreneurial support initiatives and each of the intention of starting a business*” statements was tested by means of Somer’s d test statistic. Each statement was tested individually to enable action focused results. The reason for using this test statistic was because awareness of

entrepreneurial support initiatives and the intention to start a business consisted of only ordinal data and the Somer's d test is a measure of association between two ordinal variables. The statistical results (Table 5 of Appendix 2) reveal that the 26 factors reflecting the respondents' level of awareness of entrepreneurial support initiatives (F1 to F16b of Appendix 1) are not all statistically significantly related (null hypothesis cannot be rejected) to the nine factors measuring the intention of starting a business (C1 to C9 of Appendix 1). Therefore, the conclusion cannot be made that all entrepreneurial support initiatives are related to the intention to start a business. Where statistically significant relationships existed between these factors they were found to be either weak (Somer's d values were above 0.2 but less than 0.4) or very weak. (Somer's d values below 0.2). A detailed discussion of the results for weak and very weak relationships is found in Appendix 3.

However, some interesting significant relationships surfaced as summarised below in Tables 8.30 and 8.31 (from Table 5 of Appendix 2). Not one of the nine entrepreneurial intent factors had a significant relationship with the "The government provides good support for people who want to start a business" (F1). Seven of the nine entrepreneurial intent factors were statistically significantly related to "I know the different types of support that are offered to people who want to start their own businesses" (at the 1% and 5% level of significance). Factor C7, "I have a strong intention of ever starting a business in the future", is statistically significantly related (at the 5% level of significance) to four support factors (F2, F3, F4 & F5) listed in Table 8.30.

Table 8.30: Summary of significant relationships between entrepreneurial intent and selected entrepreneurial support factors (Somer's d test used for significance testing – significant at the 1% and 5% level of significance)

Entrepreneurial intent	Awareness of entrepreneurial support factors									
	Significant		Significant		Significant		Significant		Significant	
C1 - I am ready to do anything to be an entrepreneur.	F1	No	F2	No	F3	Yes	F4	No	F5	Yes
C2 – My professional goal is to be an entrepreneur.	F1	No	F2	Yes	F3	Yes	F4	No	F5	Yes
C3 - I will make every effort to start and run my own business.	F1	No	F2	Yes	F3	No	F4	No	F5	Yes
C4 - I am determined to create a business venture in the future.	F1	No	F2	Yes	F3	No	F4	No	F5	Yes
C5 - I do not have doubts about ever starting my own business in the future.	F1	No	F2	Yes	F3	No	F4	Yes	F5	No
C6 - I have very seriously thought of starting a business in the future.	F1	No	F2	Yes	F3	No	F4	No	F5	Yes
C7 - I have strong intention of ever starting a business in the future.	F1	No	F2	Yes	F3	Yes	F4	Yes	F5	Yes
C8 - My qualification has contributed positively towards my interest to start a business.	F1	No	F2	Yes	F3	No	F4	No	F5	No
C9 - I had a strong intention to start my own business before I started with my qualification.	F1	No	F2	No	F3	Yes	F4	No	F5	No
Legend										
F1 – The government provides good support for people who want to start a business.										
F2 - I know the different types of support that are offered to people who want to start their own businesses.										
F3 - It would be easy for me to access support from government institutions.										
F4 - Information about government support for people who want to start their own businesses is easily accessible.										
F5 - It would be easier for me to receive support from the people that I know than from the government.										

With regard to the factors measuring awareness of the 11 government institutions providing entrepreneurial support and their services or funds (Table 8.31), only one factor, knowledge of “Seda” (F6a) and “the services offered by Seda” (F6b) had a statistically significant relationship with all nine entrepreneurial intent factors.

Knowledge of “the ECDC” (F16a) and “the services offered by the ECDC” (F16b) were statistically significantly related to eight of the entrepreneurial intent factors.

Despite the fact that the majority of the respondents had low levels of knowledge about government entrepreneurial support, in particular institutions providing entrepreneurial support and their services or funds, as presented in Tables 8.28 and 8.29, the results reveal that some statistically significant relationships existed between some factors measuring the level of awareness of entrepreneurial support and some of the entrepreneurial intent factors. Owing to low Somer’s d values in most cases, these relationships could be considered to be very weak.

Table 8.31: Summary of significant relationship between entrepreneurial intent and awareness of selected government entrepreneurial support institutions and their services/funds (Somer’s d test used for significance testing – significant at the 1% and 5% level of significance)

Government entrepreneurial support institutions and their services/funds	Entrepreneurial intent (significant relationships)								
	C1	C2	C3	C4	C5	C6	C7	C8	C9
F6a – Seda	VW	VW	VW	VW	VW	VW	VW	VW	VW
F6b - The services offered by Seda	VW	VW	VW	VW	VW	VW	VW	W	VW
F7a – The IDC	---	VW	VW	---	---	---	---	---	VW
F7b - The services offered by the IDC	VW	VW	---	---	---	VW	---	VW	VW
F8a – Khula	VW	VW	VW	---	---	VW	---	VW	VW
F8b - The services offered by Khula	---	---	---	---	---	VW	---	---	VW
F9a – CIPRO	VW	VW	VW	VW	---	VW	---	---	VW
F9b - The services offered by CIPRO	VW	VW	W	VW	---	VW	VW	---	VW
F10a – The NEF	---	---	VW	---	---	---	---	---	VW
F10b - The services offered by NEF	---	---	VW	---	---	---	---	---	VW
F11a – SAMAF	---	---	VW	---	---	---	---	---	---
F11b - The services offered by SAMAF	VW	---	VW	---	---	---	VW	---	VW
F12a – The UYF	---	VW	VW	VW	---	VW	---	---	VW
F12b – The services that were offered by the UYF	---	---	---	---	---	---	---	---	VW
F13 - The NYDA	---	VW	VW	VW	---	---	---	---	---
F14a – LIMDEV	VW	VW	VW	VW	---	---	---	---	VW
F14b - The services offered by LIMDEV	VW	---	VW	VW	---	---	---	---	VW
F15a – LIBSA	VW	VW	VW	VW	---	---	---	---	VW
F15b - The services offered by LIBSA	VW	VW	VW	---	---	---	---	---	VW
F16a – The ECDC	VW	VW	VW	VW	---	VW	VW	VW	VW
F16b - The services offered by the ECDC	VW	VW	VW	VW	---	VW	VW	VW	VW
Statistically significant relationship (significant at the 1% and 5% level) but either W = weak or VW = very weak									

Table 8.31 continued

C1 - I am ready to do anything to be an entrepreneur.
C2 – My professional goal is to be an entrepreneur.
C3 - I will make every effort to start and run my own business.
C4 - I am determined to create a business venture in the future.
C5 - I do not have doubts about ever starting my own business in the future.
C6 - I have very seriously thought of starting a business in the future.
C7 - I have a strong intention of ever starting a business in the future.
C8 - My qualification has contributed positively towards my interest to start a business.
C9 - I had a strong intention to start my own business before I started with my qualification.

8.7.3 The relationship between the level of awareness of entrepreneurial support initiatives and the attitude towards becoming an entrepreneur

As mentioned under section 8.7.2, previous research (section 4.5.3 in Chapter 4) has found that institutional support provided to start-ups increased the number of people entering self-employment. This study aims to determine whether the level of awareness of entrepreneurial support (section F of Appendix 1) is related to the attitude towards becoming an entrepreneur (section D of Appendix 1). The null hypothesis (H_{07a}) that applies to testing this relationship states that *“No relationship exists between the level of awareness of individual entrepreneurial support initiatives and each of statements of the attitude towards becoming an entrepreneur”*. Each of the 26 factors constituting awareness of entrepreneurial support initiatives (F1 to F16b) was tested individually against the six attitude factors (D1 to D6). The statistical results (using Somer’s d test) (Table 6 of Appendix 2) reveal that the 26 factors reflecting the respondents’ level of awareness of entrepreneurial support initiatives were not all statistically significantly related to the six factors measuring the attitude towards becoming an entrepreneur. Where significant relationships existed between these factors they were found to be either weak (Somer’s d values were above 0.2 but less than 0.4) or very weak (Somer’s d values below 0.2). Detailed discussion of the results for weak and very weak relationships appears in Appendix 3. Therefore, the null hypothesis cannot be rejected and the conclusion cannot be made that all entrepreneurial support initiatives are related to the attitude towards becoming an entrepreneur.

Summarising the significant relationships with respect to the five general entrepreneurial support statements (F1 to F5) in Table 8.32 (from Table 6 in Appendix 2), only two meaningful findings emerge. “I know the different types of support that are offered to people who want to start their own businesses” (F2) was statistically significantly related (at the 1% and 5% level of significance) to five of the six factors of attitude towards becoming an entrepreneur, namely D2, D3, D4 D5 and D6. Four of the five general entrepreneurial support factors (F1, F2, F3 & F5) had a statistically significant relationship (at the 1% and 5% level of significance) with the attitude factor “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6).

Table 8.32: Summary of statistical significance testing of the relationship between the attitude towards becoming an entrepreneur and selected entrepreneurial support factors (Somer’s d test used for significance testing – significance at the 1% and 5% level of significance)

Attitude towards becoming an entrepreneur	Awareness of entrepreneurial support factors									
	Significant		Significant		Significant		Significant		Significant	
D1 - Being an entrepreneur implies more advantages than disadvantages to me.	F1	No	F2	No	F3	No	F4	Yes	F5	No
D2 - A career as an entrepreneur is totally attractive to me.	F1	Yes	F2	Yes	F3	Yes	F4	No	F5	No
D3 - If I had the opportunity and resources, I would like to start a business.	F1	No	F2	Yes	F3	No	F4	No	F5	Yes
D4 - Amongst various options, I would rather be an entrepreneur.	F1	No	F2	Yes	F3	Yes	F4	No	F5	No
D5 - Being an entrepreneur would give me great satisfaction.	F1	No	F2	Yes	F3	Yes	F4	No	F5	Yes
D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	F1	Yes	F2	Yes	F3	Yes	F4	No	F5	Yes
Legend										
F1 – The government provides good support for people who want to start a business.										
F2 - I know the different types of support that are offered to people who want to start their own businesses.										
F3 - It would be easy for me to access support from government institutions.										
F4 - Information about government support for people who want to start their own businesses is easily accessible.										
F5 - It would be easier for me to receive support from the people that I know than from the government.										

The statistical results in Table 8.33 (summarised from Table 6 of Appendix 2) reveal that the factors measuring the respondents' level of awareness of 11 government entrepreneurial support institutions and their services or funds (F6a to F16b of Appendix 1) are not all significantly related to the six factors constituting the attitude towards becoming an entrepreneur. With regard to the level of awareness of these entrepreneurial support institutions, the respondents' knowledge of "Seda" (F6a) and "the services offered by Seda" (F6b) and knowledge of "the ECDC" (F16a) and "the services offered by the ECDC" (F16b) had a statistically significant relationship with all six attitude factors. Support factors pertaining to the knowledge of "the services offered by the IDC" (F7b); "the services offered by CIPRO" (F9b); "the UYF" (F12a) and "the services that were offered by the UYF" (F12b) had a statistically significant relationship with five of the six attitude factors. Low Somer's d values evident in most cases suggest that the relationship between these entrepreneurial support factors and attitude factors was very weak.

Table 8.33: Summary of significant relationships between the attitude towards becoming an entrepreneur and awareness of selected government entrepreneurial support institutions and their services/funds (Somer's d test used for significant testing – significance at the 1% and 5% level of significance)

Government entrepreneurial support institutions and their services/funds	Attitude towards becoming an entrepreneur (significant relationships)					
	D1	D2	D3	D4	D5	D6
F6a – Seda	VW	W	VW	VW	VW	W
F6b - The services offered by Seda	VW	W	VW	VW	VW	VW
F7a – The IDC	VW	VW	VW	---	---	VW
F7b - The services offered by the IDC	VW	W	VW	VW	---	VW
F8a – Khula	---	VW	VW	---	---	VW
F8b - The services offered by Khula	---	VW	VW	---	---	---
F9a – CIPRO	---	VW	VW	---	---	VW
F9b - The services offered by CIPRO	---	VW	VW	VW	VW	VW
F10a – The NEF	---	VW	---	VW	---	---
F10b - The services offered by NEF	---	VW	---	---	---	---
F11a – SAMAF	---	---	---	---	---	---
F11b - The services offered by SAMAF	---	VW	VW	---	---	---
F12a – The UYF	---	VW	VW	VW	VW	VW
F12b – The services that were offered by the UYF	---	VW	VW	VW	VW	VW
F13 - The NYDA	---	VW	VW	VW	---	---
F14a – LIMDEV	---	VW	---	---	---	---
F14b - The services offered by LIMDEV	---	---	VW	---	---	---
F15a – LIBSA	---	---	VW	---	---	---
F15b - The services offered by LIBSA	---	---	VW	---	---	---
F16a – The ECDC	VW	W	VW	VW	VW	VW
F16b - The services offered by the ECDC	VW	VW	VW	VW	VW	VW
Statistically significant relationship (significant at the 1% and 5% level) but either W = weak or VW = very weak						
D1 - Being an entrepreneur implies more advantages than disadvantages to me.						
D2 - A career as an entrepreneur is totally attractive to me.						
D3 - If I had the opportunity and resources, I would like to start a business.						
D4 - Amongst various options, I would rather be an entrepreneur.						
D5 - Being an entrepreneur would give me great satisfaction.						
D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.						

8.7.4 The relationship between the level of awareness of entrepreneurial support initiatives and perceived behavioural control

In Chapter 2 section 2.3.2.1, it was indicated that perceived behavioural control is determined by control beliefs about the availability of resources and opportunities. It is therefore expected that the level of awareness of entrepreneurial support initiatives

would be related to perceived behavioural control. Somer's d test was used to test the null hypothesis (H_{07b}) which states that *"No relationship exists between the level of awareness of individual entrepreneurial support initiatives and each of perceived behavioural control statements"* (sections F and E of Appendix 1). Each of the 26 factors constituting awareness of entrepreneurial support initiatives (F1 to F16b) was tested individually against the nine perceived behavioural control factors (E1 to E9).

The statistical results in Tables 8.34 and 8.35 (summarised from Table 7 of Appendix 2) reveal that the 26 factors measuring the respondents' level of awareness of entrepreneurial support initiatives are not all statistically significantly related to the nine perceived behavioural control factors. Therefore, based on these results, the null hypothesis cannot be rejected and the conclusion cannot be made that all entrepreneurial support initiatives are related to perceived behavioural control. Where statistically significant relationships existed these relationships varied in strength from weak (with Somer's d values above 0.2 but less than 0.4) to very weak (Somer's d values below 0.2). A detailed discussion of the results for weak and very weak relationships is found in Appendix 3.

All nine perceived behavioural control factors are statistically significantly related to "The government provides good support for people who want to start a business" (F1, at the 1% and 5% level of significance) and "It would be easy for me to access support from government institutions" (F3, at the 1% and 5% level of significance). Seven perceived behavioural control factors (E1, E3, E5, E6, E7, and E8 & E9) are statistically significantly related to "Information about government support for people who want to start their own businesses is easily accessible" (F4, at the 1% and 5% level of significance). Six perceived behavioural control factors (E3, E5, E6, E7, and E8 & E9) are statistically significantly related to "I know the different types of support that are offered to people who want to start their own businesses" (F2, at the 1% and 5% level of significance).

Three perceived behavioural control factors "I believe I would be completely able to start a business" (E3); "If I tried to start a business, I would have a high chance of being successful" (E7) and "My qualification has provided me with sufficient knowledge to start a business" (E9) are statistically significantly related (at the 1% and 5% level of

significance) to all five entrepreneurial support factors (F1, F2, F3, F4 and F5), listed in Table 8.34. Three perceived behavioural control factors “I know all about the necessary practical details needed to start a business” (E5); “If I wanted to, I could easily start and run a business” (E6) and “It would be very easy for me to develop a business idea” (E8) are statistically significantly related to four of the five entrepreneurial support factors (F1, F2, F3 and F4).

Table 8.34: Summary of statistical significant testing between perceived behavioural control and selected entrepreneurial support factors (Somer’s d test used for significant testing – significance at the 1% and 5% level of significance)

Perceived behavioural control	Awareness of entrepreneurial support factors									
	Significant		Significant		Significant		Significant		Significant	
E1 - To start a business and keep it working would be easy for me.	F1	Yes	F2	No	F3	Yes	F4	Yes	F5	No
E2 - I am able to control the creation process of a new business.	F1	Yes	F2	No	F3	Yes	F4	No	F5	No
E3 - I believe I would be completely able to start a business.	F1	Yes	F2	Yes	F3	Yes	F4	Yes	F5	Yes
E4 - I am prepared to do anything to be an entrepreneur.	F1	Yes	F2	No	F3	Yes	F4	No	F5	Yes
E5 - I know all about the necessary practical details needed to start a business.	F1	Yes	F2	Yes	F3	Yes	F4	Yes	F5	No
E6 - If I wanted to, I could easily start and run a business.	F1	Yes	F2	Yes	F3	Yes	F4	Yes	F5	No
E7 - If I tried to start a business, I would have a high chance of being successful.	F1	Yes	F2	Yes	F3	Yes	F4	Yes	F5	Yes
E8 - It would be very easy for me to develop a business idea.	F1	Yes	F2	Yes	F3	Yes	F4	Yes	F5	No
E9 - My qualification has provided me with sufficient knowledge to start a business.	F1	Yes	F2	Yes	F3	Yes	F4	Yes	F5	Yes
Legend										
F1 – The government provides good support for people who want to start a business.										
F2 - I know the different types of support that is offered to people who want to start their own businesses.										
F3 - It would be easy for me to access support from government institutions.										
F4 - Information about government support for people who want to start their own businesses is easily accessible.										
F5 - It would be easier for me to receive support from the people that I know than from the government.										

The statistical results for the factors (F6a to F16b of Appendix 1) measuring awareness of the 11 government institutions providing entrepreneurial support and their services or funds (Table 8.35 summarised from Table 7 of Appendix 2) indicate that some of these support factors are statistically significantly related (at the 1% and 5% level of significance) to some of the nine perceived behavioural control factors.

Perceived behavioural control factor “I believe I would be completely able to start a business” (E3) had a statistically significant relationship with most (20 out of 21) factors pertaining to government entrepreneurial support institutions and their services or funds. Four support factors pertaining to the knowledge of “Seda” (F6a) and “the services offered by Seda” (F6b), “the UYF” (F12a) and “LIMDEV” (F14a) were statistically significantly related to all nine perceived behavioural control factors. Three support factors that involved the knowledge of “the IDC” (F7a); “CIPRO” (F9a) and “the services offered by LIBSA” (F15b) had a statistically significant relationship with eight perceived behavioural control factors. Three support factors measuring the knowledge of “the services offered by CIPRO” (F9b); “the services that were offered by the UYF” (F12b) and “the ECDC” (F16a) were statistically significantly related to seven perceived behavioural control factors. Six support factors that include the knowledge of “the services offered by the IDC” (F7b); “the services offered by Khula” (F8b); “the services offered by NEF” (F10b); “the services offered by SAMAF” (F11b); “LIBSA” (F15a) and “the services offered by the ECDC” (F16b) had a statistically significant relationship with six perceived behavioural control factors.

In summary the results indicate that a statistically significant relationship (at the 1% and 5% level of significance) exists between perceived behavioural control of the respondents (all nine factors) and their perception that “The government provides good support for people who want to start a business” (F1) and “It would be easy for me to access support from government institutions” (F3) as well as their knowledge of “Seda” (F6a) and “the services offered by Seda” (F6b), “the UYF” (F12a) and “LIMDEV” (F14a). From the findings, it follows that the respondents’ level of awareness of entrepreneurial support initiatives enhanced their perceived behavioural control. The results suggest that increasing awareness of government institutions

providing entrepreneurial support and their services would positively influence perceived behavioural control.

Table 8.35: Summary of significant relationships between perceived behavioural control and awareness of selected government entrepreneurial support institutions and their services/funds (Somer's d test used for significance testing – significant at the 1% and 5% level of significance)

Government entrepreneurial support institutions and their services/funds	Perceived behavioural control (significant relationships)								
	E1	E2	E3	E4	E5	E6	E7	E8	E9
F6a – Seda	VW	VW	VW	VW	VW	VW	VW	W	VW
F6b - The services offered by Seda	VW	VW	VW	VW	VW	VW	VW	W	VW
F7a – The IDC	VW	VW	VW	---	VW	VW	VW	VW	VW
F7b - The services offered by the IDC	VW	VW	VW	VW	---	---	VW	VW	---
F8a – Khula	VW	VW	W	---	---	---	---	VW	VW
F8b - The services offered by Khula	VW	---	VW	VW	VW	---	---	VW	VW
F9a – CIPRO	VW	VW	VW	VW	VW	---	VW	VW	VW
F9b - The services offered by CIPRO	VW	VW	VW	---	VW	---	VW	VW	VW
F10a – The NEF	---	---	VW	---	VW	VW	---	VW	---
F10b - The services offered by NEF	VW	VW	VW	---	VW	VW	---	VW	---
F11a – SAMAF	VW	---	VW	---	VW	---	---	---	---
F11b - The services offered by SAMAF	VW	VW	VW	VW	VW	---	---	VW	VW
F12a – The UYF	VW	VW	W	VW	VW	VW	VW	W	VW
F12b – The services that were offered by the UYF	---	VW	VW	VW	VW	VW	---	W	VW
F13 - The NYDA	---	---	---	---	---	---	---	---	---
F14a – LIMDEV	VW	VW	VW	VW	VW	VW	VW	VW	VW
F14b - The services offered by LIMDEV	VW	---	VW	VW	---	---	VW	---	---
F15a – LIBSA	VW	VW	VW	VW	---	---	VW	---	VW
F15b - The services offered by LIBSA	VW	VW	VW	VW	VW	VW	VW	---	VW
F16a – The ECDC	VW	VW	VW	VW	VW	---	---	VW	VW
F16b - The services offered by the ECDC	---	VW	VW	VW	VW	---	---	VW	VW
Statistically significant relationship (significant at the 1% and 5% level) but either W = weak or VW = very weak									
E1 - To start a business and keep it working would be easy for me.									
E2 - I am able to control the creation process of a new business.									
E3 - I believe I would be completely able to start a business.									
E4 - I am prepared to do anything to be an entrepreneur.									
E5 - I know all about the necessary practical details needed to start a business.									
E6 - If I wanted to, I could easily start and run a business.									
E7 - If I tried to start a business, I would have a high chance of being successful.									
E8 - It would be very easy for me to develop a business idea.									
E9 - My qualification has provided me with sufficient knowledge to start a business.									

8.8 SOCIAL CAPITAL

The role of social capital in the development of entrepreneurial intent, start-up and growth of new ventures has been discussed in Chapter 5. One of the secondary objectives of this study is to determine the relationship between social capital and entrepreneurial intent. Before testing the hypotheses relating to this relationship (H_{08} and H_{18}), descriptive statistics are provided on the social capital of the respondents. The hypotheses tests are followed by tests of the relationship between social capital and the antecedents of entrepreneurial intent, namely, the attitude towards becoming an entrepreneur (H_{08a} and H_{18a}) and perceived behavioural control (H_{08b} and H_{18b}).

8.8.1 Descriptive statistics for the social capital of the respondents

The respondents were asked to indicate on a five-point Likert scale ranging from '1 = strongly disagree' to '5 = strongly agree' the extent to which they 'agreed' or 'disagreed' with the 15 social capital factors that were identified in this study (section G of Appendix 1). Social capital in this study involved personal knowledge of entrepreneurs (questions G1, G2, G3 & G4), approval of the decision to start a business by the immediate family, friends and colleagues (questions G5, G6 & G7), the extent to which entrepreneurship is valued by the immediate family, colleagues and friends (questions G8, G9 & G10) and the extent to which the society in general values entrepreneurial activity (questions G11 & G12), and reliance on the immediate family, friends and other entrepreneurs for assistance in starting a business (questions G13, G14 & G15).

For the four questions dealing with personal knowledge of entrepreneurs (questions G1, G2, G3 & G4), the responses ranged from strongly negative to strongly positive; very few responses were recorded in the 'unsure' category (Table 8.36). Although the respondents mostly knew other people who were entrepreneurs (G3: 37.5% 'agree' plus 26.8% 'strongly agree') and knew successful entrepreneurs in the community (G4: 36.0% 'agree' plus 27.6% 'strongly agree'), the majority of the respondents did not personally know someone who was an entrepreneur in their family (G1: 28.4% 'disagree' plus 28.7% 'strongly disagree'), nor did they have a friend who was an entrepreneur (G2: 30.6% 'disagree' plus 30.9% 'strongly disagree').

With regard to approval of the decision to start a business by the immediate family, friends and colleagues (questions G5, G6 & G7), the respondents were fairly confident that their immediate family (G5: 68.8% on combined 'agree' and 'strongly agree') and their friends (G6: 68.1% on combined 'agree' and 'strongly agree') would approve of their decision to start a business (Table 8.36). They were somewhat less confident that their colleagues would approve of their decision to start a business (G7: 51.2% on combined 'agree' and 'strongly agree' and 36.5 % 'unsure').

From the results (Table 8.36) on the value attached to the entrepreneurial activity above other activities and careers by the immediate family, colleagues and friends (questions G8, G9 & G10), it seems that the respondents generally tended to be rather cautious. They were more 'unsure' of the value that their colleagues (G9: 47.6%) than their family (G8: 38.9%) and their friends (G10: 39.8%) would attach to the entrepreneurial activity. More of the respondents agreed that their friends (G10: 29.8%) rather than their family (G8: 24.3%) and their colleagues (G9: 21.4%) would value the entrepreneurial activity above other activities and careers.

A fair amount of confidence was exhibited by the respondents that the society in general values the entrepreneurial activity (questions G11 & G12) (Table 8.36). More than half of the respondents (G11: 55.9% combined figures) 'agreed' and 'strongly agreed' that "The culture in my country is highly favourable towards the entrepreneurial activity" (G11) while nearly two-thirds of the respondents (G12: 62% combined percentages) 'agreed' and 'strongly agreed' that "In my country, entrepreneurial activity is considered to be worthwhile, despite the risks" (G12). For both statements, nearly a third of the respondents (G11 – 30.3% & G12 – 28.4%) expressed uncertainty.

The last group of social capital questions focused on the extent to which the respondents perceived they could rely on their immediate families, friends and other entrepreneurs for assistance in starting a business (questions G13, G14 & G15). The results (Table 8.36) indicate that more than half of the respondents (G13 - 58.9%) 'agreed' and 'strongly agreed' that they could rather rely on their family for assistance in starting a business" (G13) than on other entrepreneurs (G15 - 45.6%) or on friends (G14 - 40.7%). About a third of the respondents were 'unsure' about relying on friends

(G14 – 33%) or other entrepreneurs (G15 – 30.3%) for assistance in starting a business.

Table 8.36: Social capital of the respondents

Social capital	Frequency	Percentage (%)					Total
		Strongly disagree	Disagree	Unsure	Agree	Strongly agree	
G1 - I personally know someone who is an entrepreneur in my family.	349	28.7	28.4	5.7	17.2	20.1	100
G2 - I have a friend who is an entrepreneur.	346	30.9	30.6	4.9	17.3	16.2	100
G3 - I personally know other people who are entrepreneurs.	347	11.5	16.4	7.8	37.5	26.8	100
G4 - I personally know successful entrepreneurs in my community.	344	13.1	14.2	8.1	36.9	27.6	100
G5 - My immediate family would approve of my decision to start a business.	346	6.1	5.8	19.4	35.3	33.5	100
G6 - My friends would approve of my decision to start a business.	345	4.3	4.6	22.9	38.0	30.1	100
G7 - My colleagues would approve of my decision to start a business.	342	5.8	6.4	36.5	30.7	20.5	100
G8 - My immediate family values entrepreneurial activity above other activities and careers.	342	9.4	17.3	38.9	24.3	10.2	100
G9 - My colleagues value entrepreneurial activity above other activities and careers.	336	9.2	14.9	47.6	21.4	6.8	100
G10 - My friends value entrepreneurial activity above other activities and careers.	342	7.3	13.7	39.8	29.8	9.4	100
G11 - The culture in my country is highly favourable towards the entrepreneurial activity.	340	4.4	9.4	30.3	31.5	24.4	100
G12 - In my country, entrepreneurial activity is considered to be worthwhile, despite the risks.	342	4.1	5.6	28.4	39.8	22.2	100

Table 8.36 continued

G13 - I can rely on my family for assistance in starting a business.	346	7.2	14.5	19.4	33.8	25.1	100
G14 - I can rely on my friends for assistance in starting a business.	345	3.5	12.8	33.0	36.8	13.9	100
G15 - I can rely on other entrepreneurs for assistance in starting a business.	347	3.7	10.4	30.3	36.0	19.6	100

8.8.2 The relationship between social capital and entrepreneurial intent

Given the relationship that was found in previous research between social capital and entrepreneurial intent, in this section this relationship is tested in order to confirm or disprove these findings for this group of respondents. Somer's d test was used to test the eighth null hypothesis (H_{08}) which states that *"No relationship exists between perceptions of social capital as determined by being a member of a social network and the intention of starting a business"*. The reason for using Somer's d test was because social capital and entrepreneurial intent (sections G and C Appendix 1) consisted of only ordinal data and Somer's d test is a measure of association between two ordinal variables. Each of the 15 factors of social capital (G1 to G15) was tested individually against the nine entrepreneurial intent factors (C1 to C9). The results of the statistical analysis (summarised in Table 8.37 from Table 8 of Appendix 2) indicate that not all 15 social capital factors are statistically significantly related to all nine entrepreneurial intent factors and therefore the null hypothesis cannot be rejected. Where a statistically significant relationship (at the 1% and 5% level of significance) existed between social capital and entrepreneurial intent factors, the relationship was found to be weak (Somer's d values were above 0.2 but less than 0.4) or very weak (Somer's d values below 0.2).

The statistical results revealed that only nine of the 15 social capital factors were statistically significantly related (at the 1% and 5% level of significance) to all nine entrepreneurial intent factors. These social capital factors include: "I personally know other people who are entrepreneurs" (G3); "My immediate family (G5), friends (G6)

and colleagues (G7) would approve of my decision to start a business” “My immediate family (G8), colleagues (G9) and friends (G10) value entrepreneurial activity above other activities and careers”; “The culture in my country is highly favourable towards the entrepreneurial activity” (G11) and “I can rely on my family for assistance in starting a business” (G13). The social capital factor “In my country, entrepreneurial activity is considered to be worthwhile, despite the risks” (G12) had a statistically significant relationship with eight of the nine entrepreneurial intent factors. Having personal knowledge of successful entrepreneurs in the community (G4) was statistically significantly related to seven of the nine entrepreneurial intent factors. The respondents’ perception that they can rely on other entrepreneurs for assistance in starting a business (G15) had a statistically significant relationship with six of the nine entrepreneurial intent factors. Three social capital factors “I personally know someone who is an entrepreneur in my family” (G1); “I have a friend who is an entrepreneur” (G2) and “I can rely on my friends for assistance in starting a business” (G14) were statistically significantly related to only three entrepreneurial intent factors each. The findings with regard to these three social capital factors are not surprising given the fact that about a third of the respondents (34% and 28.1%) as illustrated in Table 8.4 have family members and friends who are running a business.

Table 8.37: Summary of significant relationships between social capital and entrepreneurial intent (Somer's d test used for significance testing – significant at the 1% and 5% level of significance)

Social capital	Entrepreneurial intent (significant relationships)								
	C1	C2	C3	C4	C5	C6	C7	C8	C9
G1 - I personally know someone who is an entrepreneur in my family.	---	VW	---	VW	---	---	---	---	VW
G2 - I have a friend who is an entrepreneur.	---	---	---	VW	---	---	---	VW	VW
G3 - I personally know other people who are entrepreneurs.	VW	VW	VW	VW	VW	VW	VW	VW	VW
G4 - I personally know successful entrepreneurs in my community.	VW	VW	---	VW	---	VW	VW	VW	VW
G5 - My immediate family would approve of my decision to start a business.	W	W	W	W	W	W	W	VW	VW
G6 - My friends would approve of my decision to start a business.	W	W	W	W	W	W	W	VW	VW
G7 - My colleagues would approve of my decision to start a business.	W	W	W	VW	VW	W	W	VW	VW
G8 - My immediate family values entrepreneurial activity above other activities and careers.	W	W	VW						
G9 - My colleagues value entrepreneurial activity above other activities and careers.	VW	W	VW						
G10 - My friends value entrepreneurial activity above other activities and careers.	W	W	W	W	W	W	W	W	VW
G11 - The culture in my country is highly favourable towards the entrepreneurial activity.	W	W	W	VW	W	W	W	W	VW
G12 - In my country, entrepreneurial activity is considered to be worthwhile, despite the risks.	VW	VW	VW	VW	VW	VW	VW	VW	---
G13 - I can rely on my family for assistance in starting a business.	VW	VW	VW	VW	VW	VW	VW	VW	VW
G14 - I can rely on my friends for assistance in starting a business.	---	---	---	VW	---	---	VW	VW	---
G15 - I can rely on other entrepreneurs for assistance in starting a business.	VW	VW	---	---	VW	VW	---	VW	VW
Statistically significant relationship (significant at the 1% and 5% level) but either W = weak or VW = very weak									
C1 - I am ready to do anything to be an entrepreneur.									
C2 – My professional goal is to be an entrepreneur.									
C3 - I will make every effort to start and run my own business.									
C4 - I am determined to create a business venture in the future.									
C5 - I do not have doubts about ever starting my own business in the future.									
C6 - I have very seriously thought of starting a business in the future.									
C7 - I have a strong intention of ever starting a business in the future.									
C8 - My qualification has contributed positively towards my interest to start a business.									
C9 - I had a strong intention to start my own business before I started with my qualification.									

A detailed discussion of the results for very weak relationships is found in appendix 3. From the results in Table 8 of Appendix 2 it is evident that the intention of the respondents (section C of appendix 1) to start a business had a statistically significant but weak (Somers's d values above 0.2 but less than 0.4) relationship with social capital (section G of Appendix 1) as follows:

- The social capital factor "My immediate family would approve of my decision to start a business" (G5) had a statistically significant (at the 1% level of significance) but weak relationship (Somers's d values that were above 0.2 but less than 0.4) with seven of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: "I am ready to do anything to be an entrepreneur" (C1, Somers's d value = 0.24912, $p = 0.00000$); "My professional goal is to be an entrepreneur" (C2, Somers's d value = 0.22842, $p = 0.00000$); "I will make every effort to start and run my own business" (C3, Somers's d value = 0.24213, $p = 0.00000$); "I am determined to create a business venture in the future" (C4, Somers's d value = 0.23014, $p = 0.00000$); "I do not have doubts about ever starting my own business in the future" (C5, Somers's d value = 0.20938, $p = 0.00000$); "I have very seriously thought of starting a business in the future" (C6, Somers's d value = 0.25414, $p = 0.00000$) and "I have a strong intention of ever starting a business in the future" (C7, Somers's d value = 0.26964, $p = 0.00000$).
- The social capital factor "My friends would approve of my decision to start a business" (G6) had a statistically significant (at the 1% level of significance) but weak relationship (Somers's d values that were above 0.2 but less than 0.4) with seven of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: "I am ready to do anything to be an entrepreneur" (C1, Somers's d value = 0.22851, $p = 0.00000$); "My professional goal is to be an entrepreneur" (C2, Somers's d value = 0.23660, $p = 0.00000$); "I will make every effort to start and run my own business" (C3, Somers's d value = 0.23598, $p = 0.00000$); "I am determined to create a business venture in the future" (C4, Somers's d value = 0.27955, $p = 0.00000$); "I do not have doubts about ever starting my own business in the future" (C5, Somers's d value = 0.21663, $p = 0.00000$); "I have very seriously thought of starting a business in the future" (C6, Somers's d value = 0.29692, $p = 0.00000$).

and “I have a strong intention of ever starting a business in the future” (C7, Somer’s d value = 0.32928, $p = 0.00000$).

- The social capital factor “My colleagues would approve of my decision to start a business” (G7) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with five of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1, Somer’s d value = 0.21170, $p = 0.00000$); “My professional goal is to be an entrepreneur” (C2, Somer’s d value = 0.26285, $p = 0.00000$); “I will make every effort to start and run my own business” (C3, Somer’s d value = 0.20904, $p = 0.00000$); “I have very seriously thought of starting a business in the future” (C6, Somer’s d value = 0.20670, $p = 0.00000$) and “I have a strong intention of ever starting a business in the future” (C7, Somer’s d value = 0.32928, $p = 0.00000$).
- The social capital factor “My immediate family values entrepreneurial activity above other activities and careers” (G8) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with two of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1, Somer’s d value = 0.24493, $p = 0.00000$) and “My professional goal is to be an entrepreneur” (C2, Somer’s d value = 0.29554, $p = 0.00000$).
- The social capital factor “My colleagues value entrepreneurial activity above other activities and careers” (G9) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with one of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “My professional goal is to be an entrepreneur” (C2, Somer’s d value = 0.25868, $p = 0.00000$).
- The social capital factor “My friends value entrepreneurial activity above other activities and careers” (G10) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but

less than 0.4) with eight of the nine (C1 to C9 of Appendix 1) entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1, Somer’s d value = 0.22509, $p = 0.00000$); “My professional goal is to be an entrepreneur” (C2, Somer’s d value = 0.32011, $p = 0.00000$); “I will make every effort to start and run my own business” (C3, Somer’s d value = 0.21449, $p = 0.00000$); “I am determined to create a business venture in the future” (C4, Somer’s d value = 0.23283, $p = 0.00000$); “I do not have doubts about ever starting my own business in the future” (C5, Somer’s d value = 0.20739, $p = 0.00000$); “I have very seriously thought of starting a business in the future” (C6, Somer’s d value = 0.20085, $p = 0.00000$); “I have a strong intention of ever starting a business in the future” (C7, Somer’s d value = 0.25630, $p = 0.00000$) and “My qualification has contributed positively towards my interest to start a business” (C8, Somer’s d value = 0.25267, $p = 0.00000$).

- The social capital factor “The culture in my country is highly favourable towards the entrepreneurial activity” (G11) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with seven of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1, Somer’s d value = 0.20058, $p = 0.00000$); “My professional goal is to be an entrepreneur” (C2, Somer’s d value = 0.24632, $p = 0.00000$); “I will make every effort to start and run my own business” (C3, Somer’s d value = 0.20000, $p = 0.00000$); “I do not have doubts about ever starting my own business in the future” (C5, Somer’s d value = 0.21278, $p = 0.00000$); “I have very seriously thought of starting a business in the future” (C6, Somer’s d value = 0.21749, $p = 0.00000$); “I have a strong intention of ever starting a business in the future” (C7, Somer’s d value = 0.21525, $p = 0.00000$) and “My qualification has contributed positively towards my interest to start a business” (C8, Somer’s d value = 0.23498, $p = 0.00000$).

The results in Table 8.37 indicate that all 15 social capital factors have a statistically significant relationship but not with all nine entrepreneurial intent factors. However, these relationships ranged from weak to very weak suggesting that social capital does not have a strong influence on the intention of the respondents to start a business.

8.8.3 The relationship between social capital and the attitude of the respondents towards becoming an entrepreneur

Previous research (section 5.10.2 of Chapter 5) has found that knowing family entrepreneurs, knowing non-family entrepreneurs, positive valuation of entrepreneurship as a career in the closer environment and approval of the decision to start a business, referred to as bonding cognitive social capital have a significant influence on perceived desirability of entrepreneurship. As discussed in Chapter 2 section 2.3.4, perceived desirability has been reported to be similar to the attitude towards becoming an entrepreneur. Somer's d tests were conducted to establish the strength of the relationship between social capital and the attitude of the respondents towards becoming an entrepreneur. This relationship was tested using the hypothesis (H_{08a}) which states that *"No relationship exists between perceptions of social capital as determined by being a member of a social network and the attitude towards becoming an entrepreneur"*. The reason for using Somer's d test was because social capital and the attitude towards becoming an entrepreneur (sections G and D in Appendix 1) consisted of only ordinal data and Somer's d test is a measure of association between two ordinal variables. Each of the 15 social capital factors (G1 to G15) was tested individually against the six attitude factors (D1 to D6). The statistical results (summarised in Table 8.38 from Table 9 in Appendix 2) indicate that some of the social capital factors are statistically significantly related (at the 1% and 5% level of significance) to some of the factors of the attitude towards becoming an entrepreneur. However, where statistically significant relationships existed between the social capital factors and the factors of the attitude towards becoming an entrepreneur these relationships were found to be weak (Somer's d values were above 0.2 but less than 0.4) and very weak (Somer's d values below 0.2). Since not all social capital factors were statistically significantly related to all six attitude factors, the null hypothesis cannot be rejected. Therefore, the conclusion cannot be made that social capital is related to the attitude towards becoming an entrepreneur.

The findings reveal that 10 of the 15 social capital factors had a statistically significant relationship with all six attitude factors. These social capital factors included: "I personally know other people who are entrepreneurs" (G3); "My immediate family (G5) and friends (G6) would approve of my decision to start a business"; "My immediate

family (G8), colleagues (G9) and friends (G10) value entrepreneurial activity above other activities and careers”; “The culture in my country is highly favourable towards the entrepreneurial activity” (G11); “In my country, entrepreneurial activity is considered to be worthwhile, despite the risks” (G12); and “I can rely on my family (G13) and other entrepreneurs (G15) for assistance in starting a business”. Social capital factors that involve having “personal knowledge of successful entrepreneurs in the community” (G4); “My colleagues would approve of my decision to start a business” (G7) and “I can rely on my friends for assistance in starting a business” (G14) were all statistically significantly related to five of the attitude factors.

Table 8.38: Summary of significant relationships between social capital and the attitude towards becoming an entrepreneur (Somers’ d test used for significance testing – significant at the 1% and 5% level of significance)

Social capital	Attitude towards becoming an entrepreneur (significant relationships)					
	D1	D2	D3	D4	D5	D6
G1 - I personally know someone who is an entrepreneur in my family.	---	VW	---	---	---	VW
G2 - I have a friend who is an entrepreneur.	---	VW	VW	VW	---	VW
G3 - I personally know other people who are entrepreneurs.	VW	W	VW	W	VW	VW
G4 - I personally know successful entrepreneurs in my community.	---	VW	VW	VW	VW	VW
G5 - My immediate family would approve of my decision to start a business.	VW	W	W	W	W	W
G6 - My friends would approve of my decision to start a business.	VW	W	W	W	W	W
G7 - My colleagues would approve of my decision to start a business.	---	W	VW	W	W	VW

Table 8.38 continued

G8 - My immediate family values entrepreneurial activity above other activities and careers.	VW	W	W	W	W	W
G9 - My colleagues value entrepreneurial activity above other activities and careers.	VW	W	W	W	VW	W
G10 - My friends value entrepreneurial activity above other activities and careers.	VW	W	W	W	W	W
G11 - The culture in my country is highly favourable towards the entrepreneurial activity.	VW	W	VW	W	W	W
G12 - In my country, entrepreneurial activity is considered to be worthwhile, despite the risks.	VW	W	VW	VW	W	W
G13 - I can rely on my family for assistance in starting a business.	VW	W	VW	VW	VW	W
G14 - I can rely on my friends for assistance in starting a business.	---	VW	VW	VW	VW	VW
G15 - I can rely on other entrepreneurs for assistance in starting a business.	VW	VW	VW	VW	VW	VW
Statistically significant relationship (significant at the 1% and 5% level) but either W = weak or VW = very weak						
D1 - Being an entrepreneur implies more advantages than disadvantages to me.						
D2 - A career as an entrepreneur is totally attractive to me.						
D3 - If I had the opportunity and resources, I would like to start a business.						
D4 - Amongst various options, I would rather be an entrepreneur.						
D5 - Being an entrepreneur would give me great satisfaction.						
D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.						

A detailed discussion of the results for very weak relationships appears in appendix 3. From the results in Table 9 of Appendix 2 the following statistically significant but weak relationships exist:

- The social capital factor “I personally know other people who are entrepreneurs” (G3) had a statistically significant (at the 1% level of significance) but weak relationship (Somers’s d values that were above 0.2 but less than 0.4) with two of the six attitude factors: “A career as an entrepreneur is totally attractive to me” (D2, Somers’s d value = 0.21332, p = 0.00000) and “Amongst various options, I would rather be an entrepreneur” (D4, Somers’s d value = 0.20332, p = 0.00000).

- The social capital factor “My immediate family would approve of my decision to start a business” (G5) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with five of the six attitude factors: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.30113, p = 0.00000); “If I had the opportunity and resources, I would like to start a business” (D3, Somer’s d value = 0.26370, p = 0.00000); “Amongst various options, I would rather be an entrepreneur” (D4, Somer’s d value = 0.26736, p = 0.00000); “Being an entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.23464, p = 0.00000) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6, Somer’s d value = 0.23053, p = 0.00000).
- The social capital factor “My friends would approve of my decision to start a business” (G6) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with five of the six attitude factors: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.27921, p = 0.00000); “If I had the opportunity and resources, I would like to start a business” (D3, Somer’s d value = 0.27922, p = 0.00000); “Amongst various options, I would rather be an entrepreneur” (D4, Somer’s d value = 0.27702, p = 0.00000); “Being an entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.24898, p = 0.00000) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6, Somer’s d value = 0.20098, p = 0.00001).
- The social capital factor “My colleagues would approve of my decision to start a business” (G7) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with three of the six attitude factors: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.22740, p = 0.00000); “Amongst various options, I would rather be an entrepreneur” (D4, Somer’s d value = 0.20045, p = 0.00003) and “Being an entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.20812, p = 0.00001).

- The social capital factor “My immediate family values entrepreneurial activity above other activities and careers” (G8) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with five of the six attitude factors: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.22940, p = 0.00000); “If I had the opportunity and resources, I would like to start a business” (D3, Somer’s d value = 0.21536, p = 0.00000); “Amongst various options, I would rather be an entrepreneur” (D4, Somer’s d value = 0.25744, p = 0.00000); “Being an entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.20846, p = 0.00000) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6, Somer’s d value = 0.22266, p = 0.00000).
- The social capital factor “My colleagues value entrepreneurial activity above other activities and careers” (G9) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with four of the six attitude factors: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.2364, p = 0.00000); “If I had the opportunity and resources, I would like to start a business” (D3, Somer’s d value = 0.21913, p = 0.00000); “Amongst various options, I would rather be an entrepreneur” (D4, Somer’s d value = 0.22233, p = 0.00000) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6, Somer’s d value = 0.25279, p = 0.00000).
- The social capital factor “My friends value entrepreneurial activity above other activities and careers” (G10) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with five of the six attitude factors: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.31231, p = 0.00000); “If I had the opportunity and resources, I would like to start a business” (D3, Somer’s d value = 0.29338, p = 0.00000); “Amongst various options, I would rather be an entrepreneur” (D4, Somer’s d value = 0.26946, p = 0.00000); “Being an

entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.24899, $p = 0.00000$) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6, Somer’s d value = 0.22001, $p = 0.00000$).

- The social capital factor “The culture in my country is highly favourable towards the entrepreneurial activity” (G11) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with four of the six attitude factors: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.25144, $p = 0.00000$); “Amongst various options, I would rather be an entrepreneur” (D4, Somer’s d value = 0.29974, $p = 0.00000$); “Being an entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.23189, $p = 0.00000$) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6, Somer’s d value = 0.22938, $p = 0.00000$).
- The social capital factor “In my country, entrepreneurial activity is considered to be worthwhile, despite the risks” (G12) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with three of the six attitude factors: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.23646, $p = 0.00000$); “Being an entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.23620, $p = 0.00000$) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6, Somer’s d value = 0.21846, $p = 0.00001$).
- The social capital factor “I can rely on my family for assistance in starting a business” (G13) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with two of the six attitude factors: “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.21262, $p = 0.00000$) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6, Somer’s d value = 0.25434, $p = 0.00001$).

In summary, the foregoing discussion of the results indicates that all 15 social capital factors had a significant relationship but not with all the factors that constitute the attitude towards becoming an entrepreneur. This relationship was found to be weak and very weak for the different social capital factors, thus indicating that social capital did not have a strong influence on the attitude of the respondents towards becoming an entrepreneur.

8.8.4 The relationship between social capital and perceived behavioural control

In sections 2.4.1 and 2.4.4 of chapter 2 and section 5.10.2 of Chapter 5, it was reported that social capital was found to be significantly related to perceived feasibility. Perceived feasibility has been reported to be similar to perceived behavioural control in section 2.4.2 of Chapter 2. Since there is evidence that a significant relationship exists between social capital and perceived behavioural control, it was necessary to establish whether this was the case for the groups under study. Somer's d test was used to test the null hypothesis (H_{0bb}) which states that "*No relationship exists between perceptions of social capital as determined by being a member of a social network and perceived behavioural control*" (sections G and E of appendix 1). Each of the 15 social capital factors (G1 to G15) was individually tested against the nine perceived behavioural control factors (E1 to E9). The reason for using Somer's d test was because social capital and perceived behavioural control consisted of only ordinal data and Somer's d test is a directional measure of association between two ordinal variables. The statistical results (summarised in Table 8.39 from Table 10 in Appendix 2) reveal that a statistically significant relationship (at the 1% and 5% level of significance) exists between some of the social capital factors and some of the perceived behavioural control factors (null hypothesis cannot be rejected). However, these results indicate that social capital factors had a weak (Somer's d values were above 0.2 but less than 0.4) and very weak (Somer's d values below 0.2) relationship with the factors of perceived behavioural control. Therefore, the conclusion cannot be made that social capital is related to perceived behavioural control.

Interestingly, only one social capital factor "My immediate family values entrepreneurial activity above other activities and careers" (G8) had a statistically

significant relationship with all nine perceived behavioural control factors. Five social capital factors that include: “My immediate family (G5) and friends (G6) would approve of my decision to start a business”; “My friends value entrepreneurial activity above other activities and careers” (G10); “In my country, entrepreneurial activity is considered to be worthwhile, despite the risks” (G12); and “I can rely on other entrepreneurs for assistance in starting a business” (G15) had a statistically significant relationship with eight perceived behavioural control factors. Three social capital factors that involve “My colleagues value entrepreneurial activity above other activities and careers” (G9); “The culture in my country is highly favourable towards the entrepreneurial activity” (G11) and “I can rely on my family for assistance in starting a business” (G13) were statistically and significantly related to seven perceived behavioural control factors. A statistically significant relationship was found between three social capital factors: “I personally know other people who are entrepreneurs” (G3); “I personally know successful entrepreneurs in my community” (G4); and “My colleagues would approve of my decision to start a business” (G7) and six perceived behavioural control factors. Two social capital factors “I have a friend who is an entrepreneur” (G2) and “I can rely on my friends for assistance in starting a business” (G14) were statistically and significantly related to five perceived behavioural control factors. Lastly, one social capital factor “I personally know someone who is an entrepreneur in my family” (G1) that had a statistically significant relationship with four perceived behavioural control factors.

The fact that the social capital factor “My immediate family values entrepreneurial activity above other activities and careers” (G8) had a statistically significant relationship with all nine perceived behavioural control factors suggests that the more the entrepreneurial activity is positively valued by the immediate family above other activities and careers, the more individuals would perceive that they are capable of starting a business.

Table 8.39: Summary of significant relationships between social capital and perceived behavioural control (Somer's d test used for significance testing – significant at the 1% and 5% level of significance)

Social capital	Perceived behavioural control (significant relationships)								
	E1	E2	E3	E4	E5	E6	E7	E8	E9
G1 - I personally know someone who is an entrepreneur in my family.	VW	---	---	---	---	---	VW	VW	VW
G2 - I have a friend who is an entrepreneur.	---	VW	---	VW	VW	VW	---	VW	---
G3 - I personally know other people who are entrepreneurs.	---	---	VW	W	VW	---	VW	VW	VW
G4 - I personally know successful entrepreneurs in my community.	---	---	---	VW	VW	VW	VW	VW	VW
G5 - My immediate family would approve of my decision to start a business.	VW	VW	W	W	VW	---	W	VW	VW
G6 - My friends would approve of my decision to start a business.	VW	VW	W	W	VW	---	VW	VW	VW
G7 - My colleagues would approve of my decision to start a business.	VW	VW	W	VW	---	VW	VW	---	---
G8 - My immediate family values entrepreneurial activity above other activities and careers.	VW	VW	VW	W	VW	VW	VW	VW	VW
G9 - My colleagues value entrepreneurial activity above other activities and careers.	VW	VW	VW	VW	---	---	VW	VW	VW
G10 - My friends value entrepreneurial activity above other activities and careers.	VW	VW	VW	W	VW	---	VW	VW	VW
G11 - The culture in my country is highly favourable towards the entrepreneurial activity.	---	VW	W	W	VW	---	VW	VW	W
G12 - In my country, entrepreneurial activity is considered to be worthwhile, despite the risks.	---	VW							
G13 - I can rely on my family for assistance in starting a business.	---	VW	---	W	VW	VW	VW	VW	VW
G14 - I can rely on my friends for assistance in starting a business.	---	VW	VW	VW	---	---	VW	VW	---
G15 - I can rely on other entrepreneurs for assistance in starting a business.	VW	VW	VW	W	---	VW	VW	VW	VW
Statistically significant relationship (significant at the 1% and 5% level) but either W = weak or VW = very weak									
E1 - To start a business and keep it working would be easy for me.									
E2 - I am able to control the creation process of a new business.									
E3 - I believe I would be completely able to start a business.									
E4 - I am prepared to do anything to be an entrepreneur.									
E5 - I know all about the necessary practical details needed to start a business.									
E6 - If I wanted to, I could easily start and run a business.									
E7 - If I tried to start a business, I would have a high chance of being successful.									
E8 - It would be very easy for me to develop a business idea.									
E9 - My qualification has provided me with sufficient knowledge to start a business.									

A detailed discussion of the results for very weak relationships is found in appendix 3. From the results in Table 10 of Appendix 2, perceived behavioural control factors had a statistically significant but weak relationship with the following social capital factors:

- The social capital factor "I personally know other people who are entrepreneurs" (G3) had a statistically significant (at the 1% level of significance) but weak relationship (Somer's d values that were above 0.2 but less than 0.4) with one of the nine (E1 to E9 of appendix 1) perceived behavioural control factors: "I am prepared to do anything to be an entrepreneur" (E4, Somer's d value = 0.21607, $p = 0.00000$).
- The social capital factor "My immediate family would approve of my decision to start a business" (G5) had a statistically significant (at the 1% level of significance) but weak relationship (Somer's d values that were above 0.2 but less than 0.4) with three of the nine (E1 to E9 of appendix 1) perceived behavioural control factors: "I believe I would be completely able to start a new business" (E3, Somer's d value = 0.24613, $p = 0.00000$); "I am prepared to do anything to be an entrepreneur" (E4, Somer's d value = 0.27087, $p = 0.00000$) and "If I tried to start a business, I would have a high chance of being successful" (E7, Somer's d value = 0.23588, $p = 0.00000$).
- The social capital factor "My friends would approve of my decision to start a business" (G6) had a statistically significant (at the 1% level of significance) but weak relationship (Somer's d values that were above 0.2 but less than 0.4) with two of the nine (E1 to E9 of appendix 1) perceived behavioural control factors: "I believe I would be completely able to start a new business" (E3, Somer's d value = 0.25562, $p = 0.00000$) and "I am prepared to do anything to be an entrepreneur" (E4, Somer's d value = 0.27343, $p = 0.00000$).
- The social capital factor "My colleagues would approve of my decision to start a business" (G7) had a statistically significant (at the 1% level of significance) but weak relationship (Somer's d values that were above 0.2 but less than 0.4) with one of the nine (E1 to E9 of appendix 1) perceived behavioural control factors: "I

believe I would be completely able to start a new business” (E3, Somer’s d value = 0.24144, $p = 0.00000$).

- The social capital factor “My immediate family values entrepreneurial activity above other activities and careers” (G8) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with one of the nine (E1 to E9 of appendix 1) perceived behavioural control factors: “I am prepared to do anything to be an entrepreneur” (E4, Somer’s d value = 0.22494, $p = 0.00000$).
- The social capital factor “My friends value entrepreneurial activity above other activities and careers” (G10) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with one of the nine (E1 to E9 of appendix 1) perceived behavioural control factors: “I am prepared to do anything to be an entrepreneur” (E4, Somer’s d value = 0.22895, $p = 0.00000$).
- The social capital factor “The culture in my country is highly favourable towards the entrepreneurial activity” (G11) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with three of the nine (E1 to E9 of appendix 1) perceived behavioural control factors: “I believe I would be completely able to start a new business” (E3, Somer’s d value = 0.21136, $p = 0.00000$); “I am prepared to do anything to be an entrepreneur” (E4, Somer’s d value = 0.26153, $p = 0.00000$) and “My qualification has provided me with sufficient knowledge to start a business” (E9, Somer’s d value = 0.22525, $p = 0.00000$).
- The social capital factor “I can rely on my family for assistance in starting a business” (G13) had a statistically significant (at the 1% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with one of the nine (E1 to E9 of appendix 1) perceived behavioural control factors: “I am prepared to do anything to be an entrepreneur” (E4, Somer’s d value = 0.20304, $p = 0.00000$).

- The social capital factor “I can rely on other entrepreneurs for assistance in starting a business” (G15) had a statistically significant (at the 1% level of significance) but weak relationship (Somers’s d values that were above 0.2 but less than 0.4) with one of the nine (E1 to E9 of appendix 1) perceived behavioural control factors: “I am prepared to do anything to be an entrepreneur” (E4, Somers’s d value = 0.21265, $p = 0.00001$).

In summary, the foregoing discussion of the results indicates that all 15 social capital factors had a statistically significant relationship but not with all the factors that constitute perceived behavioural control. This relationship was found to be weak and very weak for the different social capital factors, indicating that social capital did not have a strong influence on perceived behavioural control of the respondents in the study.

8.9 ENTREPRENEURIAL SELF-EFFICACY

Entrepreneurial self-efficacy (ESE) has been reported as a robust construct in explaining and predicting entrepreneurial intentions and entrepreneurial behaviour (section 2.4.2 in Chapter 2). This construct is referred to as the degree to which individuals believe that they have the necessary skills to start a new business venture (section 3.6.3 in Chapter 3). Research findings indicate that exposure to entrepreneurship education has a positive influence on entrepreneurial self-efficacy (section 3.6.3.3). In line with the primary aim of this study of assessing the level of entrepreneurial intent of final-year commerce students in the two rural provinces, this section firstly provides descriptive statistics with regard to the entrepreneurial self-efficacy of the respondents from WSU in the Eastern Cape Province and TUT in the Limpopo Province. To determine whether the respondents who had exposure to entrepreneurship education perceive their own entrepreneurial self-efficacy differently from those who had no exposure to entrepreneurship education (H_{09} and H_{19}) and to determine the relationship between entrepreneurial self-efficacy and entrepreneurial intent, specific statistical tests were conducted.

8.9.1 Descriptive statistics with regard to the entrepreneurial self-efficacy of the respondents

The respondents were asked to indicate on a five-point Likert scale ranging from '1 = very little confidence' to '5 = very confident' the extent to which they were confident in their ability on the 24 questions relating to entrepreneurial self-efficacy (section H of Appendix 1). The results are reported according to the four phases of the entrepreneurial life-cycle (discussed in section 7.2.7 of Chapter 7).

In the *searching phase* the majority of the respondents (Table 8.40) were guarded in their responses and mostly selected 'fairly confident' rather than 'very confident' in respect of entrepreneurial self-efficacy. The respondents were 'fairly confident' that they had the ability to "Generate a new idea for a product or service" (H1, 44.8%), "Identify the need for a new product or service" (H2, 46.8%) and "Design a product or service that will satisfy customer needs and wants" (H3, 38.2%). About a quarter of the respondents exhibited high levels of confidence in their ability to: "Generate a new idea for a product or service" (H1 – 17.9%), "Identify the need for a new product or service" (H2 - 25.9%) and "Design a product or service that will satisfy customer needs and wants" (H3 - 27.5%).

For the *planning phase*, the same response trend on entrepreneurial self-efficacy as for the searching phase emerged, with more of the respondents selecting 'fairly confident' than 'very confident'. The respondents were 'fairly confident' that they have the ability to "Estimate customer demand for a new product or service" (H4, 39.9%), "Determine a competitive price for a new product or service" (H5, 44.4%), "Estimate the amount of start-up funds and working capital necessary to start a business" (H6, 43.8%) and "Design an effective marketing/ advertising campaign for a new product or service" (H7, 39.9%). About a quarter of the respondents exhibited high levels of confidence with regard to these four measures of entrepreneurial self-efficacy, while a further quarter expressed uncertainty in this regard.

In the *marshalling phase* the predominance of 'fairly confident' scores on the six questions on entrepreneurial self-efficacy continued. However, an increasing percentage of respondents rated a high level of confidence on three of the

entrepreneurial self-efficacy questions in this phase: “Make contact with and exchange information with others” (H9, 31.7%), “Clearly and concisely explain verbally/in writing my business idea in simple terms” (H10, 30.8%) and “Develop relationships with key people who are connected to sources of capital” (H11, 33.5%). The remaining three questions received the following percentage responses on ‘very confident’: “Develop and maintain favourable relationships with potential investors” (H12 – 25.7%), “Identify potential sources of funding for investment in my business” (H13 – 22.6%) and “Get others to identify with and believe in my vision and plans for a new business” (H8 – 22.1%). Percentages on ‘unsure’ ranged between 12.5 percent and 21.1 percent.

In the *implementation phase* the majority of the respondents were ‘fairly confident’ and ‘very confident’ in their ability relating to entrepreneurial self-efficacy (11 questions) in this phase with the exception of the ability to “Persist in the face of adversity” (H20 – 30.8% ‘unsure’). The respondents exhibited high levels of confidence in their ability to deal with employees and daily issues: “Supervise employees” (H16, 41.8%), “Deal effectively with day-to-day problems and crises” (H17, 42.4%), “Inspire, encourage and motivate my employees” (H18, 54.7%) and “Develop a working environment that encourages people to try out new things” (H19, 48.7%). They also had high levels of confidence in their financial management ability as evident from the percentage responses on the following questions: “Organise and maintain financial records of my business” (H22, 45.2%), “Manage financial assets of my business” (H23, 49.1%) and “Read and interpret financial statements” (H24, 48.6%). Two entrepreneurial self-efficacy questions with the highest percentages of the respondents who were ‘unsure’ are: the ability to “Persist in the face of adversity” (H20, 30.8%) and “Make decisions under uncertainty and risk” (H21, 21.3%). Both these attributes are critical requirements to be a successful entrepreneur.

From the results in Table 8.40, it seems the majority of the respondents were confident that they had the necessary skills to start and manage a new business, as represented by the different tasks and phases in the entrepreneurial life-cycle. Since these entrepreneurial self-efficacy questions were measuring the perceptions of the respondents with regard to their ability to carry out entrepreneurial tasks associated with the four phases of the entrepreneurial life-cycle (detail in section 7.2.7 of Chapter 7), it can be concluded that the respondents perceived that they were able to identify

and evaluate opportunities, gather resources and start and manage a new venture. However, it should be pointed out that only 26.7 percent of the respondents (Table 8.4) had tried to start a business prior to the questionnaire being completed and only 6.6 percent of the respondents (Table 8.4) were running a business at the time of completing the questionnaire. Thus, for most of the respondents the answers in Table 8.40 are entirely rooted in their perceptions of their entrepreneurial self-efficacy.

Table 8.40: Entrepreneurial self-efficacy of the respondents

Entrepreneurial self-efficacy: The ability to	Fre- quency	Percentage (%)					Total
		Very little confi- dence	Little confi- dence	Unsure	Fairly confi- dent	Very confi- dent	
<i>The searching phase</i>							
H1 - Generate a new idea for a product or service.	346	8.4	17.3	11.6	44.8	17.9	100
H2 - Identify the need for a new product or service.	344	4.9	10.8	11.6	46.8	25.9	100
H3 - Design a product or service that will satisfy customer needs and wants.	346	3.5	13.0	17.9	38.2	27.5	100
<i>The planning phase</i>							
H4 - Estimate customer demand for a new product or service.	341	4.7	9.1	21.1	39.9	25.2	100
H5 - Determine a competitive price for a new product or service.	342	2.6	9.9	16.1	44.4	26.9	100
H6 - Estimate the amount of start-up funds and working capital necessary to start a business.	345	3.5	9.3	21.4	43.8	22.0	100
H7 - Design an effective marketing/ advertising campaign for a new product or service.	343	5.0	9.9	25.4	39.9	19.8	100
<i>The marshalling phase</i>							
H8 - Get others to identify with and believe in my vision and plans for a new business.	344	5.2	8.1	20.6	43.9	22.1	100
H9 - Make contact with and exchange information with others.	344	2.9	7.8	12.5	45.1	31.7	100

Table 8.40 continued

H10 - Clearly and concisely explain verbally/in writing my business idea in simple terms.	341	4.4	6.7	16.4	41.6	30.8	100
H11 - Develop relationships with key people who are connected to sources of capital.	343	4.1	8.2	18.1	36.2	33.5	100
H12 - Develop and maintain favourable relationships with potential investors.	343	5.8	9.6	16.6	42.3	25.7	100
H13 - Identify potential sources of funding for investment in my business.	341	5.6	10.0	21.1	40.8	22.6	100
<i>The implementation phase</i>							
H14 - Recruit and train new employees.	342	6.7	7.9	17.0	38.0	30.4	100
H15 - Delegate tasks and responsibilities to employees in my business.	343	5.5	8.2	13.4	39.1	33.8	100
H16 - Supervise employees.	340	4.4	6.8	10.9	36.2	41.8	100
H17 - Deal effectively with day-to-day problems and crises.	342	5.0	6.7	12.9	33.0	42.4	100
H18 - Inspire, encourage and motivate my employees.	338	3.6	4.4	6.5	30.8	54.7	100
H19 - Develop a working environment that encourages people to try out new things.	343	2.6	6.4	10.2	32.1	48.7	100
H20 - Persist in the face of adversity.	221*	5.0	11.3	30.8	34.8	18.1	100
H21 - Make decisions under uncertainty and risk.	221*	2.7	12.7	21.3	42.5	20.8	100
H22 - Organise and maintain the financial records of my business.	221*	2.3	5.4	9.5	37.6	45.2	100
H23 - Manage financial assets of my business.	220*	2.7	6.4	6.4	35.5	49.1	100
H24 - Read and interpret financial statements.	222*	3.2	4.5	5.0	38.7	48.6	100

* The frequencies for H20 to H24 is lower than for the rest of the questions in this section owing to a page missing from the questionnaire distributed to 130 ND: IAUD, CMA and FIS students from the Potsdam campus of WSU. The seventh page of the questionnaire which contained the questions relating to the last five entrepreneurial self-efficacy factors (see section H of Appendix 1) was missing.

8.9.2 Differences in perceived ESE based on the qualifications of the respondents

Given that exposure to entrepreneurship education has been reported to have a positive influence on ESE, tests were conducted to determine whether differences existed between the respondents in their perceived ESE based on their varying levels of exposure to entrepreneurship education. These tests were necessary in order to accept or reject the ninth null hypothesis (H_{09}) which states that “*No relationship exists between exposure to entrepreneurship education and the perceived entrepreneurial self-efficacy*”. The Kruskal-Wallis test was used to determine whether the ND: E/SBM students (with 3-years exposure to entrepreneurship education), the ND: IAUD, CMA and FIS students (with 6-months exposure to entrepreneurship education) and the ND: Management students (without exposure to entrepreneurship education) were statistically significantly different in their perceptions of their own ESE. The reason for using this statistical technique is that it is suitable for comparing the medians of three or more groups when the data are ordinal. The results in Table 8.41 indicate that out of the 24 ESE factors (see Table 8.40) statistically significant differences (at the 5% level of significance) between the groups were found on 14 ESE factors. The null hypothesis, H_{03} , can therefore not be rejected. Nevertheless, the results revealed interesting differences. Of the ESE factors associated with the four phases of the entrepreneurial life-cycle (detail in section 7.2.7 of Chapter 7), statistically significant differences in perceived ESE between the three groups of respondents, namely ND: E/SBM students, the ND: IAUD, CMA and FIS students and the ND: Management students were recorded as follows:

- **The searching phase:** In this phase statistically significant differences in perceived ESE were found on all three questions addressing the ability of the respondents to “generate a new idea for a product or service” (H_1 , $p = 0.0347$), “identify the need for a new product or service” (H_2 , $p = 0.0086$) and “design a product or service that will satisfy customer needs and wants” (H_3 , $p = 0.0270$). These results mean that the three groups of students differed statistically significantly in how they perceived their own ESE on all ESE factors in the searching phase.

- **The planning phase:** In this phase the three groups of respondents differed statistically significantly on two of the four questions: how they perceived their own ability to “estimate customer demand for a new product or service” (H4, $p = 0.0305$) and “design an effective marketing/advertising campaign for a new product or service” (H7, $p = 0.0039$). No statistically significant differences were found between the respondents regarding how they perceived their own ESE in terms of their ability to “determine a competitive price for a new product or service” (H5) and “estimate the amount of start-up funds and working capital necessary to start a business” (H6). It seems that the differences pertain to marketing abilities and not to the more financial abilities.
- **The marshalling phase:** With regard to ESE factors in the marshalling phase, statistically significant differences in perceived ESE of the three groups of respondents were found on two of the six questions pertaining to the ability to “get others to identify with and believe in my vision and plans for a new business” (H8, $p = 0.0320$) and “identify potential sources of funding for investments in my business” (H13, $p = 0.0357$). No statistically significant differences were found between the respondents regarding how they perceived their own ESE in terms of their ability to “make contact with and exchange information with others” (H9), “clearly and concisely explain verbally/in writing the business idea in simple terms” (H10), “develop relationships with key people who are connected to sources of capital” (H11) and “develop and maintain favourable relationships with potential investors” (H12). Thus it seems that all the respondents have the same levels of confidence regarding their abilities to communicate and build interpersonal relationships, addressed by the last four ESE factors.
- **The implementing phase:** In this phase the three groups of respondents differed statistically and significantly in perceived ESE on seven of the 11 factors that included the ability to “deal effectively with day-to-day problems and crises” (H17, $p = 0.0093$), “inspire, encourage and motivate employees” (H18, $p = 0.0044$), “develop a working environment that encourages people to try out new things” (H19, $p = 0.0106$), “persist in the face of adversity” (H20, $p = 0.0020$), “make decisions under uncertainty and risk” (H21, $p = 0.0205$), “organise and maintain

the financial records of the business” (H22, $p = 0.0088$), and “manage financial assets of the business” (H23, $p = 0.0252$). No statistically significant differences were found between the respondents regarding how they perceived their own ESE in terms of their ability to “recruit and train new employees” (H14), “delegate tasks and responsibilities to employees in the business” (H15), “supervise employees” (H16) and “read and interpret financial statements” (H24). It can therefore be deduced that all the respondents had the same levels of confidence in recruiting and training employees, delegating tasks and responsibilities to employees and supervising them as well as reading and interpreting financial statements.

Table 8.41: Kruskal-Wallis test results for the differences between the ND: E/SBM, the ND: IAUD, CMA and FIS and the ND: Management students in perceived ESE

Entrepreneurial self-efficacy	Chi-square	Degrees of freedom	p-value	Statistical significance
<i>The searching phase</i>				
H1 - My ability to generate a new idea for a product or service.	6.7234	2	0.0347	Significant at the 5% level of significance
H2 - My ability to identify the need for a new product or service.	9.5207	2	0.0086	Significant at the 1% level of significance
H3 - My ability to design a product or service that will satisfy customer needs and wants.	7.2269	2	0.0270	Significant at the 5% level of significance
<i>The planning phase</i>				
H4 - My ability to estimate customer demand for a new product or service.	6.9833	2	0.0305	Significant at the 5% level of significance
H7 My ability to design an effective marketing/advertising campaign for a new product or service.	11.0711	2	0.0039	Significant at the 1% level of significance

Table 8.41 continued

<i>The marshalling phase</i>				
H8 - My ability to get others to identify with and believe in my vision and plans for a new business.	6.8810	2	0.0320	Significant at the 5% level of significance
H13 - My ability to identify potential sources of funding for investments in my business.	6.6672	2	0.0357	Significant at the 5% level of significance
<i>The implementation phase</i>				
H17 - My ability to deal effectively with day-to-day problems and crises.	9.3852	2	0.0093	Significant at the 1% level of significance
H18 - My ability to inspire, encourage and motivate my employees.	10.8696	2	0.0044	Significant at the 1% level of significance
H19 - My ability to develop a working environment that encourages people to try out new things.	9.0958	2	0.0106	Significant at the 5% level of significance
H20 - My ability to persist in the face of adversity.	12.4770	2	0.0020	Significant at the 1% level of significance
H21 - My ability to make decisions under uncertainty and risk.	7.7739	2	0.0205	Significant at the 5% level of significance
H22 - My ability to organise and maintain the financial records of my business.	9.4554	2	0.0088	Significant at the 1% level of significance
H23 - My ability to manage financial assets of my business.	7.3597	2	0.0252	Significant at the 5% level of significance

As it is evident that some statistically significant differences exist between respondents in terms of how they perceived their own ESE, it was necessary to determine how the groups of respondents differed from each other in perceived ESE based on their different levels of exposure to entrepreneurship education. The nonparametric Mann-Whitney *U* test was used to test the statistical significance of the differences. The reason for using this statistical technique was because it is relevant for testing the differences between groups when the data are ordinal. In order to ensure a meaningful interpretation of the differences evident in Table 8.41 comparisons are made of the mean ranks of two qualification groups at a time.

ND: E/SBM students compared with the ND: Management students with regard to ESE

The results of the nonparametric Mann-Whitney *U* test in Table 8.42 reveal that ND: E/SBM students (who had three years exposure to entrepreneurship education) were statistically significantly different (at the 5% level of significance) from the ND: Management students (who had no exposure to entrepreneurship education) in how they perceived their own ESE in terms of 12 ESE factors out of 24 ESE factors associated with the four phases of the entrepreneurial life-cycle (detail in section 7.2.7 of Chapter 7). Statistically significant differences on 12 ESE factors between the ND: E/SBM students and the ND: Management students that were found are reported as follows:

- In the *searching phase* the ND: E/SBM students were statistically and significantly different (at the 5% level of significance) from the ND: Management students in perceived ESE only on the ability to “identify the need for a new product or service” (H2, $p = 0.0122$). The ND: E/SBM students had a higher mean rank value of 73.55 for this ESE factor than the ND: Management students with the mean rank value of 58.09, indicating that the ND: E/SBM students had a higher mean rank value than the ND: Management students for this ESE factor. This means that the three years exposure to entrepreneurship education positively influenced perceived ESE with regard to the entrepreneurial task of identifying the need for a new product or service. No statistically significant differences were found between the respondents in their ability to “generate a new idea for a product or service” (H1) and “design a product that will satisfy customer needs and wants” (H3).
- With regard to the *planning phase*, the ND: E/SBM students and the ND: Management students differed statistically and significantly (at the 5% level of significance) in perceived ESE in terms of how they perceived their own ability to “estimate customer demand for a new product or service” (H4, $p = 0.0169$) and “design an effective marketing/ advertising campaign for a new product or service” (H7, $p = 0.0419$). The mean rank values of the ND: E/SBM students for these ESE factors were 72.95 and 72.25 while the mean rank values of the ND:

Management students were 57.81 and 59.45 respectively, indicating that the ND: E/SBM students had higher mean rank values than the ND: Management students for these two ESE factors. The results suggest that the three years exposure to entrepreneurship education had a positive influence on the ability of the respondents to estimate customer demand for a new product or service and to design an effective marketing or advertising campaign for a new product or service. No statistically significant differences were found between the respondents in how they perceived their own ability to “determine a competitive price for a new product or service” (H5) and “estimate the amount of start-up funds and working capital necessary to start a business” (H6). It seems that all the respondents in these two courses were confident that they can determine competitive prices for their products and estimate the start-up funds and working capital they need to start a business.

- In the *marshalling phase* statistically significant differences (at the 5% level of significance) in perceived ESE between the ND: E/SBM students and the ND: Management students were found on their ability to “get others to identify with and believe in my vision and plans for a new business” (H8, $p = 0.0175$), “clearly and concisely explain verbally/in writing the business idea in simple terms” (H10, $p = 0.0329$), “develop relationships with key people who are connected to sources of capital” (H11, $p = 0.0358$), “develop and maintain favourable relationships with potential investors” (H12, $p = 0.0393$) and “identify potential sources of funding for investment in the business” (H13, $p = 0.0148$). The mean rank values of the ND: E/SBM students with regard to these ESE factors were 73.79, 71.89, 72.96, 72.88 and 73.07 while those of the ND: Management students were 58.76, 58.49, 59.64, 59.73 and 57.70 respectively, indicating that the ND: E/SBM students had higher mean rank values than the ND: Management students for these ESE factors. These results suggest that the three years exposure to entrepreneurship education enhanced the ability of the respondents in the abovementioned entrepreneurial tasks. No statistically significant differences were found between the respondents in how they perceived their own ESE in terms of their ability to “make contact with and exchange information with others” (H9).

- With regard to ESE factors in the *implementing phase*, the ND: E/SBM students differed statistically significantly (at the 1% and 5% level of significance) from the ND: Management students in how they perceived their own ability to “deal effectively with day-to-day problems and crises” (H17, $p = 0.0048$), “develop a working environment that encourages people to try out new things” (H19, $p = 0.0056$), “persist in the face of adversity” (H20, $p = 0.0018$) and “make decisions under uncertainty and risk” (H21, $p = 0.0104$). The mean rank values of the ND: E/SBM students for these ESE factors were 74.38, 74.63, 74.52 and 72.77 while those of the ND: Management students were 56.95, 57.87, 54.71 and 56.60 respectively, indicating that the ND: E/SBM students had higher mean rank values compared to the ND: Management students. From these results it is evident that the three years exposure to entrepreneurship education contributed positively towards the ability of the respondents to deal with day-to-day problems and crises, encourage innovation, cope with adversity and make decisions under uncertainty and risk. No statistically significant differences were found between the respondents in how they perceived their own ESE in terms of their ability to “recruit and train new employees” (H14), “delegate tasks and responsibilities to employees in the business” (H15), “supervise employees” (H16), “inspire, encourage and motivate employees” (H18), “organise and maintain the financial records of my business” (H22), and “manage financial assets of the business” (H23) and “read and interpret financial statements” (H24). The results mean that all the respondents had the same levels of confidence in recruiting and training employees, delegating tasks and responsibilities to employees, supervising, inspiring, encouraging and motivating employees, managing the financial records and assets of the business and reading and interpreting financial statements, addressed by the last seven ESE factors.

Table 8.42: Differences between the ND: E/SBM students and the ND: Management students in their perceived entrepreneurial self-efficacy

Entrepreneurial self-efficacy	Mean rank	p-value	Statistical significance
<i>The searching phase</i>			
H2 – My ability to identify the need for a new product or service.	ND: E/SBM = 73.55 ND: Management = 58.09	0.0122	Significant at the 5% level of significance
<i>The planning phase</i>			
H4 – My ability to estimate customer demand for a new product or service.	ND: E/SBM = 72.95 ND: Management = 57.81	0.0169	Significant at the 5% level of significance
H7 – My ability to design an effective marketing/ advertising campaign for a new product or service.	ND: E/SBM = 72.25 ND: Management = 59.45	0.0419	Significant at the 5% level of significance
<i>The marshalling phase</i>			
H8 – My ability to get others to identify with and believe in my vision and plans for a new business.	ND: E/SBM = 73.79 ND: Management = 58.76	0.0175	Significant at the 5% level of significance
H10 – My ability to clearly and concisely explain verbally/in writing my business idea in simple terms.	ND: E/SBM = 71.89 ND: Management = 58.49	0.0329	Significant at the 5% level of significance
H11 – My ability to develop relationships with key people who are connected to sources of capital.	ND: E/SBM = 72.96 ND: Management = 59.64	0.0358	Significant at the 5% level of significance
H12 – My ability to develop and maintain favourable relationships with potential investors.	ND: E/SBM = 72.88 ND: Management = 59.73	0.0393	Significant at the 5% level of significance
H13 – My ability to identify potential sources of funding for investment in my business.	ND: E/SBM = 73.07 ND: Management = 57.70	0.0148	Significant at the 5% level of significance
<i>The implementation phase</i>			
H17 – My ability to deal effectively with day-to-day problems and crises.	ND: E/SBM = 74.38 ND: Management = 56.95	0.0048	Significant at the 1% level of significance
H19 – My ability to develop a working environment that encourages people to try out new things.	ND: E/SBM = 74.63 ND: Management = 57.87	0.0056	Significant at the 1% level of significance
H20 – My ability to persist in the face of adversity.	ND: E/SBM = 74.52 ND: Management = 54.71	0.0018	Significant at the 1% level of significance
H21 - Make decisions under uncertainty and risk.	ND: E/SBM = 72.77 ND: Management = 56.60	0.0104	Significant at the 5% level of significance

ND: IAUD, CMA and FIS students compared with the ND: Management students with regard to ESE

ND: IAUD, CMA and FIS students (who had six months exposure to entrepreneurship education) were statistically significantly different (at the 1% and 5% level of significance) from the ND: Management students (who had no exposure to entrepreneurship education) in how they perceived their own ESE, only with regard to four of the 24 factors measuring ESE, as illustrated in Table 8.43. In terms of the four phases of the entrepreneurial life-cycle, statistically significant differences were found on one ESE factor that belonged to the *planning phase* and three ESE factors in the *implementing phase*. In the *planning phase* the ND: IAUD, CMA and FIS students differed statistically significantly from the ND: Management students in how they perceived their own ability to “estimate customer demand for a new product or service” (H4, $p = 0.0200$). With regard to the *implementing phase*, statistically significant differences in perceived ESE between these students were found on the ability to “persist in the face of adversity” (H20, $p = 0.0020$), “make decisions under uncertainty and risk” (H21, $p = 0.0245$) and “manage financial assets of the business” (H23, $p = 0.0208$). The mean rank values of the ND: IAUD, CMA and FIS students for these ESE factors were 143.87, 86.23, 83.81 and 83.19 while those of the ND: Management students were 118.63, 64.54, 68.14 and 67.92 respectively, indicating that the ND: IAUD, CMA and FIS students had higher mean rank values for these ESE factors than the ND: Management students. The results suggest that the six months exposure to entrepreneurship education enhanced the ESE of the respondents in terms of four of the 24 ESE factors, namely their ability to estimate customer demand for a new product or service, persist in the face of adversity, make decisions under uncertainty and risk, and manage financial assets of the business. With regard to the differences pertaining to the ability to manage financial assets of the business, the results did not come as a surprise since this ability is expected from students who are enrolled for a financially related qualification.

Table 8.43: Differences between the ND: IAUD, CMA and FIS students and the ND: Management students in their perceived ESE

ESE	Mean rank	p-value	Statistical significance
<i>The planning phase</i>			
H4 – My ability to estimate customer demand for a new product or service.	ND: Management = 118.63 ND: IAUD, CMA and FIS = 143.87	0.0200	Significant at the 5% level of significance
<i>The implementation phase</i>			
H20 – My ability to persist in the face of adversity.	ND: Management = 64.54 ND: IAUD, CMA and FIS = 86.23	0.0020	Significant at the 1% level of significance
H21 – My ability to make decisions under uncertainty and risk.	ND: Management = 68.14 ND: IAUD, CMA and FIS = 83.81	0.0245	Significant at the 5% level of significance
H23 – My ability to manage financial assets of my business.	ND: Management = 67.92 ND: IAUD, CMA and FIS = 83.19	0.0208	Significant at the 5% level of significance

ND: E/SBM students compared with the ND: IAUD, CMA and FIS students with regard to ESE

The results of the nonparametric Mann-Whitney *U* test in Table 8.44 show that the ND: E/SBM students (who had three years exposure to entrepreneurship education) differed statistically significantly (at the 1% and 5% level of significance) from the ND: IAUD, CMA and FIS students (who had the six months exposure to entrepreneurship education) in perceived ESE on 12 out of 24 ESE factors that were used in this study (see Table 8.40). With regard to the ESE factors associated with the four phases of the entrepreneurial life-cycle, statistically significant differences that were found on the 12 ESE factors are reported as follows:

In the *searching phase* statistically significant differences (at the 1 % and 5% level of significance) in perceived ESE between the ND: E/SBM students and the ND: IAUD, CMA and FIS students were found on the ability of the respondents to “generate a new idea for a product or service” (H1, $p = 0.0106$), “identify the need for a new product or service” (H2, $p = 0.0032$) and “design a product or service that will satisfy customer

needs and wants" (H3, $p = 0.0069$). These results mean that the ND: E/SBM students were statistically significantly different from the ND: IAUD, CMA and FIS students on all three ESE factors in the searching phase. ND: E/SBM students have substantially higher mean rank values for all these ESE factors than the ND: IAUD, CMA and FIS students. From these results it follows that the three years exposure to entrepreneurship education had a positive effect on perceived ESE of the respondents with regard to their ability to: generate a new idea for a product or service, identify the need for a new product or service, and design a product or service that will satisfy customer needs and wants.

With regard to the *planning phase*, the ND: E/SBM students differed statistically significantly (at the 1% level of significance) from the ND: IAUD, CMA and FIS students in perceived ESE only on the ability to "design an effective marketing/advertising campaign for a new product or service" (H7, $p = 0.0007$). The mean rank value (167.71) of the ND: E/SBM students is substantially higher than the mean rank value (131.24) of the ND: IAUD, CMA and FIS students for this ESE factor. The results suggest that the ND: E/SBM students were more confident in their ability to design an effective marketing/advertising campaign for a new product or service than the ND: IAUD, CMA and FIS students. No further statistically significant differences in perceived ESE were found between these students on the other three ESE factors in the planning phase.

In the *marshalling phase*, statistically significant differences (at the 5% level of significance) in perceived ESE between the ND: E/SBM students and the ND: IAUD, CMA and FIS students were found only on the ability to "get others to identify with and believe in my vision and plans for a new business" (H8, $p = 0.0232$). The ND: E/SBM students had a higher mean rank value of 158.77 for this ESE factor than the ND: IAUD, CMA and FIS students with the mean rank value of 134.64, indicating that the ND: E/SBM students were more confident in their ability to get others to identify with and believe in their vision and plans for a new business than the ND: IAUD, CMA and FIS students. This means that the three years exposure to entrepreneurship education has equipped the respondents with communication skills which they can use to persuade others to support their vision and plans for a new business. No further

statistically significant differences in perceived ESE were found between these students on the other five ESE factors in the marshalling phase.

With regard to ESE factors in the *implementing phase*, the ND: E/SBM students differed statistically and significantly (at the 1% and 5% level of significance) from the ND: IAUD, CMA and FIS students on seven of the 11 ESE factors. They differed in how they perceived their own ability to “recruit and train new employees” (H14, $p = 0.02767$), “supervise employees” (H16, $p = 0.0304$), “deal effectively with day-to-day problems and crises” (H17, $p = 0.0091$), “inspire, encourage and motivate employees” (H18, $p = 0.0040$), and “develop a working environment that encourages people to try out new things” (H19, $p = 0.0078$). The mean rank values of the ND: E/SBM students were higher than the mean rank values of the ND: IAUD, CMA and FIS students for these five ESE factors, indicating that the ND: E/SBM students were more confident in perceived ESE with regard to their ability to: recruit and train new employees, supervise employees, deal effectively with day-to-day problems and crises, and inspire, encourage and motivate employees than the ND: IAUD, CMA and FIS students. The ND: IAUD, CMA and FIS students differed statistically significantly from the ND: E/SBM students on the ability to “organise and maintain the financial records of the business” (H22, $p = 0.0027$) and “manage financial assets of my business” (H23, $p = 0.0219$). The ND: IAUD, CMA and FIS students had higher mean rank values for these ESE factors than the ND: E/SBM students. This is not surprising since the qualifications that the ND: IAUD, CMA and FIS students were registered for were in the accounting field. These differences could possibly mean that their accounting qualifications have equipped them with the skills to be able to organise and maintain the financial records and manage financial assets of the business. No further statistically significant differences in perceived ESE were found between these groups of students on the other four ESE factors in the implementing phase.

Table 8.44: Differences between the ND: E/SBM students and the ND: IAUD, CMA and FIS students in their perceived ESE

ESE	Mean rank	p-value	Statistical significance
<i>The searching phase</i>			
H1 – My ability to generate a new idea for a product or service.	ND: E/SBM = 162.32 ND: IAUD, CMA and FIS = 134.88	0.0106	Significant at the 5% level of significance
H2 – My ability to identify the need for a new product or service.	ND: E/SBM = 164.46 ND: IAUD, CMA and FIS = 132.96	0.0032	Significant at the 1% level of significance
H3 – My ability to design a product or service that will satisfy customer needs and wants.	ND: E/SBM = 163.54 ND: IAUD, CMA and FIS = 134.36	0.0069	Significant at the 1% level of significance
<i>The planning phase</i>			
H7 – My ability to design an effective marketing/ advertising campaign for a new product or service.	ND: E/SBM = 167.71 ND: IAUD, CMA and FIS = 131.24	0.0007	Significant at the 1% level of significance
<i>The marshalling phase</i>			
H8 – My ability to get others to identify with and believe in my vision and plans for a new business.	ND: E/SBM = 158.77 ND: IAUD, CMA and FIS = 134.64	0.0232	Significant at the 5% level of significance
<i>The implementation phase</i>			
H14 – My ability to recruit and train new employees.	ND: E/SBM = 157.95 ND: IAUD, CMA and FIS = 134.22	0.02767	Significant at the 5% level of significance
H16 – My ability to supervise employees.	ND: E/SBM = 156.31 ND: IAUD, CMA and FIS = 133.48	0.0304	Significant at the 5% level of significance
H17 – My ability to deal effectively with day-to-day problems and crises.	ND: E/SBM = 160.76 ND: IAUD, CMA and FIS = 133.31	0.0091	Significant at the 1% level of significance
H18 – My ability to inspire, encourage and motivate my employees.	ND: E/SBM = 163.42 ND: IAUD, CMA and FIS = 130.35	0.0040	Significant at the 1% level of significance
H19 – My ability to develop a working environment that encourages people to try out new things.	ND: E/SBM = 160.75 ND: IAUD, CMA and FIS = 133.31	0.0078	Significant at the 1% level of significance

Table 8.44 continued

H22 – My ability to organise and maintain the financial records of my business.	ND: E/SBM = 67.76 ND: IAUD, CMA and FIS = 88.14	0.0027	Significant at the 1% level of significance
H23 – My ability to manage financial assets of my business.	ND: E/SBM = 70.71 ND: IAUD, CMA and FIS = 85.97	0.0219	Significant at the 5% level of significance

From Tables 8.42, 8.43 and 8.44, the results indicate that the ND: E/SBM students (who had three years exposure to entrepreneurship education) differed statistically and significantly from both the ND: Management students (who had no exposure to entrepreneurship education) and the ND: IAUD, CMA and FIS students (who had six months' exposure to entrepreneurship education) on five ESE factors that included the ability to “identify the need for a new product or service” (H2), “design an effective marketing/ advertising campaign for a new product or service” (H7), “get others to identify with and believe in the vision and plans for a new business” (H8), “deal effectively with day-to-day problems and crises” (H17) and “develop a working environment that encourages people to try out new things” (H19). Both the ND: E/SBM students and the ND: IAUD, CMA and FIS students differed statistically significantly from the ND: Management students on ESE factors that included the ability to “estimate customer demand for a new product or service” (H4), “persist in the face of adversity” (H20) and “make decisions under uncertainty and risk” (H21).

Although the findings have shown that statistically significant differences exist between the three groups of respondents, those who had exposure to entrepreneurship education and those who did not have this exposure in their perceived ESE, the groups did not differ in all the 24 ESE factors. Therefore, the null hypothesis cannot be rejected and the conclusion cannot be made that the respondents who had had exposure to entrepreneurship education differed from those who did not have exposure to entrepreneurship education in perceived ESE.

8.9.3 The relationship between perceived entrepreneurial self-efficacy and entrepreneurial intent

Given that previous research has found a significant relationship between ESE and entrepreneurial intent, and the primary aim of this study is to assess the entrepreneurial intent of the respondents under study, Somer's d test was used to test whether ESE is statistically significantly related to the intention of the respondents to start a business. This statistical technique was chosen because the data on ESE and entrepreneurial intent (sections H and C of appendix 1) consisted of only ordinal data and Somer's d test is a directional measure of association between two ordinal variables. Each of the 24 ESE statements (H1 to H24) was tested individually against the nine statements (C1 to C9) constituting entrepreneurial intent. The results of the analysis (summarised in Table 8.45 from Table 11 in Appendix 2) reveal that a statistically significant (at the 1% and 5% level of significance) relationship existed between some of the perceived ESE factors and some of the factors pertaining to the intention of the respondents to start a business, but it is either weak (Somer's d values were above 0.2 but less than 0.4) or very weak (Somer's d values below 0.2). Of the 24 ESE factors associated with the four phases of the entrepreneurial life-cycle (see Table 8.40 and details in section 7.2.7 of Chapter 7) the results show that the intentions of the respondents to start a business were statistically significantly related to how they perceived their own ESE on 18 ESE factors.

The statistical results (Table 8.45) indicate that all three ESE factors (H1, H2 & H3) in the searching phase have a statistically significant relationship with all nine entrepreneurial intent factors. Three of the four ESE factors in the planning phase (H4, H6 & H7) are statistically significantly related to all nine entrepreneurial intent factors with the exception of the ESE factor involving the ability to "Determine a competitive price for a new product or service" (H5) that had a statistically significant relationship with seven entrepreneurial intent factors. All six ESE factors (H8, H9, H10, H11, H12 & H13) in the marshalling phase have a statistically significant relationship with all nine entrepreneurial intent factors. With regard to ESE factors in the implementing phase, six of the 11 factors are statistically significantly related to all nine entrepreneurial intent factors while two of the remaining five ESE factors dealing with the ability to "Persist in the face of adversity" (H20) and "Make decisions under uncertainty and risk"

(H21) have a statistically significant relationship with eight entrepreneurial intent factors.

Table 8.45: Summary of significant relationships between perceived entrepreneurial self-efficacy and entrepreneurial intent (Somers's d test used for significance testing – significant at the 1% and 5% level of significance)

Entrepreneurial self-efficacy	Entrepreneurial intent (significant relationships)								
	C1	C2	C3	C4	C5	C6	C7	C8	C9
<i>The searching phase</i>									
H1 - Generate a new idea for a product or service.	VW	W	VW	VW	VW	W	W	VW	W
H2 - Identify the need for a new product or service.	VW	W	W	W	W	W	W	W	W
H3 - Design a product or service that will satisfy customer needs and wants.	VW	VW	VW	VW	VW	VW	VW	W	VW
<i>The planning phase</i>									
H4 - Estimate customer demand for a new product or service.	VW	VW	VW	VW	VW	VW	VW	VW	VW
H5 - Determine a competitive price for a new product or service.	---	VW	VW	---	VW	VW	VW	VW	VW
H6 - Estimate the amount of start-up funds and working capital necessary to start a business.	VW	VW	VW	VW	VW	VW	VW	VW	VW
H7 - Design an effective marketing/ advertising campaign for a new product or service.	VW	W	VW	VW	VW	VW	VW	VW	VW
<i>The marshalling phase</i>									
H8 - Get others to identify with and believe in my vision and plans for a new business.	VW	VW	VW	VW	VW	VW	W	VW	VW
H9 - Make contact with and exchange information with others.	VW	VW	VW	W	VW	W	W	W	VW
H10 - Clearly and concisely explain verbally/in writing my business idea in simple terms.	W	VW	W	VW	VW	W	VW	VW	VW
H11 - Develop relationships with key people who are connected to sources of capital.	VW	VW	VW	W	W	W	VW	W	VW
H12 - Develop and maintain favourable relationships with potential investors.	VW	VW	W	W	W	W	W	W	VW

Table 8.45 continued

H13 - Identify potential sources of funding for investment in my business.	W	W	W	W	W	W	W	W	VW
<i>The implementation phase</i>									
H14 - Recruit and train new employees.	VW	W	VW	W	VW	W	W	VW	VW
H15 - Delegate tasks and responsibilities to employees in my business.	VW	VW	VW	VW	VW	VW	VW	W	VW
H16 - Supervise employees.	VW	W	W	VW	VW	VW	W	W	VW
H17 - Deal effectively with day-to-day problems and crises.	W	W	W	VW	W	VW	W	W	VW
H18 - Inspire, encourage and motivate my employees.	W	W	VW	W	W	W	VW	VW	VW
H19 - Develop a working environment that encourages people to try out new things.	VW	W	VW	W	VW	W	W	VW	VW
H20 - Persist in the face of adversity.	VW	VW	VW	VW	VW	VW	W	VW	---
H21 - Make decisions under uncertainty and risk.	---	VW	VW	VW	VW	W	W	VW	VW
H22 - Organise and maintain the financial records of my business.	---	---	VW	VW	W	---	W	---	VW
H23 - Manage financial assets of my business.	---	---	---	---	VW	VW	VW	VW	---
H24 - Read and interpret financial statements.	---	---	---	---	VW	---	VW	VW	---
Statistically significant relationship (significant at the 1% and 5% level) but either W = weak or VW = very weak									
C1 - I am ready to do anything to be an entrepreneur.									
C2 - My professional goal is to be an entrepreneur.									
C3 - I will make every effort to start and run my own business.									
C4 - I am determined to create a business venture in the future.									
C5 - I do not have doubts about ever starting my own business in the future.									
C6 - I have very seriously thought of starting a business in the future.									
C7 - I have strong intention of ever starting a business in the future.									
C8 - My qualification has contributed positively towards my interest to start a business.									
C9 - I had a strong intention to start my own business before I started with my qualification.									

From Table 8.45, it is evident that a significant relationship exists between most of the factors measuring ESE and most of the entrepreneurial intent factors. Of the 24 ESE factors in the four phases of the entrepreneurial life-cycle, 18 were significantly related to all nine entrepreneurial intent factors and are reported as follows:

- *The searching phase:* All three ESE factors (H1, H2 & H3) in this phase had a statistically significant relationship with all nine entrepreneurial intent factors.

- *The planning phase:* Three of the four ESE factors (H4, H6 & H7) in this phase were statistically significantly related to all nine entrepreneurial intent factors.
- *The marshalling phase:* All six ESE factors (H8, H9, H10, H11, H12 & H13) in this phase had a statistically significant relationship with all nine entrepreneurial intent factors.
- *The implementation phase:* A statistically significant relationship was found between six of 11 ESE factors (H14, H15, H16, H17, H18 & H19) in this phase and all nine entrepreneurial intent factors.

The results indicate that perceived ESE only in the two phases of the entrepreneurial life-cycle, namely the searching phase and the marshalling phase was statistically significantly related to all nine entrepreneurial intent factors. It follows from the findings that a statistically significant relationship exists between the entrepreneurial intent of the respondents and their perception that they have the ability to execute the entrepreneurial tasks in these phases. However, perceived ESE with regard to financially-related abilities has fewer relationships with entrepreneurial intent factors compared to other ESE factors.

8.10 ENTREPRENEURIAL COMPETENCIES

This section reports on the entrepreneurial competencies that were identified in the literature review (Chapter 3 section 3.6.3.1 and Chapter 7 section 7.2.7), the differences between the three student groups in the perceptions of their own entrepreneurial competencies based on exposure to entrepreneurship education (H₀₁₀ and H₁₁₀), and the relationship between entrepreneurial competencies and entrepreneurial intent.

8.10.1 Descriptive statistics of the entrepreneurial competencies of the respondents

From the results in Table 8.46, with regard to the four entrepreneurial competencies (section I of Appendix 1), half of the respondents felt 'very confident' in "their ability to make sacrifices to ensure that the business gets started" (14, 52.5%). Regarding the

other three factors, the respondents did not have such high confidence levels. They tended rather to be 'fairly confident' in respect of "their ability to develop relationships with other business people for mutual learning and collaborative working to achieve common objectives" (I2, 39.6%), "their ability to persuade and discuss with various stakeholders about the issues that involve the business" (I3, 41.2%), and "their ability to recognise and evaluate opportunities in the market" (I1, 51.1%).

Table 8.46: Entrepreneurial competencies of the respondents

Entrepreneurial competencies	Frequency	Percentage (%)					Total
		Very little confidence	Little confidence	Unsure	Fairly confident	Very confident	
I1 - The ability to recognise and evaluate opportunities in the market.	221*	2.3	11.8	10.0	51.1	24.9	100
I2 - The ability to develop relationships with other business people for mutual learning and collaborative working to achieve common objectives.	222*	3.6	8.1	14.9	39.6	33.8	100
I3 - The ability to persuade and discuss with various stakeholders about the issues that involve the business.	221*	4.1	8.6	17.2	41.2	29.0	100
I4 - The ability to make sacrifices to ensure that the business gets started.	221*	3.6	3.6	8.6	31.7	52.5	100

* About 130 questionnaires for the ND: IAUD, CMA and FIS students at WSU Potsdam Campus in the Eastern Cape Province had one page missing. They did not have the seventh page which contained the questions on entrepreneurial competencies. The valid number of the ND: IAUD, CMA and FIS students at WSU who completed the entrepreneurial competencies section is 50 students from Zamukulungisa campus.

8.10.2 Differences in perceived entrepreneurial competencies based on exposure to entrepreneurship education

Since previous research suggests that entrepreneurial competencies can be developed and learned through entrepreneurship education (section 3.6.3.1 in Chapter 3), tests were conducted to determine whether students who had had three years exposure to entrepreneurship education and those who had had six months exposure

to entrepreneurship education differed from those who had no exposure to entrepreneurship education in how they perceived their own entrepreneurial competencies. The nonparametric Kruskal-Wallis test was used to test the tenth null hypothesis (H_{010}) which states that “*No differences exist in the perceptions of own entrepreneurial competencies among students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education*”. The results revealed that the ND: E/SBM students (who had three years exposure to entrepreneurship education), the ND: IAUD, CMA and FIS students (who had six months exposure to entrepreneurship education) and the ND: Management students (who had no exposure to entrepreneurship education) differed statistically significantly (at the 5% level of significance) only on “the ability to recognise and evaluate opportunities in the market” (I1, $p = 0.0400$), as illustrated in Table 8.47. The differences on the other three entrepreneurial competencies were not significant. Since the three groups did not differ statistically significantly on all four entrepreneurial competencies, the null hypothesis, H_{010} , cannot be rejected. Therefore, the conclusion cannot be made that the ND: E/SBM students, the ND: IAUD, CMA and FIS students and the ND: Management students are statistically significantly different in how they perceived their own entrepreneurial competencies.

Table 8.47: Differences in perceived entrepreneurial competencies as a result of exposure to entrepreneurship education

Perceived entrepreneurial competencies	Chi-square	Degrees of freedom	p-value	Statistical significance
I1 - The ability to recognise and evaluate opportunities in the market.	6.4365	2	0.0400	Significant at the 5% level of significance

Given the foregoing results, the nonparametric Mann-Whitney U test was conducted to determine whether the three groups of students differed from each other in perceived entrepreneurial competencies based on their different levels of exposure to entrepreneurship education. For a meaningful interpretation of the differences evident in Table 8.47, comparisons are made of the mean ranks of two qualification groups at a time.

ND: E/SBM students compared with the ND: Management students with regard to entrepreneurial competencies

ND: E/SBM students (who had three years exposure to entrepreneurship education) were statistically significantly different from the ND: Management students (who had no exposure to entrepreneurship education) (at the 5% level of significance) in how they perceived their own entrepreneurial competencies only in their “ability to recognise and evaluate opportunities in the market” (I1, $p = 0.0224$) (Table 8.48). ND: E/SBM students had a higher mean rank value (71.9) than the ND: Management students (57.7) for this entrepreneurial competency factor. No further statistically significant differences were found on the other three entrepreneurial competency factors between the respondents. From these results it can be deduced that the respondents who had three years exposure to entrepreneurship education were more confident in their ability to recognise and evaluate opportunities in the market than those who had no exposure to entrepreneurship education.

Table 8.48: Differences in perceived entrepreneurial competencies based on respondents’ qualifications

Perceived entrepreneurial competencies	Mean rank	p-value	Statistical significance
I1 - The ability to recognise and evaluate opportunities in the market.	ND: E/SBM = 71.93 ND: Management = 57.74	0.0224	Significant at the 5% level of significance

ND: IAUD, CMA and FIS students compared with the ND: Management students with regard to entrepreneurial competencies

No statistically significant differences were found between the ND: IAUD, CMA and FIS students (who had six months exposure to entrepreneurship education) and the ND: Management students (who had no exposure to entrepreneurship education) in how they perceived their own entrepreneurial competencies. It seems that the six months exposure to entrepreneurship education for the ND: IAUD, CMA and FIS students did not make any statistically significant difference in how these students

perceived their own entrepreneurial competencies when compared to the ND: Management students who had no exposure to entrepreneurship education.

ND: E/SBM students compared with the ND: IAUD, CMA and FIS students with regard to entrepreneurial competencies

No statistically significant differences were found between the ND: E/SBM students (who had three years exposure to entrepreneurship education) and the ND: IAUD, CMA and FIS students (who had six months exposure to entrepreneurship education) in how they perceived their own entrepreneurial competencies.

In summary, the results revealed that only the ND: E/SBM students (who had three years exposure to entrepreneurship education) were statistically significantly different from the ND: Management students (who had no exposure to entrepreneurship education), but only with regard to one of the four entrepreneurial competency factors. No statistically significant differences were found between the ND: IAUD, CMA and FIS students and the ND: Management students and between the ND: E/SBM students and the ND: IAUD, CMA and FIS students in how they perceived their own entrepreneurial competencies. Therefore, on the basis of these results the null hypothesis cannot be rejected.

8.10.3 The relationship between entrepreneurial competencies and entrepreneurial intent

Previous research indicates that individuals with strong entrepreneurial intentions can be successfully discriminated from those who have no entrepreneurial intentions by utilising entrepreneurial competencies (section 3.6.3.1 in Chapter 3). In order to achieve the fourth secondary objective of this study the relationship between entrepreneurial competencies and entrepreneurial intent (sections I and C of Appendix 1) was tested by means of Somer's d test. This statistical technique was chosen because it is a measure of association between two ordinal variables and the data on entrepreneurial competencies and entrepreneurial intent consisted of ordinal data. Each of the four statements (I1 to I4) relating to entrepreneurial competencies was tested individually against the nine entrepreneurial intent factors (C1 to C9). The

results in Table 8.49 indicate that some of the factors measuring the intention of the respondents to start a business were statistically significantly related to how they perceived their own entrepreneurial competencies (detail results in Table 12 of appendix 2). However, this relationship was found to be weak (Somers's d values above 0.2 but less than 0.4) and very weak (with Somers's d values below 0.2). The statistical results indicate that two of the four entrepreneurial competencies "The ability to recognise and evaluate opportunities in the market" (I1) and "The ability to make sacrifices to ensure that the business gets started" (I4) have a statistically significant relationship with all nine entrepreneurial intent factors. One of the four entrepreneurial competencies "The ability to persuade and discuss with various stakeholders about the issues that involve the business" (I3) had a statistically significant relationship with eight of the nine entrepreneurial intent factors while the remaining entrepreneurial competency factor "The ability to develop relationships with other business people for mutual learning and collaborative working to achieve common objectives" (I2) had a statistically significant relationship with seven of the nine entrepreneurial intent factors.

From the results it seems that the intention to become an entrepreneur is statistically significantly associated with the perception that one has the ability to recognise and evaluate opportunities in the market and to make sacrifices to ensure that the business gets started. Statistically significant relationships between some of the entrepreneurial intent factors and entrepreneurial competencies pertaining to "the ability to develop relationships with other business people for mutual learning and collaborative working to achieve common objectives" (I2) and "the ability to persuade and discuss with various stakeholders about the issues that involve the business" (I3) suggest the importance of relationship and communication abilities for those with the intention of starting a business. These abilities may be helpful to potential entrepreneurs in garnering support and commitment from others in the process of starting a business.

Table 8.49: Summary of significant relationships between entrepreneurial competencies and entrepreneurial intent (Somers's d test used for significance testing – significant at the 1% and 5% level of significance)

Entrepreneurial intent	Entrepreneurial competencies (significant relationships)			
	I1	I2	I3	I4
C1 - I am ready to do anything to be an entrepreneur.	VW	VW	---	VW
C2 - My professional goal is to be an entrepreneur.	VW	VW	VW	W
C3 - I will make every effort to start and run my own business.	VW	---	VW	W
C4 - I am determined to create a business venture in the future.	W	VW	VW	W
C5 - I do not have doubts about ever starting my own business in the future.	VW	VW	VW	VW
C6 - I have very seriously thought of starting a business in the future.	W	W	VW	W
C7 - I have strong intention of ever starting a business in the future.	W	VW	W	W
C8 - My qualification has contributed positively towards my interest to start a business.	W	---	VW	VW
C9 - I had a strong intention to start my own business before I started with my qualification.	VW	VW	VW	VW
Statistically significant relationship (significant at the 1% and 5% level) but either W = weak or VW = very weak				
I1 - The ability to recognise and evaluate opportunities in the market.				
I2 - The ability to develop relationships with other business people for mutual learning and collaborative working to achieve common objectives.				
I3 - The ability to persuade and discuss with various stakeholders about the issues that involve the business.				
I4 - The ability to make sacrifices to ensure that the business gets started.				

Only the results for weak relationships (with Somers's d values of above 0.2 but less than 0.4) are reported here. Discussion of the results for very weak relationships appears in Appendix 3. These findings indicate that a statistically significant (at the 1% and 5% level of significance) but weak relationship exists between entrepreneurial competencies and entrepreneurial intent and these results are reported below.

- The entrepreneurial competency factor “The ability to recognise and evaluate opportunities in the market” (I1) had a statistically significant but weak relationship with four of the nine entrepreneurial intent factors (C1 to C9 of

appendix 1): “I am determined to create a business venture in the future” (C4, Somer’s d value = 0.21072, p = 0.00019), “I have very seriously thought of starting a business in the future” (C6, Somer’s d value = 0.22816, p = 0.00015); “I have a strong intention of ever starting a business in the future” (C7, Somer’s d value = 0.20360, p = 0.00042); and “My qualification has contributed positively towards my interest to start a business” (C8, Somer’s d value = 0.20063, p = 0.00054).

- The entrepreneurial competency factor “The ability to develop relationships with other business people for mutual learning and collaborative working to achieve common objectives” (I2) had a statistically significant but weak relationship with one of the nine entrepreneurial intent factors (C1 to C9 of appendix 1): “I have very seriously thought of starting a business in the future” (C6, Somer’s d value = 0.23412, p = 0.00002).
- The entrepreneurial competency factor “The ability to persuade and discuss with various stakeholders about the issues that involve the business” (I3) had a statistically significant but weak relationship with one of the nine entrepreneurial intent factors (C1 to C9 of appendix 1): “I have a strong intention of ever starting a business in the future” (C7, Somer’s d value = 0.22806, p = 0.00003).
- The entrepreneurial competency factor “The ability to make sacrifices to ensure that the business gets started” (I4) had a statistically significant but weak relationship with five of the nine entrepreneurial intent factors (C1 to C9 of appendix 1): “My professional goal is to be an entrepreneur” (C2, Somer’s d value = 0.24323, p = 0.00007), “I will make every effort to start and run my own business” (C3, Somer’s d value = 0.23951, p = 0.00006), “I am determined to create a business venture in the future” (C4, Somer’s d value = 0.20223, p = 0.00056), “I have very seriously thought of starting a business in the future” (C6, Somer’s d value = 0.24168, p = 0.00007) and “I have a strong intention of ever starting a business in the future” (C7, Somer’s d value = 0.21646, p = 0.00069).

8.11 SUMMARY CONCLUSION

This chapter dealt with the presentation and interpretation of the findings of the survey. Interesting results emerged with regard to the relationships between the key variables of this study namely, entrepreneurial intent, exposure to entrepreneurship education, awareness of entrepreneurial support, social capital, ESE, entrepreneurial competencies. The results indicate that the majority of the respondents, irrespective of their qualifications, had the intention to start a business. The respondents who had three years exposure to entrepreneurship education had stronger intentions to start a business than those who had six months exposure to entrepreneurship education and those who had no exposure to entrepreneurship education. Entrepreneurial intent of male respondents differed significantly from that of female respondents on eight out of nine entrepreneurial intent factors. With regard to the antecedents of entrepreneurial intent, all six factors measuring the attitude towards becoming an entrepreneur were statistically and significantly related to all nine entrepreneurial intent factors while seven of the nine perceived behavioural control factors had a statistically significant relationship with all nine factors of entrepreneurial intent. The findings indicate that some statistically significant relationships exist between the factors constituting awareness of entrepreneurial support, social capital, ESE and entrepreneurial competencies and some of the entrepreneurial intent factors.

In the next chapter, conclusions and recommendations are made in the light of the findings presented in this chapter. The primary and secondary objectives are revisited and followed by an indication of the extent to which they were achieved. A summary of the conclusions regarding the hypotheses derived from these objectives is also given at the end of the chapter.

CHAPTER 9: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

9.1 INTRODUCTION

The objectives, hypotheses and the value of the study as well as the research methodology that was followed in this study were explained in the first chapter. The literature dealing with the key variables of the study was discussed in detail and included theories on entrepreneurial intent (Chapters 2), entrepreneurship education (Chapter 3), entrepreneurial support (Chapter 4), social capital (Chapter 5) and the link between entrepreneurship and the establishment of small, medium and micro enterprises (Chapter 6). The research methodology that dealt with the research design, sampling, data collection methods and data analysis techniques was outlined in Chapter 7. Following the data collection, the results of the survey were presented and interpreted in Chapter 8.

The purpose of this chapter is to draw conclusions on the basis of the research findings while pointing out whether the research objectives have been achieved and to compare the research findings with those established in the literature review. The entrepreneurship development model is proposed based on the key concepts and the findings of the research. The contributions of the study to the body of knowledge are pointed out. The limitations of the study are highlighted and the recommendations are discussed with regard to the actions that should be taken to stimulate entrepreneurial intent and entrepreneurial activity. The chapter concludes with an indication of areas for further research.

9.2 DEMOGRAPHIC PROFILE OF THE RESPONDENTS

The respondents for this study were 355 final year students from WSU in the Eastern Cape Province and TUT in the Limpopo Province. The respondents were obtained using purposive and convenience sampling (explained in section 7.2.6). The reason for using these respondents is that they were an ideal group for studying the factors associated with the entrepreneurial intent of the rural youth. These respondents were also considered to be suitable for assessing the differences between the respondents in entrepreneurial intent, entrepreneurial self-efficacy and entrepreneurial

competencies based on the different levels of exposure to entrepreneurship education. A summary of the demographic profile of the respondents follows below.

9.2.1 Distribution of the respondents by institution

Of the 355 respondents, 77.7 percent were from WSU in the Eastern Cape Province while 22.3 percent were from TUT in the Limpopo Province (Table 8.1).

9.2.2 Distribution of the respondents by exposure to entrepreneurship education/qualifications enrolled for

The sample from WSU consisted of 19.2 percent respondents who were registered for ND: E/SBM (3 years exposure to entrepreneurship education), 66.3 percent respondents for ND: IAUD, CMA and FIS (6 months exposure to entrepreneurship education) and 14.5 percent respondents for ND: Management (no exposure to entrepreneurship education) (see Table 8.1). From TUT 21.5 percent of the respondents were registered for ND: E/SBM (3 years exposure to entrepreneurship education), 48.1 percent for ND: IAUD, CMA and FIS (6 months exposure to entrepreneurship education) and 30.4 percent respondents for ND: Management (no exposure to entrepreneurship education). Total combined percentages for these groups of respondents from both WSU and TUT were comprised of 19.7 percent for ND: E/SBM, 62.3 percent for ND: IAUD, CMA and FIS and 18 percent for ND: Management (Table 8.2).

9.2.3 Gender distribution

The majority (67.8%) of the respondents were female while male respondents constituted 32.2 percent of the sample (Figure 8.1). In terms of the qualifications registered for at the two institutions, the percentages of females were higher than the percentages of males in most qualifications with the exception of the ND: IAUD at TUT where males were slightly higher than females (Table 8.3).

9.2.4 Age distribution

The majority of the respondents were between 14 to 24 years (76.1%), followed by those who were between 25 to 34 years (22.5%) and the lowest percentage was in the age group of between 35 to 64 years (1.4%) (Figure 8.2). It follows from these age distributions that the majority of the respondents registered for ND: E/SBM, ND: IAUD, CMA and FIS and ND: Management at WSU and TUT are the youth as 98.6 percent of them fall in the age category 14 to 34 years.

9.2.5 Distribution of the respondents by work experience and entrepreneurial knowledge

The majority of the respondents had never been employed (69.8%) and 95.9 percent were unemployed. In terms of entrepreneurial knowledge, 6.6 percent of the respondents were 'currently running their own businesses', 34 percent 'had family members who are running a business', 28.1 percent 'had friends who are currently running businesses', 57.8 percent 'knew other people who are entrepreneurs', and 26.7 percent 'had tried to start a business before' (Table 8.4).

9.3 RESEARCH OBJECTIVES REVISITED

The primary and secondary objectives of this study as well as hypotheses that were derived from these objectives are revisited below and indications of whether these objectives were achieved or not are provided.

9.3.1 Primary objective

The primary objective was to assess the entrepreneurial intent of final-year commerce students in the rural provinces of South Africa, with specific reference to the Eastern Cape and Limpopo, the poorest provinces in South Africa. Measured on the nine entrepreneurial intent factors (Table 8.5), the findings showed that the majority of the respondents had the intention to start a business in the future.

From the results (Table 8.5 – C7 and C9), it follows that the entrepreneurial intent of the respondents is currently much stronger than prior to commencing their studies (shifted from 38.9% to 72.5%), indicating a positive contribution of the business-related qualifications of the respondents towards their intention to start a business in the future. However, when looking at the contribution of the qualifications towards the interest to start a business (C8), based on exposure to entrepreneurship education, the results (Table 8.10) reveal that the entrepreneurial intent of the respondents who had three years exposure to entrepreneurship education is higher (91%) than that of the respondents who had six months exposure to entrepreneurship education (74%) and those who did not have exposure to entrepreneurship education (77%). These findings indicate that the three years exposure to entrepreneurship education could play a vital role in stimulating the intention to start a business.

Since Kolvereid and Isaksen (2006:882) found a strong relationship between the intention to become self-employed and actual entry into self-employment and Zhang and Yang (2006:167) reported a significant positive relationship between entrepreneurial intention and entrepreneurial behaviour, the positive intention of the respondents to start a business is encouraging given the low total entrepreneurial activity rates in South Africa since 2001. The percentage of the respondents who have the intention to start a business is much higher (scores on 'strongly agree' on the first seven entrepreneurial intent factors in Table 8.5 ranged between 26.4% and 43.5%) than the national 17 percent of the respondents who have entrepreneurial intentions that has been reported in the 2010 GEM report by Herrington *et al.* (2010:17).

As it is evident from the preceding section that the respondents had the intention to start a business in the future, the interpretation of the results will now focus on the following hypotheses that were derived from the primary objective:

H₀₁ – No institutional differences exist between students with regard to entrepreneurial intent.

H₁₁ – Institutional differences exist between students regarding entrepreneurial intent.

H₀₂ – No gender differences exist between students in entrepreneurial intent.

H₁₂ – Male students differ from female students in entrepreneurial intent.

H₀₃ – No relationship exists between entrepreneurial intent and entrepreneurial knowledge and work experience.

H₁₃ – A relationship exists between entrepreneurial intent and entrepreneurial knowledge and work experience.

H₀₄ – No differences exist in entrepreneurial intent between students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H₁₄ – Students who have had exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in entrepreneurial intent.

H_{04a} – No differences exist in entrepreneurial intent between students who have had three years exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{14a} – Students who have had three years exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in entrepreneurial intent.

H_{04b} – No differences exist in entrepreneurial intent between students who have had six months exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{14b} - Students who have had six months exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in entrepreneurial intent.

H_{04c} – No differences exist in entrepreneurial intent between students who have had three years exposure to entrepreneurship education and those who have had six months exposure to entrepreneurship education.

H_{14c} - Students who have had three years exposure to entrepreneurship education differ from students who have had six months exposure to entrepreneurship education in entrepreneurial intent.

H₀₅ – No differences exist in the attitude towards becoming an entrepreneur between students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H₁₅ – Students who have had exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in the attitude towards becoming an entrepreneur.

H_{05a} – No differences exist in the attitude towards becoming an entrepreneur between students who have had three years exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{15a} - Students who have had three years exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in the attitude towards becoming an entrepreneur.

H_{05b} – No differences exist in the attitude towards becoming an entrepreneur between students who have had six months exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{15b} - Students who have had six months exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in the attitude towards becoming an entrepreneur.

H_{05c} – No differences exist in the attitude towards becoming an entrepreneur between students who have had three years exposure to entrepreneurship education and those who have had six months exposure to entrepreneurship education.

H_{15c} - Students who have had three years exposure to entrepreneurship education differ from students who have had six months exposure to entrepreneurship education in the attitude towards becoming an entrepreneur.

H₀₆ – No differences exist in perceived behavioural control between students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H₁₆ – Students who have had exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in perceived behavioural control.

H_{06a} – No differences exist in perceived behavioural control between students who have had three years exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{16a} – Students who have had three years exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in perceived behavioural control.

H_{06b} – No differences exist in perceived behavioural control between students who have had six months exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H_{16b} – Students who have had six months exposure to entrepreneurship education differ from students who have not had exposure to entrepreneurship education in perceived behavioural control.

H_{06c} – No differences exist in perceived behavioural control between students who have had three years exposure to entrepreneurship education and those who have had six months exposure to entrepreneurship education.

H_{16c} – Students who have had three years exposure to entrepreneurship education differ from students who have had six months exposure to entrepreneurship education in perceived behavioural control.

9.3.1.1 Institutional differences in entrepreneurial intent

On six of the nine entrepreneurial intent factors the respondents from the two institutions, WSU in the Eastern Cape Province and TUT in the Limpopo Province, did not differ statistically significantly. Hence the null hypothesis (H₀₁) could not be rejected. The respondents at WSU in the Eastern Cape Province differed statistically significantly from those at TUT in the Limpopo Province in terms of their intention to start a business with regard to three out of nine entrepreneurial intent factors (nonparametric Mann-Whitney *U* test results in Table 8.6). The higher mean rank values of the respondents from WSU for these entrepreneurial intent factors suggest that these respondents had very seriously thoughts of starting a business in the future, had strong intentions of ever starting a business in the future, and their qualification have contributed positively towards their interest to start a business more than the

respondents from TUT. With regard to the latter finding, the qualifications offered at WSU and TUT were similar (Chapter 3, section 3.7.4). The fact that the respondents at WSU stated that their qualifications had contributed more to their interest in starting a business than those at TUT suggest that other factors such as how they were taught could explain these differences.

9.3.1.2 Gender differences in entrepreneurial intent

The findings indicate statistically significant gender differences in entrepreneurial intent. Male respondents had significantly higher intentions to start a business than their female counterparts (Table 8.7). The results of the nonparametric Mann-Whitney *U* test revealed that male respondents differed statistically significantly from female respondents on eight out of nine entrepreneurial intent factors (Table 8.8). In line with the findings reported in the 2009 GEM report, the results indicate that young men had higher interest in starting a small business than young women (Herrington *et al.*, 2009:110). Similar results were found by research conducted in countries such as Spain (Driga *et al.*, 2005:9); Singapore (Wang and Wong, 2004:169); Paris (Lavolette and Radu, 2008:13); Yorkshire (Wilkinson, 2004:4); the United States (Zhao *et al.*, 2005:1269); Denmark (Klyver and Schøtt, 2008:12) and Finland (Hytti *et al.*, 2005:9). Despite the existence of government support programmes and interventions aimed at empowering women (sections 4.7.2.6 and 4.7.2.8), entrepreneurship still seems to be a male-dominated activity. It is evident that greater effort is needed for true empowerment of women to take place. Owing to the fact that male and female respondents do not differ on all nine entrepreneurial intent factors, the null hypothesis (H_{02}) could not be rejected.

Education seems to have a positive effect on the entrepreneurial intent of males and females who equally agreed that “My qualification has contributed positively towards my interest to start a business” (C8), indicating that education could be one of the key elements in stimulating the entrepreneurial activity of women.

9.3.1.3 The relationship between entrepreneurial intent and entrepreneurial knowledge and work experience

From the findings (Table 8.9), only three aspects of entrepreneurial knowledge and work experience were statistically significantly related to only one of the entrepreneurial intent factors. Based on the low Cramer's V values for these factors, it can be deduced that entrepreneurial knowledge and work experience have a weak to moderate relationship with entrepreneurial intent. These relationships could have possibly been affected by the fact that the majority of the respondents did not have work experience and entrepreneurial knowledge (Table 8.4). Given that not all seven aspects of entrepreneurial knowledge and work experience were statistically significantly related to all nine entrepreneurial intent factors, the null hypothesis (H_{03}) could not be rejected.

9.3.1.4 The relationship between entrepreneurial intent and its antecedents and exposure to entrepreneurship education

In chapter 3 section 3.2.1 it was reported that there is consensus among researchers that entrepreneurship can be taught and that entrepreneurial attributes can be positively influenced by educational programs. The findings in this research support those of earlier research in that they indicate that exposure to entrepreneurship education is statistically significantly related to entrepreneurial intent. From the descriptive statistics of the respondents (section 8.4.4 Table 8.10), it is evident that the ND: E/SBM students (with three years exposure to entrepreneurship education) scored higher on entrepreneurial intent than the ND: IAUD, CMA and FIS students (with six months exposure to entrepreneurship education) and the ND: Management students (without exposure to entrepreneurship education). The results showed that all three groups of students had the intention to start a business irrespective of the qualifications that they enrolled for. However, the entrepreneurial intent of the respondents who had three years exposure to entrepreneurship education (ND: E/SBM students) was stronger than the entrepreneurial intent of the respondents who had six months exposure to entrepreneurship education (ND: IAUD, CMA and FIS students) and those who did not have exposure to entrepreneurship education (ND: Management students) (see Table 8.10).

From the results of the Kruskal-Wallis test (Table 8.11) statistically significant differences exist in entrepreneurial intent between students who had three years exposure to entrepreneurship education, those who had six months exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education. However, owing to the fact that these differences were not found on all nine entrepreneurial intent factors but on eight factors, the null hypothesis (H_{04}) could not be rejected.

The results of the nonparametric Mann-Whitney U test (Table 8.12) revealed that the entrepreneurial intent of the respondents who had three years exposure to entrepreneurship education differed statistically significantly from the entrepreneurial intent of those who did not have exposure to entrepreneurship education on six entrepreneurial intent factors. Since the groups did not differ on all nine entrepreneurial intent factors, the null hypothesis (H_{04a}) could not be rejected.

From the results of the nonparametric Mann-Whitney U test (Table 8.13) the entrepreneurial intent of the respondents who did not have exposure to entrepreneurship education differed statistically significantly from the entrepreneurial intent of those who had six months exposure to entrepreneurship education only based on the fact that they had a strong intention to start a business before they started with their qualification than those who had six months exposure to entrepreneurship education. Given that the entrepreneurial intent of the respondents was similar on eight entrepreneurial intent factors, it can be deduced from the findings that the six months exposure to entrepreneurship education had a minimal or little effect on the entrepreneurial intent of the respondents. Therefore, the null hypothesis (H_{04b}) could not be rejected.

The results of the nonparametric Mann-Whitney U test (Table 8.14) indicated that students who had three years exposure to entrepreneurship education differed statistically significantly from those who had six months exposure to entrepreneurship education on all nine entrepreneurial intent factors. Therefore, the null hypothesis is rejected in favour of the alternative hypothesis (H_{14c}). The results suggest that the three years exposure to entrepreneurship education covers greater depth of

entrepreneurial concepts which facilitate the development of entrepreneurial intent than the six months exposure to entrepreneurship education.

The results suggest that entrepreneurship education has a positive effect in stimulating the intention to start a business. These findings concur with those of Guerrero *et al.* (2008:41) and Wu and Wu (2008:765-768) who reported that students with entrepreneurship-related majors have higher intentions to start a new business than students with non-entrepreneurship-related majors. Dickson *et al.* (2008:249) found that there was a positive correlation between entrepreneurship education and entrepreneurial intention. Given the fact that SMME development is viewed as a mechanism for reducing the high unemployment rate in South Africa (section 4.3.8) and entrepreneurial intent is the first stage in the new venture creation process (section 4.3.1), entrepreneurship education appears to be a valuable tool in SMME development.

In the following sections the interpretation of the results focuses on the relationship between exposure to entrepreneurship education and the antecedents of entrepreneurial intent. First, the responses on the antecedents 'attitude towards becoming an entrepreneur' and 'perceived behavioural control' are discussed and then the relationships between exposure to entrepreneurship education and these two antecedents of entrepreneurial intent are presented.

(a) The relationship between exposure to entrepreneurship education and the attitude towards becoming an entrepreneur

The results suggest that exposure to entrepreneurship education positively influences the attitude towards becoming an entrepreneur. The attitude towards becoming an entrepreneur consisted of six questions that were based on a five-point Likert-type response format. The results (Table 8.16) revealed that between 57.4 percent and 86.6 percent of the respondents had favourable attitudes towards becoming an entrepreneur. From the positive responses on 'If I had the opportunity and resources, I would like to start a business' (D3), it seems that interventions that provide information about the availability of opportunities and resources may increase the starting of businesses. From the results of the Kruskal-Wallis test (Table 8.17), statistically

significant differences existed between the respondents who had three years exposure to entrepreneurship education, those who had six months exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education on all six factors constituting the attitude towards becoming an entrepreneur. Therefore, the null hypothesis is rejected in favour of the alternative hypothesis (H_{15}).

It follows from the results of the nonparametric Mann-Whitney U test (Table 8.18) that statistically significant differences existed between the respondents who had three years exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education on all six attitude factors. Thus the null hypothesis is rejected in favour of the alternative hypothesis (H_{15a}), indicating the positive effect of the three years exposure to entrepreneurship education on the attitude towards becoming an entrepreneur.

Based on the fact no statistically significant differences in the attitude towards becoming an entrepreneur were found between the respondents who had six months exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education, the null hypothesis (H_{05b}) could not be rejected. From the results it is evident that the six months exposure to entrepreneurship education makes a little or no effect on the attitude towards becoming an entrepreneur.

From the results of the nonparametric Mann-Whitney U test (Table 8.19) the respondents who had three years exposure to entrepreneurship education were statistically significantly different from those who had six months exposure to entrepreneurship education on all six attitude factors. Therefore, the null hypothesis is rejected in favour of the alternative hypothesis (H_{15c}). Thus the findings suggest that the three years exposure to entrepreneurship education has a stronger positive effect on the attitude towards becoming an entrepreneur than the six months exposure to entrepreneurship education. It follows from the findings that entrepreneurship education that is offered for a period of three years could play a vital role in enhancing positive entrepreneurial attitudes.

(b) The relationship between exposure to entrepreneurship education and perceived behavioural control

Perceived behavioural control (section 8.6) consisted of nine questions that were based on a five-point Likert-type response format. The results (Table 8.22) showed that the respondents exhibited high levels of uncertainty (percentages of 'unsure' ranging between 33% and 40.4%) with regard to four perceived behavioural control factors (E1, E2, E5 and E6) and had strong positive perceptions about their perceived behavioural control on the remaining six perceived behavioural control factors. The fact that 77.8 percent of the respondents had a favourable perception of their qualifications providing them with sufficient knowledge to start a business, suggests the importance of business-related qualifications and entrepreneurship education in raising perceptions of behavioural control. However, when analysing the differences based on exposure to entrepreneurship education, the results of the Kruskal-Wallis test (Table 8.23) revealed that the respondents who had three years exposure to entrepreneurship education, those who had six months exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education were statistically significantly different on six perceived behavioural control factors. As a result the null hypothesis (H_{06}) could not be rejected.

The results of the nonparametric Mann-Whitney U test (Table 8.24) indicated that perceived behavioural control of the respondents who had three years exposure to entrepreneurship education differed statistically significantly from that of the respondents who did not have exposure to entrepreneurship education on five perceived behavioural control factors. Thus the null hypothesis (H_{06a}) could not be rejected. Since no statistically significant differences were found in perceived behavioural control of the respondents who had six months exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education, the null hypothesis (H_{06b}) could not be rejected. In addition, it was found (Table 8.25) that perceived behavioural control of the respondents who had three years exposure to entrepreneurship education was statistically significantly different from perceived behavioural control of the respondents who had six months exposure to entrepreneurship education on six perceived behavioural control factors. Hence the null hypothesis (H_{06c}) could not be rejected. It can therefore be deduced that the three

years exposure to entrepreneurship education impacts positively on perceptions of behavioural control.

It seems that in order for entrepreneurship education to increase perceptions concerning the capability of starting a business, the exposure to entrepreneurship education should be at least three years. The reason for this is because no significant differences were found in perceived behavioural control between the ND: Management students who did not have exposure to entrepreneurship education and the ND: IAUD, CMA and FIS students who had six months exposure to entrepreneurship education.

The results support the entrepreneurial intent theory with regard to the two antecedents of entrepreneurial intent discussed above. In line with this theory the findings indicate that the development of entrepreneurial intent depends on perceptions of desirability and feasibility of entrepreneurship. Individuals should find it attractive to become an entrepreneur and feasible to start a business in order for them to decide to engage in entrepreneurship. Peterman and Kennedy (2003:137) found that participation in an enterprise education program increases perceptions of desirability and feasibility of entrepreneurship while Guerrero *et al.* (2009:9-10) reported the existence of a positive relationship between entrepreneurship education and the attitude towards becoming an entrepreneur and perceived behavioural control. It has already been pointed out in Chapter 2 in section 2.3.4 that perceptions of desirability and feasibility of entrepreneurship are similar to the attitude towards becoming an entrepreneur and perceived behavioural control respectively. Souitaris *et al.* (2007:585) found that entrepreneurship programmes raised entrepreneurial attitudes and intentions. Lee *et al.* (2005:32) noted that significant differences existed between students who took entrepreneurship-related courses and those who did not in their "intention of venture creation and confidence in it" and "knowledge and ability of venture creation". Since this study did not involve tracking whether those who have the intention to start a business will eventually start those businesses, it can only be concluded that the contribution of entrepreneurship education to entrepreneurial activity could be realised by increasing the depth of exposure to entrepreneurship education which would possibly be achieved over a longer term than a shorter one. This would be necessary to raise and strengthen perceptions of desirability and

feasibility of entrepreneurship among participants and ultimately their entrepreneurial intent.

9.3.1.5 The relationship between entrepreneurial intent and its antecedents

As already mentioned the two dominant models of entrepreneurial intent are the TPB and the SEE model (section 2.3). The TPB suggests that the intention to start a business is determined by the attitude towards becoming an entrepreneur, perceived behavioural control and subjective norms while the SEE model states that the intention to start a business is influenced by perceptions of desirability and feasibility and propensity to act. It is worth noting that this study included subjective norms under the measures of social capital (Table 7.4 & G5 to G7 in section G of Appendix 1) owing to dissatisfactory results of previous research regarding the influence of subjective norms on entrepreneurial intent (detail in section 2.3.5.1) and did not focus on the propensity to act. The similarities between the antecedents of entrepreneurial intent in the TPB and the SEE model (attitude towards becoming an entrepreneur and perceived desirability and perceived behavioural control and perceived feasibility) were pointed out in section 2.3.4.

(a) The relationship between entrepreneurial intent and the attitude towards becoming an entrepreneur

The results indicated that the intention of the respondents to start a business was statistically significantly related to their attitude towards becoming an entrepreneur (Table 8.21). All six attitude factors had a significant relationship with all nine entrepreneurial intent factors. These results support the theory that in order for individuals to develop intentions of starting a business they should have positive attitudes towards becoming an entrepreneur. It must be attractive or desirable for them to become an entrepreneur or start a business. In line with the discussion in sections 2.3.2.1, 2.3.2.4 and 2.3.4, these results revealed that the respondents had positive perceptions about the outcomes or benefits that could be derived from becoming an entrepreneur or starting a business.

(b) The relationship between entrepreneurial intent and perceived behavioural control

The findings suggest that respondents' perceptions of their capability to start a business are related to their intention to start a business. A statistically significant relationship existed between seven of the nine perceived behavioural control factors and all nine entrepreneurial intent factors (Table 8.27). In the light of these results, it can be deduced that individuals develop the intention to start a business based on their perceptions that they have the ability to do so.

The results with regard to the abovementioned antecedents of entrepreneurial intent corroborate those of previous research that has found a statistically significantly positive association between entrepreneurial intent and the attitude towards becoming an entrepreneur and perceived behavioural control. Given the similarities that were pointed out between the two dominant entrepreneurial intent models, the TPB and the SEE model (detail in Chapter 2 section 2.3.4), the findings support those in Krueger *et al.* (2000:422-423); Grundstén (2004:70); Brännback *et al.* (2005:10); Oruoch (2006:23); Liñán and Chen (2006:11); Li (2006:6); Brännback *et al.* (2007:5); Liñán *et al.* (2007:7); Liñán (2008:266); Liñán and Chen (2009:30) and Guerrero *et al.* (2009:9-10).

9.3.1.6 The relationship between exposure to entrepreneurship education and entrepreneurial intent and its antecedents

In Chapter 3 section 3.2.1 it was reported that there is consensus among researchers that entrepreneurship can be taught and that entrepreneurial attributes can be positively influenced by educational programmes. The findings in this research support those of earlier research in that they indicate that exposure to entrepreneurship education is statistically significantly related to entrepreneurial intent. From the descriptive statistics of the respondents (section 8.4.4 Table 8.10) it is evident that the ND: E/SBM students (with three years exposure to entrepreneurship education) scored higher on entrepreneurial intent than the ND: IAUD, CMA and FIS students (with six months exposure to entrepreneurship education) and the ND: Management students (without exposure to entrepreneurship education). The results showed that all

three groups of students had the intention to start a business irrespective of the qualifications that they enrolled for. However, the entrepreneurial intent of the respondents who had three years exposure to entrepreneurship education (ND: E/SBM students) was stronger than the entrepreneurial intent of the respondents who had six months exposure to entrepreneurship education (ND: IAUD, CMA and FIS students) and those who did not have exposure to entrepreneurship education (ND: Management students) (see Table 8.10).

While the results of the Kruskal-Wallis test revealed that the three groups of respondents were statistically significantly different in their intention to start a business (Table 8.11), the results of the nonparametric Mann-Whitney *U* test showed that the respondents who had three years exposure to entrepreneurship education differed statistically significantly from those with six months exposure to entrepreneurship education and those without exposure to entrepreneurship education in their intention to start a business (Tables 8.12 and 8.14). The results suggest that entrepreneurship education has a positive effect in stimulating the intention to start a business. These findings concur with those of Guerrero *et al.* (2008:41) and Wu and Wu (2008:765-768) who reported that students with entrepreneurship-related majors have higher intentions to start a new business than students with non-entrepreneurship-related majors. Dickson *et al.* (2008:249) found that there is a positive correlation between entrepreneurship education and entrepreneurial intention. Given the fact that SMME development is viewed as a mechanism for reducing the high unemployment rate in South Africa (section 4.3.8) and entrepreneurial intent is the first stage in the new venture creation process (section 4.3.1), entrepreneurship education appears to be a valuable tool in SMME development. In the following sections the interpretation of the results focuses on the relationship between exposure to entrepreneurship education and the antecedents of entrepreneurial intent.

(a) The relationship between exposure to entrepreneurship education and the attitude towards becoming an entrepreneur

The results suggest that exposure to entrepreneurship education positively influences the attitude towards becoming an entrepreneur. The results of the Kruskal-Wallis test and the nonparametric Mann-Whitney *U* test (section 8.5.1) revealed that the

respondents who had three years exposure to entrepreneurship education differed statistically significantly from those who had six months exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education in their attitude towards becoming an entrepreneur. These differences were found on all six factors measuring the attitude towards becoming an entrepreneur (Tables 8.17, 8.18 and 8.19). No statistical significant differences were found between the respondents who had six months exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education in their attitude towards becoming an entrepreneur. It can be concluded that in order to increase the impact of entrepreneurship education on the attitude towards becoming an entrepreneur the depth of such entrepreneurship education should be increased.

(b) The relationship between exposure to entrepreneurship education and perceived behavioural control

From the results of the Kruskal-Wallis test (Table 8.23) and the nonparametric Mann-Whitney *U* test (Tables 8.24 and 8.25) it is evident that the respondents who had three years exposure to entrepreneurship education differed statistically significantly from those who had six months exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education in perceived behavioural control on six of the nine factors. Although these differences were not observed on all nine perceived behavioural control factors, the conclusion can be drawn that exposure to entrepreneurship education has a positive impact on perceived behavioural control. It seems that in order for entrepreneurship education to increase perceptions concerning the capability of starting a business, the exposure to entrepreneurship education should be longer than six months. The reason for this is because no significant differences were found in perceived behavioural control between the ND: Management students who did not have exposure to entrepreneurship education and the ND: IAUD, CMA and FIS students who had six months exposure to entrepreneurship education.

The results support the entrepreneurial intent theory with regard to the two antecedents of entrepreneurial intent discussed above. In line with this theory the findings indicate that the development of entrepreneurial intent depends on perceptions of desirability and feasibility of entrepreneurship. Individuals should find it

attractive to become an entrepreneur and feasible to start a business in order for them to decide to engage in entrepreneurship. Peterman and Kennedy (2003:137) found that participation in an enterprise education program increased perceptions of desirability and feasibility of entrepreneurship while Guerrero *et al.* (2009:9-10) reported the existence of a positive relationship between entrepreneurship education and the attitude towards becoming an entrepreneur and perceived behavioural control. It has already been pointed out in Chapter 2 in section 2.3.4 that perceptions of desirability and feasibility of entrepreneurship are similar to the attitude towards becoming an entrepreneur and perceived behavioural control, respectively. Souitaris *et al.* (2007:585) found that entrepreneurship programmes raised entrepreneurial attitudes and intentions. Lee *et al.* (2005:32) noted that significant differences existed between students who took entrepreneurship-related courses and those who did not in their “intention of venture creation and confidence in it” and “knowledge and ability of venture creation”. Since this study did not involve tracking whether those who had the intention to start a business would eventually start those businesses, it can only be concluded that the contribution of entrepreneurship education to entrepreneurial activity could be realised by increasing the depth of exposure to entrepreneurship education which would possibly be achieved over a longer term than a shorter one. This would be necessary to raise and strengthen perceptions of desirability and feasibility of entrepreneurship among participants and ultimately their entrepreneurial intent.

9.3.2 Secondary objectives

Secondary objectives to achieve the primary objective of this research were as follows:

- To determine the relationship between students’ perceptions of their own entrepreneurial competencies and entrepreneurial intentions as determined by exposure to entrepreneurship education.
- To determine the relationship between the level of awareness of entrepreneurial support initiatives and entrepreneurial intentions.
- To determine the relationship between students’ social capital and entrepreneurial intentions.

- To investigate the relationship between exposure to entrepreneurship education and entrepreneurial self-efficacy.
- To develop a model of entrepreneurship development based on exposure to entrepreneurship education, awareness of entrepreneurial support and social capital as determinants of entrepreneurial intentions.

From the secondary objectives mentioned above the following hypotheses were formulated:

H₀₇ – No relationship exists between the level of awareness of entrepreneurial support initiatives and the intention of starting a business.

H₁₇ - A relationship exists between the level of awareness of entrepreneurial support initiatives and the intention of starting a business.

H_{07a} - No relationship exists between the level of awareness of entrepreneurial support initiatives and the attitude towards becoming an entrepreneur.

H_{17a} - A relationship exists between the level of awareness of entrepreneurial support initiatives and the attitude towards becoming an entrepreneur.

H_{07b} - No relationship exists between the level of awareness of entrepreneurial support initiatives and perceived behavioural control.

H_{17b} - A relationship exists between the level of awareness of entrepreneurial support initiatives and perceived behavioural control.

H₀₈ – No relationship exists between perceptions of social capital as determined by being a member of a social network and the intention of starting a business.

H₁₈ – Perceptions of social capital as determined by being a member of a social network is related to the intention of starting a business.

H_{08a} - No relationship exists between perceptions of social capital as determined by being a member of a social network and the attitude towards becoming an entrepreneur.

H_{18a} – A relationship exists between perceptions of social capital as determined by being a member of a social network and the attitude towards becoming an entrepreneur.

H_{08b} - No relationship exists between perceptions of social capital as determined by being a member of a social network and perceived behavioural control.

H_{18b} - A relationship exists between perceptions of social capital as determined by being a member of a social network and perceived behavioural control.

H₀₉ – No relationship exists between exposure to entrepreneurship education and perceived entrepreneurial self-efficacy (ESE).

H₁₉ – A relationship exists between exposure to entrepreneurship education and perceived ESE.

H₀₁₀ – No differences exist in the perceptions of own entrepreneurial competencies among students who have had exposure to entrepreneurship education and those who have not had exposure to entrepreneurship education.

H₁₁₀ – Students who have had exposure to entrepreneurship education perceive their own entrepreneurial competencies differently from students who have not had exposure to entrepreneurship education.

9.3.2.1 The relationship between perceived entrepreneurial competencies and entrepreneurial intent

Entrepreneurial competencies consisted of four questions (Table 8.46) that were based on a five-point Likert-type response format. The respondents appeared to be 'very confident' in the ability to make sacrifices to ensure that the business gets started and 'fairly confident' in the other three entrepreneurial competencies.

The first secondary objective was partially achieved because out of the four entrepreneurial competencies (I1 to I4 – Table 8.49) two entrepreneurial competencies were statistically significantly related to all nine entrepreneurial intent factors, namely: the ability to recognise and evaluate opportunities in the market (I1) and the ability to make sacrifices to ensure that the business gets started (I4). The ability to develop

relationships with other business people for mutual learning and collaborative working to achieve common objectives (I2) and the ability to persuade and discuss with various stakeholders about the issues that involve the business (I3) did not have a statistically significant relationship with all nine entrepreneurial intent factors. They were statistically significantly related to seven and eight entrepreneurial intent factors respectively.

Given that the development of entrepreneurial intent is considered to be the first stage in the new venture creation process, which is followed by the search for and ultimate discovery of opportunities (Shook *et al.*, 2003:381), the results suggest that the respondents perceived themselves to be equipped with the necessary competencies to start a business. According to Bird (1995 in Man and Lau, 2005:468), entrepreneurial competencies are related to the birth, survival and/or growth of a venture. They are essential for the entrepreneur to successfully start and run a business (Katz and Green, 2007:60). In line with the entrepreneurial process discussed in section 6.4, the conclusion that is drawn from these findings is that these entrepreneurial competencies will enable the respondents to identify and evaluate opportunities in the market, develop relationships with other people and persuade them to support the business in the process of gathering the resources required, and to commit themselves towards the achievement of the business objectives. These findings are similar to those of Brice and Spencer (2007:60) especially with regard to the ability to recognise and evaluate market opportunities and the ability to make sacrifices to ensure that the business gets started. Brice and Spencer found that individuals with high entrepreneurial intentions judged opportunity recognition as one of the most important indicators of entrepreneurial self-efficacy (ESE) and the drive to see the venture through to fruition as the second important indicator of ESE.

The null hypothesis (H_{010}) could not be rejected because the results indicate that students who had exposure to entrepreneurship did not differ significantly from those who did not have exposure to entrepreneurship education on all four measures of perceived entrepreneurial competencies (Table 8.47). The respondents who had exposure to entrepreneurship education perceived themselves as being more able to recognise and evaluate opportunities in the market than those who did not have exposure to entrepreneurship education. Statistically significant differences with regard

to the entrepreneurial competency “the ability to recognise and evaluate opportunities in the market” were found only between the respondents who had three years exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education (Table 8.48). However, no statistically significant differences were found between the respondents who had three years exposure to entrepreneurship education and those who had six months exposure to entrepreneurship education. The same results were observed when conducting tests for the differences between the respondents who had six months exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education. It follows from the findings that the three years exposure to entrepreneurship education seems to have had more influence on the ability to recognise and evaluate opportunities in the market than on the other three entrepreneurial competencies listed in Table 8.46.

9.3.2.2 Awareness of entrepreneurial support and the relationship between the level of awareness of entrepreneurial support initiatives and entrepreneurial intent and its antecedents

In this section the level of awareness of entrepreneurial support among the respondents is discussed first and thereafter the findings pertaining to the relationship between the level of awareness of entrepreneurial support and entrepreneurial intent as well as its antecedents are discussed.

(a) The respondents’ level of awareness of entrepreneurial support

Generally, the knowledge of government institutions that provide entrepreneurial support and their services or funds among the respondents was very low. Despite the fact that the South African government has introduced several entrepreneurial support programmes in the past years (sections 4.7.1, 4.7.2 & 4.7.3), the number of the respondents who knew about government institutions that provide entrepreneurial support and the services or funds they offer was very low (Tables 8.28 & 8.29). The respondents were asked to indicate their level of awareness about 11 government entrepreneurial support institutions and their services or funds based on a five-point Likert-type response format questions. Of the 11 government entrepreneurial support

institutions, the majority of the respondents had a higher level of knowledge about the UYF (which had been replaced by the NYDA in 2009) in comparison with other government institutions that provide entrepreneurial support. As shown in Table 8.29, the combined percentage of the respondents (those who had 'some knowledge' and those who 'knew it well') who knew about the UYF is 66.7 percent while the combined percentage of the respondents who knew about the services or funds offered by the UYF is 58.5 percent. The combined percentages of the respondents who knew about the remaining 10 government entrepreneurial support institutions and the services or funds they offer ranged from the highest of 39.5 percent to the lowest of 14.8 percent. The respondents' higher level of knowledge about the UYF and its services than other institutions and their services or funds is not surprising given the fact that the UYF was providing entrepreneurial support services that were aimed at the youth. From these results it seems appropriate to suggest that increased efforts to raise the awareness and visibility of the NYDA and its services are necessary if it is to become a driver of youth entrepreneurship development in South Africa.

These findings corroborate those of Ladzani and Netswera (2009:235) who found that rural entrepreneurs in Limpopo, who participated in their study could not utilise the available support programmes due to the lack of access to information about these support programmes. The literature on entrepreneurial support in South Africa (section 4.8.15) indicates low usage of support programmes owing to a lack of awareness about these programmes, for example, Ahwireng-Obeng (2003:15); Monkman (2003 in Ligthelm, 2008:368-369); Orford *et al.* (2004:4); Tips (2005:18-19); Finmark Trust and Gauteng Enterprise Propeller (2006:26) and Molapo *et al.* (2008:35).

(b) The relationship between the level of awareness of entrepreneurial support initiatives and entrepreneurial intent

The second secondary objective about the relationship between the level of awareness of entrepreneurial support and entrepreneurial intent was partially achieved because not all 26 entrepreneurial support factors had a statistically significant relationship with all nine entrepreneurial intent factors (Tables 8.30 & 8.31). A statistically significant relationship was found between the knowledge of Seda and the services that it offers and all nine entrepreneurial intent factors (Table 8.31). The

respondents' knowledge of the ECDC and the services that it offers was statistically significantly related to seven entrepreneurial intent factors while their knowledge of the different types of support that are offered to people who want to start their own businesses had a statistically significant relationship with seven entrepreneurial intent factors. Given that not all 26 individual entrepreneurial support initiatives were statistically significantly related to all nine entrepreneurial intent factors, the null hypothesis (H_{07}) could not be rejected. It is evident from the findings that a low level of awareness of government entrepreneurial support institutions and their services existed among the respondents (Table 8.29). This is accompanied by 34.2 percent of the respondents who perceived that it would be easy for them to access support from government institutions and 41 percent of the respondents who perceived that information about government support for people who want to start their own businesses is easily accessible (Table 8.28).

The implication of these results is that if the government is to increase the number of people with the intention to start businesses in rural areas, it has to exert more efforts in raising awareness of its entrepreneurial support institutions and their services or funds. Kim and Cho (2009:318) reported that institutional support provided to start-ups increased the number of people entering self-employment. Sarder (2003:1) found that outsider assistance moderated the relationship between entrepreneurial intention and new venture creation. Previous research further indicates that instrumental readiness (measured in terms of access to capital, availability of information and networking) is positively related to entrepreneurial intention (Ramayah and Harun, 2005:18) and is a positive significant predictor of entrepreneurial intention (Kristiansen and Indarti, 2004:71). Since entrepreneurial intent predicts entrepreneurial behaviour (section 2.3.2), it is suggested that efforts that are directed at increasing awareness of entrepreneurial support are not only necessary for the development of entrepreneurial intent but also to help translate entrepreneurial intent into the behaviour of starting new ventures.

The next two sections report on the relationship between the level of awareness of entrepreneurial support and the antecedents of entrepreneurial intent.

(c) The relationship between the level of awareness of entrepreneurial support initiatives and the attitude towards becoming an entrepreneur

The results revealed that not all 26 entrepreneurial support factors were statistically significantly related to all six attitude factors. Of the 26 entrepreneurial support factors the knowledge of Seda and the services that it offers and the ECDC and the services that it offers were statistically significantly related to all six attitude factors (Tables 8.32 and 8.33). As a result, the null hypothesis (H_{07a}) could not be rejected. These results support Nabi *et al.*'s (2006:381) view that providing a range of support and resources can influence the start-up decision processes through the impact on entrepreneurial intentions in terms of perceived attractiveness, perceived feasibility, self-efficacy and propensity to act. From the findings it appears that the perceived availability of support that one could tap into in the process of starting a business affects one's desire to become an entrepreneur. Therefore, in the efforts to stimulate the entrepreneurial activity, policy-makers should recognise that increased awareness and availability of entrepreneurial support could have a positive impact in making the entrepreneurial career desirable.

(d) The relationship between the level of awareness of entrepreneurial support initiatives and perceived behavioural control

A statistically significant relationship was found between six of the 26 entrepreneurial support factors and all nine perceived behavioural control factors (Tables 8.34 and 8.35). Thus the null hypothesis (H_{07b}) could not be rejected. Since more significant relationships were found between awareness of entrepreneurial support and perceived behavioural control than between awareness of entrepreneurial support and the attitude towards becoming an entrepreneur (Tables 8.32, 8.33, 8.34 & 8.35), it seems that entrepreneurial support represents facilitators of entrepreneurial behaviour that could increase one's control over the behaviour. The results corroborate those of Begley *et al.* (2005:46) who found that perceived availability of support services is significantly related to perceived feasibility of starting a business.

Entrepreneurial support can enable prospective entrepreneurs to acquire resources, access opportunities and reduce the obstacles they might face in the process of

starting a business, thus increasing their perceived behavioural control. This is in line with Ajzen's (2005:125) view that when individuals possess more resources and opportunities and anticipate fewer obstacles or impediments, they should have a greater sense of perceived control over the behaviour. In section 4.3.1 it was argued that entrepreneurial support is a vital component that influences entrepreneurial intent and the success of the potential entrepreneur in executing the entrepreneurial process. Entrepreneurial support can be considered to be a perceived facilitator that could lead to the initiation of entrepreneurial action. In section 2.3.2.1 Ajzen (2005:119) points out that perceived behavioural control can influence the behaviour directly and indirectly via intentions. Its direct effect however, depends on the agreement between perceptions of behavioural control and the person's actual control over the behaviour. Additionally, Ajzen and Cote (2008:302) postulate that the intention will have a strong influence on the behaviour when an individual's actual control over the behaviour is high rather than when it is low. It can therefore be suggested that increasing awareness of and access to entrepreneurial support could increase potential entrepreneurs' actual control over the behaviour (the act of starting a business) which in turn would increase the number of new ventures that can help create new jobs and alleviate poverty in rural areas.

Despite the fact that not all 26 entrepreneurial support factors have a statistically significant relationship with all nine entrepreneurial intent factors and all factors constituting the antecedents of entrepreneurial intent (the attitude towards becoming an entrepreneur and perceived behavioural control), the results have implications for the South African government in terms of improving its total entrepreneurial activity rates. Instead of establishing institutions that are mostly based in the Gauteng Province, as pointed out in the 2009 GEM report (Herrington *et al.*, 2009:85), more should be done to ensure that these institutions are also accessible in the other provinces, especially rural areas where entrepreneurial activity has been reported to be low. With more individuals accessing entrepreneurial support the number of new businesses will increase and existing businesses that have growth potential will grow resulting in improved rural economies. Therefore, efforts to increase the visibility of government institutions that provide entrepreneurial support and actual access to this support are essential to promote the entrepreneurial behaviour, since entrepreneurial intent alone is not enough but individuals should be able to implement their intentions.

Given the low level of knowledge among the respondents regarding government entrepreneurial support institutions and their services, the conclusion is that raising awareness of government entrepreneurial support institutions and their services or funds as well as increasing access to entrepreneurial support would help improve the knowledge about these institutions and their services and contribute to positive perceptions that government entrepreneurial support is accessible. This conclusion finds support in Ahwireng-Obeng (2003:11) who reports that the decision to organise and launch new ventures depends on how entrepreneurs evaluate their skills, capabilities, and economic and non-economic determinants of success that include access to and the ability to mobilise monetary and non-monetary resources. Levesque *et al.* (2002:206) suggest that the decision to become an entrepreneur depends on opportunities and resources while Ramayah and Harun (2005:18) found that instrumental readiness measured in terms of access to capital, availability of information and networking is positively related to entrepreneurial intention. Potential entrepreneurs also need to be provided with information about market opportunities, hence the perception of entrepreneurs about the existence of market opportunities was found to be significantly related to the number of new venture creation activities pursued and start-up success (Edelman *et al.*, 2005:6).

9.3.2.3 The relationship between social capital and entrepreneurial intent

Social capital comprised 15 questions that were based on a five-point Likert-type response format. Social capital in this study involved personal knowledge of entrepreneurs; approval of the decision to start a business by the immediate family, friends and colleagues; the extent to which entrepreneurship is valued by the immediate family, colleagues and friends and the extent to which the society in general values the entrepreneurial activity; and reliance on the immediate family, friends and other entrepreneurs for assistance in starting a business. From the results (Table 8.36) it emerged that the majority of the respondents did not have friends or family members who were entrepreneurs but knew other people who were entrepreneurs and successful entrepreneurs in their communities; they perceived that their immediate families, friends and colleagues would approve of their decision to start a business; and displayed a high level of uncertainty about the value attached to the

entrepreneurial activity by their immediate families, friends and colleagues. For the majority of the respondents, the entrepreneurial activity seems to be positively valued by the society in general and they perceived that they can rely on their family, friends and other entrepreneurs for assistance in starting a business.

The third secondary objective was to determine the relationship between students' social capital and entrepreneurial intent. This objective was partially met because not all 15 social capital factors were statistically significantly related to all nine entrepreneurial intent factors. A statistically significant relationship was found between nine of the 15 social capital factors and all nine entrepreneurial intent factors (Table 8.37). Thus the null hypothesis (H_{08}) could not be rejected. The results indicate that bonding cognitive social capital (detail in section 5.10.2) that includes knowing non-family entrepreneurs, positive valuation of entrepreneurship as a career in the closer environment and approval of the decision to start a business by the immediate family, friends and colleagues is statistically significantly related to entrepreneurial intent (Table 8.37). Additionally, entrepreneurial intent was found to be statistically significantly related to one of the factors constituting social valuation of entrepreneurship: "the culture in the country that is highly favourable towards the entrepreneurial activity".

The findings with regard to the statistically significant relationship between the knowledge of entrepreneurs (other people who are entrepreneurs) and entrepreneurial intent corroborate with those found in Van Auken *et al.* (2005:6); Fry and Van Auken (2005:5); Driga *et al.* (2005:10-11); Zhang and Yang (2006:169); and Klyver and Schøtt (2008:12). Alsos *et al.* (2007:6-7) reported that knowledge of other people who are entrepreneurs is significantly associated with entrepreneurial intent and the likelihood to engage in new business start-up. It is therefore appropriate to suggest that individuals' knowledge of entrepreneurs contributes positively towards their intention to start a business. From the results it follows that entrepreneurial role models enhance the formation of entrepreneurial intent and stimulate the choice of an entrepreneurial career.

The results indicated that the respondents' perceptions that they can rely on their families for assistance in starting a business were statistically significantly related to

entrepreneurial intent. The findings support previous research by Wilkinson (2004:9) who found that individuals who wanted to be self-employed valued family support in setting-up their own businesses and Kamau-Maina (2007:36) and Pruett *et al.* (2009:585) who reported a significant relationship between the expectation of family support and entrepreneurial intentions.

From the results it follows that individuals are more likely to form the intention to start a business when they know existing entrepreneurs; they perceive that their immediate families, friends and colleagues would approve of their decision to start a business and entrepreneurship is valued positively by people in the closer environment and the society in general; and when they perceive that they can rely on their family for assistance in starting a business.

Given that attitudes and perceived behavioural control influence intentions, the results revealed the following with regard to these antecedents:

(a) The relationship between social capital and the attitude towards becoming an entrepreneur

The results (Table 8.38) indicated that not all social capital factors were statistically significantly related to the attitude towards becoming an entrepreneur. Of the 15 social capital factors, 10 were statistically significantly related to all six attitude factors. Based on these findings, the null hypothesis (H_{08a}) could not be rejected. From these results it is evident that bonding cognitive social capital and the respondents' perception that they can rely on their family and other entrepreneurs for assistance in starting a business had a statistically significant relationship with the attitude towards becoming an entrepreneur. The findings support previous research by Liñán and Santos (2007:450-451) who found that bonding cognitive social capital had a significant indirect influence on entrepreneurial intent through perceived desirability of entrepreneurship (details in section 5.10.2). The implication of these findings is that exposure to existing entrepreneurs would play a vital role in shaping entrepreneurial attitudes. This could possibly be achieved through the media which Radu and Redien-Collet (2008:263-265) assert that it can positively influence perceived desirability and entrepreneurship education which uses entrepreneurs as guest speakers.

A statistically significant relationship was found between the attitude towards becoming an entrepreneur and the value attached to the entrepreneurial activity by the immediate family, friends and colleagues and by the society in general (Table 8.38). These findings support those of Guerrero *et al.* (2009:9-10) and Liñan *et al.* (2007:7-8) who reported a significant relationship between closer valuation and social valuation of entrepreneurship and personal attraction, which in turn influenced entrepreneurial intent directly. Liñan (2008:265-266) found that closer valuation of entrepreneurship positively influenced personal attraction. It follows from the findings that the more entrepreneurship is positively valued by people in the closer environment and the society in general, the more favourable would be the attitude towards becoming an entrepreneur.

With regard to the significant relationship between approval of the decision to start a business by the immediate family, friends and colleagues and the attitude towards becoming an entrepreneur the results support previous research that has found that social norms/subjective norms had a positive influence on the attitude towards becoming an entrepreneur (for example, Krueger *et al.*, 2000:423; Oruoch, 2006:24; Liñán and Chen, 2006:13; Brännback *et al.*, 2007:5; Liñán *et al.*, 2007:7; Liñán, 2008:266; Guerrero *et al.*, 2009:10). The findings suggest that in order to develop positive attitudes towards becoming an entrepreneur important referent individuals or groups have to approve of one's decision to start a business.

The results indicated that the respondents' perceptions that they can rely on their families and other entrepreneurs for assistance in starting a business are statistically significantly related to the attitude towards becoming an entrepreneur. The findings concur with those of Oruoch (2006:24) who reported that perceived social support networks (measured in terms of expected support from the family) had a significant impact on perceived desirability of entrepreneurship. From the findings it seems that individuals would view becoming an entrepreneur as desirable when they perceive that they have people that they can rely on for support or any form of assistance they would need when starting a business.

(b) The relationship between social capital and perceived behavioural control

The findings revealed that not all 15 social capital factors were statistically significantly related to all nine perceived behavioural control factors. Only one of the 15 social capital factors was statistically significantly related to all nine perceived behavioural control factors (Table 8.39): “the value attached to the entrepreneurial activity above other activities and careers by the immediate family” (G8). Hence the null hypothesis (H_{08b}) could not be rejected. The findings support those of Guerrero *et al.* (2009:9-10) who found that there was a significant relationship between closer valuation and perceived behavioural control, which in turn influences entrepreneurial intent directly. The findings suggest that individuals are more likely to perceive a greater sense of control over the act of starting a business when entrepreneurship is positively valued by people in their closer environment.

(c) Summary of the findings on social capital

In summary it follows from the findings that the intention of the respondents to start a business, their attitude towards becoming an entrepreneur and perceived behavioural control had a statistically significant relationship with the following social capital factors: the knowledge of entrepreneurs; approval of the decision to start a business by the immediate family, friends and colleagues; the value that the immediate family, colleagues and friends attach to the entrepreneurial activity; the culture that is highly favourable towards the entrepreneurial activity; consideration of the entrepreneurial activity in the country as worthwhile, despite the risks associated with it; and the perception that one can rely on the family, friends and other entrepreneurs for assistance in starting a business. Despite the fact that results of the relationship between social capital and entrepreneurial intent and its antecedents ranged from weak to very weak, they support previous research on social capital that has already been explained earlier. The conclusion that can be drawn in the light of these findings is that efforts to improve the total entrepreneurial activity rates of South Africa, especially in rural areas, may be successful if an entrepreneurial career could be considered as a legitimate career and not the one that is pursued only when there are no other options. Successful rural entrepreneurs should be recognised and celebrated.

These findings have indeed supported the view that entrepreneurs are products of their social environments (Anderson and Miller, 2003:17-18).

9.3.2.4 The relationship between exposure to entrepreneurship education and entrepreneurial self-efficacy (ESE)

The fourth secondary objective was to investigate the relationship between exposure to entrepreneurship education and entrepreneurial self-efficacy (ESE). ESE consisted of 24 questions covering the four phases of the entrepreneurial life-cycle (searching phase, planning phase, marshalling phase and implementing phase depicted in Table 7.5) that were based on a five-point Likert-type response format. This objective was partially achieved because the results of the Kruskal-Wallis test show that the respondents who had three years exposure to entrepreneurship education, those who had six months exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education were statistically significantly different on 14 of 24 ESE factors in the four phases of the entrepreneurial life-cycle (Table 8.41). The results of the nonparametric Mann-Whitney *U* test revealed that the respondents who had three years exposure to entrepreneurship education were statistically significantly different from those who had six months exposure to entrepreneurship education and those who did not have exposure to entrepreneurship education on 12 of 24 ESE factors in the four phases of the entrepreneurial life-cycle (Tables 8.42 and 8.44). In addition, the respondents who had six months exposure to entrepreneurship education differed statistically significantly from those who did not have exposure to entrepreneurship education in perceived ESE only on four ESE factors in the two phases of the entrepreneurial life-cycle, the planning phase and the implementation phase (Table 8.43). In the light of these findings the null hypothesis (H_{09}) could not be rejected.

From the findings it follows that the three years exposure to entrepreneurship education had a higher impact on perceived ESE in the four phases of the entrepreneurial life-cycle than the six months exposure to entrepreneurship education with only two phases of the entrepreneurial life-cycle. These results possibly suggest that the six months exposure to entrepreneurship education is rather too short to make a desirable impact on perceived ESE. In view of these findings, it is suggested that

entrepreneurship education that is provided over an extended period of possibly three years could be valuable in the development of the necessary skills to successfully start a new business venture. This assertion is based on the evidence (Tables 8.42 and 8.44) which points out that the respondents who had three years exposure to entrepreneurship education perceived themselves as having the skills to perform entrepreneurial tasks in the four phases of the entrepreneurial life-cycle. This simply means that the respondents perceived that they had the skills to identify, evaluate and exploit opportunities in the market by starting, managing and growing their own ventures. Since ESE can influence individuals' decisions to start businesses and the effectiveness with which they manage their ventures once they have founded them (Forbes, 2005:599), entrepreneurship education that equips students with the skills to perform entrepreneurial tasks in the different phases of the entrepreneurial life-cycle is vital to stimulate and improve the entrepreneurial activity. These findings support those of Peterman and Kennedy (2003:140); Alvarez and Jung (2004:1); Brännback *et al.* (2005:11); Zhao *et al.* (2005:1266) and Ramayah and Harun (2005:18) who found that exposure to entrepreneurship education programs increase perceptions of self-efficacy of starting a business.

9.3.2.5 The relationship between ESE and entrepreneurial intent

The results (Table 8.45) indicated that a statistically significant relationship existed between perceived ESE in the four phases of the entrepreneurial life-cycle and the intention of the respondents to start a business. Since self-efficacy deals with individuals' judgement regarding what they can do with the skills they possess (Chapter 2 section 2.4.2), the findings suggest that there is a significant association between individuals' perceptions that they have skills to perform entrepreneurial tasks in the searching phase, planning phase, marshalling phase and implementing phase of the entrepreneurial life-cycle and their intention to start a business. Since ESE can influence an individual's decision to start a business and the effectiveness in managing the new venture once it is founded (Forbes, 2005:599), it seems that more efforts should be directed at enhancing individuals' ESE if improved entrepreneurial activity is to be achieved. These results support previous research conducted by Kickul and D'Intino (2005:44); Schenkel *et al.* (2007:6); De Clercq and Arenius (2004:6) and Zhao *et al.* (2005:1269) that ESE is positively related to entrepreneurial intent.

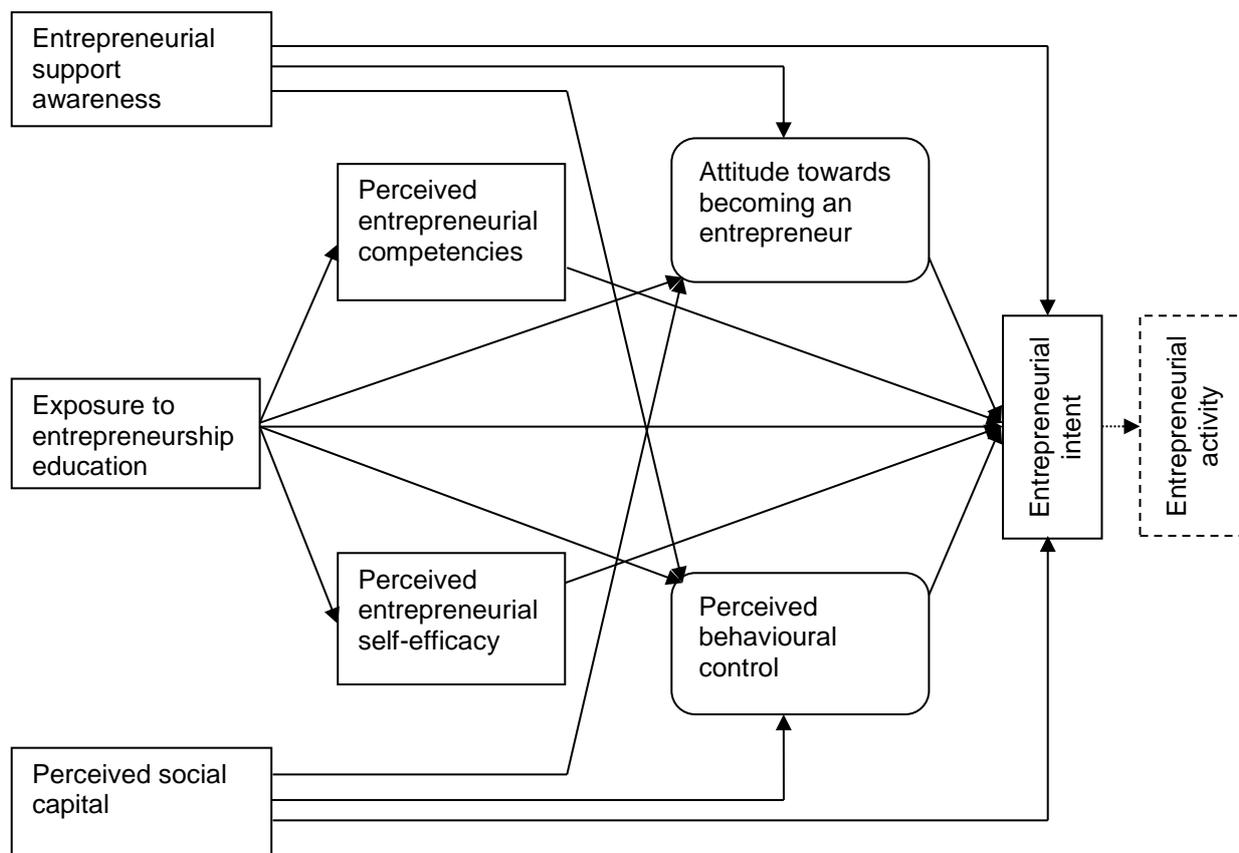
While taking into account that the skills needed to start a business may be different from those required in the growth stage, entrepreneurship education should equip entrepreneurs in the different stages of the venture life-cycle with the necessary skills to effectively deal with the challenges that they may encounter in each stage.

9.3.2.6 The model of entrepreneurship development based on Ajzen's theory of planned behaviour

The fifth secondary objective was to develop a model of entrepreneurship development based on exposure to entrepreneurship education, awareness of entrepreneurial support and social capital as determinants of entrepreneurial intent. This model is proposed based on the literature study (Chapters 2, 3, 4, 5 and 6), the hypotheses that have been formulated (Chapter 1 section 1.5.3 & Chapter 7 section 7.2.3) and the findings of this research (Chapter 8). From the discussions in the preceding sections, the following model emerged (illustrated in Fig 9.1):

- Awareness of entrepreneurial support is statistically significantly related to entrepreneurial intent, the attitude towards becoming an entrepreneur and perceived behavioural control.
- Perceived social capital is statistically significantly related to entrepreneurial intent, the attitude towards becoming an entrepreneur and perceived behavioural control.
- Exposure to entrepreneurship education has been found to be statistically significantly related to how the respondents perceived their own entrepreneurial competencies and ESE, which in turn were statistically significantly related to entrepreneurial intent.
- Exposure to entrepreneurship education has been found to be statistically significantly related to the attitude towards becoming an entrepreneur and perceived behavioural control, which in turn were statistically significantly related to entrepreneurial intent.
- Exposure to entrepreneurship education is statistically significantly related to entrepreneurial intent.

Figure 9.1: The model of entrepreneurship development based on Ajzen's theory of planned behaviour



Source: Own compilation

In search for ways to stimulate rural entrepreneurial activity, the proposed model highlights the key role that awareness of entrepreneurial support, exposure to entrepreneurship education and social capital could play in enhancing the attitude towards becoming an entrepreneur, perceived behavioural control and entrepreneurial intent. A properly designed entrepreneurship education with clearly specified objectives and audiences is necessary for the development of entrepreneurial competencies and ESE which would enable individuals to execute the entrepreneurial process. From the findings of this research it emerged that entrepreneurship education, social capital and entrepreneurial support could be valuable tools in creating what Tang (2008a:131); Tang (2008b:1428); Tang and Tang (2007:455) refer to as a munificent environment (details in section 4.5.2) and what Kickul and D'Intino (2005:45) and Kickul and Krueger (2005:6-7) call a supportive environment. In a munificent environment variables such as positive public attitudes and values towards entrepreneurship, the presence of entrepreneurial role models, and availability of

financial and non-financial assistance from local institutions are critical to entrepreneurship development. According to Kickul and Krueger, entrepreneurship educators can create a supportive environment in the classroom by focusing on essential skills, tasks and abilities in order to equip entrepreneurs with the needed competencies to establish and grow their businesses in the marketplace that demands agility and continual innovation.

The model of entrepreneurship development above is based on the premise that individuals should first perceive entrepreneurship as desirable and feasible if increased levels of entrepreneurial activity are to be achieved. These perceptions directly affect entrepreneurial intent, which in turn influences the act of starting a business. The learning environment in higher education institutions should enhance perceptions of desirability and feasibility of entrepreneurship by emphasising the importance of entrepreneurship, its potential outcomes/benefits and nurturing the necessary entrepreneurial competencies and ESE. Individuals would develop favourable attitudes towards entrepreneurship if they perceive that it would assist them in achieving outcomes that are valuable to them. Individuals' perceptions regarding their own capabilities to perform entrepreneurial tasks play a significant role in the types of activities they engage in and the outcomes expectancies. Therefore, allowing students to practice their ideas in the classrooms, providing financial assistance and using practicing entrepreneurs as role models would enhance perceptions of feasibility and ESE. Entrepreneurship education that equips the students with the necessary entrepreneurial competencies and ESE not only stimulates entrepreneurial intent but may contribute to the entrepreneurial activity provided that those who have the intention to start a business ultimately engage in the activities that lead to the emergence of new ventures.

The role of entrepreneurial support should be to ensure that the efforts of bringing new ventures into existence are successful through increased awareness among potential entrepreneurs of where to find information and other types of assistance they require. Entrepreneurs should be supported to prevent the failure of new businesses and to reduce the barriers to the success of these businesses. Of utmost importance is improved actual access to entrepreneurial support needed by those who want to start new businesses. Different types of resources and technical assistance should be

easily accessible to entrepreneurs to facilitate the establishment of new ventures, management and growth of existing ventures. For example, the provision of information on market opportunities could lead to the emergence of new ventures since it was found that opportunity recognition is positively and significantly related to entrepreneurial intention (Zhang and Yang, 2006:167). Additionally, the perception of market opportunity was found to be significantly related to the number of venture creation activities pursued and in turn these activities were significantly related to start-up success (Edelman *et al.*, 2005:6).

The entrepreneurship development model calls for a need to reinforce a culture of entrepreneurship in the society. The reason for this is because social capital aspects such as knowledge of entrepreneurs; approval by the immediate family, friends and colleagues of the decision to start a business; the value attached to the entrepreneurial activity in the closer environment and the social environment; and the perception that the immediate family, friends and other entrepreneurs would offer the assistance needed when one starts a business were found to be statistically significantly related to entrepreneurial intent. Actions that involve showcasing successful entrepreneurs and encouraging entrepreneurship as a viable career option would contribute towards developing a culture of entrepreneurship. By putting everything in place that positively influences the attitude towards becoming an entrepreneur and perceived behavioural control, the entrepreneurial activity could be stimulated through the direct impact of these efforts on entrepreneurial intent. The reason for this is because researchers have found a strong relationship between the intention to become self-employed and actual entry into self-employment (Kolvereid and Isaksen, 2006:882) and a significant positive relationship between entrepreneurial intention and entrepreneurial behaviour (Zhang and Yang, 2006:167).

9.4 LIMITATIONS

The study is cross-sectional and not longitudinal and changes in entrepreneurial intent over a protracted time could not be measured, neither whether the students' intention to start a business will in fact translate into new ventures.

The findings cannot be generalised to all final-year commerce students in the rural provinces of South Africa because the study used convenience samples. The results are relevant to final-year students in business-related courses at two rural universities in South Africa, WSU in the Eastern Cape Province and TUT (Polokwane campus) in the Limpopo Province.

While the results indicate that exposure to entrepreneurship education is statistically significantly related to entrepreneurial intent, the attitude towards becoming an entrepreneur, perceived behavioural control, entrepreneurial competencies and ESE, this study did not investigate the effect of the teaching methods on these factors.

Another limitation lies in the fact that the data on entrepreneurial competencies was collected using self-reported measures. According to Man *et al.* (2002:133), individuals do not become competent entrepreneurs by merely possessing competencies but by demonstrating these competencies through their behaviour and actions. Izquierdo and Buelens (2008:22) suggest that the use of observations can yield more objective data on different competencies exhibited by students, thereby resulting in more accurate and better interpretations of the findings.

Owing to the fact that the data was not normally distributed, non-parametric statistics were used to analyse the data. A lower sample than expected was obtained because of strikes at the two campuses of WSU (as mentioned in Chapter 7 section 7.2.6) and two lecturers who could not be located during the data collection stage even though they had agreed to participate in the study.

Control over the completion of the questionnaires was not possible because the researcher relied on the assistance of the lecturers at WSU and TUT to administer questionnaires to their students. Questionnaires were only completed by students who attended the lectures on the days when they were distributed.

The construct scores (Entrepreneurial intent, Attitude towards becoming an entrepreneur, Perceived behavioural control, Awareness of entrepreneurial support initiatives, Social capital, ESE and Entrepreneurial competencies) were not included in the results due to the limited information provided by these analysis to inform

recommendations for the research population. Testing each statement in isolation provided the means to target specific actions/research towards specific components of a construct. As illustrated in Table 9.1 correlations between all the constructs were statistically significant, but the values were low to moderate (below 0.6) except for the relationship between entrepreneurial intent and the attitude towards becoming an entrepreneur (0.793) and between ESE and entrepreneurial competencies (0.713). Statistical significance of the correlation coefficient is, in this case, impacted by the large sample used.

Table 9.1: Correlations matrix for the constructs of the study

		Correlations						
		avgei	avgattitude	avgpbc	avgsupport	avgsoccap	avgese	avgcomp
avgei	Pearson Correlation	1	.789**	.589**	.256**	.422**	.396**	.299**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	330	330	329	328	328	326	216
avgattitude	Pearson Correlation	.789**	1	.575**	.282**	.476**	.422**	.370**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	330	354	352	352	351	349	222
avgpbc	Pearson Correlation	.589**	.575**	1	.398**	.456**	.446**	.326**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	329	352	352	351	350	348	222
avgsupport	Pearson Correlation	.256**	.282**	.398**	1	.446**	.345**	.201**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.003
	N	328	352	351	354	351	349	222
avgsoccap	Pearson Correlation	.422**	.476**	.456**	.446**	1	.495**	.238**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	328	351	350	351	351	348	222
avgese	Pearson Correlation	.396**	.422**	.446**	.345**	.495**	1	.713**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	326	349	348	349	348	349	222
avgcomp	Pearson Correlation	.299**	.370**	.326**	.201**	.238**	.713**	1
	Sig. (2-tailed)	.000	.000	.000	.003	.000	.000	
	N	216	222	222	222	222	222	222

** . Correlation is significant at the 0.01 level (2-tailed).

9.5 CONTRIBUTIONS TO THE BODY OF KNOWLEDGE

This study shed light into the determinants of entrepreneurial intent of final-year commerce students in the so-called predominantly rural provinces of South Africa, the Eastern Cape and Limpopo, thereby laying a foundation for rural youth entrepreneurship development efforts. It has demonstrated the significance of exposure to entrepreneurship education, social capital and awareness of entrepreneurial support in understanding the determinants of entrepreneurial intent.

The findings support the view that the theory of planned behaviour (TPB) is a valuable cognitive process model for assessing entrepreneurial intent. Through this model the relationships between the key variables of this study namely, exposure to entrepreneurship education, awareness of entrepreneurial support, social capital and entrepreneurial intent were established. Not only are these key variables statistically significantly associated with entrepreneurial intent but also its antecedents, the attitude towards becoming an entrepreneur and perceived behavioural control. It was also possible to assess the differences in perceived ESE and entrepreneurial competencies based on the different levels of exposure to entrepreneurship education. Given the findings that indicate that the intention of the respondents, South African rural students, to start a business is statistically significantly related to their attitude towards becoming an entrepreneur (sections 8.5.3 & 9.3.1.3), perceived behavioural control (sections 8.6.3 & 9.3.1.3) and their perception that their immediate families, friends and colleagues would approve of their decision to start a business (sections 8.8.2 & 9.3.2.3), they provide full support of Ajzen's (2005:118) TPB in terms of the three theoretical antecedents of entrepreneurial intent. These findings corroborate those of Engle *et al.* (2010:50) who found that all three antecedents (the attitude towards the behaviour, social norms and perceived behavioural control) are significant determinants of entrepreneurial intent only in Finland and Russia. They also found that the antecedents of entrepreneurial intent differed greatly between countries in their ability to influence entrepreneurial intent. Similarly, Ajzen (2005:118) points out that the relative importance of the antecedents of entrepreneurial intent may differ depending on the intention under investigation and from one person to another or from one population to another. In another South African study that used a sample of 247 final-year commerce students from two universities in the Western Cape, Gird and Bagraim (2008:719) reported that all three antecedents of entrepreneurial intent in the TPB had a significant influence on entrepreneurial intent of their respondents with the attitude towards entrepreneurship having the greatest influence. Therefore, the conclusion that is drawn from these findings is that the intention of final-year commerce students at WSU in the Eastern Cape Province and TUT in the Limpopo Province is statistically significantly related to their attitude towards becoming an entrepreneur, perceived behavioural control and subjective norms.

The statistically significant relationship between exposure to entrepreneurship education, perceived ESE and entrepreneurial competencies and entrepreneurial intent highlights the importance of the role of entrepreneurship education in entrepreneurship development. This study advances the ESE theory in terms of the four phases of the entrepreneurial life-cycle (discussed in Chapter 3, section 3.6.3 and Chapter 7 section 7.2.7) and their relationship with entrepreneurial intent. The results have shown that perceived ESE in the four phases of the entrepreneurial life-cycle (Table 8.45) has a statistically significant relationship with entrepreneurial intent.

The use of the control group (ND: Management students who did not have exposure to entrepreneurship education) strengthened the findings that exposure to entrepreneurship education is statistically significantly related to entrepreneurial intent, the attitude towards becoming an entrepreneur, perceived behavioural control, perceived ESE and entrepreneurial competencies.

The research findings highlighted ESE factors and entrepreneurial competencies associated with entrepreneurial intent which entrepreneurship educators may incorporate in the design of entrepreneurship education programmes. By so doing they will be able to equip students with the necessary skills to successfully execute the entrepreneurial process. In their choice of pedagogical methods, entrepreneurship educators would benefit from a variety of teaching methods available and the implications that each method has as indicated in the entrepreneurship education literature (Chapter 3 section 3.5.6). From the learning approaches discussed (chapter 3 section 3.5.5.2) entrepreneurship educators will be able to choose student-centred approaches which actively involve students and encourage them to take ownership of their learning.

The results have shown that awareness of entrepreneurial support is statistically significantly related to entrepreneurial intent and the antecedents of entrepreneurial intent. The different types of support that are required and valued by entrepreneurs have been identified. The influence of entrepreneurial support on the process of starting up new ventures and their growth and the factors that have an effect on the usage of this support were highlighted in the literature (Chapter 4). This would possibly assist policymakers in designing support programmes that meet the needs of

entrepreneurs, especially in rural provinces where these programmes have been reported to be inaccessible.

The fact that social capital has been found to be statistically significantly related to entrepreneurial intent and the antecedents of entrepreneurial intent support existing theory that the entrepreneurial activity is a social role that is embedded in networks of interpersonal relationships and entrepreneurs are products of their social environments. The results suggest that social capital could be a valuable source of assistance for potential entrepreneurs in the process of starting, managing and growing new ventures. In addition to the measures of bonding cognitive social capital and bridging cognitive social capital as suggested by Liñán and Santos (2007:448), this study has demonstrated that measures of social capital can also include reliance on others for assistance in starting a business.

This study extends the TPB by proposing the model of entrepreneurship development which integrates exposure to entrepreneurship education, awareness of entrepreneurial support and social capital and their relationship with entrepreneurial intent and its antecedents. This model may be used as a guide in the design and evaluation of interventions directed at stimulating and improving the entrepreneurial activity. The effectiveness of these interventions may be judged on the basis of their impact on the antecedents of entrepreneurial intent and the intention to start a business. Taking into account that entrepreneurship development interventions could be directed at stimulating new start-ups and the growth of existing businesses, the model of entrepreneurship development may be used to evaluate the extent to which such interventions contribute to the emergence of new ventures and the growth of existing ventures.

Since the majority of the respondents in the study were the youth, the results have implications for support programmes aimed at youth entrepreneurship development, specifically in rural areas where the entrepreneurial activity has been reported to be low when compared to urban areas.

9.6 RECOMMENDATIONS AND CONCLUSIONS

Intentions precede the performance of any behaviour and are reported to be the best predictor of planned behaviour, including entrepreneurship. Ajzen (2005:136) is of the view that behavioural interventions designed to change intentions and behaviour can be directed at attitudes, subjective norms and perceived behavioural control. The conclusion that is drawn from the results of this study is that increasing exposure to entrepreneurship education, building entrepreneurial social capital and increasing awareness of and access to entrepreneurial support would impact positively on entrepreneurial intent and its antecedents and ultimately the entrepreneurial behaviour. The following recommendations are made for the key variables of this study.

9.6.1 Recommendations for entrepreneurship education

Blackford *et al.* (2008:959) found that post-graduation start-up of a new firm by students who have taken an entrepreneurship course was directly related to ESE. In addition, Sequeira *et al.* (2007:288) report the existence of a strong motivational link between self-confidence in performing entrepreneurial tasks and the behaviour that leads to the formation of a new venture. Given that the respondents in this study who had exposure to entrepreneurship education were found to be statistically significantly different from those who did not have exposure to entrepreneurship education in perceived ESE and entrepreneurial competencies, entrepreneurship education that enhances ESE and entrepreneurial competencies is crucial in the search for efforts to improve the entrepreneurial activity in South Africa. The reason for this is mainly because the determinants of entrepreneurial competence and sources of ESE can be influenced positively by various pedagogical approaches used in entrepreneurship education (Zhao *et al.*, 2005:1266; Kuehn, 2008:93-96). Recommendations that are made in relation to exposure to entrepreneurship education are as follows:

- In order to enhance positive judgements among the students regarding their skills in executing entrepreneurial tasks, entrepreneurship education should concentrate on developing business skills, technical skills and entrepreneurial skills associated with the various stages in the entrepreneurial process. These skills are necessary in identifying and evaluating opportunities in the market,

marshalling the resources required, starting, managing and growing a new venture. Therefore, HEIs in rural provinces can make a positive contribution to job creation and poverty alleviation by encouraging the entrepreneurial spirit through entrepreneurship education and training.

- Entrepreneurship educators should augment their teaching with the use of entrepreneurial role models as guest speakers, give examples of the lifestyles and working styles of successful entrepreneurs and also provide positive feedback on progress made by students on specific tasks. By so doing they will raise perceptions regarding the desirability and feasibility of entrepreneurship as a career. Entrepreneurship education curricula should also include the content that focuses on raising awareness of entrepreneurial support. This type of content may enhance perceptions about the availability of support for those who want to start a business and increase students' knowledge about where to find the type of support they may require.
- There is a need to expose students to entrepreneurship education for more than six months, maybe for a year or up to three years, and all students should be exposed to an entrepreneurship module in their studies. This may possibly impact positively on their attitudes towards becoming an entrepreneur and will provide them with an opportunity to develop self-confidence in their ability to start their own businesses.
- The social capital literature (Chapter 5) demonstrates that entrepreneurs can through their social capital access the different types of resources in particular, information and capital, obtain advice and moral support, deal with isolation during the early stages of the new venture, and identify and exploit market opportunities. Social capital is not only important for the formation of entrepreneurial intent but also for the different stages in the new venture life-cycle. The challenge for entrepreneurship education is therefore to equip individuals with social and communication skills in order to be able to develop relationships with others, which in turn would benefit these individuals in the process of starting, managing and growing a business. This view finds support in Bender and Hill (2007:6) who suggest that encouraging entrepreneurs to develop

skills that contribute to the establishment of their networks and build social capital is vital to the evolution of the entrepreneurial process. Patel *et al.* (2007:1) found that social skills and social capital had a significant influence on legitimacy-building and resource assembly. Social skills influence the effectiveness of an entrepreneur in acquiring information and obtaining crucial resources which in turn improves the new venture performance (Baron and Tang, 2009:300).

9.6.2 Recommendations for entrepreneurial support and social capital

Entrepreneurial support is a vital component that influences entrepreneurial intent and the success of the potential entrepreneur in executing the entrepreneurial process. Given the challenges faced by rural SMMEs such as lack of access to markets and poor infrastructure, entrepreneurial support programmes aimed at developing rural entrepreneurship should focus on creating opportunities for starting, managing and growing a business through favourable conditions in which new businesses can succeed. In section 1.2 it was reported that the Eastern Cape Province and the Limpopo Province have high unemployment rates and are regarded as the poorest provinces in South Africa. As the majority of the respondents from WSU in the Eastern Cape Province and TUT in the Limpopo Province fall within the youth category in terms of age, (98.6% of them were between 14 to 34 years old), entrepreneurial support programmes targeted at the youth should be easily accessible in these provinces to enable the youth to start their own businesses. This would help reduce the unemployment rate and poverty. The support provided should on the other hand build a culture of entrepreneurship in which entrepreneurship is regarded a viable career option. To achieve this requires the government to partner with the media and HEIs to impact on the factors that influence entrepreneurial intent and ultimately the entrepreneurial behaviour. Recommendations for entrepreneurial support are as follows:

- The government can through the media encourage entrepreneurship as a career and develop an entrepreneurial culture. Positive perceptions about entrepreneurs can be created by portraying successful entrepreneurial role models with the necessary entrepreneurial competencies and providing them with the opportunity to share their views regarding the challenges they face and how they deal with them, resulting in positive perceptions about the feasibility of entrepreneurship.

Media coverage of stories portraying successful entrepreneurs was found to be positively correlated with young business start-up activity and total early-stage opportunity-based entrepreneurial activity (Hindle and Klyver, 2007:236). Salvato *et al.* (2007:7) found that the more entrepreneurship is widely perceived as desirable and high-status occupational choice and rewarded by high media coverage, the higher the entrepreneurial activity in the country.

- The findings have shown a low level of awareness of entrepreneurial support among the respondents. The implication of these findings is that there is a need to increase the visibility of and information about government institutions that provide entrepreneurial support and their services as this would contribute to improved entrepreneurial activity in the country, which begins with the intention to start a business. More information about support programmes available for those who want to start businesses and how to access them, how to start a business and what skills are required, and opportunities for networking should be conveyed. These actions may impact positively on perceptions of feasibility and desirability of entrepreneurship. Ahwireng-Obeng (2003:16) suggests the use of the media to create awareness of existing business support programmes.
- In support of North and Smallborne's (2006:43-44) view, policies that focus on the provision of generic support to rural businesses including advice on different aspects of running a business and the provision of infrastructure that supports enterprise formation and development in rural areas should be formulated. These policies should be accompanied by visible and active efforts to improve access to support programmes in rural areas.

9.7 DIRECTIONS FOR FUTURE RESEARCH

The entrepreneurial process is very complex and is influenced by a multitude of variables. This study has just looked at a few of these variables. Attempting to study all the variables that have an effect on the entrepreneurial process would be regarded as being overly ambitious. Avenues for future research in relation to the variables of this study that could not be investigated are stated below.

- Investigating the effect of the different teaching methods applied in entrepreneurship education on entrepreneurial intent, the attitude towards becoming an entrepreneur, perceived behavioural control, entrepreneurial competencies and ESE would play a vital role in assisting entrepreneurship educators in the choice of teaching methods that impact on the entrepreneurial behaviour.
- Although individuals would report that they have the intentions to engage in certain behaviours, Ajzen (2005:104) found that several fail to act on these intentions. As a result he suggests that by asking individuals to state when, where and how they will carry out their intentions would increase their likelihood of doing so. This is referred to as implementation intention (Ajzen, 2005:105). Therefore, future studies should incorporate questions that include implementation intention in order to measure a sense of commitment among the respondents (Ajzen, 2005:106).
- Future research should specify clearly the possible types of entrepreneurial support that may be required by entrepreneurs in their measures rather than just looking at the knowledge of institutions and their services or funds. By so doing better knowledge of entrepreneurs' support needs may be obtained which then would help support organisations to focus their energies on meeting the right needs as opposed to the general needs.
- Instead of relying only on the data from student samples, future studies could determine the influence of social capital and awareness of and access to entrepreneurial support on the growth intention of entrepreneurs and actual growth of their businesses. The significance of this kind of research lies in the fact that previous research reports that high-growth small businesses are major contributors to job creation. Given the high rate of unemployment in South Africa, understanding the effect of social capital and entrepreneurial support on small business growth could assist in designing effective support programmes that stimulate job creation in the SMME sector.

9.8 CONCLUSION

This chapter was aimed at drawing conclusions from the research findings and pointing out whether the research objectives were achieved. The research objectives and hypotheses outlined in Chapters 1 and 7 were revisited. The research findings with regard to the key concepts for this study were interpreted and linked with previous research. The model of entrepreneurship development was proposed based on the research findings. The limitations, contributions of the research to the body of knowledge, recommendations and directions for future research were explained.

BIBLIOGRAPHY

Adams, M. 2006. *Entrepreneurial learning: Is a paradigm shift required?* Proceedings of the 18th annual conference of the Southern Africa Institute of Management Scientists, 13-15 September 2006. University of Stellenbosch, Cape Town.

Adler, P.S. & Kwon, S. 2002. Social capital: Prospects for a new concept. *Academy of management review*, 27(1): 17-40.

Ahwireng-Obeng, F. 2003. *Youth economic empowerment in South Africa: Entrepreneurship versus small business policy*. Paper read at the 48th Conference of the International Council for Small Business, Dublin, Northern Ireland from 15-18 June 2003.

Aidis, R. & Mickiewicz, T. 2005. *Which entrepreneurs expect to expand their businesses? Evidence from survey data in Lithuania*. Available at: <http://www.sbaer.uca.edu/research/icsb/2005/005.pdf> (accessed 20 September 2006).

Ajzen, I. 2002. Perceived behavioural control, self-efficacy, locus of control, and the theory of planned behaviour. *Journal of applied psychology*, 32(4): 665-683.

Ajzen, I. 2005. *Attitudes, personality and behaviour*. Second edition. Berkshire, England: Open University Press.

Ajzen, I. 2006. *Constructing a TpB questionnaire: Conceptual and methodological considerations*. Available at: <http://www-unix.oit.umass.edu/~ajzen/pdf/tpb.measurement.pdf> (accessed 25 June 2008).

Ajzen, I., Brown, T.C. & Carvajal, F. 2004. Explaining the discrepancy between intentions and actions: The case of hypothetical bias in contingent valuation. *Personal and social psychology bulletin*, 30: 1108-1121.

Ajzen, I. & Cote, N.G. 2008. *Attitudes and the prediction of behaviour*. In W. D. Crano & R. Prislin (Eds.) *Attitudes and attitude change*. New York: Psychology Press (pp. 289-311).

Ajzen, I. & Fishbein, M. 2005. *The influence of attitudes on behaviour*. In Albarracin, D., Johnson, B. T., & Zanna, M. P. *The handbook of attitudes*. (pp173-221): Mahwah, NJ. Erlbaum.

Alberti, F.G., Sciascia, S. & Poli. A. 2005. The domain of entrepreneurship education: Key issues. *International journal of entrepreneurship education*, 2(4): 453-482.

Alsos, G.A., Bruyneel, S. & Carter, S. 2007. *Gender differences in entrepreneurial intentions and business start-up*. Paper presented at the Babson College Entrepreneurship Research Conference, Madrid, 7-9 June. Full article received from the author.

Alvarez, S.A. & Barney, J.B. 2005. *Towards a creation theory of entrepreneurship*.

Available at:

www.turan.uc3m.es/uc3m/dpto/EMP/Seminar/documents/CreationTheoryViewing_001.pdf (accessed 27 June 2008).

Alvarez, S.A. & Barney, J.B. 2007. *A creation theory of entrepreneurial opportunity formation*. Available at: www.uky.edu/Ag/AgEcon/Seminars/alvarez-May07-text.pdf (accessed 27 June 2008).

Alvarez, R.D. & Jung, D. 2004. *Educational curricula and self-efficacy: Entrepreneurial orientation and new venture intentions among university students in Mexico*. Available at: <http://www.babson.edu/entrep/fer/BABSON2003/IX/lx-S2/ix-s2.htm> (accessed 24 February 2006).

Anderson, A.R. & Jack, S.L. 2002. The articulation of social capital in entrepreneurial networks: A glue or a lubricant. *Entrepreneurship and regional development*, 14: 193-210.

Anderson, A.R. & Jack, S.L. 2008. Role typologies for enterprising education: The professional artisan? *Journal of small business and enterprise development*, 15(2): 259-273.

Anderson, A.R. & Miller, C.J. 2003. "Class Matters": Human and social capital in the entrepreneurial process. *Journal of socio-economics*, 32: 17-36.

Anderson, A., Park, J. & Jack, S. 2007. Entrepreneurial social capital: Conceptualising social capital in new high-tech firms. *International small business journal*, 25(3): 245-272.

Anneli, R. 2002. *Find your own entrepreneurship-Preliminary study of the state of enterprise education in Eastern Finland*. Available at: <http://www.entlearn.net/kirjallisuus/228.pdf> (accessed 13 November 2009).

Ardichvili, A., Cardozo, R. & Ray, S. 2003. A theory of entrepreneurial opportunity identification and development. *Journal of business venturing*, 18: 105-123.

Ashley-Cotleur, C., King, S. & Solomon, G. 2003. *Parental and gender influences on entrepreneurial intentions, motivations and attitudes*. Available at: <http://www.sbaer.uca.edu/research/usasbe/2003/pdf/toc.pdf> (accessed 23 November 2006).

Association for Small Business and Entrepreneurship. 2009. Available at: <http://www.asbe.us> (accessed 10 August 2009).

Atherton, A. 2003. *Preparing for entrepreneurship - An examination of the 'pre-start' phase of business creation*. Available at: <http://www.sbaer.uca.edu/research/icsb/2003/papers/22.doc> (accessed 11 March 2008).

Atherton, A. 2007. Preparing for business start-up: "Pre-start" activities in the new venture creation dynamic. *Journal of small business and enterprise development*, 14(3): 404-417.

Au, K. & Kwan, H.K. 2009. Start-up capital and Chine entrepreneurs: The role of family. *Entrepreneurship theory and practice*, July: 889-908.

Audet, J. 2000. Evaluation of two approaches to entrepreneurship education using an intention-based model of venture creation. *Academy of entrepreneurship journal*, 6(1): 58-63.

Audet, J. 2004. *A longitudinal study of the entrepreneurial intentions of university students*. Available at: <http://www.fsa.ulaval.ca/cepme/Articles&documents/Allied2004.pdf> (accessed 03 November 2007).

Audet, J., Berger-Douce, S. & St-Jean, E. 2007. Perceptual barriers preventing small business owners from using public support services: Evidence from Canada. *International journal of entrepreneurship*, 11: 27-47.

Aviram, A. 2006. A study of factors that influence unemployed persons. *Journal of employment counselling*, 43: 154-166.

Babbie, E. 2004. *The practice of social research*. 10th edition. United States of America: Thomson Wadsworth.

Bamford, C.E. & Bruton. G.D. 2006. *Small business management-A framework for success*. United States of America: Thomson South-Western.

Barbosa, S.D., de Oliveira, W.M., Andreassi, T., Shiraishi, G. & Panwar, K. 2008. *A multi-country study on the influence of national culture over the intention to start a new business*. Paper presented at the 53rd International Council for Small Business world conference, 22-25 June 2008, Halifax, Nova Scotia, Canada.

Barbosa, S.D., Gerhardt, M.W. & Kickul, J.R. 2007. The role of cognitive style and risk preference on entrepreneurial self-efficacy and entrepreneurial intentions. *Journal of leadership and organizational studies*, 13(4): 86-104.

Baron, R.A. 2004. The cognitive perspective: a valuable tool for answering entrepreneurship's basic "why" questions. *Journal of business venturing*, 19: 221-239.

Baron, R.A. & Markman, G.D. 2003. Beyond social capital: The role of entrepreneurs' social competence in their financial success. *Journal of business venturing*, 18: 41-60.

Baron, R.A. & Tang, J. 2009. Entrepreneurs' social skills and new venture performance: Mediating mechanisms and cultural generality. *Journal of management*, 35(2): 282-306.

Barringer, B.R. & Ireland, R.D. 2008. *Entrepreneurship: Successfully launching new ventures*. Second edition. Upper Saddle River, NJ: Pearson Prentice Hall.

Basargekar, P. 2007. Women entrepreneurs: Challenges faced. *The Icfai journal of entrepreneurship development*, 4(4): 7-15.

Begley, T.M., Tan, W. & Schoch, H. 2005. Politico-economic factors associated with interest in starting a business: A multi-country study. *Entrepreneurship theory and practice*, January: 35-51.

Bender, G.M. & Hill, T.L. 2007. *The entrepreneurial process: The interplay of social competence, opportunity recognition and success as an entrepreneur*. Available at: <http://www.sbaer.uca.edu/research/usasbe/2007/data/papers/cases/007.pdf> (accessed 07 September 2007).

Bennett, R.J. 2007. Expectations-based evaluation of SME advice and consultancy: An example of Business Link services. *Journal of small business and enterprise development*, 14(3): 435-457.

Berry, A.J., Sweeting, R. & Goto, J. 2006. The effect of business advisors on the performance of SMEs. *Journal of small business and enterprise development*, 13(1): 33-47.

Bhorat, H., Poswell, L. & Naidoo, P. 2004. *Dimensions of poverty in post-apartheid South Africa 1996-2001-A poverty status report*. Available at: <http://www.sarpn.org.za/documents/d0001000/index.php> (accessed 10 May 2006).

Binks, M., Starkey, K. & Mahon, C.L. 2006. Entrepreneurship education and the business school. *Technology analysis and strategic management*, 18(1): 1-18.

Blackford, B.J., Sebor, T.C. & Whitehill, T. 2008. *The effects of collegiate entrepreneurship education on post-graduation start-up of new ventures: A first look*. Available at: <http://www.sbaer.uca.edu/pages/research-archive/usasbe/2008/2008> (accessed 01 September 2008).

Blenker, P., Dreisler, P., Faergemann, H.M. & Kjeldsen, J. 2008. A framework for developing entrepreneurship education in a university context. *International journal for entrepreneurship and small business*, 5(1): 45-63.

Bless, C., Higson-Smith, C. & Kagee, A. 2007. *Fundamentals of social research methods – An African perspective*. Fourth edition. Cape Town, South Africa: Juta.

Bosma, N., Jones, K., Autio, E. & Levie, J. 2007. *Global entrepreneurship monitor-2007 Executive report*. Available at: <http://www.gemconsortium.org> (accessed 19 January 2008).

Bosma, N., Acs, Z.J., Autio, E., Coduras, A. & Levie, J. 2008. *Global entrepreneurship monitor-2008 Executive report*. Available at: <http://www.gemconsortium.org> (accessed 07 July 2009).

Boter, H. & Lundström, A. 2005. SME perspectives on business support services. The role of company size, industry and location. *Journal of small business and enterprise development*, 12(2): 244-258.

Botha, M. 2006. *Measuring the effectiveness of the women entrepreneurship programme as a training intervention on potential start-up and established women*

entrepreneurs in South Africa. Unpublished doctoral thesis. Pretoria: University of Pretoria.

Botha, M., Nieman, G. & van Vuuren, J. 2007. Measuring the effectiveness of the women entrepreneurship programme as a training intervention on potential start-up and established women entrepreneurs in South Africa. *South African journal of economic and management sciences*, 10(2): 163-183.

Bowey, J.L. & Easton, G. 2007. Entrepreneurial social capital unplugged: An activity-based analysis. *International small business journal*, 25(3): 273-306.

Bradford, W.D. 2007. Distinguishing economically from legally formal businesses: Targeting business support to entrepreneurs in South Africa's townships. *Journal of small business management*, 45(1): 94-115.

Brännback, M., Heinonen, J., Hudd, I. & Paasio, K. 2005. *A comparative study on entrepreneurial opportunity recognition and the role of education among Finnish business school students*. Available at: <http://www.sbaer.uca.edu/research/icsb/2005/027.pdf> (accessed 18 August 2007).

Brännback, M., Krueger, N., Carsrud, A. & Elfving, J. 2007. "Trying" to be an entrepreneur? A "goal-specific" challenge to the intentions model. Paper presented at the Babson Collegiate Entrepreneurship research Conference, Madrid in Spain, 7-9 June.

Bratnicki, M. & Dyduch, W. 2007. *Measuring corporate entrepreneurship and relating it to performance: What really matters for fast growth and superior effects?* Available at: <http://www.babson.edu/entrep/fer/2007FER/detailedfr.html> (accessed 09 August 2009).

Bressler, M.S. 2007. *Does ethical behaviour guarantee small business success?* Available at: <http://sbaer.uca.edu/pages/research-archive/asbe/2007toc/> (accessed 09 August 2009).

Brice, J. & Spencer, B. 2007. Entrepreneurial profiling: A decision policy analysis of the influence of entrepreneurial self-efficacy on entrepreneurial intent. *Academy of entrepreneurship journal*, 13(2): 47-64.

Bridge, S., O'Neill, K. & Cromie, S. 2003. *Understanding enterprise, entrepreneurship and small business*. Second edition. Houndmills, Basingstoke: Macmillan Business.

Bridge, S., O'Neill, K. & Martin, F. 2009. *Understanding enterprise, entrepreneurship and small business*. Third edition. Houndmills, Basingstoke: Palgrave Macmillan.

Bueno, E., Salmador, M.P. & Rodríguez, O. 2004. The role of social capital in today's economy: Empirical evidence and proposal of a new model of intellectual capital. *Journal of intellectual capital*, 5(4): 556-574.

Burke, A.E. 2006. *Modern perspectives on entrepreneurship*. Dublin: Senate Hall Academic Publishing.

Brynard, P.A. & Hanekom, S.X. 2006. *Introduction to research in management-related fields*. Second edition. Pretoria: Van Schaik.

Cape Peninsula University of Technology. 2009. *Prospectus*. Available at: http://info.cput.ac.za/prospectus_3/cluster.php?f=1 (accessed 04 August 2009).

Carlson, D.S., Upton, N. & Seaman, S. 2006. The impact of human resource practices and compensation design on performance: An analysis of family-owned SMEs. *Journal of small business management*, 44(4): 531-543.

Carter, N.M., Gartner, W.B., Shaver, K.G. & Gatewood, E.J. 2003. Career reasons of nascent entrepreneurs. *Journal of business venturing*, 18: 13-39.

Cassar, G. 2005. *Entrepreneur motivation, growth intentions and preferences*. Available at: http://www.babson.edu/entrep/fer/FER_2004/web-content/contents/detailed_TEXT.html (accessed 01 November 2006).

Casson, M. Giusta, M.D. 2007. Entrepreneurship and social capital: Analysing the impact of social networks on entrepreneurial activity from a rational perspective. *International small business journal*, 25(3): 220-244.

Central University of Technology. 2009. *The School of Accounting*. Available at: <http://www.cut.ac.za/web/academics/faculties/man/soebd/> (accessed 15 August 2009).

Centre for Development and Enterprise. 2004. *Key to growth: Supporting South Africa's emerging entrepreneurs*. Available at: www.cde.org.za (accessed 12 December 2008).

Cheng, M.Y. & Chan, C. 2004. *Entrepreneurship education in Malaysia*. Available at: <http://www.sbaer.uca.edu/research/icsb/2004/papers%20pdf/113.pdf> (accessed 02 February 2006).

Choo, S. & Wong, M. 2006. Entrepreneurial intention: Triggers and barriers to new venture creations in Singapore. *Singapore management review*, 28(2): 47-64.

Chou, Y.K. 2006. Three simple models of social capital and economic growth. *Journal of socio-economics*, 35: 889-912.

Chowdhury, S. & Endres, M.L. 2005. *Gender difference and the formation of entrepreneurial self-efficacy*. Available at: <http://www.sbaer.uca.edu/research/usasbe/2005/pdf/files/papers/53.pdf> (accessed 26 January 2007).

Chrisman, J.J., McMullan, E. & Hall, J. 2005. The influence of guided preparation on the long-term performance of new ventures. *Journal of business venturing*, 20: 769-791.

Clarysse, B., Bruneel, J. & Wright, M. 2007. *Growth strategies of young technology based firms*. Available at: <http://www.babson.edu/entrep/fer/2007FER/detailedfr.html> (accessed 09 August 2009).

Clover, T.A. & Darroch, M.A.G. 2005. Owners' perceptions of factors that constrain the survival and growth of small, medium and micro agribusinesses in KwaZulu-Natal, South Africa. *Agrekon*, 44(2): 238-263.

Co, M.J., Groenewald, J., Mitchell, B., Nayager, T., van Zyl, J. & Visser, K. 2006. *Entrepreneurship: Fresh perspectives*. First edition. Pinelands, Cape Town: Pearson Education South Africa.

Co, M.J. & Mitchell, B. 2005. *An analysis of cultural factors affecting entrepreneurship in the Philippines*. Available at: <http://www.sbaer.uca.edu/research/icsb/2005/046.pdf> (accessed 18 August 2007).

Co, M.J. & Mitchell, B. 2006. Entrepreneurship education in South Africa: A nationwide survey. *Education and training*, 48(5): 348-359.

Coleman, S. 2007. Women-owned firms and growth. *Journal of business entrepreneurship*, October: 1-11.

Collins, L., Hannon, P.D. & Smith, A. 2004. Enacting entrepreneurial intent: The gaps between student needs and higher education capability. *Education and training*, 46(8/9): 454-463.

Companies and intellectual Property Registration Office. 2009. Available at: <http://www.cipro.co.za> (accessed 02 October 2009).

Consortium for Entrepreneurship Education. 2009. Available at: <http://www.entre-ed.org/network/forum> (accessed 10 August 2009).

Cooper, D.R. & Schindler, P.S. 2006. *Business research methods*. Ninth edition. New York: McGraw-Hill International edition.

Cooper, D.R. & Schindler, P.S. 2008. *Business research methods*. Tenth edition. New York: McGraw-Hill International edition.

Cooperstein, S.E. & Kocevar-Weidinger, E. 2004. Beyond active learning: A constructivist approach to learning. *Reference services review*, 32(2): 141-148.

Corbett, A.C. 2005. Experiential learning within the process of opportunity identification and exploitation. *Entrepreneurship theory and practice*, July: 473-491.

Corbett, A.C. 2006. *An investigation of the cognitions of corporate entrepreneurs*. Available at: <http://www.babson.edu/entrep/fer/2006FER/detailedfr.html> (accessed 09 August 2009).

Corbett, A.C. 2007. Learning asymmetries and the discovery of entrepreneurial opportunities. *Journal of business venturing*, 22: 97-118.

Corman, L.S., Walls, S.G. & Cook, R.A. 2005. *Preparing students for entrepreneurship opportunities*. Available at: <http://www.sbaer.uca.edu/research/asbe/2005/4.pdf> (accessed 06 September 2007).

Cruickshank, P. & Rolland, D. 2006. Entrepreneurial success through networks and social capital: exploratory considerations from GEM research in New Zealand. *Journal of small business and entrepreneurship*, 19(1):63-80.

Crump, M.E.S., Singh, R.P. & Abbey, A. 2009. *Examining opportunity recognition research output since 1995*. Paper presented at the USASBE 2009 conference proceedings, January 8-11, Anaheim, CA.

Cukier, W., Rodrigues, S., Trenholm, S. & Wise, S. 2009. *Social entrepreneurship: A content analysis*. Paper presented at the USASBE 2009 conference proceedings, January 8-11, Anaheim, CA.

Dakhli, M. & De Clercq, D. 2004. Human capital, social capital, and innovation: A multi-country study. *Entrepreneurship and regional development*, 16, March: 107-128.

Davidsson, P. & Honig, B. 2003. The role of social and human capital among nascent entrepreneurs. *Journal of business venturing*, 18: 301-333.

Davidsson, P., Steffens, P. & Fitzsimmons, J. 2009. Growing profitable or growing from profits: Putting the horse in front of the cart? *Journal of business venturing*, 24: 388-406.

De Carolis, D.M., Litzky, B. & Eddleston, K. 2007. *Why networks enhance new venture creation: A theoretical and empirical model of social capital, overconfidence and risk perception.* Available at: <http://www.sbaer.uca.edu/research/usasbe/2007/data/papers/cases/027.pdf> (accessed 09 September 2007).

De Carolis, D.M., Litzky, B.E. & Eddleston, K.A. 2009. Why networks enhance the progress of new venture creation: The influence of social capital and cognition. *Entrepreneurship theory and practice*, March: 527-543.

De Carolis, D.M. & Saporito, P. 2006. Social capital, cognition and entrepreneurial opportunities: A theoretical framework. *Entrepreneurship theory and practice*, January: 41-52.

De Clercq, D. & Arenius, P. 2004. *Effects of human capital and social capital on entrepreneurial activity.* Available at: <http://www.babson.edu/entrep/fer/BABSON2003/VII/VII-P2/VII-P2.html> (accessed 07 September 2007).

De Clercq, D. & Arenius, P. 2006. The role of knowledge in business start-up activity. *International small business journal*, 24(4): 339-358.

De Faoite, D., Henry, C., Johnston, K. & van der Sijde, P. 2008. Entrepreneurs' attitudes to training and support initiatives: Evidence from Ireland and the Netherlands. *Journal of small business and enterprise development*, 11(4): 440-448.

Delmar, F. & Wiklund, J. 2008. The effect of small business managers' growth motivation on firm growth: A longitudinal study. *Entrepreneurship theory and practice*, May: 437-457.

de Pillis, E. & Reardon, K.K. 2007. The influence of personality traits and persuasive messages on entrepreneurial intention-A cross-cultural comparison. *Career development international*, 12(4): 382-396.

Dencker, J., Gruber, M. & Shah, S. 2006. *Knowledge-related success-factors on the path from unemployment to entrepreneurship*. Available at: <http://www.babson.edu/fer/2007FER/detailedfr.html> (accessed 09 August 2009).

Dencker, J.C., Gruber, M. & Shah, S. 2007. *Knowledge acquisition activities, prior knowledge and experience and survival of new firms*. Available at: <http://www.babson.edu/entrep/fer/2007FER/detailedfr.html> (accessed 09 August 2009).

Department of Trade and Industry (DTI). 2004. *Review of ten years of small business support in South Africa 1994-2004*. Available at: http://www.tips.org.za/files/10_years_of_Small_Business_support_in_South_Africa.pdf (accessed 29 May 2009).

Department of Trade and Industry (DTI). 2005. *SMME-Integrated strategy on the promotion of entrepreneurship and small enterprises*. Available at: <http://www.thedti.gov.za> (accessed 16 March 2008).

Department of Trade and Industry (DTI). 2006a. *The DTI group of institutions*. Available at: <http://www.dti.gov.za/thedti/overviewofgroupofinstitutions.htm> (accessed 12 April 2010).

Department of Trade and Industry (DTI). 2006b. *South African Micro-Finance Apex Fund*. Available at: <http://www.dti.gov.za/thedti/samaf.htm> (accessed 26 September 2009).

Department of Trade and Industry (DTI). 2006c. *Technology for women in business*. Available at: <http://www.dti.gov.za/thedti/twib.htm> (accessed 26 September 2009).

Department of Trade and Industry (DTI). 2006d. *Technology and human resources for industry programme*. Available at: <http://www.dti.gov.za/thedti/thrip.htm> (accessed 26 September 2009).

Department of Trade and Industry (DTI). 2006e. *South African Women Entrepreneurs' Network*. Available at: <http://www.dti.gov.za/sawen/sawenmain.htm> (accessed 26 September 2009).

Department of Trade and Industry (DTI). 2007/08. *Department of Trade and Industry Annual report 2007/08*. Available at: <http://www.dti.gov.za/publications/annualreport0708.pdf> (accessed 26 September 2009).

Department of Trade and Industry (DTI). 2008a. *Annual review of small business in South Africa 2006-2007*. Available at: <http://www.thedti.gov.za/smme/2008/01august2008/session2/AnnualReview.pdf> (accessed 04 November 2009).

Department of Trade and Industry (DTI). 2008b. *The DTI Group SMME Services 2008*. Available at: <http://www.dti.gov.za/publications/SMME.pdf> (accessed 30 October 2009).

Dess, G.G., Lumpkin, G.T. & Eisner, A.B. 2007. *Strategic management-Text and cases*. Third edition. New York: McGraw-Hill Irwin.

DeTienne, D.R. & Chandler, G.N. 2007. The role of gender in opportunity identification. *Entrepreneurship theory and practice*, May: 365-384.

Dhliwayo, S. 2008. Experiential learning in entrepreneurship education: A prospective model for South African tertiary institutions. *Education and training*, 50(4): 329-340.

Dickson, P. H., Solomon, G. T. & Weaver, K. M. 2008. Entrepreneurial selection and success: Does education matter? *Journal of small business and enterprise development*, 15(2): 239-258.

D'Intino, R. 2008. *Social, environmental, and ethic responsibility and sustainable development SMEs*. Paper presented at the International Council for Small Business World conference, June 22-25, Halifax, Nova Scotia, Canada.

Diale, A.J. 2009. *Government support for small, micro and medium enterprises (SMMEs) as a venture for business and economic development in South Africa*. Available at: http://www.iaabd.org/2009_iaabd_proceedings/track7m.pdf (accessed 02 June 2009).

Dionco-Adetayo, E.A. 2004. *Determinants of small firms' entrepreneurial success in a developing economy*. Available at: <http://www.sbaer.uca.edu/research/icsb/2004/papers%20pdf/102.pdf> (accessed 02 January 2006).

Dixon, R., Meier, R. L., Brown, D.C. & Custer, R.L. 2005. The critical entrepreneurial competencies required by instructors from institution-based enterprises: A Jamaican study. *Journal of industrial teacher education*, 42(4): 25-49.

Dombrovsky, V. & Welter, F. 2006. *The role of personal and family background in making entrepreneurs in a post-socialist environment*. Available at: http://www.biceps.org/files/paper_babson_2006_dombrovsky_welter.pdf (accessed 03 November 2007).

Douglas, E. & Fitzsimmons, J. 2006. *Entrepreneurial capital and entrepreneurial intentions: A cross-cultural comparison*. Available at: http://www.babson.edu/entrep/fer/2005FER/chapter_v/summary_v2.html (accessed 09 August 2007).

Douglas, E.J & Shepherd, D.A. 2002. Self-employment as a career choice: Attitudes, entrepreneurial intentions, and utility maximization. *Entrepreneurship theory and practice*, Spring: 81-90.

Drever, M. 2005. *Advising small and medium-sized enterprises on their liquidity issues*. Available at: <http://sbaer.uca/research/icsb/2005/toc.pdf> (accessed 09 August 2009).

Driga, O., Lafuente, E. & Vaillant, Y. 2005. *Gender differences in entrepreneurial activity: An analysis of informal institutional factors*. Available at: <http://www.sbaer.uca.edu/research/icsb/2005/065.pdf> (accessed 18 August 2007).

Drnovšek, M., Wincent, J. & Cardon, M.S. 2010. Entrepreneurial self-efficacy and business start-up: Developing a multi-dimensional definition. *International journal of entrepreneurial behaviour and research*, 16(4): 329-348.

Durban University of Technology. 2009a. *Faculty of management sciences handbook. Department of entrepreneurial studies and management*. Available at: http://studentinfo.dut.ac.za/handbooks/MANSC_Entrepreen_Studies_Mangt.pdf (accessed 04 August 2009).

Durban University of Technology. 2009b. *Faculty of accounting and informatics handbook. Department of financial accounting*. Available at: http://studentinfo.dut.ac.za/handbooks/ACCINFO_Financial_Acc.pdf (accessed 04 August 2009).

Eastern Cape Development Corporation. 2008/09. *Annual report*. Available at: <http://www.ecdc.co.za> (accessed 06 October 2009).

Eckhardt, J.T. & Shane, S.A. 2003. Opportunities and entrepreneurship. *Journal of management*, 29(3): 333-349.

Edelman, L.F., Friga, P.N., Mishina, Y. & Yli-Renko, H. 2005. *Is what you see what you get? The impact of entrepreneurial cognition and resource accumulation on new venture creation*. Available at: http://www.babson.edu/entrep/fer/FER_2004/web-content/section%20XIII/P4/XIII-P4_Te (accessed 23 February 2006).

Elango, B. & Winchell, M. 2007. Barriers to nurse entrepreneurship: A study of the process model of entrepreneurship. *Journal of the American Academy of Nurse Practitioners*, 19: 198-204.

Emin, S. 2003. *The contribution of role to the theory of planned behaviour: An exploration of academic entrepreneurship*. Available at: <http://www.sbaer.uca.edu/research/icsb/2003/papers/26.doc> (accessed 11 March 2008).

Engle, R.L., Dimitriadi, N., Gavidia, J.E., Schlaegel, C., Delanoe, S., Alvarado, I., He, X., Buame, S. & Wolff, B. 2010. Entrepreneurial intent: A twelve-country evaluation of Ajzen's model of planned behaviour. *International journal of entrepreneurial behaviour and research*, 16(1): 35-57.

Erikson, T. 2003. Towards a taxonomy of entrepreneurial learning experiences among potential entrepreneurs. *Journal of small business and enterprise development*, 10(1): 106-112.

Erkkila, K. 2000. *Entrepreneurship*. New York: Garland Publishing.

European Commission. 2006. *Entrepreneurship education in Europe: Fostering entrepreneurial mindsets through education and learning*. Paper presented at the OSLO conference, 26-27 October 2006.

European Commission. 2008. *Best procedure project: Entrepreneurship in higher education, especially in non-business studies. Final report of the expert group*. Available at: http://ec.europa.eu/enterprise/entrepreneurship/support_measures/training_education_entre_highed.pdf (accessed 23 June 2009).

Evald, M.R., Klyver, K. & Christensen, P.R. 2008. *The effect of human capital, social capital and perceptual values on nascent entrepreneurs' export intentions*. Paper presented at the 53rd International Council for Small Business World Conference on June 22-25, Halifax, Nova Scotia, Canada.

Fayolle, A. 2004. *Value creation in changing student state of mind and behaviour: New research approaches to measure the effects of entrepreneurship education*. Available at:

http://www.kmu.unisg.ch/rencontres/RENC2004/Topics/Fayolle_Renc_2004_Topic_D.pdf (accessed 01 August 2006).

Fayolle, A. 2005. Evaluation of entrepreneurship education: Behaviour performing or intention increasing? *International journal of entrepreneurship and small business*, 2(1): 89-98.

Fayolle, A. 2006. *Essay on the nature of entrepreneurship education*. Available at: http://www.kmu.unisg.ch/recontres/RENC2006/Topics06/A/Recontres_2006_Fayolle.pdf (accessed 18 June 2009).

Fayolle, A. 2007. *Entrepreneurship and new value creation-The dynamics of the entrepreneurial process*. First edition. New York: Cambridge University Press.

Fayolle, A. & Gailly, B. 2008. From craft to science: Teaching models and learning processes in entrepreneurship education. *Journal of European Industrial Training*, 32(7): 569-593.

Fayolle, A., Gailly, B., Kickul, J., Lassas-Clerc, N. & Whitcanack, L. 2005. *Capturing variations in attitudes and intentions: A longitudinal study to assess the pedagogical effectiveness of entrepreneurship teaching programs*. Available at: <http://www.sbaer.uca.edu/research/icsb/2005/072.pdf> (accessed 07 February 2006).

Fayolle, A., Gailly, B. & Lassas-Clerc, N. 2006a. Assessing the impact of entrepreneurship education programmes: A new methodology. *Journal of European Industrial Training*, 30(9): 701-720.

Fayolle, A., Gailly, B. & Lassas-Clerc, N. 2006b. Effect and counter-effect of entrepreneurship education and social context on student's intentions. *Estudios De Economia Aplicada*, 24(2): 509-523.

Feldman, R.S. 2008. *Essentials of understanding psychology*. Seventh edition. New York: McGraw-Hill.

Ferreira, E.J. 2007. *An analysis of business interventions and their effect on the perceived success of South African small and medium enterprises*. Unpublished doctoral thesis. Pretoria: University of South Africa.

Fiet, J.O. 2007. A prescriptive analysis of search and discovery. *Journal of management*, 44(4): 592-611.

Fiet, J.O. & Patel, P.C. 2008. *Firm founding and systematic search*. Paper presented at USASBE 2008 proceedings.

Fine, B. 2003. Social capital for Africa? *Transformation*, 53: 29-53.

FinMark Trust & Gauteng Enterprise Propeller. 2006. *Finscope small business Gauteng 2006*. Available at: www.finscope.co.za/documents/2006/Brochure_Small_Bus.pdf (accessed 06 November 2009).

Fitza, M., Matusik, S. & Mosakowski, E. 2006. *Do VCs matter?* Available at: <http://www.babson.edu/entrep/fer/2006FER/detailedfr.html> (accessed 09 August 2009).

Fitzsimmons, J.R. & Douglas, E.J. 2005. *Entrepreneurial attitudes and entrepreneurial intentions: A cross-cultural study of potential entrepreneurs in India, China, Thailand and Australia*. Paper presented at the Babson-Kauffman entrepreneurial research conference in June, Wesley, MA.

Forbes, D.P. 2005. The effects of strategic decision making on entrepreneurial self-efficacy. *Entrepreneurship theory and practice*, September: 599-622.

Franke, N. & Lüthje, C. 2004. *Entrepreneurial intentions of business students: A benchmarking study*. Available at: http://www2.wu-wien.ac.at/entrep/modules/UpDownload/Store_folder/Publikationen/Nikolaus_Franke/entrepreneurialspirit.pdf (accessed 26 January 2006).

Frazier, B.J. 2005. *Teaching entrepreneurship to non-business majors: A constructivist learning approach*. Available at: <http://sbaer.uca.edu/research/usasbe/2005/pdffiles/papers/23.pdf> (accessed 02 May 2009).

Frazier, B.J. & Niehm, L.S. 2006. *Predicting the entrepreneurial intentions of non-business majors: A preliminary investigation*. Available at: <http://www.sbaer.uca.edu/research/usasbe/2006/pdffiles/papers/cases/028.pdf> (accessed 10 March 2006).

Fregetto, E. & Fry, F. 2002. *Identifying boundaries: Delineating overlaps in teaching small business management and entrepreneurship courses*. Available at: <http://usasbe.org/knowledge/proceedings/proceedingsDocs/USASBE2002proceedings-32> (accessed 11 July 2009).

Fry, F.L. & Van Auken, H. 2005. *The real role of role models in influencing entrepreneurial intentions*. Available at: http://www.babson.edu/entrep/fer/FER_2004/web-content/Section%20IV/PS1/IV-PS1_Text.htm (accessed 23 February 2006).

Fuller-love, N. & Thomas, E. 2004. Networks in small manufacturing firms. *Journal of small business and enterprise development*, 11(2): 244-253.

Fuller-Love, N., Midmore, P. & Thomas, D. 2006. Entrepreneurship and rural economic development: A scenario analysis approach. *International journal of entrepreneurial behaviour and research*, 12(5): 289-305.

Gaillard, G.L. 2005. *Entrepreneurial commitment dynamics and value(s) creation*. Paper presented at the 35th Entrepreneurship, Innovation, and Small Business Conference, 12-14 September, Barcelona.

Galloway, L. & Brown, W. 2002. Entrepreneurship education at university: A driver in the creation of high growth firms. *Education and Training*, 44(8/9): 398-405.

Gatewood, E.J., Shaver, K.G., Powers, J.B. & Gartner, W.B. 2002. Entrepreneurial expectancy, task effort, and performance. *Entrepreneurship theory and practice*, Winter: 187-203.

Gauteng Enterprise Propeller. 2009. Available at: http://www.gep.co.za/view_page.php?action=pageview&&page_id=10 (accessed 06 November 2009).

Gird, A. & Bagraim, J. 2006. *The theory of planned behaviour as predictor of entrepreneurial intent*. Proceedings of the 18th annual conference of the Southern Africa Institute of Management Scientists, 13-15 September 2006. University of Stellenbosch, Cape Town.

Gird, A. & Bagraim, J.J. 2008. The theory of planned behaviour as predictor of entrepreneurial intent amongst final-year university students. *South African journal of psychology*, 38(4): 711-724.

Glackin, C.E.W. 2006. *Entrepreneurship education at 1890 land grant institutions: A profile of programs and consideration of opportunities*. Available at: <http://sbaer.uca.edu/research/usasbe/2006/pdf/papers/cases/032.pdf> (accessed 02 May 2009).

Godwyn, M. 2009. Can the liberal arts and entrepreneurship work together? *Academe*, January-February. Available at: <http://www.aaup.org/AAUP/pubsres/academe/2009/JF/Feat/godw.htm> (accessed 23 June 2009).

Gordon, S.R. 2007. Interpersonal trust, vigilance and social network roles in the process of entrepreneurial opportunity recognition. *International journal of entrepreneurship and small business*, 4(5): 564-585.

Gravetter, F.J. & Forzano, L.B. 2006. *Research methods for the behavioural sciences*. Second edition. United States of America: Thomson Wadsworth.

Green, J.V. 2007. *Cognitive mechanisms influencing undergraduates' entrepreneurial opportunity discovery and action*. Available at: <http://www.sbaer.uca.edu/research/usasbe/2007/040.pdf> (accessed 18 August 2007).

Greve, A. & Salaff, J.W. 2003. Social networks and entrepreneurship. *Entrepreneurship theory and practice*, Fall: 1-22.

Grundstén, H. 2004. *Entrepreneurial intentions and the entrepreneurial environment: A study of technology-based new ventures*. Available at: <http://lib.tkk.fi/Diss/2004/isbn9512271311/> (accessed 18 July 2006).

Guerrero, M., Lavín, J. & Álvarez, M. 2009. *The role of education on start-up intentions: A structural equation model of Mexican university students*. Paper presented at the 35th annual conference proceedings of the Association for Small Business and Entrepreneurship.

Guerrero, M., Rialp, J. & Urbano, D. 2008. The impact of desirability and feasibility on entrepreneurial intentions: A structural equation model. *International entrepreneurship & management journal*, (4): 35-50.

Gupta, V.K., Turban, D.B., Wasti, S.A. & Sikdar, A. 2009. The role of gender stereotypes in perceptions of entrepreneurs and intentions to become an entrepreneur. *Entrepreneurship theory and practice*, March: 397-415.

Guzmán, J. & Liñán, F. 2005. *Perspectives on entrepreneurial education: A US-Europe comparison*. Available at: <http://www.nebrija.com/jeanmonnet/pdf/guzman-linian.pdf> (accessed 08 March 2009).

Haber, S. & Reichel, A. 2005. Identifying performance measures of small ventures – The case of the tourism industry. *Journal of small business management*, 43(3): 257-286.

Hackbert, P.H. 2003. *Demonstrating entrepreneurial competence: The portfolio interview for new venture positions*. Available at: <http://www.sbaer.uca.edu/research/icsb/2003/paers/162.doc> (accessed 01 February 2008).

Hackbert, P.H. 2006. *Integrative active learning and cases in undergraduate entrepreneurship classes across the curriculum*. Available at: <http://www.sbaer.uca.edu/research/usasbe/2006/pdf/files/papers/cases/035.pdf> (accessed 20 August 2007).

Hamidi, D.Y., Wennberg, K. & Berglund, H. 2008. Creativity in entrepreneurship education. *Journal of small business and enterprise development*, 15(2): 304-320.

Hampton, A., Cooper, S. & McGowan, P. 2009. Female entrepreneurial networks and networking activity in technology-based ventures: An exploratory study. *International small business journal*, 27(2): 193-214.

Hanke, R. 2009. *Problem-based learning entrepreneurship education: A preliminary exploration*. Paper presented at the USASBE 2009 conference proceedings, January 8-11, Anaheim, CA.

Hanlon, D. & Saunders, C. 2007. Marshalling resources to form small new ventures: Toward a more holistic understanding of entrepreneurial support. *Entrepreneurship theory and practice*, July: 619-641.

Hannon, P.D. 2006. Teaching pigeons to dance: Sense and meaning in entrepreneurship education. *Education and Training*, 48(5): 296-308.

Hatten, T.S. 2006. *Small business management-Entrepreneurship and beyond*. Third edition. United States of America: Houghton Mifflin Company.

Hegarty, C. 2006. It's not an exact science: Teaching entrepreneurship in Northern Ireland. *Education and Training*, 48(5): 322-335.

Heinonen, J. & Poikkijoki, S. 2006. An entrepreneurial-directed approach to entrepreneurship education: mission impossible? *Journal of management development*, 25(1): 80-94.

Henley, A. 2005. *From entrepreneurial aspiration to business start-up: Evidence from British longitudinal data*. Available at: <http://www.swan.ac.uk/sbe/research/working%20papers/SBE%202005%202.pdf> (accessed 01 November 2007).

Henry, C., Hill, F. & Leitch, C. 2005. Entrepreneurship education and training: Can entrepreneurship be taught? Part I. *Education and training*, 47(2): 98-111.

Herrington, M., Kew, J. & Kew, P. 2008. *Global entrepreneurship monitor*. Available at: <http://www.gemconsortium.org> (accessed 23 September 2009).

Herrington, M., Kew, J. & Kew, P. 2009. *Tracking entrepreneurship in South Africa: A GEM perspective*. Available at: <http://www.gemconsortium.org> (accessed 15 June 2010).

Herrington, M., Kew, J. & Kew, P. 2010. *Global entrepreneurship monitor*. Available at: http://www.gemconsortium.org/files.aspx?Ca_ID=126 (accessed 26 August 2011).

Hessels, J., van Gelderen, M. & Thurik, R. 2008. Drivers of entrepreneurial aspirations at the country level: The start-up motivations and social security. *International entrepreneurship and management journal*, 4: 401-417.

Hindle, K. & Klyver, K. 2007. Exploring the relationship between media coverage and participation in entrepreneurship: Initial global participation and research implications. *International entrepreneurship and management journal*, 3: 217-342.

Hisrich, R.D., Peters, M.P. & Shepherd, D.A. 2008. *Entrepreneurship*. Seventh edition. New York: McGraw-Hill.

Hmieleski, K.M. & Baron, R.A. 2008. When does entrepreneurial self-efficacy enhance versus reduce firm performance. *Strategic entrepreneurship journal*, 2: 57-72.

Hmieleski, K.M. & Corbett, A.C. 2006. Proclivity for improvisation as a predictor of entrepreneurial intentions. *Journal of small business management*, 44(1): 45-63.

Hodgetts, R.M. & Kuratko, D.F. 2002. *Effective small business management*. Seventh edition. United States of America: John Wiley & Sons Inc.

Honig, B. 2004. Entrepreneurship education: Toward a model of contingency-based business planning, *Academy of management learning and education*, 3(3): 258-273.

Human Sciences Research Council. 2004. *Fact sheet-Poverty in South Africa*. Available at: http://www.sarpn.org.za/documents/d0000990/P1096-Fact_Sheet_N0_1_Poverty.pdf (accessed 18 January 2009).

Human Sciences Research Council. 2008. Red Door impact study: Phase two. Available at: http://www.hsrc.ac.za/research/output/outputDocuments/5546_Morphet_Reddoorimpactstudyphasetwo.pdf (accessed 03 November 2009).

Hynes, B. & Richardson, I. 2007. Entrepreneurship education: A mechanism for engaging and exchanging with the small business sector. *Education and training*, 49(8/9): 732-744.

Hytti, U. & O’Gorman, C. 2004. What is enterprise education? An analysis of the objectives and methods of enterprise education programmes in four European countries. *Education and training*, 46(1): 11-23.

Hytti, U., Paasio, K. & Pukkinen, T. 2005. *Entrepreneurial intentions of university students and graduates – A Finnish perspective*. Available at: <http://www.sbaer.uca.edu/research/icsb/2005/046.pdf> (accessed 18 August 2007).

Illinois Institute for Entrepreneurship Education. 2009. Available at: <http://www.iiee.org> (accessed 10 August 2009).

Indarti, N. & Langenberg, M. 2004. *Factors affecting business success among SMEs: Empirical evidence from Indonesia*. Available at: <http://www.utwente.nl/nikos/archief/research/conferences/esu/papers/indertilangenberg.pdf> (accessed 30 November 2007).

Industrial Development Corporation (IDC). 2009. *Brochures*. Available at: <http://www.idc.co.za/Brochures.asp> (accessed 03 November 2009).

Inkpen, A.C. & Tsang, E.W.K. 2005. Social capital networks, and knowledge transfer. *Academy of management review*, 30(1): 146-165.

Institute for Small Business and Entrepreneurship. 2008. Available at: www.isbe2008.org (accessed 10 August 2009).

Internationalising Entrepreneurship Education and Training. 2009. Available at: www.intent-conference.de (accessed 10 August 2009).

Ireland, R.D. & Webb, J.W. 2007. A cross-disciplinary exploration of entrepreneurship research. *Journal of management*, 33(6): 891-927.

Isaacs, E., Visser, K., Friedrich, C. & Brijlal, P. 2007. Entrepreneurship education and training at the Further Education and Training level in South Africa. *South African Journal of education*, 27: 613-629.

Izquierdo, E. & Buelens, M. 2008. *Competing models of entrepreneurial intentions: The influence of entrepreneurial self-efficacy and attitudes*. Paper presented at the Internationalizing Entrepreneurship Education and Training, IntEnt2008 Conference, 17-20 July, Oxford, Ohio, USA.

Izquierdo, E. & Buyens, D. 2008. *Impact assessment of an entrepreneurship course on students' entrepreneurial competencies: A constructivist perspective*. Available at: <http://www.vlerick.com/en/9897-VLK/version/default/part/AttachmentData/data/vlgms-wp-2008-25.pdf> (accessed 25 June 2009).

Janssen, F. 2009. Conceptualisation of growth: Are employment and turnover interchangeable criteria? *Journal of entrepreneurship*, 18(1): 21-45.

Jasinski, D.W., Nehrt, C., O'Connor, M. & Simione, K. 2003. *A new approach to integrated entrepreneurship education*. Available at: <http://www.sbaer.uca.edu/research/icsb/2003/papers/7.doc> (accessed 11 March 2008).

Jenssen, J.I. & Kristiansen, S. 2004. Sub-cultures and entrepreneurship: The value of social capital in Tanzanian business. *The journal of entrepreneurship*, 13(1): 1-27.

Johnson, M. 2004. *Briefing on the establishment of Small Enterprise Development Agency (Seda)*. Available at: <http://www.pmg.org.za/docs/2004/appendices/041115seda.ppt> (accessed 12 June 2009).

Jones, C. & English, J. 2004. A contemporary approach to entrepreneurship. *Education and training*, 46(8/9): 416-423.

Jones, P., Jones, A., Packham, G. & Miller, C. 2008. Student attitudes towards enterprise education in Poland: A positive impact. *Education and training*, 50(7): 597-614.

Julien, P., Andriambeloson, E. & Ramangalahy, C. 2004. Networks, weak signals and technological innovations among SMEs in the land-based transportation equipment sector. *Entrepreneurship and regional development*, 16, July: 251-269.

Jurna, N. 2009. *Intellectual capital-performance relationship among high-tech entrepreneurial firms: An exploration of the moderating role of corporate governance*. Paper presented at the USASBE 2009 conference proceedings, January 8-11, Anaheim, CA.

Kamau-Maina, R. 2007. *Isolating institution-based personal and contextual determinants of entrepreneurial intentions among Kenyan graduates*. Available at: http://weatherhead.case.edu/edm/archive/files/year2/Kamau-maina%20-%20Qualitative%20paper%20final%205_15-07.pdf (accessed 08 November 2007).

Kara, A., Spillan, J.E. & DeShields, O.W. 2005. The effect of market orientation on business performance: A study of small-sized service retailers using MARKOR scale. *Journal of small business management*, 43(2): 105-118.

Katz, J.A. & Green, R.P. 2007. *Entrepreneurial small business*. New York: McGraw-Hill.

Kautonen, T., Down, S. & South, L. 2008. Enterprise support for older entrepreneurs: The case of PRIME in the UK. *International journal of entrepreneurial behaviour and research*, 14(2): 85-101.

Kennedy, J., Drennan, J., Renfrow, P. & Watson, B. 2003. *Situational factors and entrepreneurial intentions*. Available at: <http://www.cric.com.au/seaanz/resources/68KennedyBrennanSituationalFactorsfinal.pdf> (accessed 10 March 2006).

Keh, H.T., Nguyen, T.T. M, & Ng, H.P. 2007. The effects of entrepreneurial orientation and marketing information on the performance of SMEs. *Journal of business venturing*, 22: 592-611.

Khula Enterprise Finance Limited (Khula). 2007a. *Khula Enterprise Finance Limited Annual report*. Available at: <http://www.khula.org.za> (accessed 16 August 2009).

Khula Enterprise Finance Limited (Khula). 2007b. *Innovative solutions for entrepreneurs*. Available at: <http://www.khula.org.za/> (accessed 26 September 2009).

Khula Enterprise Finance Limited (Khula). 2009. *Khula lends a hand to SMEs*. Available at: <http://www.khula.org.za/> (accessed 26 September 2009).

Kickul, J. & D'Intino, R.S. 2005. Measure for measure: Modelling entrepreneurial self-efficacy onto instrumental tasks within the new venture creation process. *New England journal of entrepreneurship*, Fall, 8(2): 39-47.

Kickul, J., Gundry, L.K., Barbosa, S.D. & Whitcanack, L. 2009. Intuition versus analysis? Testing differential models of cognitive style on entrepreneurial self-efficacy and the new venture creation process. *Entrepreneurship theory and practice*, March: 439-453.

Kickul, J.R., Gundry, L.K. & Sampson, S.D. 2007. Women entrepreneurs preparing for growth: The influence of social capital and training on resource acquisition. *Journal of small business and entrepreneurship*, 20(2): 169-182.

Kickul, J. & Krueger, N. 2005. *A cognitive processing model of entrepreneurial self-efficacy and intentionality*. Available at: http://www.babson.edu/entrep/fer/FER_2004/web-content/section%XXII/P3/XXII-P3... (accessed 10 November 2006).

Kickul, J., Wilson, F., Marlino, D. & Barbosa, S.D. 2008. Are misalignments of perceptions and self-efficacy causing gender gaps in entrepreneurial intentions among our nation's teens? *Journal of small business and enterprise development*, 15(2): 321-335.

Kiggundu, M. N. 2002. Entrepreneurs and entrepreneurship in Africa: What is known and what needs to be known. *Journal of developmental entrepreneurship*, 7(3): 239-254.

Kiley, J. 2006. *The role of higher education institutions in the development of entrepreneurs*. Proceedings of the 18th annual conference of the Southern Africa Institute of Management Scientists, 13-15 September 2006. University of Stellenbosch, Cape Town.

Kim, G. & Cho, J. 2009. Entry dynamics of self-employment in South Korea. *Entrepreneurship and regional development*, 21(3): 303-323.

Kim, J. & Ondracek, J. 2005. *Family resource management by family business in Canada, Korea and the United States*. Available at: <http://sbaer.uca.edu/research/icsb/2005/toc.pdf> (accessed 09 August 2009).

Kirby, D.A. 2003. *Entrepreneurship*. New York: McGraw-Hill.

Kirkwood, J. 2007. Igniting the entrepreneurial spirit: is the role parents play gendered. *International journal of entrepreneurial behaviour & research*, 13(1): 39-59.

Klapper, R. 2004. Government goals and entrepreneurship education-An investigation at a Grande Ecole in France. *Education and training*, 46(3): 127-137.

Klapper, R. 2008. *The cognitive dimension of social capital in entrepreneurial networks at the pre-organisation stage*. Paper presented at the 53rd International Council for Small Business World conference, June 22-25, Halifax, Nova Scotia, Canada.

Klyver, K. 2007. Sifting family involvement during the entrepreneurial process. *International journal of entrepreneurial behaviour and research*, 13(5): 258-277.

Klyver, K., Hindle, K. & Meyer, D. 2008. Influence of social network structure on entrepreneurship participation. *International entrepreneurship and management journal*, 4: 331-347.

Klyver, K. & Schøtt, T. 2008. *Who will develop entrepreneurial intentions? How social network structure shapes entrepreneurial intentions*. Paper presented at the 53rd International Council for Small Business World Conference on June 22-25, Halifax, Nova Scotia, Canada.

Kolvereid, L., Iakovleva, T. & Kickul, J. 2007. *An integrated model of entrepreneurial intentions*. Available at:

http://www.babson.edu/entrep/fer/2006FER/chapter_viii/summary_viii_2.html

(accessed 09 August 2007). Full article received from the authors.

Kolvereid, L. & Isaksen, E. 2006. New business start-up and subsequent entry into self-employment. *Journal of business venturing*, 21: 866-885.

Koul, S. 2008. *Sustainable entrepreneurship-a case of the Indian SMEs*. Paper presented at the 53rd International Council for Small Business World conference, June 22-25, Halifax, Nova Scotia, Canada.

Kreitner, R. & Kinicki, A. 2008. *Organizational behaviour*. Eighth edition. New York: McGraw-Hill.

Kristiansen, S. & Indarti, N. 2004. Entrepreneurial intention among Indonesian and Norwegian students. *Journal of enterprising culture*, 12(1): 55-78.

Kropp, F., Lindsay, N.J. & Shoham, A. 2008. Entrepreneurial orientation and international entrepreneurial business venture start-up. *International journal of entrepreneurial behaviour & research*, 14(2): 102-117.

Krueger, N. 2009. *The microfoundations of entrepreneurial learning and education: The experiential essence of entrepreneurial cognition and implications for entrepreneurial pedagogies*. Paper presented at USASBE 2009 conference proceedings, January 8-11, Anaheim, CA.

Krueger, N., Schulte, W. & Stamp, J. 2008. *Beyond intent: Antecedents of resilience & precipitating events for social entrepreneurial intentions and action*. Available at: <http://sbaer.uca.edu/research/usasbe/2008/pdf/PaperID242.pdf> (accessed 05 February 2009).

Krueger, N.F. 2000. The cognitive infrastructure of opportunity emergence. *Entrepreneurship theory and practice*, Spring: 5-23.

Krueger, N.F. 2004. *Entrepreneurial resilience: Real and perceived barriers to implementing entrepreneurial intentions*. Available at: <http://www.babson.edu/entrep/fer/BABSON2003/XIV/XIV-S5/xiv-s5.htm> (accessed 24 February 2006).

Krueger, N.F. 2007. What lies beneath? The experiential essence of entrepreneurial thinking. *Entrepreneurship theory and practice*, January: 123-136.

Krueger, N.F., Reilly, M.D. & Carsrud, A.L. 2000. Competing models of entrepreneurial intentions. *Journal of business venturing*, 15: 411-432.

Kuehn, K.W. 2008. Entrepreneurial intentions research: Implications for entrepreneurship education. *Journal of entrepreneurship education*, 11: 87-98.

Kuratko, D.F. 2004. *Entrepreneurship education in the 21st century: From legitimisation to leadership*. Available at: <http://www.sbaer.uca.edu/research/usasbe/2004/pdf/01.pdf> (accessed 02 May 2009).

Kuratko, D.F. 2005. The emergence of entrepreneurship education: Development, trends, and challenges. *Entrepreneurship theory and practice*, September: 577-598.

Kuratko, D.F. & Hodgetts, R.M. 2007. *Entrepreneurship-Theory, process and practice*. Seventh edition. Canada: Thomson, South-Western.

Kuzilwa, J.A. 2005. The role of credit for small business success: A study of the National Entrepreneurship Development Fund in Tanzania. *The journal of entrepreneurship*, 14(2): 131-160.

Ladzani, M.W. & Netswera, F.G. 2005. *Entrepreneurial support for rural small, medium and micro enterprises (SMMEs) in South Africa*. Available at: <http://www.sbaer.uca.edu/research/icsb/2005/199.pdf> (accessed 09 March 2007).

Ladzani, W. & Netswera, G. 2009. Support for rural small businesses in Limpopo province, South Africa. *Development Southern Africa*, 26(2): 225-239.

Lambrecht, J. & Pirnay, F. 2005. An evaluation of public support measures for private external consultancies to SMEs in the Walloon Region of Belgium. *Entrepreneurship and regional development*, 17: 89-108.

Lavie, D. 2006. The competitive advantage of interconnected firms: an extension of the resource-based view. *Academy of management review*, 31(3): 638-658.

Laviolette, E.M. & Radu, M. 2008. *Symbolic role models and entrepreneurial intention*. Paper presented at the 53rd International Council for Small Business conference on 22-25 June, Halifax, Nova Scotia: Canada.

Leach, E. 2007. *Practical guidelines for opportunity recognition instruction*. Available at: http://ccsbe.icsb.org/members/papers/2007/2007_18_CCSBE.pdf (accessed 05 January 2010).

Lee, S.M., Chang, D. & Lim, S. 2005. Impact of entrepreneurship education: A comparative study of the U.S. and Korea. *International entrepreneurship and management journal*, 1: 27-43.

Lee, R. & Jones, O. 2008. Networks, communication and learning during business start-up: The creation of cognitive social capital. *International small business journal*, 26(5): 559-594.

Lee, J. & Venkataraman, S. 2006. Aspirations, market offerings, and the pursuit of entrepreneurial opportunities. *Journal of business venturing*, 21: 107-123.

Leeds Metropolitan University (LMU). 2004. *Barriers to student entrepreneurship at Leeds Metropolitan University*. Available at: www.lmu.ac.uk/business-start-up/documents/pdfs/Barriers%20+0%20startup%20-%20finalpdf (accessed 06 March 2008).

Leedy, P.D. & Ormrod, J.E. 2005. *Practical research-Planning and design*. Eighth edition. Upper Saddle River, New Jersey: Pearson education.

Leedy, P.D. & Ormrod, J.E. 2010. *Practical research-Planning and design*. Ninth edition. Upper Saddle River, New Jersey: Pearson education.

Leffel, A. 2008. *Prediction of employment status choice: An analytical approach on the relationship between an entrepreneurship class at a US University and employment status intentions*. Available at: <http://www.sbaer.uca.edu/pages/research-archive/usasbe/2008/2008> (accessed 01 September 2008).

Leger-Jarniou, C.Y. & Kaloussis, G. 2006. Entrepreneurship and engineers: how to develop the spirit? *Estudios de economia aplicada*, 24(2): 525-544.

Lerner, M. & Khavul, S. 2004. *Beating the odds in immigrant entrepreneurship: How does founder human capital compare to institutional capital in improving the survival of immigrant owned enterprises*. Available at: <http://www.babson.edu/entrep/fer/BABSON2003/XXIII/XXIII-P1/xxiii-p1.htm> (accessed 18 September 2009).

Le Roux, I. & Steyn, B. 2007. Experiential learning and critical reflection as a tool for the transfer of business knowledge: an empirical case study of a start-up simulation intervention for nascent entrepreneurs. *South African Journal of Economic and Management Sciences*, 10(3): 330-347.

Leung, A., Zhang, J., Wong, P.K. & Foo, M.D. 2006. The use of networks in human resource acquisition for entrepreneurial firms: Multiple "fit" considerations. *Journal of business venturing*, 21: 664-686.

Lévesque, M., Shepherd, D. A. & Douglas, E. J. 2002. Employment or self-employment-A dynamic utility-maximizing model. *Journal of business venturing*, 17: 189-210.

Levie, J., Koepplinger, S., Boonchoo, P. & Lichtenstein, B. 2007. *How do social ventures emerge? Evidence from a 24 month long, weekly tracking study*. Available at: <http://www.babson.edu/entrep/fer/2007FER/detailedfr.html> (accessed 09 August 2009).

Li, W. 2006. *Entrepreneurial intention among international students: Testing a model of entrepreneurial intention*. Available at: http://www.sbaer.uca.edu/research/usasbe/2006/pdffiles/toc_cases.pdf (accessed 13 March 2006).

Liang, C. & Dunn, P. 2005. *Pre-venture needs assessment for nascent entrepreneurs- Does gender matter?* Available at: <http://www.sbaer.uca.edu/research/asbe/2005/13.pdf> (accessed 06 September 2007).

Liang, C. & Dunn, P. 2006. *Multiple aspects of triggering factors in new venture creation: Internal drivers, external forces and indirect motivation*. Available at: <http://www.sbaer.uca.edu/research/asbe/2006/paper3asbe.doc> (accessed 06 September 2007).

Liao, J. & Welsch, H. 2002. *Social capital and growth intention: The role of entrepreneurial networks in technology-based new ventures*. Available at: <http://www.babson.edu/entrep/fer/Babson2001/XII/XIIB/XIIB/xii-b.htm> (accessed 01 November 2009).

Liao, J. & Welsch, H. 2005. Roles of social capital in venture creation: Key dimensions and research implications. *Journal of small business management*, 43(4): 345-362.

Ligthelm, A.A. 2008. A targeted approach to informal business development: The entrepreneurial route. *Development Southern Africa*, 25(4): 367-382.

Limpopo Business Support Agency (LIBSA). 2008. *Annual report*.

Limpopo Business Support Agency (LIBSA). 2009. *Turning business ideas into reality*.

Limpopo Economic Development Enterprise (LIMDEV). 2008. *Annual report*.

Liñán, F. 2004. *Intention-based models of entrepreneurship education*. Available at: <http://alojamientos.us.es/gpyde/DOWNLOAD/a9.pdf> (accessed 08 March 2009).

Liñán, F. 2008. Skill and value perceptions: how do they affect entrepreneurial intentions? *International entrepreneurship and management journal*, 4: 257-272.

Liñán, F. & Chen, Y. 2006. *Testing the entrepreneurial intention model on a two-country sample*. Available at: <http://www.recercat.net/bitstream/2072/2213/1/UABDT06-7.pdf> (accessed 28 August 2007).

Liñán, F. & Chen, Y. 2009. Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship theory and practice*, May, 593-617.

Liñán, F., Rodriguez-Cohard, J.C. & Rueda-Cantuche, J.M. 2005. *Factors affecting entrepreneurial intention levels*. Available at: <http://feweb.vu.nl/ersa/rsa98.p1?conf=ersa458type=showabstr&nr=432-4k> (accessed 29 July 2006).

Liñán, F. & Santos, F.J. 2005. Does social capital affect entrepreneurial intentions? *International advances in economic research*, 13: 443-453.

Liñán, F., Urbano, D. & Guerrero, M. 2007. *Regional variations in entrepreneurial cognitions: Start-up intentions of university students in Spain*. Paper presented at the 2007 Babson College Entrepreneurship Conference, Madrid in Spain, 7-9 June.

Lindsay, N.J., Jordaan, A. & Lindsay, W.A. 2005. *Values and entrepreneurial attitudes as predictors of nascent entrepreneur intentions*. Available at: <http://www.sbaer.uca.edu/research/icsb/2005/124.pdf> (accessed 21 August 2007).

Lingelbach, D., Murray, G. & Gilbert, E. 2008. *The rise and fall of South African venture capital: A co-production perspective*. Paper presented at the 53rd International Council for Small Business World conference, June 22-25, Halifax, Nova Scotia, Canada.

Löbler, H. 2006. Learning entrepreneurship from a constructivist perspective. *Strategic analysis & management*, 18(1): 19-38.

Locke, E.A. & Latham, G.P. 2004. What should we do about motivation theory? Six recommendations for the twenty-first century. *Academy of management review*, 29(3): 388-403.

Longenecker, J.G., Moore, C.W., Petty, J.W. & Palich, L. E. 2006. *Small business management-An entrepreneurial emphasis*. International edition. China: Thomson South-Western.

Longenecker, J.G., Moore, C.W., Petty, J.W., Palich, L.E. & McKinney, J.A. 2005. *Ethical attitudes in small businesses and large corporations; Theory and empirical findings from a tracking study spanning three decades*. Available at: <http://sbaer.uca.edu/research/icsb/2005/toc.pdf> (accessed 09 August 2009).

Lorrain, J. & Laferté, S. 2006. Support needs of the young entrepreneur. *Journal of small business and entrepreneurship*, 19(1): 37-48.

Loyens, S.M.M. & Gijbels, D. 2008. Understanding the effects of constructivist learning environments: Introducing a multi-directional approach. *Instructional science*, 36: 351-357.

Luthans, F. 2008. *Organisational behaviour*. Eleventh edition. New York: McGraw-Hill.

Lüthje, C. & Franke, N. 2002. *Fostering entrepreneurship through university education and training: Lessons from Massachusetts Institute of Technology*. Available at: http://www.sses.com/public/events/euram/complete_tracks/management_education/Franke_luthje.pdf (accessed 26 January 2006).

Maas, G. & Herrington, M. 2006. *Global entrepreneurship monitor-South African report 2006*. Available at: <http://www.gemconsortium.org> (accessed 08 August 2007).

Maas, G. & Herrington, M. 2007. *Global entrepreneurship monitor-South African report 2007*. Available at: <http://www.gemconsortium.org> (accessed 10 July 2009).

Madsen, E.L., Borch, O.J. & Wiklund, J. 2006. *Developing dynamic capabilities in small firms; The role of entrepreneurial orientation, entrepreneurial activities, and firm resources*. Available at: <http://www.babson.edu/entrep/fer/2006FER/detailedfr.html> (accessed 09 August 2009).

Madsen, H., Neergaard, H. & Ulhøi, J.P. 2008. Factors influencing the establishment of knowledge-intensive sectors. *International journal of entrepreneurial behaviour and research*, 14(2): 70-84.

Mahadea, D. 2003. *Coping with jobless growth South Africa: Can SMME entrepreneurship make a difference*. Available at: <http://www.sbaer.uca.edu/research/icsb/2003/papers/65.pdf> (accessed 11 March 2008).

Makina, D. & Malobola, L.M. 2004. Impact assessment of microfinance including lessons from Khula Enterprise Finance. *Development Southern Africa*, 21(5): 799-814.

- Malebana, M.J. 2004. *The relationship between management practices and small business growth in the Moletjje area, Limpopo Province*. Unpublished mini-dissertation. Pretoria: University of South Africa.
- Malebana, M.J. 2009. *Determinants of small business growth in the Aganang Municipality, Limpopo province*. Paper presented at the 21st Conference of the Southern Africa Institute of Management Scientists (SAIMS), 13-16 September 2009, Summerstrand Hotel, Port Elizabeth.
- Man, T.W.Y., Lau, T. & Chan, K.F. 2002. The competitiveness of small and medium enterprises-A conceptualization with focus on entrepreneurial competencies. *Journal of business venturing*, 17: 123-142.
- Man, T.W.Y. & Lau, T. 2005. The context of entrepreneurship in Hong Kong-An investigation through the patterns of entrepreneurial competencies in contrasting industrial environments. *Journal of small business and enterprise development*, 12(4): 464-481.
- Mangosuthu University of Technology. 2011. Faculty of management sciences handbook. Available at: <http://www.mut.ac.za/images/Stories/Faculty%20of%20Management%20Sciences%20Handbook.pdf> (accessed 25 November 2011).
- Manimala, M.J. 2008. Entrepreneurship education in India: An assessment of SME training needs against current practices. *International journal of entrepreneurship and innovation management*, 8(6): 624-647.
- Manjezi, M. 2008. *SMME policy framework, institutional arrangements, and roles of various institutions involved in SME development in South Africa*. Paper presented at the Third Tri-Nations summit for Small Business Development, November 18-22.
- Manolova, T.S., Brush, C.G. & Edelman, L.F. 2008. *Start-up expectancies of U.S. women and men nascent entrepreneurs: Empirical evidence from the panel study of*

entrepreneurial dynamics. Full article received from the authors. Available at: <http://www3.interscience.wiley.com/journal/6184/home?CRETRY=1&SRETRY=0>

Maree, K. 2010. *First steps in research*. First edition. Pretoria: Van Schaik.

Mathews, M. 2007. Constructivist pedagogy for the business communication classroom. *Journal of college teaching and learning*, 4(1): 99-106.

Matlay, H. 2005. Entrepreneurship education in UK business schools: Conceptual, contextual and policy considerations. *Journal of small business and enterprise development*, 12(4): 627-643.

Matlay, H. 2006. Researching entrepreneurship education. Part 2: What is entrepreneurship education and does it matter? *Education and training*, 48(8/9): 704-718.

Matlay, H. 2008. The impact of entrepreneurship education on entrepreneurial outcomes. *Journal of small business and enterprise development*, 15(2): 382-396.

Mattare, M. 2008. *Teaching entrepreneurship: The case for an entrepreneurial leadership course*. Available at: <http://www.sbaer.uca.edu/pages/research-archive/usasbe/2008/2008> (accessed 01 September 2008).

Mboko, S. & Smith-Hunter, A. 2009. *Women entrepreneurs in Zimbabwe: A case study*. Paper presented at the USASBE 2009 conference proceedings, January 8-11, Anaheim, CA.

McGee, J.E., Peterson, M., Mueller, S.L. & Sequeira, J.M. 2009. Entrepreneurial self-efficacy: Refining the measure. *Entrepreneurship theory and practice*, July: 965-988.

McMullen, J. S. & Shepherd, D. A. 2006. Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of management review*, 31(1): 132-152.

Meccheri, N. & Pelloni, G. 2006. Rural entrepreneurs and institutional assistance: An empirical study from mountainous Italy. *Entrepreneurship and regional development*, 18: 371-392.

Memorial University of Newfoundland. 2005. *Chair in youth-focused technological entrepreneurship-YTE program overview*. Available at: <http://www.busi.mun.ca/yte/research/YTEProgramOverview.htm> (accessed 26 January 2006).

Mhlongo, D. 2010. *KZN integrated business support programme*. Available at: <http://www.kznded.gov.za/Portals/0/Tourism%20Presentation%202010/SMALL%20BUSINESS%20SUMMIT%202008.pdf> (accessed 01 November 2011).

Michael, S.C. & Pearce II, J.A. 2009. The need for innovation as a rationale for government involvement in entrepreneurship. *Entrepreneurship and regional development*, 21(3): 285-302.

Millman, C., Matlay, H. & Liu, F. 2008. Entrepreneurship education in China: A case study approach. *Journal of small business and enterprise development*, 15(4): 802-814.

Mkhize, Z. 2005. *KZN Department of Economic Development-Departmental strategic plan for the period 2005-2010*. Available at: <http://www.kznded.gov.za/Portals/0/docs/Publications/Strategic%20Plans/StrategicPlan2005-2010.pdf> (accessed 03 November 2009).

Mkhize, Z. 2008. *KwaZulu-Natal Department of Economic Development: Vote four budget policy speech 2008/2009*. Available at: www.kznded.gov.za/.../BUDGET-SPEECH08_final_Draft-English.pdf (accessed 06 November 2009).

Moesel, D. & Santiago, J. 2008. *Perceived entrepreneurial ability, business relationships, and performance among minority and non-minority entrepreneurs in the Midwest*. Paper presented at the USASBE 2008 conference.

Molapo, S., Mears, R. & Viljoen, J.M.M. 2008. Developments and reforms in small business support institutions since 1996. *Acta Commercii*: 27-40.

Mole, K.F. & Keogh, W. 2009. The implications of public sector small business advisers becoming strategic sounding boards: England and Scotland compared. *Entrepreneurship and regional development*, 21(1): 77-97.

Moore, C.W., Petty, J.W., Palich, L.E. & Longenecker, J. G. 2010. *Managing small business-An entrepreneurial emphasis*. 15th edition. United States of America: South-Western Cengage Learning.

Moreno, J. 2008. An empirical analysis of entrepreneurial opportunity identification and their decisive factors: The case of new Spanish firms. *International journal of entrepreneurship*, 12: 11-37.

Morris, M.H., Kuratko, D.F. & Covin, J.G. 2008. *Corporate entrepreneurship & innovation*. Second edition. United States of America: Thomson South-Western.

Morrison, A., Breen, J. & Ali, S. 2003. Small business growth: Intention, ability, and opportunity. *Journal of small business management*, 41(4): 417-425.

Mouton, J. 2008. *How to succeed in your masters & doctoral studies – A South African guide and resource book*. First edition. Pretoria: Van Schaik.

Mueller, S. 2008. *Entrepreneurial learning in higher education networks: The meaning of creativity in blended learning environments*. Available at: http://www.esu.fi/papers/27_sabine_mueller.pdf (accessed 25 June 2009).

Muhanna, E. 2007. Conceptual analysis of determinants of entrepreneurship: A South African perspective. *Problems and perspectives in management*, 5(1): 95-102.

Mullins, J.W. & Forlani, D. 2005. Missing the boat or sinking the boat: A study of new venture decision making. *Journal of business venturing*, 20: 47-69.

Munoz, J.M., Liao, J. & Welsch, H.P. 2005. *Success factors among Philippine entrepreneurs*. Available at: <http://www.sbaer.uca.edu/research/usasbe/2005/begin.pdf> (accessed 28 October 2005).

Nabi, G., Holden, R. & Walmsley, A. 2006. Graduate career-making and business start-up: A literature review. *Education and Training*, 48(5): 373-385.

Nakhata, C. 2007. *The effects of human capital and entrepreneurial competencies on the career success of SME entrepreneurs in Thailand*. Available at: <http://www.isbe2007.org> (accessed 11 September 2007).

National Association for Community College Entrepreneurship. 2009. Available at: <http://www.nacce.com> (accessed 10 August 2009).

National Empowerment Fund (NEF). 2008. Available at: <http://www.nefcorp.co.za/AboutNEF/NEFVision/tabid/109/Default.aspx> (accessed 26 September 2009).

National Youth Development Agency (NYDA). 2009. Available at: <http://www.nyda.gov.za> (accessed 03 October 2009).

Neergaard, H., Shaw, E. & Carter, S. 2005. The impact of gender, social capital and networks on business ownership: a research agenda. *International journal of entrepreneurial behaviour & research*, 11(5): 338-357.

Nelson Mandela Metropolitan University. 2009. *Faculty of business and economic sciences prospectus*. Available at: <http://www.nmmu.ac.za/documents/business/Business%20&%20Economic%20Sciences%20Prospectus%202009.pdf> (accessed 08 August 2009).

Ngoze, M.L., Minyacha, O. & Gudda, P. 2009. *Promoting women entrepreneurship: Special entrepreneurship support programs*. Paper presented at USASBE 2009 conference proceedings, January 8-11, Anaheim, CA.

Nieman, G. 2006. *Small business management-A South African approach*. First edition. Pretoria: Van Schaik.

Nieman, G. & Bennett, A. 2009. *Business management-A value chain approach*. Second edition. Pretoria: Van Schaik.

Nieman, G., Hough, J. & Nieuwenhuizen, C. 2006. *Entrepreneurship-A South African perspective*. First edition. Pretoria: Van Schaik.

Nieman, G. & Nieuwenhuizen, C. 2009. *Entrepreneurship-A South African perspective*. Second edition. Pretoria: Van Schaik.

Nieman, G. & Pretorius, M. 2004. *Managing growth-A guide for entrepreneurs*. Lansdowne, Cape Town: Juta & Co.

Nieuwenhuizen, C. 2007. *Business management for entrepreneurs*. Cape Town, South Africa: Juta.

Niyonkuru, R. 2005. *Entrepreneurship education at tertiary institutions in Rwanda: A situation analysis*. Unpublished masters research project. Cape Town: University of the Western Cape.

North, D. & Smallborne, D. 2006. Developing entrepreneurship and enterprise in Europe's peripheral rural areas: Some issues facing policy-makers. *European planning studies*, 14(1): 41-61.

North-West University. 2009. *Faculty of economic and management sciences undergraduate calendar-Potchefstroom campus*. Available at: <http://www.nwu.ac.za> (accessed 05 August 2009).

North-West University. 2009. *Faculty of economic and management sciences postgraduate calendar-Potchefstroom campus*. Available at: <http://www.nwu.ac.za> (accessed 05 August 2009).

Nurmi, P. & Paasio, K. 2007. Entrepreneurship in Finnish universities. *Education and training*, 49(1): 56-66.

Onstenk, J. 2003. Entrepreneurship and vocational education. *European educational journal*, 2(1): 74-87.

Oranje, M. 2003. *A comparative analysis of 1996 and 2001-Census data on vulnerable and special target groups.* Available at: <http://www.sarpn.org.za/documents/d0000875/index.php> (accessed 10 March 2006).

Orford, J., Herrington, M. & Wood, E. 2004. *Global entrepreneurship monitor-2004 South African executive report.* Available at: <http://www.gemconsortium.org> (accessed 10 June 2006).

Organization for Economic Co-operation and Development. 2003. *Small businesses, job creation and growth: Facts, obstacles and best practices.* Available at: <http://www.oecd.org/pdf/M000014000/M00014258.pdf> (accessed 12 October 2009).

Oruoch, D.M. 2006. *Factors that facilitate intention to venture creation among nascent entrepreneurs-Kenyan case.* Available at: http://www.weatherhead.case.edu/edm/archive/Files/year3/oruoch%20%20TYRP%20FINAL_DRAFT.pdf (accessed 03 March 2008).

Ozgen, E. & Baron, R.A. 2007. Social sources of information in opportunity recognition: effects of mentors, industry networks, and professional forums. *Journal of business venturing*, 22: 174-192.

Owusu-Ansah, W.A. 2004. *The impact of entrepreneurship education on career intentions and aspirations of tertiary students in Ghana.* Available at: <http://www.sbaer.uca.edu/research/icsb/2004/papers%20pdf/034.pdf> (accessed 02 February 2006).

Paasio, K. & Pukkinen, T. 2005. *Individual paths towards entrepreneurship.* Available at: <http://www.sbaer.uca.edu/research/icsb/2005/155.pdf> (accessed 18 August 2007).

Patel, P.C., Fiet, J.O. & Carter, N. 2007. *Assessing the effects of social capital and social skills: How influential are they in the founding of firms?* Available at: http://www.babson.edu/entrep/fer/2006FER/Chapter_xiii/summary_xiii_3.html

(accessed 07 September 2007).

Parent, T. 2008. *Women entrepreneurs small business access to capital, issues, barriers, and success*. Paper presented at the 53rd International Council for Small Business World conference, June 22-25, Halifax, Nova Scotia, Canada.

Parnell, J.A. & Lester, D.L. 2007. Reevaluating the entrepreneurship-management conundrum: Challenges and solutions. *The journal of applied management and entrepreneurship*, 12(4): 74-88.

Pearson. A.L., Carr, J.C. & Shaw, J.C. 2008. Towards a theory of familiness: A social capital perspective. *Entrepreneurship theory and practice*, November: 949-968.

Pech, R.J. & Cameron, A. 2006. An entrepreneurial decision process model describing opportunity recognition. *European journal of innovation management*, 9(1): 61-78.

Pellissier, R. 2007. *Business research made easy*. Cape Town: Juta.

Perry, V.G. & Solomon, G. 2008. *Does one size fit all?* Paper presented at the 53rd International Council for Small Business World Conference, June 22-25, Halifax, Nova Scotia, Canada.

Peterman, N.E. & Kennedy, J. 2003. Enterprise education: Influencing students' perceptions of entrepreneurship. *Entrepreneurship theory & practice*, Winter: 129-144.

Pfeifer, S., Duka, A. & Havnes, P. 2003. *Modification of entrepreneurial behaviour by cultural factors in emerging economy*. Paper presented at ICSB 48th World conference-Advancing, entrepreneurship and small business, Belfast (Northern Ireland), 15-18 June 2003.

Poza, E.J. & Sorenson, R.L. 2009. *Latest developments in teaching family business*. Paper presented at USASBE 2009 conference proceedings, January 8-11, Anaheim, CA.

Plumly, L.W., Marshall, L.L., Eastman, J., Iyer, R., Stanley, K.L. & Boatwright, J. 2006. Developing entrepreneurial competencies: A student organisation business. *Proceedings of the Academy of Entrepreneurship*, 12(2): 9-13.

Plumly, L.W., Marshall, L.L., Eastman, J., Iyer, R., Stanley, K.L. & Boatwright, J. 2008. Developing entrepreneurial competencies: A student business. *Journal of entrepreneurship education*, 11: 17-28.

Pretorius, M., Nieman, G. & van Vuuren, J. 2005. Critical evaluation of two models for entrepreneurial education. *International journal of educational management*, 19(5): 413-427.

Pretorius, M. & van Vuuren, J. 2003. Contribution of support and incentive program to entrepreneurial orientation and start-up culture in South Africa. *South African journal of economic and management sciences*, 6(3): 514-528.

Primentas, A. 2008. *Entrepreneurship courses at the technological education institutes of Greece*. Paper presented at the 53rd International Council for Small Business World Conference on 22-25 June, Halifax, Nova Scotia, Canada.

Pruett, M., Shinnar, R., Toney, B., Llopis, F. & Fox, J. 2007. *Entrepreneurial attitudes and perceptions: Cross-cultural differences and similarities*. Available at: <http://www.sbaer.uca.edu/research/usasbe/2007/data/papers/cases/089.pdf> (accessed 06 December 2007).

Pruett, M., Shinnar, R., Toney, B., Llopis, F. & Fox, J. 2009. Explaining entrepreneurial intentions of university students: A cross-cultural study. *International journal of entrepreneurial behaviour and research*, 15(6): 57-594.

Radu, M. & Redien-Collot, R. 2008. The social representation of entrepreneurs in the French press. *International small business journal*, 26(3): 259-298.

Ramayah, T. & Harun, Z. 2005. Entrepreneurial intention among the students of university Sains Malaysia (USM). *International journal of management and entrepreneurship*, 1(1): 8-20.

Ramsden, M. & Bennet, R.J. 2005. The benefits of external support to SMEs: "Hard" versus "soft" outcomes and satisfaction levels. *Journal of small business and enterprise development*, 12(2): 227-243.

Rani, B.S. & Rao, D.K. 2007. Perspectives on women entrepreneurship. *The Icfai journal of entrepreneurship development*, 4(4): 16-27.

Raposo, M., do Paco, A. & Ferreira, J. 2008. Entrepreneur's profile: A taxonomy of attributes and motivations of university students. *Journal of small business and enterprise development*, 15(2): 405-418.

Redford, D.T. 2006. Entrepreneurship education in Portugal: 2004/2005 national survey. *Comportamento organizacional e gestão*, 12(1): 19-41.

Rennie, H. G. 2006. *Economic justification for a social entrepreneurship class*. Available at: <http://www.babson.edu/entrep/fer/2006FER/detailedfr.html> (accessed 09 August 2009).

Revelas, D.A. & Agusaj, B. 2005. *How does a small medium enterprise succeed in an emerging economy? The case of Iskon Internet, Croatia*. Available at: <http://www.sbaer.uca.edu/research/usasbe/2005/begin.pdf> (accessed 28 October 2005).

Roberts, T.G. 2006. A Philosophical examination of experiential learning theory for agricultural educators. *Journal of agricultural education*, 46(1): 17-28.

Robertson, M., Collins, A., Medeira, N. & Slater, J. 2004. *Barriers to student entrepreneurship at Leeds at Metropolitan University*. Available at: www.lmu.ac.uk/business-start-up/documents/pdfs/Barriers%20+%20startup%20-%20final.pdf (accessed 06 March 2008).

Robinson, S. & Stubberud, H.A. 2009. Sources of advice in entrepreneurship: Gender differences in business owners' social networks. *International journal of entrepreneurship*, 13: 83-101.

Rhodes University. 2009. *Electives for the Rhodes MBA programme*. Available at: <http://www.ru.ac.za/businessschool/mba/electives> (accessed 11 August 2009).

Rodríguez, M.J. & Santos, F.J. 2009. Women nascent entrepreneurs and social capital in the process of firm creation. *International entrepreneurship and management journal*, 5: 45-64.

Rogerson, C.M. 2004. The impact of the South African government's SMME programmes: A ten year review (1993-2003). *Development Southern Africa*, 21(5): 765-784.

Roper, S. & Scott, J.M. 2009. Perceived financial barriers and the start-up decision: An econometric analysis of gender differences using GEM data. *International small business journal*, 27(2): 149-171.

Rose, R.C., Kumar, N. & Yen, L.L. 2006. The dynamics of entrepreneurs' success factors in influencing venture growth. *Journal of Asia entrepreneurship and sustainability*, 11(2): 1-23.

Roundtable on Entrepreneurship Education. 2009. Available at: <http://ree.stanford.edu/> (accessed 10 August 2009).

Runyan, R., Droge, C. & Swinney, J. 2008. Entrepreneurial orientation versus small business orientation: What are their relationships to firm performance? *Journal of small business management*, 46(4): 567-588.

Rwigema, H. & Venter, R. 2005. *Advanced entrepreneurship*. Cape Town, South Africa: Oxford University Press.

Sabatini, F. 2009. Social capital as social networks: A new framework for measurement and an empirical analysis of its determinants and consequences. *Journal of socio-economics*, 38: 429-442.

Sadler-Smith, E., Hampson, Y., Chaston, I. & Badger, B. 2003. Managerial behaviour, entrepreneurial style and small firm performance* *Journal of small business management*, 41(1): 47-67.

Salvato, C., Valentini, G. & Dawson, A. 2007. *Micro-foundations of alertness to entrepreneurial opportunities*. Paper presented at the 2007 Babson College Entrepreneurship Conference, Madrid, Spain. Full article received from the author.

Sarason, Y., Dean, T. & Dillard, J.F. 2006. Entrepreneurship as the nexus of individual and opportunity: A structuration view. *Journal of business venturing*, 21: 286-305.

Sarder, J.H. 2003. *The influence of outsider assistance on nascent entrepreneurs*. Available at: http://www.babson.edu/entrep/fer/Babson2002/I/I_S10/i-s10.htm (accessed 23 February 2006).

Saunders, M., Lewis, P. & Thornhill, A. 2009. *Research methods for business students*. Fifth edition. Harlow, England: Pearson education.

Scandinavian consortium. 2008. Survey of *entrepreneurship education in higher education in Europe*. Available at: http://ec.europa.eu/enterprise/entrepreneurship/support_measures/training_education/highedsurvey.pdf (accessed 06 May 2009).

Scarborough, N.M., Wilson, D.L. & Zimmerer, T.W. 2009. *Effective small business management-An entrepreneurial approach*. Ninth edition. Upper Saddle River, NJ, Pearson Education International.

Schaper, M. & Volery, T. 2007. *Entrepreneurship and small business*. Second Pacific Rim edition. Singapore: John Wiley & Sons.

Schenkel, M.T., Azriel, J.A., Brazeal, D.V. & Matthews, C.H. 2007. *The development of entrepreneurial intentions: exploring the role of organisational environment and prior experience*. Available at: <http://www.sbaer.uca.edu/research/usasbe/2007/data/papers/cases/093.pdf> (accessed 06 December 2007).

Schwarz, E.J., Wdowiak, M.A., Almer-Jarz, D.A. & Breitenecker, R.J. 2009. The effects of attitudes and perceived environment conditions on students' entrepreneurial intent: An Austrian perspective. *Education and training*, 51(4): 272-291.

Schjoedt, L. & Shaver, K.G. 2007. Deciding on an entrepreneurial career: A test of the pull and push hypotheses using the panel study of entrepreneurial dynamics data. *Entrepreneurship theory and practice*, September: 733-751.

Seda (Small Enterprise Development Agency). 2007a. *Review of trends on entrepreneurship and the contribution of small enterprises to the economy of South Africa, 2000-2006*. Available at: <http://www.seda.org.za> (accessed 28 April 2008).

Seda. 2007b. *The small business monitor*, 3(1): 1-79.

Seda. 2009. *Who we are*. Available at: <http://www.seda.org.za> (accessed 26 September 2009).

Segal, G., Borgia, D. & Schoenfeld, J. 2005. The motivation to become an entrepreneur. *International journal of entrepreneurial behaviour & research*, 11(1): 42-57.

Segal, G., Borgia, D. & Schoenfeld, J. 2007. Founder education and experience as predictors of small firm performance. *Proceedings of the academy of entrepreneurship*, 13(1): 63-66.

Segal, G., Schoenfeld, J. & Borgia, D. 2007. Using social cognitive career theory to enhance students' entrepreneurial interests and goals. *Proceedings of the academy of entrepreneurship*, 13(1): 69-74.

Sequeira, J. 2005. *New venture intentions of female nascent entrepreneurs: Does entrepreneurial self-efficacy and social networks matter?* Available at: http://www.babson.edu/entrep/fer/FER_2004/web-content/section%20III/PS1/III-PS1_Te... (accessed 23 February 2006).

Sequeira, J., Mueller, S.L. & McGee, J. E. 2007. The influence of social ties and self-efficacy in forming entrepreneurial intentions and motivating nascent behaviour. *Journal of developmental entrepreneurship*, 12(3): 275-293.

Shane, S. 2009. Why encouraging more people to become entrepreneurs is bad public policy? *Small business economics*, DOI 10.1007/s11187-009-9215-5.

Shane, S. & Venkataraman, S. 2000. "The promise of entrepreneurship as a field of research." *Academy of management review*, 25: 217-226.

Shaw, E. 2006. Small firm networking: An insight into contents and motivating factors. *International small business journal*, 24(1): 5-29.

Shen, P. & Chai, L. 2006. Changing entrepreneurial perceptions and developing entrepreneurial competencies through experiential learning: Evidence from entrepreneurship education in Singapore's tertiary education institutions. *Journal of Asia entrepreneurship and sustainability*, 11(2): 1-23.

Sherman, P.S., Sehora, T. & Digman, L.A. 2008. Experiential entrepreneurship in the classroom: Effects of teaching methods on entrepreneurial career choice intentions. *Journal of entrepreneurship education*, 11: 29-42.

Shook, C.L., Priem, R.L. & McGee, J.E. 2003. Venture creation and the enterprising individual: A review and synthesis. *Journal of management*, 29(3): 370-399.

Short, J.C., Ketchen, D.J., Shook, C.L. & Ireland, R.D. 2010. The concept of "opportunity" in entrepreneurship research: Past accomplishments and future challenges. *Journal of management*, 36(1): 40-65.

Sinclair, R.F. 2008. *The first step towards the theory of the entrepreneurial career*. Paper presented at the USASBE 2008 conference.

Smith, B.R., Matthews, C.H. & Schenkel, M.T. 2009. Differences in entrepreneurial opportunities: The role of tacitness and codification in opportunity identification. *Journal of small business management*, 47(1): 38-57.

Soanes, C. & Stevenson, A. 2006. *Concise Oxford English Dictionary-Thumb index edition*. Eleventh edition. United States: Oxford University press.

Soanes, C. & Stevenson, A. 2008. *Concise Oxford English Dictionary*. Eleventh edition. United States: Oxford University press.

Solomon, G. 2007. An examination of entrepreneurship education in the United States. *Journal of small business and enterprise development*, 14(2): 168-182.

Solomon, G.T., Duffy, S. & Tarabishy, A. 2002. The state of entrepreneurship education in the United States: A nationwide survey and analysis. *International journal of entrepreneurship education*, 1(1): 1-21.

Solymosy, E. 2005. Entrepreneurship in extreme environments: Building an expanded model. *International entrepreneurship and management journal*, 1: 501-518.

Souitaris, V., Zerbinati, S. & Al-Laham, A. 2007. Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of business venturing*, 22: 566-591.

Sriram, V., Mersha, T. & Herron, L. 2007. Drivers of urban entrepreneurship: An integrative model. *International journal of entrepreneurial behaviour and research*, 13(4): 235-251.

Stam, E., Audretsch, D. & Meijaard, J. 2007. *Renascent entrepreneurship – Entrepreneurial preferences subsequent to firm exit*. Accessed at: http://www.babson.edu/entrep/fer/2006FER/chapter_vii/paperfr_vii_2.html (accessed 01 November 2009).

Stathopoulou, S., Psaltopoulos, D. & Skuras, D. 2004. Rural entrepreneurship in Europe: A research framework and agenda. *International journal of entrepreneurial behaviour and research*, 10(6): 404-425.

Statistics South Africa. 2004. *Census 2001- Concepts and definitions*. Available at: www.statssa.gov.za (accessed 01 April 2007).

Statistics South Africa. 2006a. *Provincial profile 2004 Eastern Cape*. Pretoria. Available at: www.statssa.gov.za (accessed 02 August 2007).

Statistics South Africa. 2006b. *Provincial profile 2004 Limpopo*. Pretoria. Available at: www.statssa.gov.za (accessed 11 June 2007).

Statistics South Africa. 2006c. *Migration and urbanisation in South Africa*. Pretoria. Available at: www.statssa.gov.za (accessed 05 October 2007).

Statistics South Africa. 2006d. *Labour force survey*. Available at: www.statssa.gov.za (accessed 28 April 2008).

Statistics South Africa. 2011. *Quarterly Labour force survey: Quarter 2, 2011*. Available at: www.statssa.gov.za (accessed 26 August 2011).

Steel, P. & König, C. 2006. Integrating theories of motivation. *Academy of management review*, 31(4): 889-913.

Steffens, P., Fitzsimmons, J.R. & Douglas, E.J. 2007. *A choice modelling approach to predict entrepreneurial intentions from attitudes and perceived abilities*. Available at: http://www.babson.edu/entrep/Fer/2006FER/chapter_viii/paper_viii_3.html (accessed 07 September 2007).

Stokes, D. & Wilson, N. 2006. *Small business management and entrepreneurship*. Fifth edition. London: Thomson.

Street, C.T. & Cameron, A. 2007. External relationships and the small business: A review of small business alliance and network research. *Journal of small business management*, 45(2): 239-266.

Strydom, R. 2008. *Evaluating the learning experience of entrepreneurship students exposed to an unconventional teaching approach*. Paper presented at the 53rd International Council for Small Business Conference on 22-25 June, Halifax, Nova Scotia, Canada.

Suntornpithug, N. & Suntornpithug, P. 2008. Don't give them fish, show them how to fish: Framework of market-driven entrepreneurship in Thailand. *Journal of small business and entrepreneurship*, 21(2):181-194.

Swanepoel, E. 2008. *The effect of the interventions of the South African Breweries' Kickstart Youth Entrepreneurship Programme on entrepreneurial and small business performance in South Africa*. Unpublished doctoral thesis. Pretoria: University of South Africa.

Swinney, J. & Runyan, R. 2008. *Social capital among downtown entrepreneurs in rural communities with distinct cultural demographics*. Paper presented at USASBE 2008 proceedings.

Tan, S.S. & Ng, C.K.F. 2006. A problem-based learning approach to entrepreneurship education. *Education and training*, 48(6): 416-428.

Tang, J. 2008a. Environmental munificence for entrepreneurs: Entrepreneurial alertness and commitment. *International Journal of entrepreneurial behaviour and research*, 14(3): 128-151.

Tang, J. 2008b. *Exploring the antecedents of entrepreneurial alertness: Interactions between individual and environmental characteristics*. Paper presented at USASBE 2008 proceedings.

Tang, J. & Tang, Z. 2007. The relationship of achievement motivation and risk-taking propensity to new venture performance: A test of the moderating effect of entrepreneurial munificence. *International journal of entrepreneurship and small business*, 4(4): 450-472.

Taormina, R.J. & Lao, S.K. 2007. Measuring Chinese entrepreneurial motivation- Personality and environmental variables. *International journal of entrepreneurial behaviour & research*, 13(4): 200-221.

Tata, J. & Prasad, S. 2008. Social capital, collaborative exchange and micro-enterprise performance: The role of gender. *International entrepreneurship and management journal*, 5(3/4): 373-388.

Tau, L.M. 2003. *Investing in social capital to stimulate economic growth and trade in Africa*. Paper presented at the Biennial conference of the Economic Society of South Africa, 17-19 September, Somerset West.

Temtime, Z.T., Chinyoka, S.V. & Shunda, J.P.W. 2004. A decision tree approach for integrating small business assistance schemes. *Journal of management development*, 23(6): 563-578.

Thompson, E. R. 2009. Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. *Entrepreneurship theory and practice*, May: 669-694.

Thurik, R. & Wennekers, S. 2004. Entrepreneurship, small business and economic growth. *Journal of small business and enterprise development*, 11(1): 140-149.

Timmons, J.A. & Spinelli, S. 2007. *New venture creation-Entrepreneurship for the 21st century*. 7th edition. New York: McGraw-Hill.

Tötterman, H. & Sten, J. 2005. Start-ups: Business incubation and social capital. *International small business journal*, 23(5): 487-511.

Townsend, D.M., Busenitz, L.W. & Arthurs, J.D. 2008. To start or not to start: Outcome and ability expectations in the decision to start a new venture. *Journal of business venturing*, doi: 10.16/j.jbusvent.200805.003.

Trade and Industrial Policy Strategies (Tips). 2005. *The role of provincial government in supporting small enterprise development. Working paper 8 - 2005*. Available at: <http://www.tips.org.za> (accessed 30 April 2009).

Tshwane University of Technology (TUT). 2009a. *Part 2: Prospectus of the faculty of economics and finance*. Available at: <http://www.tut.ac.za/Students/Studyinformation/prospectus/pages/default.aspx> (accessed 23 May 2009).

Tshwane University of Technology (TUT). 2009b. *Part 6: Prospectus of the faculty of management sciences*. Available at: <http://www.tut.ac.za/Students/Studyinformation/prospectus/Documents/PART%206%20-FACULTY%20OF%20MANAGEMENT%20SCIENCES.pdf> (accessed 23 May 2009).

Tustin, D.H., Ligthelm, A.A., Martins, J.H. & van Wyk, H. 2005. *Marketing research in practice*. First edition. University of South Africa: University Press.

Ucbasaran, D., Westhead, P. & Wright, M. 2004. *Human capital based determinants of opportunity identification*. Available at: <http://www.babson.edu/entrep/fer/BABSON2003/XVI/XVI-P4/xvi-p4.htm> (accessed 24 February 2006).

Ucbasaran, D., Westhead, P. & Wright, M. 2008. The extent and nature of opportunity identification by experienced entrepreneurs. *Journal of business venturing*, doi;10.1016/j.jbusvent.2008.01.008.

Umsobomvu Youth Fund (UYF). 2002. *Entrepreneurial skills development and business support needs of potential and existing young entrepreneurs*. Available at: <http://www.youthportal.org.za> (accessed 18 March 2008).

Umsobomvu Youth Fund (UYF). 2003. *Sectoral growth prospects and employment-Opportunities within the South African economy*. Available at: <http://www.uyf.org.za> (accessed 19 March 2008).

Umsobomvu Youth Fund (UYF). October 2004a. *The Umsobomvu Youth Report*, 2(3): 1-4.

Umsobomvu Youth Fund (UYF). 2004b. *Building an entrepreneurial culture*. Paper presented at the Youth Entrepreneurship Conference held at the Sandton Convention Centre, Gauteng 28 & 29 June 2004.

Umsobomvu Youth Fund (UYF). 2006/2007. *Youth advisory centers*. 2006/2007 edition.

Umsobomvu Youth Fund (UYF). 2008. *Youth entrepreneurship for 2010 and beyond: Unlocking, unleashing and empowering*. 5th Annual entrepreneurship development conference, 1-4 July, Cape Town International Convention Centre.

United States Small Business Administration (U.S. SBA). 2006. Entrepreneurship and entrepreneurship education: What is known and not known about the links between education and entrepreneurial activity. Available at: http://www.sba.gov/advo/research/sbe_06_ch05.pdf (accessed 05 March 2008).

United States Association for Small Business and Entrepreneurship. 2009. Available at: <http://usasbe.org> (accessed 10 August 2009).

University of Cape Town. 2009a. *The AIM programme*. Available at: <http://www.gsb.uct.ac.za/gsbwebb/default.asp?intpagenr=18> (accessed 11 August 2009).

University of Cape Town. 2009b. *The MBA programme*. Available at: <http://www.gsb.uct.ac.za/gsbwebb/default.asp?intpagenr=11> (accessed 11 August 2009).

University of Fort Hare. 2009. *Department of business management-Qualifications offered*. Available at: <http://www.ufh.ac.za/departments/bm/postGrad.html> (accessed 07 August 2009).

University of Free State. 2009. *Faculty of economic and management sciences calendar*. Available at: <http://www.uovs.ac.za/content.php?pageid=5906&FCode=06> (accessed 05 August 2009).

University of Johannesburg. 2009. *Faculty of management: Rules and regulations undergraduate and postgraduate*. Available at: <http://www.uj.ac.za/Informationabout/Faculties/tabid/8290/Default.aspx> (accessed 07 August 2009).

University of KwaZulu-Natal. 2009. *Faculty of management studies handbook*. Available at: <http://www.ukzn.ac.za/handbooks/2009/Fac90handbook2009.pdf> (accessed 08 August 2009).

University of Limpopo. 2009. *TGSL Academic programs*. Available at: http://www.ul.ac.za/index.php?Entity=tgsl_aca_prog (accessed 04 August 2009).

University of Pretoria. 2009a. *Economic and management sciences yearbook*. Available at: http://web.up.ac.za/sitefiles/file/2009_yearbooks/Economic%20and%20man%sciences%202009%2028%20Oct.pdf (accessed 07 August 2009).

University of Pretoria. 2009b. *MPhil Entrepreneurship*. Available at: <http://programmes.up.ac.za/index.php/programme=89> (accessed 12 August 2009).

University of Pretoria. 2009c. *PhD Entrepreneurship*. Available at: <http://programmes.up.ac.za/index.php/programme=103> (accessed 12 August 2009).

University of South Africa. 2009. *Calender part 4: College of economic and management sciences*. Available at: <http://www.unisa.ac.za> (accessed 12 August 2009).

University of Stellenbosch. 2009. *Economic and management sciences yearbook*. Available at: <http://www.sun.ac.za/university/jaarboek/2009/2009EngEBW.pdf> (accessed 06 August 2009).

University of Venda. 2009. *Calender Part 8: School of management sciences*.

University of Western Cape. 2009a. *Faculty of economic and management sciences undergraduate prospectus*. Available at: http://www.uwc.ac.za/usrfiles/users/1/ems_undegraduate.pdf (accessed 04 August 2009).

University of Western Cape. 2009b. *Master's in management*. Available at: <http://www.uwc.ac.za/index.php?module=cms&action=showfulltext&id=gen11Srv7N...> (accessed 12 August 2009).

University of Western Cape. 2009c. *Professional business and finance qualifications at UWC*. Available at: http://www.uwc.ac.za/usrfiles/users/830259/Postgrad_Brochure_Sept2008_for_Web.pdf (accessed 12 August 2009).

University of Witwatersrand. 2009a. *Degrees and diplomas in commerce, law and management*. Available at: <http://web.wits.ac.za/NR/rdonlyres/285EB6E3-25BE-4F01-ACD1-352221BD9121/0/2009CLMRules.pdf> (accessed 06 August 2009).

University of Witwatersrand. 2009b. *Wits business school degrees*. Available at: <http://www.wbs.ac.za/degrees/> (accessed 06 August 2009).

University of Witwatersrand. 2009c. *School of economic and business sciences: Undergraduate business science courses*. Available at: http://uamp.wits.ac.za/sebs/departments/bussci/undergrad/undegrad_main.php (accessed 11 August 2009).

University of Zululand. 2008. *Faculty of commerce, administration and law handbook*. Available at: http://www.uzulu.ac.za/com_hbook.php (accessed 07 August 2009).

Urban, B. 2004. *Understanding the moderating effect of culture and self-efficacy on entrepreneurial intentions*. Unpublished doctoral thesis. Pretoria: University of Pretoria. Available at: <http://upetd.up.ac.za/thesis/available/etd-08262004-142029/unrestricted/00thesis.pdf> (accessed 18 April 2009).

Urban, B. 2006. Entrepreneurship in the rainbow nation: Effect of cultural values and ESE on intentions. *Journal of developmental entrepreneurship*, 11(3): 171-186.

Urban, B. & van Vuuren, J. 2005. *Entrepreneurial motivation in a multi-cultural society: The effects of ethnicity and entrepreneurial self-efficacy*. Available at: <http://www.sbaer.uca.edu/research/icsb/2005/194.pdf> (accessed 09 September 2007).

Vaal University of Technology. 2009 *General prospectus and regulations*. Available at: <http://www.vut.ac.za> (accessed 10 August 2009).

Van Aardt, I., Hewitt, M., Bendeman, H., Bezuidenhout, S., Janse van Rensburg, L., Naidoo, P., van Aardt, C., van der Bank, J. & Visser, T. 2011. *Entrepreneurship and new venture management*. Fourth edition. Southern Africa, Cape Town: Oxford University Press.

Van Aardt, I., Van Aardt, C. & Bezuidenhout, S. 2005. *Entrepreneurship and new venture management*. Second edition. Southern Africa, Cape Town: Oxford University Press.

Van Aardt, I., Van Aardt, C. & Bezuidenhout, S. & Mumba, M. 2009. *Entrepreneurship and new venture management*. Third edition. Southern Africa, Cape Town: Oxford University Press.

Van Auken, H., Stephens, P., Fry, F.L. & Silva, J. 2005. *Role model influences on entrepreneurial intentions: A comparison between USA and Mexico*. Available at: <http://www.sbaer.uca.edu/research/icsb/2005/195.pdf> (accessed 08 March 2006).

Van Gelderen, M., Thurik, R. & Bosma, N. 2005. Success and risk factors in the pre-startup phase. *Small business economics*, 24: 365-380.

Veciana, J.M., Aponte, M. & Urbano, D. 2005. University students' attitudes towards entrepreneurship: A two countries sample. *International entrepreneurship and management journal*, 1: 165-182.

Venter, R., Urban, B. & Rwigema, H. 2008. *Entrepreneurship: Theory and practice*. Second edition. Cape Town: Oxford University Press.

Verhees, F.J.H.M. & Meulenbergh, M.T.G. 2004. Market orientation, innovativeness, product innovation, and performance in small firms. *Journal of small business management*, 42(2): 134-154.

Vincett, P.S. & Farlow, S. 2008. "Start-a-Business": An experiment in education through entrepreneurship. *Journal of small business and enterprise development*, 15(2): 274-288.

von Broembsen, M., Wood, E. & Herrington, M. 2005. *Global entrepreneurship monitor-South African report 2005*. UCT Graduate School of Business, University of Cape Town.

Wallis, M. 2005. *The first merger: The Durban Institute of Technology case*. Available at: http://www.che.ac.za/documents/d000137/DIT_Wallis_Oct2005 (accessed 15 August 2009).

Walske, J.M., Zacharakis, A. & Smith-Doerr, L. 2007. *Effects of venture capital syndication networks on entrepreneurial success*. Available at: <http://www.babson.edu/entrep/fer/2007FER/detailedfr.html> (accessed 09 August 2009).

Walter Sisulu University. 2009. *Faculty business, management sciences & law prospectus*. Available at: <http://www.wsu.ac.za/faculties/mainfaculties.htm> (accessed 23 May 2009).

Wang, C.K. & Ang, B.L. 2004. Determinants of venture performance in Singapore* *Journal of small business management*, 42(4): 347-363.

Wang, C.K. & Wong, P. 2004. Entrepreneurial interest of university students in Singapore. *Technovation*, 24: 163-172.

Ward, A. 2005. *An integrated model of entrepreneurship and intrapreneurship*. Available at: http://www.york.ac.uk/enterprise/cettle/docs/papers/integrated_model_v1.pdf (accessed 25 April 2008).

Watson, J. 2007. Modeling the relationship between networking and firm performance. *Journal of business venturing*, 22: 852-874.

Weaver, K.M., Turner, R.A., McKaskill, T. & Solomon, G. 2002. *Benchmarking entrepreneurship education programs*. Paper presented at the 47th World conference for the International Council for Small Business, San Juan, Puerto Rico on 16-19 June.

Weeks, J. & Fregetto, E. 2009. *Public policy, private practices: What's next for minority and women entrepreneurship?* Paper presented at the USASBE 2009 conference proceedings, January 8-11, Anaheim, CA.

Wehmeier, S. 2002. *Oxford advanced learner's dictionary of current English*. Sixth edition. New York: Oxford University Press.

Welman, J.C., Kruger, S.J. & Mitchell, B. 2008. *Research methodology*. Third edition. Cape Town, South Africa: Oxford University Press.

Welter, F. & Kautonen, T. 2005. Trust, social networks and enterprise development: Exploring evidence from East and West Germany. *International entrepreneurship and management journal*, 1: 367-379.

West, P. & Bamford, C. 2006. *Sources of initial resource positions in new ventures*. Available at: http://www.babson.edu/entrep/fer/2005FER/chapter_x/paperfr_x1.html (accessed 10 November 2009).

Wickham, P.A. 2006. *Strategic entrepreneurship*. Fourth edition. England: Pearson Education.

Wiklund, J. 2002. *Growth motivation and its influence on subsequent growth*. Available at: <http://www.babson.edu/entrep/fer/Babson2001/TOC/TOC.html> (accessed 29 March 2007).

Wiklund, J., Dahlqvist, J. & Havnes, P. 2002. *Entrepreneurship as new business activity: Empirical evidence from young firms*. Available at: <http://www.babson.edu/entrep/fer/Babson2001/XI/XID/XID/xi-d.htm> (accessed 11 January 2006).

Wiklund, J., Davidsson, P. & Delmar, F. 2003. What do they think and feel about growth? An expectancy-value approach to small business managers' attitudes towards growth. *Entrepreneurship theory & practice*, Spring: 247-270.

Wiklund, J. & Shepherd, D. 2003. Aspiring for, and achieving growth: The moderating role of resources and opportunities. *Journal of management studies*, 40(8): 1919-1941.

Wilkinson, D. 2004. *Entrepreneurial intentions survey 2004-05*. Available at: <http://www.yorkshireuniversities.ac.uk/docs/eis2004.doc> (accessed 20 August 2007).

Williams, D.A. & Jones, O. 2009. *Factors associated with the longevity of small, family-owned firms*. Paper presented at the USASBE 2009 conference proceedings, January 8-11, Anaheim, CA.

Wilson, F., Kickul, J. & Marlino, D. 2007. Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education. *Entrepreneurship theory and practice*, May: 387-406.

Witt, P. 2004. Entrepreneurs' networks and the success of start-ups. *Entrepreneurship and regional development*, 16, September: 391-412.

Wolff, J.A. & Pett, T.L. 2006. Small-firm performance: Modeling the role of product and process improvements* *Journal of small business management*, 44(2): 268-284.

Wood, M.S. & Pearson, J.M. 2009. Taken on faith? The impact of uncertainty, knowledge relatedness, and richness of information on entrepreneurial opportunity exploitation. *Journal of leadership and organisational studies*, 16(2): 117-130.

Wu, W. 2008. Dimensions of social capital and firm competitiveness improvement: The mediating role of information sharing. *Journal of management studies*, 45: 122-146.

Wu, L., Wang, C., Chen, C. & Pan, L. 2008. Internal resources, external network, and competitiveness during the growth stage: A study of Taiwanese high-tech ventures. *Entrepreneurship theory and practice*, May: 529-549.

Wu, S. & Wu, L. 2008. The impact of higher education on entrepreneurial intentions of university students in China. *Journal of small business and enterprise development*, 15(4): 752-774.

Yamada, J. 2004. A multi-dimensional view of entrepreneurship: Towards a research agenda on organisation emergence. *Journal of management development*, 23(4): 289-320.

Youth Development Network. 2005. Youth development journal profiling Umsobomvu Youth Fund programmes. *Youth development journal, April 2005*, 17th edition.

Yusuf, J. 2008. *Outside support as the entrepreneur's last resort? Differences in determinants of use of external assistance programs by male and female entrepreneurs in the U.S.* Paper presented at the 2008 USASBE proceedings.

Zampetakis, L.A. & Moustakis, V. 2006. Linking creativity with entrepreneurial intentions: A structural approach. *Entrepreneurship management*, 2: 413-428.

Zhang, Q. & Fung, H. 2006. China's social capital and financial performance of private enterprises. *Journal of small business and enterprise development*, 13(2): 198-207.

Zhang, Y. & Yang, J. 2006. New venture creation: Evidence from an investigation into Chinese entrepreneurship. *Journal of small business and enterprise development*, 13(2): 161-173.

Zhao, H., Hills, G.E. & Seibert, S.E. 2005. The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of applied psychology*, 90(6): 1265-1272.

APPENDIX 1: ENTREPRENEURIAL INTENT QUESTIONNAIRE

Instructions to respondents:

1. Please be honest in answering this self-assessment
2. Your answers will be kept confidential

A. Biographical details

Full names and Surname: _____ Student Number: _____

Contact number: _____ (Needed in case of missing responses)

1. What is your gender? (Make a cross in the appropriate box) Male Female

2. Which of the following age categories best describes you? (Make a cross in the appropriate box)

Between 14 to 24 years	1
Between 25 to 34 years	2
Between 35 to 64 years	3

3. Which qualification are you enrolled for? (Make a cross in the appropriate box)

National diploma: Entrepreneurship/small business management	1
National diploma: Management	2
National diploma: Internal Auditing, Cost and Management Accounting and Financial Information Systems	3

B. Experience and entrepreneurial knowledge (Make a cross in the appropriate box)

1. Are you currently employed? Yes No
2. Have you ever been employed before? Yes No
3. Are you currently running a business? Yes No
4. Are any of your family members running a business? Yes No
5. Are any of your friends running a business? Yes No
6. Do you know any other person who is an entrepreneur? Yes No
7. Have you ever tried to start a business before? Yes No

C. Entrepreneurial intent

For each of the statements in the table below, choose only one of the five options, ranging from “strongly disagree” to “strongly agree” and mark your answer with a cross.

		Strongly disagree	Disagree	Unsure	Agree	Strongly agree
1	I am ready to do anything to be an entrepreneur.	1	2	3	4	5
2	My professional goal is to be an entrepreneur.	1	2	3	4	5
3	I will make every effort to start and run my own business.	1	2	3	4	5
4	I am determined to create a business venture in the future.	1	2	3	4	5
5	I do not have doubts about ever starting my own business in the future.	1	2	3	4	5
6	I have very seriously thought of starting a business in the future.	1	2	3	4	5
7	I have a strong intention of ever starting a business in the future.	1	2	3	4	5
8	My qualification has contributed positively towards my interest to start a business.	1	2	3	4	5
9	I had a strong intention to start my own business before I started with my qualification.	1	2	3	4	5

D. Attitude towards the becoming an entrepreneur

For each one of the statements in the table below, choose one of the options, ranging from “strongly disagree” to “strongly agree” and mark you answer with a cross.

		Strongly disagree	Disagree	Unsure	Agree	Strongly agree
1	Being an entrepreneur implies more advantages than disadvantages to me.	1	2	3	4	5
2	A career as an entrepreneur is totally attractive to me.	1	2	3	4	5
3	If I had the opportunity and resources, I would like to start a business.	1	2	3	4	5
4	Amongst various options, I would rather be an entrepreneur.	1	2	3	4	5
5	Being an entrepreneur would give me great satisfaction.	1	2	3	4	5
6	My qualification has contributed positively to my attitude towards becoming an entrepreneur.	1	2	3	4	5

E. Perceived behavioural control

For each one of the statements in the table below, choose one of the options, ranging from “strongly disagree” to “strongly agree” and mark you answer with a cross.

		Strongly disagree	Disagree	Unsure	Agree	Strongly agree
1	To start a business and keep it working would be easy for me.	1	2	3	4	5
2	I am able to control the creation process of a new business.	1	2	3	4	5
3	I believe I would be completely able to start a business.	1	2	3	4	5
4	I am prepared to do anything to be an entrepreneur.	1	2	3	4	5
5	I know all about the necessary practical details needed to start a business.	1	2	3	4	5
6	If I wanted to, I could easily start and run a business.	1	2	3	4	5
7	If I tried to start a business, I would have a high chance of being successful.	1	2	3	4	5
8	It would be very easy for me to develop a business idea.	1	2	3	4	5
9	My qualification has provided me with sufficient knowledge to start a business.	1	2	3	4	5

F. Entrepreneurial support

For each one of the statements in the table below, choose one of the options, ranging from “strongly disagree” to “strongly agree” and mark you answer with a cross.

		Strongly disagree	Disagree	Unsure	Agree	Strongly agree
1	The government provides good support for people who want to start a business.	1	2	3	4	5
2	I know the different types of support that are offered to people who want to start their own businesses.	1	2	3	4	5
3	It would be easy for me to access support from government institutions.	1	2	3	4	5
4	Information about government support for people who want to start their own businesses is easily accessible.	1	2	3	4	5
5	It would be easier for me to receive support from the people that I know than from the government.	1	2	3	4	5

Indicate your level of knowledge about the following institutions and their services.

For each one of the statements in the table below, choose one of the options, ranging from “very little knowledge” to “know them well” and mark you answer with a cross.

		Very little knowledge	Little knowledge	Unsure	Some knowledge	Know (it) them well
6a	The Small Enterprise Development Agency (Seda)	1	2	3	4	5
6b	The services offered by Seda	1	2	3	4	5
7a	The Industrial Development Corporation (IDC)	1	2	3	4	5
7b	The services offered by the IDC	1	2	3	4	5
8a	Khula Enterprise Finance (Khula)	1	2	3	4	5
8b	The services offered by Khula	1	2	3	4	5
9a	Companies and Intellectual Property Registration Office (CIPRO)	1	2	3	4	5
9b	The services offered by CIPRO	1	2	3	4	5
10a	The National Empowerment Fund (NEF)	1	2	3	4	5
10b	The services offered by the NEF	1	2	3	4	5
11a	The South African Micro-Finance Apex Fund (SAMAF)	1	2	3	4	5
11b	The services offered by SAMAF	1	2	3	4	5
12a	The Umsobomvu Youth Fund (UYF)	1	2	3	4	5
12b	The services that were offered by the UYF	1	2	3	4	5
13	The National Youth Development Agency (NYDA)	1	2	3	4	5
14a	Limpopo Economic Development Enterprise (LIMDEV)	1	2	3	4	5
14b	The services offered by LIMDEV	1	2	3	4	5
15a	Limpopo Business Support Agency (LIBSA)	1	2	3	4	5
15b	The services offered by LIBSA	1	2	3	4	5
16a	The Eastern Cape Development Corporation (ECDC)	1	2	3	4	5
16b	The services offered by the ECDC	1	2	3	4	5

G. Social capital

Indicate your level of agreement with the following statements about social capital.

For each one of the statements in the table below, choose one of the options, ranging from “strongly disagree” to “strongly agree” and mark you answer with a cross.

		Strongly disagree	Disagree	Unsure	Agree	Strongly agree
1	I personally know someone who is an entrepreneur in my family.	1	2	3	4	5
2	I have a friend who is an entrepreneur.	1	2	3	4	5
3	I personally know other people who are entrepreneurs.	1	2	3	4	5
4	I personally know successful entrepreneurs in my community.	1	2	3	4	5
5	My immediate family would approve of my decision to start a business.	1	2	3	4	5
6	My friends would approve of my decision to start a business.	1	2	3	4	5
7	My colleagues would approve of my decision to start a business.	1	2	3	4	5
8	My immediate family values entrepreneurial activity above other activities and careers.	1	2	3	4	5
9	My colleagues value entrepreneurial activity above other activities and careers.	1	2	3	4	5
10	My friends value entrepreneurial activity above other activities and careers.	1	2	3	4	5
11	The culture in my country is highly favourable towards the entrepreneurial activity.	1	2	3	4	5
12	In my country, entrepreneurial activity is considered to be worthwhile, despite the risks.	1	2	3	4	5
13	I can rely on my family for assistance in starting a business.	1	2	3	4	5
14	I can rely on my friends for assistance in starting a business.	1	2	3	4	5
15	I can rely on other entrepreneurs for assistance in starting a business.	1	2	3	4	5

H. Entrepreneurial self-efficacy

Indicate your level of confidence about your ability to do the following entrepreneurial tasks.

For each one of the statements in the table below, choose one of the options, ranging from “very little confidence” to “Very confident” and mark you answer with a cross.

	My ability to -	Very little confidence	Little confidence	Unsure	Fairly confident	Very confident
1	Generate a new idea for a product or service.	1	2	3	4	5
2	Identify the need for a new product or service.	1	2	3	4	5
3	Design a product or service that will satisfy customer needs and wants.	1	2	3	4	5
4	Estimate customer demand for a new product or service.	1	2	3	4	5
5	Determine a competitive price for a new product or service.	1	2	3	4	5
6	Estimate the amount of start-up funds and working capital necessary to start a business.	1	2	3	4	5
7	Design an effective marketing/ advertising campaign for a new product or service.	1	2	3	4	5
8	Get others to identify with and believe in my vision and plans for a new business.	1	2	3	4	5
9	Make contact with and exchange information with others.	1	2	3	4	5
10	Clearly and concisely explain verbally/in writing my business idea in simple terms.	1	2	3	4	5
11	Develop relationships with key people who are connected to sources of capital.	1	2	3	4	5
12	Develop and maintain favourable relationships with potential investors.	1	2	3	4	5
13	Identify potential sources of funding for investment in my business.	1	2	3	4	5
14	Recruit and train new employees.	1	2	3	4	5
15	Delegate tasks and responsibilities to employees in my business.	1	2	3	4	5
16	Supervise employees.	1	2	3	4	5
17	Deal effectively with day-to-day problems and crises.	1	2	3	4	5
18	Inspire, encourage and motivate my employees.	1	2	3	4	5
19	Develop a working environment that encourages people to try out new things.	1	2	3	4	5
20	Persist in the face of adversity.	1	2	3	4	5
21	Make decisions under uncertainty and risk.	1	2	3	4	5

22	Organise and maintain the financial records of my business.	1	2	3	4	5
23	Manage financial assets of my business.	1	2	3	4	5
24	Read and interpret financial statements.	1	2	3	4	5

I. Entrepreneurial competencies

Indicate your level of confidence about your ability to do the following entrepreneurial tasks.

For each one of the statements in the table below, choose one of the options, ranging from “very little confidence” to “very confident” and mark you answer with a cross.

		Very little confidence	Little confidence	Unsure	Fairly confident	Very confident
1	The ability to recognise and evaluate opportunities in the market.	1	2	3	4	5
2	The ability to develop relationships with other business people for mutual learning and collaborative working to achieve common objectives.	1	2	3	4	5
3	The ability to persuade and discuss with various stakeholders about the issues that involve the business.	1	2	3	4	5
4	The ability to make sacrifices to ensure that the business gets started.	1	2	3	4	5

Thank you for your cooperation.

APPENDIX 2

Table 1: Number of respondents by gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	110	31.0	32.2	32.2
Female	232	65.4	67.8	100.0
Total	342	96.3	100.0	
Missing	13	3.7		
Total	355	100.0		

Table 2: The number of respondents by age

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid between 14 to 24 years	267	75.2	76.1	76.1
between 25 to 34 years	79	22.3	22.5	98.6
between 35 to 64 years	5	1.4	1.4	100.0
Total	351	98.9	100.0	
Missing	4	1.1		
Total	355	100.0		

Table 3: Somer's d results for the relationship between the attitude of the respondents towards becoming an entrepreneur and their intention to start a business

Dependent variable: Entrepreneurial intent items	Independent variable: The attitude towards becoming an entrepreneur	Somer's d value	Approximate significance (p-value)	Statistical significance
C1 - I am ready to do anything to be an entrepreneur	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.32651	0.0000	Significant at the 1% level of significance
	D2 - A career as an entrepreneur is totally attractive to me	0.42223	0.0000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.46919	0.0000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.42910	0.0000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.46761	0.0000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.37927	0.0000	Significant at the 1% level of significance
C2 – My professional	D1 - Being an entrepreneur implies more advantages	0.369420	0.0000	Significant at the 1% level of

goal is to be an entrepreneur.	than disadvantages to me.			significance
	D2 - A career as an entrepreneur is totally attractive to me	0.59799	0.0000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.53655	0.0000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.53053	0.0000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.53744	0.0000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.43218	0.0000	Significant at the 1% level of significance
C3 - I will make every effort to start and run my own business.	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.30319	0.0000	Significant at the 1% level of significance
	D2 - A career as an entrepreneur is totally attractive to me	0.50193	0.0000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.55887	0.0000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.43858	0.0000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.47253	0.0000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.37888	0.0000	Significant at the 1% level of significance
C4 - I am determined to create a business venture in the future.	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.28181	0.0000	Significant at the 1% level of significance
	D2 - A career as an entrepreneur is totally attractive to me	0.43934	0.0000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.50898	0.0000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.34184	0.0000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.40631	0.0000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming	0.34706	0.0000	Significant at the 1% level of significance

	an entrepreneur.			
C5 - I do not have doubts about ever starting my own business in the future.	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.26599	0.0000	Significant at the 1% level of significance
	D2 - A career as an entrepreneur is totally attractive to me	0.37746	0.0000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.46033	0.0000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.30417	0.0000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.39297	0.0000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.30851	0.0000	Significant at the 1% level of significance
C6 - I have very seriously thought of starting a business in the future.	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.29986	0.0000	Significant at the 1% level of significance
	D2 - A career as an entrepreneur is totally attractive to me	0.49182	0.0000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.52257	0.0000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.40905	0.0000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.45985	0.0000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.36298	0.0000	Significant at the 1% level of significance
C7 - I have a strong intention of ever starting a business in the future.	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.34921	0.0000	Significant at the 1% level of significance
	D2 - A career as an entrepreneur is totally attractive to me	0.52324	0.0000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.53826	0.0000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.47660	0.0000	Significant at the 1% level of significance

	D5 - Being an entrepreneur would give me great satisfaction.	0.49552	0.0000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.40655	0.0000	Significant at the 1% level of significance
C8 - My qualification has contributed positively towards my interest to start a business.	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.26262	0.0000	Significant at the 1% level of significance
	D2 - A career as an entrepreneur is totally attractive to me	0.36274	0.0000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.42246	0.0000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.34205	0.0000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.34510	0.0000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.52453	0.0000	Significant at the 1% level of significance
C9 - I had a strong intention to start my own business before I started with my qualification.	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.32322	0.0000	Significant at the 1% level of significance
	D2 - A career as an entrepreneur is totally attractive to me	0.36543	0.0000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.38990	0.0000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.32539	0.0000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.26743	0.0000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.27720	0.0000	Significant at the 1% level of significance

Table 4: Somer's d results for the relationship between perceived behavioural control and the intention of the respondents to start a business

Dependent variable: Entrepreneurial intent factors	Independent variable: Perceived behavioural control	Somer's d value	Approximate significance (p-value)	Statistical significance
C1 - I am ready to do anything to be an entrepreneur.	E1 - To start a business and keep it working would be easy for me.	0.22414	0.0000	Significant at the 1% level of significance
	E2 - I am able to control the creation process of a new business.	0.31819	0.0000	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.42492	0.0000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.47840	0.0000	Significant at the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.20708	0.00002	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.19019	0.00017	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.24002	0.0000	Significant at the 1% level of significance
C2 – My professional goal is to be an entrepreneur.	E1- To start a business and keep it working would be easy for me.	0.25263	0.0000	Significant at the 1% level of significance
	E2 - I am able to control the creation process of a new business.	0.28717	0.0000	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.42667	0.0000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.48919	0.0000	Significant at the 1% level of significance
	E6 - If I wanted to, I could easily start and run a business.	0.16420	0.00076	Significant at the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.21148	0.00001	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.21682	0.00001	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.22348	0.00001	Significant at the 1% level of significance
C3 - I will make	E1 - To start a business	0.27055	0.0000	Significant at the

every effort to start and run my own business.	and keep it working would be easy for me.			1% level of significance
	E2 - I am able to control the creation process of a new business.	0.35814	0.0000	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.38416	0.0000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.48020	0.0000	Significant at the 1% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.09054	0.04458	Significant at the 5% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful	0.26745	0.0000	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.16710	0.00055	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.23703	0.00001	Significant at the 1% level of significance
C4 - I am determined to create a business venture in the future.	E1 - To start a business and keep it working would be easy for me.	0.20498	0.00001	Significant at the 1% level of significance
	E2 - I am able to control the creation process of a new business.	0.26400	0.0000	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.34985	0.0000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.38275	0.0000	Significant at the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.23436	0.0000	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.15603	0.00089	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.17994	0.00012	Significant at the 1% level of significance
C5 - I do not have doubts about ever starting my own business in the future.	E1 - To start a business and keep it working would be easy for me.	0.27530	0.0000	Significant at the 1% level of significance
	E2 - I am able to control the creation process of a	0.31044	0.0000	Significant at the 1% level of

	new business.			significance
	E3 - I believe I would be completely able to start a new business.	0.41736	0.0000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.37211	0.0000	Significant at the 1% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.13400	0.00435	Significant at the 1% level of significance
	E6 - If I wanted to, I could easily start and run a business.	0.09543	0.03993	Significant at the 5% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.24096	0.0000	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.20026	0.00003	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.21440	0.0000	Significant at the 1% level of significance
C6 - I have very seriously thought of starting a business in the future.	E1 - To start a business and keep it working would be easy for me.	0.24301	0.0000	Significant at the 1% level of significance
	E2 - I am able to control the creation process of a new business.	0.26533	0.0000	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.42536	0.0000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.41129	0.0000	Significant at the 1% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.10790	0.02546	Significant at the 5% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.21968	0.0000	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.23669	0.0000	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.20551	0.00001	Significant at the 1% level of significance
C7 - I have a strong intention of ever starting a business in the future.	E1 - To start a business and keep it working would be easy for me.	0.25861	0.0000	Significant at the 1% level of significance

	E2 - I am able to control the creation process of a new business.	0.33867	0.0000	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.40993	0.0000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.45762	0.0000	Significant at the 1% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.17881	0.00012	Significant at the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.27763	0.0000	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.24578	0.0000	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.28858	0.0000	Significant at the 1% level of significance
C8 - My qualification has contributed positively towards my interest to start a business.	E1 - To start a business and keep it working would be easy for me.	0.17876	0.00005	Significant at the 1% level of significance
	E2 - I am able to control the creation process of a new business.	0.26952	0.0000	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.32100	0.0000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.27606	0.0000	Significant at the 1% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.18940	0.00004	Significant at the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.20701	0.00003	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.16381	0.00059	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.33722	0.0000	Significant at the 1% level of significance
C9 - I had a strong intention to start my own business before I started with my	E1 - To start a business and keep it working would be easy for me.	0.25124	0.0000	Significant at the 1% level of significance

qualification.				
	E2 - I am able to control the creation process of a new business.	0.27670	0.0000	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.30226	0.0000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.28072	0.0000	Significant at the 1% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.16469	0.00044	Significant at the 1% level of significance
	E6 - If I wanted to, I could easily start and run a business.	0.14404	0.00286	Significant at the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.21018	0.00002	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.21266	0.00002	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.23096	0.0000	Significant at the 1% level of significance

Table 5: Somer's d results for the relationship between the level of awareness of entrepreneurial support and the intention of respondents to start a business

Dependent variable: Entrepreneurial intent factors	Independent variable: The level of awareness of entrepreneurial support initiatives	Somer's d value	Approximate significance (p-value)	Statistical significance
C1 - I am ready to do anything to be an entrepreneur.	F3 - It would be easy for me to access support from government institutions.	0.10207	0.03794	Significant at the 5% level of significance
	F5 - It would be easier for me to receive support from the people that I know than from the government.	0.14121	0.00194	Significant at the 1% level of significance
	F11b - The services offered by South African Micro-Finance Apex Fund (SAMAF).	0.09553	0.04486	Significant at the 5% level of significance
	F14a - Limpopo Economic Development Enterprise (LIMDEV).	0.14165	0.00162	Significant at the 1% level of significance
	F14b - The services offered by LIMDEV.	0.11969	0.01510	Significant at the 5% level of significance
	F15a - Limpopo Business Support	0.17170	0.00034	Significant at the 1% level of

	Agency (LIBSA).			significance
	F15b - The services offered by LIBSA.	0.16184	0.00067	Significant at the 1% level of significance
	F16a – The Eastern Cape Development Corporation (ECDC).	0.10879	0.01260	Significant at the 5% level of significance
	F16b - The services offered by the ECDC.	0.13813	0.00194	Significant at the 1% level of significance
	F6a - The Small Enterprise Development Agency (Seda).	0.14010	0.00158	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.12595	0.00433	Significant at the 1% level of significance
	F7b - The services offered by the Industrial development Corporation (IDC).	0.10784	0.01507	Significant at the 5% level of significance
	F8a - Khula Enterprise Finance (Khula).	0.09565	0.02860	Significant at the 5% level of significance
	F9a - Companies and Intellectual Property Registration Office (CIPRO).	0.09442	0.04515	Significant at the 5% level of significance
	F9b - The services offered by CIPRO.	0.15469	0.00113	Significant at the 1% level of significance
C2 – My professional goal is to be an entrepreneur.	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.17962	0.00022	Significant at the 1% level of significance
	F3 - It would be easy for me to access support from government institutions.	0.10975	0.02270	Significant at the 5% level of significance
	F5 - It would be easier for me to receive support from the people that I know than from the government.	0.10064	0.02451	Significant at the 5% level of significance
	F12a – The Umsobomvu Youth Fund (UYF)	0.09508	0.03343	Significant at the 5% level of significance
	F13 - The National Youth Development Agency (NYDA).	0.11337	0.00987	Significant at the 1% level of significance
	F14a - LIMDEV.	0.10727	0.01927	Significant at the 5% level of significance
	F15a - LIBSA.	0.10850	0.02213	Significant at the 5% level of significance
	F15b - The services offered by LIBSA.	0.10330	0.02835	Significant at the 5% level of significance

	F16a – The ECDC.	0.16519	0.00018	Significant at the 1% level of significance
	F16b - The services offered by the ECDC.	0.17318	0.00012	Significant at the 1% level of significance
	F6a - Seda.	0.17475	0.00012	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.19845	0.00001	Significant at the 1% level of significance
	F7a – The IDC.	0.10727	0.01988	Significant at the 5% level of significance
	F7b - The services offered by the IDC.	0.14667	0.00206	Significant at the 1% level of significance
	F8a - Khula.	0.11470	0.01132	Significant at the 5% level of significance
	F9a - CIPRO.	0.11632	0.01052	Significant at the 5% level of significance
	F9b - The services offered by CIPRO.	0.16444	0.00042	Significant at the 1% level of significance
C3 - I will make every effort to start and run my own business.	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.10665	0.01711	Significant at the 5% level of significance
	F5 - It would be easier for me to receive support from the people that I know than from the government.	0.12910	0.00321	Significant at the 1% level of significance
	F10a - The National Empowerment Fund (NEF).	0.09549	0.03320	Significant at the 5% level of significance
	F10b - The services offered by the NEF.	0.09555	0.03268	Significant at the 5% level of significance
	F11a - SAMAF.	0.10184	0.02732	Significant at the 5% level of significance
	F11b - The services offered by SAMAF.	0.13411	0.00258	Significant at the 1% level of significance
	F12a – The UYF.	0.10928	0.01483	Significant at the 5% level of significance
	F13 – The NYDA.	0.10179	0.01798	Significant at the 5% level of significance
	F14a - LIMDEV.	0.10529	0.02004	Significant at the 5% level of significance
	F14b - The services	0.12797	0.00566	Significant at

	offered by LIMDEV.			the 1% level of significance
	F15a - LIBSA.	0.14057	0.00139	Significant at the 1% level of significance
	F15b - The services offered by LIBSA.	0.13713	0.00200	Significant at the 1% level of significance
	F16a – The ECDC.	0.15186	0.00042	Significant at the 1% level of significance
	F16b - The services offered by the ECDC.	0.15161	0.00050	Significant at the 1% level of significance
	F6a - Seda.	0.15266	0.00028	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.16092	0.00014	Significant at the 1% level of significance
	F7a – The IDC.	0.11652	0.00675	Significant at the 1% level of significance
	F8a - Khula.	0.10733	0.01440	Significant at the 5% level of significance
	F9a - CIPRO.	0.18056	0.00003	Significant at the 1% level of significance
	F9b - The services offered by CIPRO.	0.22093	0.0000	Significant at the 1% level of significance
C4 - I am determined to create a business venture in the future.	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.09008	0.04536	Significant at the 5% level of significance
	F5 - It would be easier for me to receive support from the people that I know than from the government.	0.12710	0.00328	Significant at the 1% level of significance
	F12a – The UYF.	0.10750	0.01170	Significant at the 5% level of significance
	F13 – The NYDA.	0.08921	0.03685	Significant at the 5% level of significance
	F14a - LIMDEV.	0.09038	0.04667	Significant at the 5% level of significance
	F14b - The services offered by LIMDEV.	0.09719	0.03413	Significant at the 5% level of significance
	F15a - LIBSA.	0.09030	0.04525	Significant at the 5% level of significance
	F16a – The ECDC.	0.09211	0.03839	Significant at the 5% level of

				significance
	F16b - The services offered by the ECDC.	0.12802	0.00320	Significant at the 1% level of significance
	F6a - Seda.	0.10370	0.01944	Significant at the 5% level of significance
	F6b - The services offered by Seda.	0.09715	0.03031	Significant at the 5% level of significance
	F9a - CIPRO.	0.11425	0.01361	Significant at the 5% level of significance
	F9b - The services offered by CIPRO.	0.14293	0.00220	Significant at the 1% level of significance
C5 - I do not have doubts about ever starting my own business in the future.	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.11152	0.01104	Significant at the 5% level of significance
	F4 - Information about government support for people who want to start their own businesses is easily accessible.	0.13358	0.00338	Significant at the 1% level of significance
	F6a - Seda.	0.09417	0.02788	Significant at the 5% level of significance
	F6b - The services offered by Seda.	0.09472	0.03107	Significant at the 5% level of significance
C6 - I have very seriously thought of starting a business in the future.	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.11793	0.01006	Significant at the 5% level of significance
	F5 - It would be easier for me to receive support from the people that I know than from the government.	0.12681	0.00353	Significant at the 1% level of significance
	F12a – The UYF.	0.09636	0.03058	Significant at the 5% level of significance
	F16a – The ECDC.	0.13263	0.00254	Significant at the 1% level of significance
	F16b - The services offered by the ECDC.	0.16424	0.00016	Significant at the 1% level of significance
	F6a - Seda.	0.13961	0.00141	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.13177	0.00241	Significant at the 1% level of significance
	F7a - The services offered by the IDC.	0.12042	0.00589	Significant at the 1% level of

				significance
	F8a - Khula.	0.13150	0.00254	Significant at the 1% level of significance
	F8b - The services offered by Khula.	0.09985	0.01956	Significant at the 5% level of significance
	F9a - CIPRO.	0.09046	0.04803	Significant at the 5% level of significance
	F9b - The services offered by CIPRO.	0.11131	0.01723	Significant at the 5% level of significance
C7 - I have a strong intention of ever starting a business in the future.	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.16418	0.00022	Significant at the 1% level of significance
	F3 - It would be easy for me to access support from government institutions.	0.11298	0.01073	Significant at the 5% level of significance
	F4 - Information about government support for people who want to start their own businesses is easily accessible.	0.12292	0.01004	Significant at the 5% level of significance
	F5 - It would be easier for me to receive support from the people that I know than from the government.	0.10515	0.01927	Significant at the 5% level of significance
	F11b -The services offered by SAMAF.	0.09209	0.03865	Significant at the 5% level of significance
	F6a – The ECDC.	0.16302	0.00018	Significant at the 1% level of significance
	F16b - The services offered by the ECDC.	0.16788	0.00011	Significant at the 1% level of significance
	F6a - Seda.	0.09296	0.03758	Significant at the 5% level of significance
	F6b - The services offered by Seda.	0.12196	0.00686	Significant at the 1% level of significance
	F7b - The services offered by CIPRO.	0.12338	0.00776	Significant at the 1% level of significance
C8 - My qualification has contributed positively towards my interest to start a business.	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.10544	0.01981	Significant at the 5% level of significance
	F16a – The ECDC.	0.13233	0.00202	Significant at the 1% level of significance

	F16b - The services offered by the ECDC.	0.12634	0.00382	Significant at the 1% level of significance
	F6a - Seda.	0.17044	0.00006	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.20397	0.00000	Significant at the 1% level of significance
	F7b - The services offered by the IDC.	0.09011	0.03567	Significant at the 5% level of significance
	F8a - Khula.	0.12043	0.00581	Significant at the 1% level of significance
C9 - I had a strong intention to start my own business before I started with my qualification.	F3 - It would be easy for me to access support from government institutions.	0.12884	0.00855	Significant at the 1% level of significance
	F10a – The NEF.	0.15028	0.00084	Significant at the 1% level of significance
	F10b - The services offered by the NEF.	0.13189	0.00341	Significant at the 1% level of significance
	F11b - The services offered by SAMAF.	0.14708	0.00115	Significant at the 1% level of significance
	F12a – The UYF.	0.12891	0.00434	Significant at the 1% level of significance
	F12b - The services that were offered by the UYF.	0.10384	0.02114	Significant at the 5% level of significance
	F14a - LIMDEV.	0.13717	0.00288	Significant at the 1% level of significance
	F14b - The services offered by LIMDEV.	0.13110	0.00465	Significant at the 1% level of significance
	F15a - LIBSA.	0.12442	0.00890	Significant at the 1% level of significance
	F15b - The services offered by LIBSA.	0.10275	0.03591	Significant at the 5% level of significance
	F16a – The ECDC.	0.12235	0.00617	Significant at the 1% level of significance
	F16b - The services offered by the ECDC.	0.15188	0.00062	Significant at the 1% level of significance
	F6a - Seda.	0.15471	0.00101	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.17414	0.00015	Significant at the 1% level of

				significance
	F7a – The IDC.	0.15584	0.00054	Significant at the 1% level of significance
	F7b - The services offered by the IDC.	0.18904	0.00002	Significant at the 1% level of significance
	F8a - Khula.	0.13644	0.00344	Significant at the 1% level of significance
	F8b - The services offered by Khula.	0.15440	0.00071	Significant at the 1% level of significance
	F9a - CIPRO.	0.19616	0.00002	Significant at the 1% level of significance
	F9b - The services offered by CIPRO.	0.19880	0.00002	Significant at the 1% level of significance

Table 6: Somer's d results of the relationship between the level of awareness of entrepreneurial support and the attitude of the respondents towards becoming an entrepreneur

Dependent variable: the attitude towards becoming an entrepreneur	Independent variable: The level of awareness of entrepreneurial support initiatives	Somer's d value	Approximate significance (p-value)	Statistical significance
D1 - Being an entrepreneur implies more advantages than disadvantages to me.	F16a – The ECDC.	0.10328	0.01635	Significant at the 5% level of significance
	F16b - The services offered by the ECDC.	0.12364	0.00316	Significant at the 1% level of significance
	F4 - Information about government support for people who want to start their own business is easily accessible.	0.10247	0.03070	Significant at the 5% level of significance
	F6a - Seda.	0.11235	0.01251	Significant at the 5% level of significance
	F6b - The services offered by Seda.	0.11140	0.01296	Significant at the 5% level of significance
	F7a - The IDC.	0.10741	0.01215	Significant at the 5% level of significance
	F7b - The services offered by the IDC.	0.10426	0.01440	Significant at the 5% level of significance
D2 - A career as an entrepreneur is totally attractive	F1 - The government provides good support for people who want to start a	0.11341	0.01298	Significant at the 5% level of significance

to me.	business.			
	F10b - The NEF.	0.12198	0.00765	Significant at the 1% level of significance
	F10b - The services offered by the NEF.	0.12677	0.00649	Significant at the 1% level of significance
	F11b - The services offered by SAMAF.	0.15252	0.00075	Significant at the 1% level of significance
	F12a - The UYF.	0.17717	0.00004	Significant at the 1% level of significance
	F12b - The services that were offered by the UYF.	0.14002	0.00151	Significant at the 1% level of significance
	F13 - The NYDA.	0.15635	0.00022	Significant at the 1% level of significance
	F14a - LIMDEV.	0.11989	0.00920	Significant at the 1% level of significance
	F16a - The ECDC.	0.20410	0.0000	Significant at the 1% level of significance
	F16b - The services offered by the ECDC.	0.17578	0.00003	Significant at the 1% level of significance
	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.15495	0.00086	Significant at the 1% level of significance
	F3 - It would be easy for me to access support from government institutions.	0.12942	0.00730	Significant at the 1% level of significance
	F6a - Seda.	0.26325	0.0000	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.20411	0.0000	Significant at the 1% level of significance
	F7a - The IDC.	0.18502	0.00001	Significant at the 1% level of significance
	F7b - The services offered by the IDC.	0.22674	0.0000	Significant at the 1% level of significance
	F8a - Khula.	0.17145	0.00010	Significant at the 1% level of significance
	F8b - The services offered by Khula.	0.13811	0.00170	Significant at the 1% level of significance
	F9a - CIPRO.	0.17252	0.00017	Significant at the 1% level of significance
	F9b - The service offered by CIPRO.	0.17328	0.00015	Significant at the 1% level of

				significance
D3 - If I had the opportunity and resources, I would like to start a business.	F11b - The services offered by SAMAF.	0.09617	0.02930	Significant at the 5% level of significance
	F12a - The UYF.	0.15935	0.00024	Significant at the 1% level of significance
	F12b - The services that were offered by the UYF.	0.09874	0.02461	Significant at the 5% level of significance
	F13 - The NYDA.	0.10381	0.01084	Significant at the 5% level of significance
	F14b - The services offered by LIMDEV.	0.09393	0.03956	Significant at the 5% level of significance
	F15a - LIBSA.	0.11044	0.01434	Significant at the 5% level of significance
	F15b - The services offered by LIBSA.	0.10417	0.02072	Significant at the 5% level of significance
	F16a - The ECDC.	0.13929	0.00096	Significant at the 1% level of significance
	F16b - The services offered by the ECDC.	0.14843	0.00030	Significant at the 1% level of significance
	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.09495	0.03498	Significant at the 5% level of significance
	F5 - It would be easier for me to receive support from people that I know than from the government.	0.13493	0.00126	Significant at the 1% level of significance
	F6a - Seda.	0.14241	0.00071	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.13777	0.00092	Significant at the 1% level of significance
	F7a - The IDC.	0.08607	0.03677	Significant at the 5% level of significance
	F7b - The services offered by the IDC.	0.12744	0.00196	Significant at the 1% level of significance
	F8a - Khula.	0.10523	0.01068	Significant at the 5% level of significance
	F8b - The services offered by Khula.	0.09433	0.02393	Significant at the 5% level of significance
	F9a - CIPRO.	0.10534	0.01474	Significant at the 5% level of

				significance
	F9b - The service offered by CIPRO.	0.12747	0.00326	Significant at the 1% level of significance
D4 - Amongst various options, I would rather be an entrepreneur.	F10a - The NEF.	0.09130	0.04397	Significant at the 5% level of significance
	F12a - The UYF.	0.11865	0.00792	Significant at the 1% level of significance
	F12b - The services that were offered by the UYF.	0.11074	0.01334	Significant at the 5% level of significance
	F13 - The NYDA.	0.12617	0.00275	Significant at the 1% level of significance
	F16a - The ECDC.	0.18916	0.00001	Significant at the 1% level of significance
	F16b – The services offered by the ECDC.	0.16693	0.00015	Significant at the 1% level of significance
	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.13675	0.00414	Significant at the 1% level of significance
	F3 - It would be easy for me to access support from government institutions.	0.10446	0.03079	Significant at the 5% level of significance
	F6a - Seda.	0.14593	0.00148	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.15488	0.00049	Significant at the 1% level of significance
	F7b - The services offered by the IDC.	0.11089	0.01279	Significant at the 5% level of significance
	F9b - The service offered by CIPRO.	0.12744	0.00775	Significant at the 1% level of significance
D5 - Being an entrepreneur would give me great satisfaction.	F12a - The UYF.	0.13372	0.00305	Significant at the 1% level of significance
	F12b - The services that were offered by the UYF.	0.09481	0.04207	Significant at the 5% level of significance
	F16a - The ECDC.	0.11930	0.00675	Significant at the 1% level of significance
	F16b - The services offered by the ECDC.	0.12845	0.00419	Significant at the 1% level of significance
	F2 - I know the different types of support that is offered to people who want	0.12968	0.00669	Significant at the 1% level of significance

	to start their own businesses.			
	F3 - It would be easy for me to access support from government institutions.	0.11986	0.01398	Significant at the 5% level of significance
	F5 - It would be easier for me to receive support from people that I know than from the government.	0.10584	0.01792	Significant at the 5% level of significance
	F6a - Seda.	0.16576	0.00026	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.15423	0.00040	Significant at the 1% level of significance
	F9b - The service offered by CIPRO.	0.09873	0.04047	Significant at the 5% level of significance
D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	F1 - The government provides good support for people who want to start a business.	0.10956	0.01300	Significant at the 5% level of significance
	F12a - The UYF.	0.16784	0.00034	Significant at the 1% level of significance
	F12b - The services that were offered by the UYF.	0.11388	0.01738	Significant at the 5% level of significance
	F16a - The ECDC.	0.13655	0.00253	Significant at the 1% level of significance
	F16b - The services offered by the ECDC.	0.13820	0.00250	Significant at the 1% level of significance
	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.16443	0.00059	Significant at the 1% level of significance
	F3 - It would be easy for me to access support from government institutions.	0.14905	0.00209	Significant at the 1% level of significance
	F5 - It would be easier for me to receive support from people that I know than from the government.	0.10477	0.01964	Significant at the 5% level of significance
	F6a - Seda.	0.20392	0.0000	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.19295	0.00001	Significant at the 1% level of significance
	F7a - The IDC.	0.12196	0.00505	Significant at the 1% level of significance
	F7b - The services offered	0.13373	0.00250	Significant at the

	by the IDC.			1% level of significance
	F8a - Khula.	0.13099	0.00335	Significant at the 1% level of significance
	F9a - CIPRO.	0.14170	0.00223	Significant at the 1% level of significance
	F9b - The service offered by CIPRO.	0.15315	0.00085	Significant at the 1% level of significance

Table 7: Somer's d results of the relationship between awareness of entrepreneurial support and perceived behavioural control of the respondents

Dependent variable: Perceived behavioural control	Independent variable: The level of awareness of entrepreneurial support initiatives	Somer's d value	Approximate significance (p-value)	Statistical significance
E1 - To start a business and keep it working would be easy for me.	F10b - The services offered by the NEF.	0.11054	0.01167	Significant at the 5% level of significance
	F11a - SAMAF.	0.12590	0.00714	Significant at the 1% level of significance
	F11b - The services offered by SAMAF.	0.15654	0.00093	Significant at the 1% level of significance
	F12a - The UYF.	0.10119	0.02020	Significant at the 5% level of significance
	F1 - The government provides good support for people who want to start a business.	0.09183	0.03684	Significant at the 5% level of significance
	F14a - LIMDEV.	0.09425	0.03918	Significant at the 5% level of significance
	F14b - The services offered by LIMDEV.	0.09339	0.04658	Significant at the 5% level of significance
	F15a - LIBSA.	0.12806	0.00748	Significant at the 1% level of significance
	F15b - The services offered by LIBSA.	0.12047	0.01126	Significant at the 5% level of significance
	F16a - The ECDC.	0.09895	0.02545	Significant at the 5% level of significance
	F3 - It would be easy for me to access support from government institutions.	0.17420	0.00029	Significant at the 1% level of significance
	F4 - Information about the	0.12489	0.00941	Significant at

	government support for people who want to start their own businesses is easily accessible.			the 1% level of significance
	F6a - Seda.	0.11606	0.00920	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.11857	0.00554	Significant at the 1% level of significance
	F7a - The IDC.	0.12782	0.00301	Significant at the 1% level of significance
	F7b - The services offered by the IDC.	0.14345	0.00112	Significant at the 1% level of significance
	F8a - Khula.	0.14964	0.00067	Significant at the 1% level of significance
	F8b - The services offered by Khula.	0.11022	0.01424	Significant at the 5% level of significance
	F9a - CIPRO.	0.13192	0.00330	Significant at the 1% level of significance
	F9b - The services offered by CIPRO.	0.12204	0.00732	Significant at the 1% level of significance
E2 - I am able to control the creation process of a new business.	F10b - The services offered by the NEF.	0.09028	0.04099	Significant at the 5% level of significance
	F11b - The services offered by SAMAF.	0.11607	0.00965	Significant at the 1% level of significance
	F12a - The UYF.	0.17093	0.00012	Significant at the 1% level of significance
	F12b - The services that were offered by the UYF.	0.12431	0.00482	Significant at the 1% level of significance
	F1 - The government provides good support for people who want to start a business.	0.13232	0.00120	Significant at the 1% level of significance
	F14a - LIMDEV.	0.10902	0.01361	Significant at the 5% level of significance
	F15a - LIBSA.	0.09227	0.04053	Significant at the 5% level of significance
	F15b - The services offered by LIBSA.	0.10996	0.01660	Significant at the 5% level of significance
	F16a - The ECDC.	0.14632	0.00064	Significant at the 1% level of significance
	F16b - The services offered	0.15557	0.00034	Significant at

	by the ECDC.			the 1% level of significance
	F3 - It would be easy for me to access support from government institutions.	0.14883	0.00152	Significant at the 1% level of significance
	F6a - Seda.	0.19100	0.00001	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.15366	0.00034	Significant at the 1% level of significance
	F7a - The IDC.	0.09856	0.02379	Significant at the 5% level of significance
	F7b - The services offered by the IDC.	0.12213	0.00569	Significant at the 1% level of significance
	F8a - Khula.	0.09081	0.04013	Significant at the 5% level of significance
	F9a - CIPRO.	0.13529	0.00194	Significant at the 1% level of significance
	F9b - The services offered by CIPRO.	0.15129	0.00073	Significant at the 1% level of significance
E3 - I believe I would be completely able to start a new business.	F10a - The NEF.	0.09882	0.02874	Significant at the 5% level of significance
	F10b - The services offered by the NEF.	0.10699	0.01471	Significant at the 5% level of significance
	F11a - SAMAF.	0.08963	0.04806	Significant at the 5% level of significance
	F11b - The services offered by SAMAF	0.09255	0.03258	Significant at the 5% level of significance
	F12a - The UYF.	0.21194	0.0000	Significant at the 1% level of significance
	F12b - The services that were offered by the UYF.	0.14985	0.00091	Significant at the 1% level of significance
	F1 - The government provides good support for people who want to start a business.	0.13304	0.00097	Significant at the 1% level of significance
	F14a - LIMDEV.	0.12517	0.00400	Significant at the 1% level of significance
	F14b - The services offered by LIMDEV.	0.08995	0.04916	Significant at the 5% level of significance
	F15a - LIBSA.	0.12390	0.00632	Significant at the 1% level of significance

	F15b - The services offered by LIBSA.	0.11484	0.01027	Significant at the 5% level of significance
	F16a - The ECDC.	0.15516	0.00013	Significant at the 1% level of significance
	F16b - The services offered by the ECDC.	0.16394	0.00006	Significant at the 1% level of significance
	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.17592	0.00004	Significant at the 1% level of significance
	F3 - It would be easy for me to access support from government institutions.	0.18337	0.00004	Significant at the 1% level of significance
	F4 - Information about the government support for people who want to start their own businesses is easily accessible.	0.16654	0.00017	Significant at the 1% level of significance
	F5 - It would be easier for me to receive support from the people that I know than from the government.	0.10139	0.01608	Significant at the 5% level of significance
	F6a - Seda.	0.19462	0.0000	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.18460	0.0000	Significant at the 1% level of significance
	F7a - The IDC.	0.12842	0.00356	Significant at the 1% level of significance
	F7b - The services offered by the IDC.	0.15454	0.00033	Significant at the 1% level of significance
	F8a - Khula.	0.20889	0.0000	Significant at the 1% level of significance
	F8b - The services offered by Khula.	0.15783	0.00020	Significant at the 1% level of significance
	F9a - CIPRO.	0.16522	0.00026	Significant at the 1% level of significance
	F9b - The services offered by CIPRO.	0.17227	0.00014	Significant at the 1% level of significance
E4- I am prepared to do anything to be an entrepreneur.	F11b - The services offered by SAMAF.	0.10381	0.02026	Significant at the 5% level of significance
	F12a - The UYF.	0.18460	0.00003	Significant at the 1% level of significance
	F12b - The services that were offered by the UYF.	0.12868	0.00487	Significant at the 1% level of

				significance
	F1 - The government provides good support for people who want to start a business.	0.11637	0.00846	Significant at the 1% level of significance
	F14a - LIMDEV.	0.10078	0.03051	Significant at the 5% level of significance
	F14b - The services offered by LIMDEV.	0.09919	0.03824	Significant at the 5% level of significance
	F15a - LIBSA.	0.10977	0.01833	Significant at the 5% level of significance
	F15b - The services offered by LIBSA.	0.09322	0.04319	Significant at the 5% level of significance
	F16a - The ECDC.	0.14449	0.00153	Significant at the 1% level of significance
	F16b - The services offered by the ECDC.	0.12979	0.00415	Significant at the 1% level of significance
	F3 - It would be easy for me to access support from government institutions.	0.12496	0.00891	Significant at the 1% level of significance
	F5 - It would be easier for me to receive support from the people that I know than from the government.	0.13413	0.00297	Significant at the 1% level of significance
	F6a - Seda.	0.12454	0.00496	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.12581	0.00416	Significant at the 1% level of significance
	F7b - The services offered by the IDC.	0.12608	0.00405	Significant at the 1% level of significance
	F9a - CIPRO.	0.14676	0.00135	Significant at the 1% level of significance
	F8b - The services offered by Khula.	0.19033	0.00002	Significant at the 1% level of significance
E5 - I know all about the necessary practical details needed to start a business.	F10a - The NEF.	0.09711	0.03790	Significant at the 5% level of significance
	F10b - The services offered by the NEF.	0.12436	0.00704	Significant at the 1% level of significance
	F11a - SAMAF.	0.09661	0.03822	Significant at the 5% level of significance
	F11b - The services offered by SAMAF.	0.10520	0.02145	Significant at the 5% level of

				significance
	F12a - The UYF.	0.14776	0.00035	Significant at the 1% level of significance
	F12b - The services that were offered by the UYF.	0.10428	0.02379	Significant at the 5% level of significance
	F1 - The government provides good support for people who want to start a business.	0.15586	0.00032	Significant at the 1% level of significance
	F14a - LIMDEV.	0.12874	0.00369	Significant at the 1% level of significance
	F15a - The services offered by LIBSA.	0.09633	0.04519	Significant at the 5% level of significance
	F16a - The ECDC.	0.12626	0.00262	Significant at the 1% level of significance
	F16b - The services offered by the ECDC.	0.11576	0.00560	Significant at the 1% level of significance
	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.22615	0.0000	Significant at the 1% level of significance
	F3 - It would be easy for me to access support from government institutions.	0.15172	0.00080	Significant at the 1% level of significance
	F4 - Information about the government support for people who want to start their own businesses is easily accessible.	0.10599	0.02351	Significant at the 5% level of significance
	F6a - Seda.	0.18772	0.00001	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.19328	0.0000	Significant at the 1% level of significance
	F7a - The IDC.	0.10087	0.01793	Significant at the 5% level of significance
	F8b - The services offered by Khula.	0.08862	0.04605	Significant at the 5% level of significance
	F9a - CIPRO.	0.13182	0.00400	Significant at the 1% level of significance
	F9b - The services offered by CIPRO.	0.14383	0.00233	Significant at the 1% level of significance
E6 - If I wanted to, I could easily start and run a business.	F1 - The government provides good support for people who want to start a business.	0.12039	0.00827	Significant at the 1% level of significance
	F10a - The NEF.	0.10534	0.02625	Significant at

				the 5% level of significance
	F10b - The services offered by the NEF.	0.10856	0.02056	Significant at the 5% level of significance
	F12a - The UYF.	0.09937	0.03368	Significant at the 5% level of significance
	F12b - The services that were offered by the UYF.	0.10667	0.02547	Significant at the 5% level of significance
	F14a - LIMDEV.	0.09779	0.04183	Significant at the 5% level of significance
	F15b - The services offered by LIBSA.	0.11166	0.02454	Significant at the 5% level of significance
	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.15817	0.00109	Significant at the 1% level of significance
	F3 - It would be easy for them to access support from government institutions.	0.19039	0.00003	Significant at the 1% level of significance
	F4 - Information about the government support for people who want to start their own businesses is easily accessible.	0.19273	0.00005	Significant at the 1% level of significance
	F6a - Seda.	0.16091	0.00033	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.18358	0.00006	Significant at the 1% level of significance
	F7a - The IDC.	0.11218	0.01221	Significant at the 5% level of significance
E7 - If I tried to start a business, I would have a high chance of being successful.	F1 - The government provides good support for people who want to start a business.	0.12302	0.00497	Significant at the 1% level of significance
	F12a - The UYF.	0.13153	0.00369	Significant at the 1% level of significance
	F14a - LIMDEV.	0.11602	0.01231	Significant at the 5% level of significance
	F14b - The services offered by LIMDEV.	0.11562	0.01142	Significant at the 5% level of significance
	F15a - LIBSA.	0.12798	0.00688	Significant at the 1% level of significance
	F15b - The services offered	0.13234	0.00506	Significant at

	by LIBSA.			the 1% level of significance
	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.16568	0.00031	Significant at the 1% level of significance
	F3 - It would be easy for me to access support from government institutions.	0.20358	0.00001	Significant at the 1% level of significance
	F4 - Information about the government support for people who want to start their own businesses is easily accessible.	0.20218	0.00003	Significant at the 1% level of significance
	F5 - It would be easier for me to receive support from the people that I know than from the government.	0.11022	0.01551	Significant at the 5% level of significance
	F6a - Seda.	0.14044	0.00219	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.15479	0.00045	Significant at the 1% level of significance
	F7a - The IDC.	0.10255	0.01469	Significant at the 5% level of significance
	F7b - The services offered by the IDC.	0.09173	0.02981	Significant at the 5% level of significance
	F9a - CIPRO.	0.09865	0.02512	Significant at the 5% level of significance
	F9b - The services offered by CIPRO.	0.11703	0.01030	Significant at the 5% level of significance
E8 - It would be very easy for me to develop a business idea.	F10a - The NEF.	0.14720	0.00102	Significant at the 1% level of significance
	F10b - The services offered by the NEF.	0.19526	0.00001	Significant at the 1% level of significance
	F11b - The services offered by SAMAF.	0.15266	0.00059	Significant at the 1% level of significance
	F12a - The UYF.	0.25893	0.0000	Significant at the 1% level of significance
	F12b - The services that were offered by the UYF.	0.23284	0.0000	Significant at the 1% level of significance
	F1 - The government provides good support for people who want to start a business.	0.18646	0.00001	Significant at the 1% level of significance
	F14a - LIMDEV.	0.12456	0.00732	Significant at the 1% level of

				significance
	F16a - The ECDC.	0.18365	0.00002	Significant at the 1% level of significance
	F16b - The services offered by the ECDC.	0.16178	0.00031	Significant at the 1% level of significance
	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.22562	0.0000	Significant at the 1% level of significance
	F3 - It would be easy for me to access support from government institutions.	0.23138	0.0000	Significant at the 1% level of significance
	F4 - Information about the government support for people who want to start their own businesses is easily accessible.	0.13970	0.00269	Significant at the 1% level of significance
	F6a - Seda.	0.23198	0.0000	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.20963	0.0000	Significant at the 1% level of significance
	F7a - The IDC.	0.15530	0.00037	Significant at the 1% level of significance
	F7b - The services offered by the IDC.	0.15591	0.00036	Significant at the 1% level of significance
	F8a - Khula.	0.14669	0.00083	Significant at the 1% level of significance
	F8b - The services offered by Khula.	0.10746	0.01372	Significant at the 5% level of significance
	F9a - CIPRO.	0.12335	0.00558	Significant at the 1% level of significance
	F9b - The services offered by CIPRO.	0.13223	0.00522	Significant at the 1% level of significance
E9 - My qualification has provided me with sufficient knowledge to start a business.	F11b - The services offered by SAMAF.	0.12279	0.00538	Significant at the 1% level of significance
	F12a - The UYF.	0.15210	0.00051	Significant at the 1% level of significance
	F12b - The services that were offered by the UYF.	0.10001	0.02380	Significant at the 5% level of significance
	F1 - The government provides good support for people who want to start a	0.16239	0.00013	Significant at the 1% level of significance

	business.			
	F14a - LIMDEV.	0.10650	0.01778	Significant at the 5% level of significance
	F15a - LIBSA.	0.10363	0.02877	Significant at the 5% level of significance
	F15b - The services offered by LIBSA.	0.12183	0.00803	Significant at the 1% level of significance
	F16a - The ECDC.	0.17744	0.00001	Significant at the 1% level of significance
	F16b - The services offered by the ECDC.	0.18126	0.00001	Significant at the 1% level of significance
	F2 - I know the different types of support that is offered to people who want to start their own businesses.	0.24757	0.0000	Significant at the 1% level of significance
	F3 - It would be easy for me to access support from government institutions.	0.20518	0.00001	Significant at the 1% level of significance
	F4 - Information about the government support for people who want to start their own businesses is easily accessible.	0.10892	0.02587	Significant at the 5% level of significance
	F5 - It would be easier for me to receive support from the people that I know than from the government.	0.09936	0.02742	Significant at the 5% level of significance
	F6a - Seda.	0.19744	0.0000	Significant at the 1% level of significance
	F6b - The services offered by Seda.	0.19278	0.0000	Significant at the 1% level of significance
	F7a - The IDC.	0.09453	0.02684	Significant at the 5% level of significance
	F8a - Khula.	0.10617	0.01419	Significant at the 5% level of significance
	F8b - The services offered by Khula.	0.09593	0.03422	Significant at the 5% level of significance
	F9a - CIPRO.	0.14080	0.00153	Significant at the 1% level of significance
	F9b - The services offered by CIPRO.	0.16946	0.00013	Significant at the 1% level of significance

Table 8: Somer's d results for the relationship between social capital and entrepreneurial intent

Independent variable: Social capital	Dependent variable: Entrepreneurial intent	Somer's d value	Approximate significance (p-value)	Statistical significance
G1 - I personally know someone who is an entrepreneur in my family.	C2 - My professional goal is to be an entrepreneur.	0.130	0.005	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.103	0.025	Significant at the 5% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.169	0.000	Significant at the 1% level of significance
G2 - I have a friend who is an entrepreneur.	C4 - I am determined to create a business venture in the future.	0.107	0.020	Significant at the 5% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.129	0.004	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.139	0.002	Significant at the 1% level of significance
G3 - I personally know other people who are entrepreneurs.	C1 - I am ready to do anything to be an entrepreneur.	0.163	0.001	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.132	0.005	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.137	0.004	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.184	0.000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.105	0.029	Significant at the 5% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.131	0.008	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.128	0.007	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a	0.117	0.013	Significant at the 5% level of significance

	business.			
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.153	0.001	Significant at the 1% level of significance
G4 - I personally know successful entrepreneurs in my community.	C1 - I am ready to do anything to be an entrepreneur.	0.109	0.020	Significant at the 5% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.105	0.022	Significant at the 5% level of significance
	C4 - I am determined to create a business venture in the future.	0.155	0.001	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.090	0.046	Significant at the 5% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.095	0.034	Significant at the 5% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.105	0.023	Significant at the 5% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.121	0.008	Significant at the 1% level of significance
G5 - My immediate family would approve of my decision to start a business.	C1 - I am ready to do anything to be an entrepreneur.	0.24912	0.00000	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.22842	0.00000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.24213	0.00000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.23014	0.00000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.20938	0.00000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.25414	0.00000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever	0.26964	0.00000	Significant at the 1% level of

	starting a business in the future.			significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.165	0.000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.124	0.008	Significant at the 1% level of significance
G6 - My friends would approve of my decision to start a business.	C1 - I am ready to do anything to be an entrepreneur	0.22851	0.00000	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.23660	0.00000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.23598	0.00000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.27955	0.00000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.21663	0.00000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.29692	0.00000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.32928	0.00000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.166	0.000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.158	0.001	Significant at the 1% level of significance
G7 - My colleagues would approve of my decision to start a business.	C1 - I am ready to do anything to be an entrepreneur.	0.21170	0.00001	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.26285	0.00000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run	0.20904	0.00000	Significant at the 1% level of

	my own business.			significance
	C4 - I am determined to create a business venture in the future.	0.163	0.000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.162	0.000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.20670	0.00000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.21136	0.00000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.147	0.000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.136	0.005	Significant at the 1% level of significance
G8 - My immediate family values entrepreneurial activity above other activities and careers.	C1 - I am ready to do anything to be an entrepreneur.	0.24493	0.00000	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.29554	0.00000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.186	0.000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.147	0.001	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.168	0.000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.187	0.000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.184	0.000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.160	0.000	Significant at the 1% level of significance

	C9 - I had a strong intention to start my own business before I started with my qualification.	0.125	0.007	Significant at the 1% level of significance
G9 - My colleagues value entrepreneurial activity above other activities and careers.	C1 - I am ready to do anything to be an entrepreneur.	0.193	0.000	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.25868	0.00000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.165	0.000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.156	0.001	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.135	0.005	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.146	0.001	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.153	0.001	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.166	0.000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.141	0.005	Significant at the 1% level of significance
G10 - My friends value entrepreneurial activity above other activities and careers.	C1 - I am ready to do anything to be an entrepreneur.	0.22509	0.00000	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.32011	0.00000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.21449	0.00000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.23283	0.00000	Significant at the 1% level of significance
	C5 - I do not have	0.20739	0.00000	Significant at the

	doubts about ever starting my own business in the future.			1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.20085	0.00001	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.25630	0.00000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.25267	0.00000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.169	0.000	Significant at the 1% level of significance
G11 - The culture in my community is highly favourable towards the entrepreneurial activity.	C1 - I am ready to do anything to be an entrepreneur.	0.20058	0.00002	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.24632	0.00000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.20000	0.00000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.182	0.000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.21278	0.00000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.21749	0.00000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.21525	0.00000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.23498	0.00000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.192	0.000	Significant at the 1% level of significance

G12 - In my country, entrepreneurial activity is considered to be worthwhile, despite the risks.	C1 - I am ready to do anything to be an entrepreneur.	0.164	0.025	Significant at the 5% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.164	0.001	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.126	0.009	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.124	0.008	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.146	0.002	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.137	0.004	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.180	0.000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.181	0.000	Significant at the 1% level of significance
G13 - I can rely on my family for assistance in starting a business.	C1 - I am ready to do anything to be an entrepreneur.	0.141	0.002	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.166	0.000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.110	0.023	Significant at the 5% level of significance
	C4 - I am determined to create a business venture in the future.	0.118	0.011	Significant at the 5% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.145	0.002	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.143	0.002	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in	0.133	0.004	Significant at the 1% level of significance

	the future.			
	C8 - My qualification has contributed positively towards my interest to start a business.	0.174	0.000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.112	0.019	Significant at the 5% level of significance
G14 - I can rely on my friends for assistance in starting a business.	C4 - I am determined to create a business venture in the future.	0.109	0.022	Significant at the 5% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.102	0.031	Significant at the 5% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.127	0.007	Significant at the 1% level of significance
G15 - I can rely on other entrepreneurs for assistance in starting a business.	C1 - I am ready to do anything to be an entrepreneur.	0.139	0.004	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.105	0.028	Significant at the 5% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.133	0.002	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.114	0.015	Significant at the 5% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.116	0.013	Significant at the 5% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.146	0.003	Significant at the 1% level of significance

Table 9: Somer's d results of the relationship between social capital and the attitude of the respondents towards becoming an entrepreneur

Independent variable: Social capital	Dependent variable: The attitude towards becoming an entrepreneur	Somer's d value	Approximate significance (p-value)	Statistical significance
G1 - I personally know someone who is an entrepreneur in my family.	D2 - A career as an entrepreneur is totally attractive to me.	0.124	0.007	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.106	0.023	Significant at the 5% level of significance
G2 - I have a friend who is an entrepreneur.	D2 - A career as an entrepreneur is totally attractive to me.	0.146	0.003	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.112	0.016	Significant at the 5% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.104	0.027	Significant at the 5% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.104	0.034	Significant at the 5% level of significance
G3 - I personally know other people who are entrepreneurs.	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.118	0.016	Significant at the 5% level of significance
	D2 - A career as an entrepreneur is totally attractive to me.	0.21332	0.00000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.149	0.000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.20332	0.00000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.110	0.022	Significant at the 5% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.197	0.000	Significant at the 1% level of significance
G4 - I personally know successful	D2 - A career as an entrepreneur is totally	0.132	0.004	Significant at the 1% level of

entrepreneurs in my community.	attractive to me.			significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.118	0.014	Significant at the 5% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.160	0.001	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.112	0.019	Significant at the 5% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.135	0.004	Significant at the 1% level of significance
G5 - My immediate family would approve of my decision to start a business.	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.114	0.009	Significant at the 1% level of significance
	D2 - A career as an entrepreneur is totally attractive to me.	0.30113	0.00000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.26370	0.00000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.26736	0.00000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.23464	0.00000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.23053	0.00000	Significant at the 1% level of significance
G6 - My friends would approve of my decision to start a business.	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.126	0.005	Significant at the 1% level of significance
	D2 - A career as an entrepreneur is totally attractive to me.	0.27921	0.00000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.27922	0.00000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather	0.27702	0.00000	Significant at the 1% level of

	be an entrepreneur.			significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.24898	0.00000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.20098	0.00001	Significant at the 1% level of significance
G7 - My colleagues would approve of my decision to start a business.	D2 - A career as an entrepreneur is totally attractive to me.	0.22740	0.00000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.184	0.000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.20045	0.00003	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.20812	0.00001	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.181	0.000	Significant at the 1% level of significance
G8 - My immediate family values entrepreneurial activity above other activities and careers.	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.091	0.043	Significant at the 5% level of significance
	D2 - A career as an entrepreneur is totally attractive to me.	0.22940	0.00000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.21536	0.00000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.25744	0.00000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.20846	0.00000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an	0.22266	0.00000	Significant at the 1% level of significance

	entrepreneur.			
G9 - My colleagues value entrepreneurial activity above other activities and careers.	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.115	0.013	Significant at the 5% level of significance
	D2 - A career as an entrepreneur is totally attractive to me.	0.2364	0.00000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.21913	0.00000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.22233	0.00000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.181	0.000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.25279	0.00000	Significant at the 1% level of significance
G10 - My friends value entrepreneurial activity above other activities and careers.	D1 - Being an entrepreneur implies more advantages than disadvantages to me	0.171	0.000	Significant at the 1% level of significance
	D2 - A career as an entrepreneur is totally attractive to me.	0.31231	0.00000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.29338	0.00000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.26946	0.00000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.24899	0.00000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.22001	0.00000	Significant at the 1% level of significance
G11 - The culture in my community is highly favourable towards the	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.149	0.001	Significant at the 1% level of significance

entrepreneurial activity.				
	D2 - A career as an entrepreneur is totally attractive to me.	0.25144	0.00000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.29974	0.00000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.188	0.000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.23189	0.00000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.22938	0.00000	Significant at the 1% level of significance
G12 - In my country, entrepreneurial activity is considered to be worthwhile despite the risks.	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.173	0.000	Significant at the 1% level of significance
	D2 - A career as an entrepreneur is totally attractive to me.	0.23646	0.00000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.132	0.004	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.193	0.000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.23620	0.00000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.21846	0.00001	Significant at the 1% level of significance
G13 - I can rely on my family for assistance in starting a	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.101	0.022	Significant at the 5% level of significance

business.				
	D2 - A career as an entrepreneur is totally attractive to me.	0.21262	0.00000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.182	0.000	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.192	0.000	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.196	0.000	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.25434	0.00000	Significant at the 1% level of significance
G14 - I can rely on my friends for assistance in starting a business.	D2 - A career as an entrepreneur is totally attractive to me.	0.121	0.009	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.116	0.008	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.118	0.010	Significant at the 1% level of significance
	D5 - Being an entrepreneur would give me great satisfaction.	0.109	0.017	Significant at the 5% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.162	0.000	Significant at the 1% level of significance
G15 - I can rely on other entrepreneurs for assistance in starting a business.	D1 - Being an entrepreneur implies more advantages than disadvantages to me.	0.103	0.021	Significant at the 5% level of significance
	D2 - A career as an entrepreneur is totally attractive to me.	0.175	0.000	Significant at the 1% level of significance
	D3 - If I had the opportunity and resources, I would like to start a business.	0.146	0.001	Significant at the 1% level of significance
	D4 - Amongst various options, I would rather be an entrepreneur.	0.113	0.021	Significant at the 5% level of significance

	D5 - Being an entrepreneur would give me great satisfaction.	0.142	0.003	Significant at the 1% level of significance
	D6 - My qualification has contributed positively to my attitude towards becoming an entrepreneur.	0.186	0.000	Significant at the 1% level of significance

Table 10: Somer's d results of the relationship between social capital and perceived behavioural control

Independent variable: Social capital	Dependent variable: perceived behavioural control	Somer's d value	Approximate significance (p-value)	Statistical significance
G1 - I personally know someone who is an entrepreneur in my family.	E1 - To start a business and keep it working would be easy for me.	0.118	0.010	Significant at the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.111	0.011	Significant at the 5% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.199	0.000	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.103	0.023	Significant at the 5% level of significance
G2 - I have a friend who is an entrepreneur.	E2 - I am able to control the creation process of a new business.	0.116	0.012	Significant at the 5% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.113	0.017	Significant at the 5% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.129	0.006	Significant at the 1% level of significance
	E6 - I could easily start and run a business.	0.126	0.008	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.138	0.003	Significant at the 1% level of significance
G3 - I personally know other people who are entrepreneurs.	E3 - I believe I would be completely able to start a new business.	0.137	0.004	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.21607	0.00000	Significant at the 1% level of significance
	E5 - I know all about the	0.123	0.008	Significant at

	necessary practical details needed to start a business.			the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.148	0.000	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.151	0.001	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.175	0.000	Significant at the 1% level of significance
G4 - I personally know successful entrepreneurs in my community.	E4 - I am prepared to do anything to be an entrepreneur.	0.130	0.005	Significant at the 1% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.179	0.000	Significant at the 1% level of significance
	E6 - I could easily start and run a business.	0.108	0.020	Significant at the 5% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.139	0.004	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.144	0.003	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.165	0.000	Significant at the 1% level of significance
G5 - My immediate family would approve of my decision to start a business.	E1 - To start a business and keep it working would be easy for me.	0.172	0.000	Significant at the 1% level of significance
	E2 - I am able to control the creation process of a new business.	0.173	0.000	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.24613	0.00000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.27087	0.00000	Significant at the 1% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.134	0.003	Significant at the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being	0.23588	0.00000	Significant at the 1% level of

	successful.			significance
	E8 - It would be very easy for me to develop a business idea.	0.172	0.000	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.186	0.000	Significant at the 1% level of significance
G6 - My friends would approve of my decision to start a business.	E1 - To start a business and keep it working would be easy for me.	0.128	0.007	Significant at the 1% level of significance
	E2 - I am able to control the creation process of a new business.	0.190	0.000	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.25562	0.00000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.27343	0.00000	Significant at the 1% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.149	0.002	Significant at the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.179	0.000	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.143	0.003	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.141	0.002	Significant at the 1% level of significance
G7 - My colleagues would approve of my decision to start a business.	E1 - To start a business and keep it working would be easy for me.	0.131	0.005	Significant at the 1% level of significance
	E2 - I am able to control the creation process of a new business.	0.153	0.001	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.24144	0.00000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.171	0.000	Significant at the 1% level of significance
	E6 - I could easily start and run a business.	0.103	0.034	Significant at the 5% level of significance
	E7 - If I tried to start a	0.171	0.000	Significant at

	business, I would have a high chance of being successful.			the 1% level of significance
G8 - My immediate family values entrepreneurial activity above other activities and careers.	E1 - To start a business and keep it working would be easy for me.	0.149	0.001	Significant at the 1% level of significance
	E2 - I am able to control the creation process of a new business.	0.176	0.000	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.198	0.000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.22494	0.00000	Significant at the 1% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.149	0.001	Significant at the 1% level of significance
	E6 - If I wanted to, I could easily start and run a business.	0.096	0.043	Significant at the 5% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.153	0.001	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.132	0.002	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.140	0.001	Significant at the 1% level of significance
G9 - My colleagues value entrepreneurial activity above other activities and careers.	E1 - To start a business and keep it working would be easy for me.	0.183	0.000	Significant at the 1% level of significance
	E2 - I am able to control the creation process of a new business.	0.154	0.001	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.156	0.001	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.185	0.000	Significant at the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.103	0.027	Significant at the 5% level of significance
	E8 - It would be very	0.118	0.013	Significant at

	easy for me to develop a business idea.			the 5% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.179	0.000	Significant at the 1% level of significance
G10 - My friends value entrepreneurial activity above other activities and careers.	E1 - To start a business and keep it working would be easy for me.	0.166	0.000	Significant at the 1% level of significance
	E2 - I am able to control the creation process of a new business.	0.164	0.000	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.186	0.000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.22895	0.00000	Significant at the 1% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.124	0.009	Significant at the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.147	0.001	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.157	0.001	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.173	0.000	Significant at the 1% level of significance
G11 - The culture in my community is highly favourable towards the entrepreneurial activity.	E2 - I am able to control the creation process of a new business.	0.106	0.026	Significant at the 5% level of significance
	E3 - I believe I would be completely able to start a new business.	0.21136	0.00000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.26153	0.00000	Significant at the 1% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.158	0.001	Significant at the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.163	0.001	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.163	0.000	Significant at the 1% level of significance

	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.22525	0.00000	Significant at the 1% level of significance
G12 - In my country, entrepreneurial activity is considered to be worthwhile, despite the risks.	E2 - I am able to control the creation process of a new business.	0.144	0.003	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.133	0.003	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.164	0.001	Significant at the 1% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.125	0.009	Significant at the 1% level of significance
	E6 - If I wanted to, I could easily start and run a business.	0.099	0.038	Significant at the 5% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.167	0.000	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.135	0.004	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.149	0.002	Significant at the 1% level of significance
G13 - I can rely on my family for assistance in starting a business.	E2 - I am able to control the creation process of a new business.	0.177	0.000	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.20304	0.00000	Significant at the 1% level of significance
	E5 - I know all about the necessary practical details needed to start a business.	0.158	0.000	Significant at the 1% level of significance
	E6 - If I wanted to, I could easily start and run a business.	0.120	0.012	Significant at the 5% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.191	0.000	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.155	0.001	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.107	0.022	Significant at the 5% level of significance
G14 - I can rely on	E2 - I am able to control	0.153	0.001	Significant at

my friends for assistance in starting a business.	the creation process of a new business.			the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.121	0.014	Significant at the 5% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.133	0.005	Significant at the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.133	0.004	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.103	0.028	Significant at the 5% level of significance
G15 - I can rely on other entrepreneurs for assistance in starting a business.	E1 - To start a business and keep it working would be easy for me.	0.132	0.005	Significant at the 1% level of significance
	E2 - I am able to control the creation process of a new business.	0.134	0.005	Significant at the 1% level of significance
	E3 - I believe I would be completely able to start a new business.	0.130	0.007	Significant at the 1% level of significance
	E4 - I am prepared to do anything to be an entrepreneur.	0.21265	0.00001	Significant at the 1% level of significance
	E6 - If I wanted to, I could easily start and run a business.	0.126	0.007	Significant at the 1% level of significance
	E7 - If I tried to start a business, I would have a high chance of being successful.	0.170	0.000	Significant at the 1% level of significance
	E8 - It would be very easy for me to develop a business idea.	0.161	0.000	Significant at the 1% level of significance
	E9 - My qualification has provided me with sufficient knowledge to start a business.	0.142	0.003	Significant at the 1% level of significance

Table 11: Somer's d results of the relationship between entrepreneurial self-efficacy and entrepreneurial intent

Independent variable: Entrepreneurial self-efficacy	Dependent variable: Entrepreneurial intent items	Somer's d value	Approximate significance (p-value)	Statistical significance
H1- My ability to generate a new idea for a product or service.	C1 - I am ready to do anything to be an entrepreneur.	0.145	0.002	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.24321	0.00000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.199	0.000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.192	0.000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.159	0.001	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.23708	0.00000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.20438	0.00001	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.195	0.000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.23742	0.00000	Significant at the 1% level of significance
H2 - My ability to identify the need for a new product or service.	C1 - I am ready to do anything to be an entrepreneur.	0.173	0.000	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.22539	0.00000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.22808	0.00000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.21894	0.00000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.21290	0.00000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.21836	0.00000	Significant at the 1% level of significance
	C7 - I have a strong	0.25488	0.00000	Significant at the

	intention of ever starting a business in the future.			1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.23476	0.00000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.28713	0.00000	Significant at the 1% level of significance
H3 - My ability to design a product or service that will satisfy customer needs and wants.	C1 - I am ready to do anything to be an entrepreneur.	0.103	0.036	Significant at the 5% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.180	0.000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.146	0.001	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.167	0.000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.164	0.000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.196	0.000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.195	0.000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.20402	0.00000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.174	0.000	Significant at the 1% level of significance
H4 - Estimate customer demand for a new product or service.	C1 - I am ready to do anything to be an entrepreneur.	0.100	0.045	Significant at the 5% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.161	0.001	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.130	0.005	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.120	0.007	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own	0.153	0.001	Significant at the 1% level of

	business in the future.			significance
	C6 - I have very seriously thought of starting a business in the future.	0.183	0.000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.200	0.000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.179	0.000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.137	0.004	Significant at the 1% level of significance
H5 - Determine a competitive price for a new product or service.	C2 - My professional goal is to be an entrepreneur.	0.103	0.039	Significant at the 5% level of significance
	C3 - I will make every effort to start and run my own business.	0.140	0.004	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.125	0.010	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.148	0.003	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.171	0.000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.137	0.001	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.160	0.001	Significant at the 1% level of significance
H6- Estimate the amount of start-up funds and working capital necessary to start a business.	C1 - I am ready to do anything to be an entrepreneur.	0.139	0.003	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.147	0.002	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.180	0.000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.168	0.000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.188	0.000	Significant at the 1% level of significance

	C6 - I have very seriously thought of starting a business in the future.	0.189	0.000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.196	0.000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.180	0.000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.128	0.008	Significant at the 1% level of significance
H7- My ability to design an effective marketing/advertising campaign for a new product or service.	C1 - I am ready to do anything to be an entrepreneur.	0.185	0.000	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.24701	0.00000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.187	0.000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.166	0.000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.164	0.000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.194	0.000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.186	0.000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.171	0.000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.171	0.000	Significant at the 1% level of significance
H8 - My ability to get others to identify with and believe in my vision and plans for a new business.	C1 - I am ready to do anything to be an entrepreneur.	0.177	0.000	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.193	0.000	Significant at the 1% level of significance
	C3 - I will make every effort	0.177	0.000	Significant at the

	to start and run my own business.			1% level of significance
	C4 - I am determined to create a business venture in the future.	0.140	0.001	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.149	0.001	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.190	0.000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.24079	0.00000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.161	0.000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.165	0.000	Significant at the 1% level of significance
H9 - My ability to make contact with and exchange information with others.	C1 - I am ready to do anything to be an entrepreneur.	0.190	0.000	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.190	0.000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.194	0.000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.28512	0.00000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.190	0.000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.22975	0.00000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.22345	0.00000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.20527	0.00001	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.188	0.000	Significant at the 1% level of significance
H10 - My ability to clearly and concisely explain verbally/in	C1 - I am ready to do anything to be an entrepreneur.	0.21965	0.00000	Significant at the 1% level of significance

writing my business idea in simple terms.				
	C2 - My professional goal is to be an entrepreneur	0.197	0.000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.21069	0.00000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.194	0.000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.178	0.000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.20803	0.00001	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.197	0.000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.192	0.000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.197	0.000	Significant at the 1% level of significance
H11 - My ability to develop relationships with key people who are connected to sources of capital.	C1 - I am ready to do anything to be an entrepreneur.	0.196	0.000	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.186	0.000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.179	0.000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.24269	0.00000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.20000	0.00000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.21244	0.00000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.165	0.000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.22197	0.00000	Significant at the 1% level of significance

	C9 - I had a strong intention to start my own business before I started with my qualification.	0.172	0.000	Significant at the 1% level of significance
H12 - My ability to develop and maintain favourable relationships with potential investors.	C1 - I am ready to do anything to be an entrepreneur.	0.181	0.000	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.187	0.000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.20000	0.00000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.25880	0.00000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.21781	0.00000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.24503	0.00000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.20699	0.00001	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.20460	0.00001	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.176	0.000	Significant at the 1% level of significance
H13 - My ability to identify potential sources of funding for investments in my business.	C1 - I am ready to do anything to be an entrepreneur.	0.21353	0.00000	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.24817	0.00000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.21101	0.00000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.23503	0.00000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.22360	0.00000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.24586	0.00000	Significant at the 1% level of significance

	C7 - I have a strong intention of ever starting a business in the future.	0.26102	0.00000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.24222	0.00000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.143	0.000	Significant at the 1% level of significance
H14 - My ability to recruit and train new employees.	C1 - I am ready to do anything to be an entrepreneur.	0.132	0.005	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.20411	0.00001	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.187	0.000	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.20410	0.00001	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.130	0.004	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.20112	0.00000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.21305	0.00000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.192	0.000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.174	0.000	Significant at the 1% level of significance
H15 - My ability delegate tasks and responsibilities to employees in my business.	C1 - I am ready to do anything to be an entrepreneur.	0.114	0.017	Significant at the 5% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.168	0.000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.131	0.004	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.161	0.000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.133	0.003	Significant at the 1% level of significance

	C6 - I have very seriously thought of starting a business in the future.	0.166	0.000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.145	0.002	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.20544	0.00001	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.146	0.001	Significant at the 1% level of significance
H16 - My ability to supervise employees.	C1 - I am ready to do anything to be an entrepreneur.	0.158	0.002	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.21341	0.00001	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.20014	0.00003	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.197	0.000	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.180	0.000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.195	0.000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.20947	0.00001	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.23703	0.00000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.168	0.000	Significant at the 1% level of significance
H17 - My ability to deal effectively with day-to-day problems and crises.	C1 - I am ready to do anything to be an entrepreneur.	0.20398	0.00002	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.21154	0.00001	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.20194	0.00002	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.195	0.000	Significant at the 1% level of significance
	C5 - I do not have doubts	0.21698	0.00000	Significant at the

	about ever starting my own business in the future.			1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.194	0.000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.22145	0.00000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.20965	0.00001	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.181	0.000	Significant at the 1% level of significance
H18 - My ability to inspire, encourage and motivate my employees.	C1 - I am ready to do anything to be an entrepreneur.	0.20000	0.00000	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.21489	0.00005	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.172	0.001	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.23222	0.00001	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.22738	0.00002	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.24498	0.00000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.191	0.000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.119	0.023	Significant at the 5% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.186	0.000	Significant at the 1% level of significance
H19 - My ability to develop a working environment that encourages people to try out new things.	C1 - I am ready to do anything to be an entrepreneur.	0.171	0.001	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.24421	0.00000	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own	0.177	0.000	Significant at the 1% level of

	business.			significance
	C4 - I am determined to create a business venture in the future.	0.21041	0.00002	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.192	0.000	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.23627	0.00000	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.20902	0.00003	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.190	0.000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.161	0.001	Significant at the 1% level of significance
H20 - My ability to persist in the face of adversity.	C1 - I am ready to do anything to be an entrepreneur.	0.127	0.029	Significant at the 5% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.162	0.006	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.146	0.008	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.128	0.020	Significant at the 5% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.177	0.001	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.181	0.001	Significant at the 1% level of significance
	C7 - I have strong intention of ever starting a business in the future.	0.23884	0.00000	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.124	0.023	Significant at the 5% level of significance
H21 - My ability to make decisions under uncertainty and risk.	C2 - My professional goal is to be an entrepreneur.	0.172	0.002	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.158	0.003	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.156	0.004	Significant at the 1% level of significance
	C5 - I do not have doubts	0.174	0.001	Significant at the

	about ever starting my own business in the future.			1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.21639	0.00007	Significant at the 1% level of significance
	C7 - I have strong intention of ever starting a business in the future.	0.21915	0.00004	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.190	0.000	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.123	0.038	Significant at the 5% level of significance
H22 - My ability to organise and maintain the financial records of my business.	C3 - I will make every effort to start and run my own business.	0.126	0.028	Significant at the 5% level of significance
	C4 - I am determined to create a business venture in the future.	0.123	0.026	Significant at the 5% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.20508	0.00029	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.21797	0.00014	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.175	0.002	Significant at the 1% level of significance
H23 – My ability to manage financial assets of my business.	C5 - I do not have doubts about ever starting my own business in the future.	0.165	0.006	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.144	0.017	Significant at the 5% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.147	0.015	Significant at the 5% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.134	0.024	Significant at the 5% level of significance
H24 – My ability to read and interpret financial statements.	C5 - I do not have doubts about ever starting my own business in the future.	0.132	0.041	Significant at the 5% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.134	0.040	Significant at the 5% level of significance
	C8 - My qualification has contributed positively towards my interest to start	0.125	0.041	Significant at the 5% level of significance

	a business.			
--	-------------	--	--	--

Table 12: Somer's d results for the relationship between entrepreneurial competencies and entrepreneurial intent

Independent variable: Entrepreneurial competencies	Dependent variable: Entrepreneurial intent items	Somer's d value	Approximate significance (p-value)	Statistical significance
I1 - The ability to recognise and evaluate opportunities in the market.	C1 - I am ready to do anything to be an entrepreneur.	0.16568	0.00706	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.17678	0.00297	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my own business.	0.16729	0.00379	Significant at the 1% level of significance
	C4 - I am determined to create a business venture in the future.	0.21072	0.00019	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.19131	0.00125	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.22816	0.00015	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.20360	0.00042	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.20063	0.00054	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.15071	0.01375	Significant at the 5% level of significance
I2 - The ability to develop relationships with other business people for mutual learning and collaborative working to achieve common objectives.	C1 - I am ready to do anything to be an entrepreneur.	0.14912	0.00986	Significant at the 1% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.19404	0.00030	Significant at the 1% level of significance
	C4 - I am determined to create a business	0.17192	0.00145	Significant at the 1% level of

	venture in the future.			significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.18428	0.00068	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.23412	0.00002	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.17693	0.00234	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.17563	0.00228	Significant at the 1% level of significance
I3 - The ability to persuade and discuss with various stakeholders about the issues that involve the business.	C2 - My professional goal is to be an entrepreneur.	0.15056	0.01066	Significant at the 5% level of significance
	C3 - I will make every effort to start and run my own business.	0.12703	0.02008	Significant at the 5% level of significance
	C4 - I am determined to create a business venture in the future.	0.12320	0.02912	Significant at the 5% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.19274	0.00023	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.18705	0.00080	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.22806	0.00003	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.17117	0.00133	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.17573	0.00306	Significant at the 1% level of significance
I4 - The ability to make sacrifices to ensure that the business gets started.	C1 - I am ready to do anything to be an entrepreneur.	0.14819	0.01902	Significant at the 5% level of significance
	C2 - My professional goal is to be an entrepreneur.	0.24323	0.00007	Significant at the 1% level of significance
	C3 - I will make every effort to start and run my	0.23951	0.00006	Significant at the 1% level of

	own business.			significance
	C4 - I am determined to create a business venture in the future.	0.20223	0.00056	Significant at the 1% level of significance
	C5 - I do not have doubts about ever starting my own business in the future.	0.19325	0.00169	Significant at the 1% level of significance
	C6 - I have very seriously thought of starting a business in the future.	0.24168	0.00007	Significant at the 1% level of significance
	C7 - I have a strong intention of ever starting a business in the future.	0.21646	0.00069	Significant at the 1% level of significance
	C8 - My qualification has contributed positively towards my interest to start a business.	0.19725	0.00113	Significant at the 1% level of significance
	C9 - I had a strong intention to start my own business before I started with my qualification.	0.18418	0.00348	Significant at the 1% level of significance

APPENDIX 3: ADDITIONAL WEAK AND VERY WEAK RESULTS

Additional results for the relationship between the attitude of the respondents towards becoming an entrepreneur and their intention to start a business (section 8.5.3)

Where moderate relationships did not exist, the results revealed a significant (at the 1% level of significance) but weak relationship (with Somer's d values between 0.2 and 0.4) between entrepreneurial intent factors and the factors measuring attitude towards becoming an entrepreneur (see table 3 in appendix 2) as follows:

- The entrepreneurial intent factor "I am ready to do anything to be an entrepreneur" (C1) had a weak relationship with the following attitudes D1 and D6: "Being an entrepreneur implies more advantages than disadvantages to me" (D1, Somer's d value = 0.32651, p = 0.0000) and "My qualification has contributed positively to my attitude towards becoming an entrepreneur" (D6, Somer's d value = 0.37927, p = 0.0000).
- The entrepreneurial intent factor "My professional goal is to be an entrepreneur" (C2) had a weak relationship with one of the attitudes D1: "Being an entrepreneur implies more advantages than disadvantages to me" (D1, Somer's d value = 0.369420, p = 0.0000).
- The entrepreneurial intent factor "I will make every effort to start and run my own business" (C3) had a weak relationship with the following attitudes D1 and D6: "Being an entrepreneur implies more advantages than disadvantages to me" (D1, Somer's d value = 0.30319, p = 0.0000) and "My qualification has contributed positively to my attitude towards becoming an entrepreneur" (D6, Somer's d value = 0.37888, p = 0.0000).
- The entrepreneurial intent factor "I am determined to create a business venture in the future" (C4) had a weak relationship with the following attitudes D1, D4 and D6: "Being an entrepreneur implies more advantages than disadvantages to me" (D1, Somer's d value = 0.28181, p = 0.0000); "Amongst various options, I would rather be an entrepreneur" (D4, Somer's d value = 0.34184, p = 0.0000) and "My

qualification has contributed positively to my attitude towards becoming an entrepreneur" (D6, Somer's d value = 0.34706, $p = 0.0000$).

- The entrepreneurial intent factor "I do not have doubts about ever starting my own business in the future" (C5) had a weak relationship with the following attitudes D1, D2, D4, D5 and D6: "Being an entrepreneur implies more advantages than disadvantages to me" (D1, Somer's d value = 0.26599, $p = 0.0000$); "A career as an entrepreneur is totally attractive to me" (D2, Somer's d value = 0.37746, $p = 0.0000$); "Amongst various options, I would rather be an entrepreneur" (D4, Somer's d value = 0.30417, $p = 0.0000$); "Being an entrepreneur would give me great satisfaction" (D5, Somer's d value = 0.39297, $p = 0.0000$) and "My qualification has contributed positively to my attitude towards becoming an entrepreneur" (D6, Somer's d value = 0.30851, $p = 0.0000$).
- The entrepreneurial intent factor "I have very seriously thought of starting a business in the future" (C6) had a weak relationship with the following attitudes D1 and D6: "Being an entrepreneur implies more advantages than disadvantages to me" (D1, Somer's d value = 0.29986, $p = 0.0000$) and "My qualification has contributed positively to my attitude towards becoming an entrepreneur" (D6, Somer's d value = 0.36298, $p = 0.0000$).
- The entrepreneurial intent factor "I have a strong intention of ever starting a business in the future" (C7) had a weak relationship with one of the attitudes D1: "Being an entrepreneur implies more advantages than disadvantages to me" (D1, Somer's d value = 0.34921, $p = 0.0000$).
- The entrepreneurial intent factor "My qualification has contributed positively towards my interest to start a business" (C8) had a weak relationship with the following attitudes D1, D2, D4 and D5 and D6: "Being an entrepreneur implies more advantages than disadvantages to me" (D1, Somer's d value = 0.26262, $p = 0.0000$); "A career as an entrepreneur is totally attractive to me" (D2, Somer's d value = 0.36274, $p = 0.0000$); "Amongst various options, I would rather be an

entrepreneur” (D4, Somer’s d value = 0.34205, $p = 0.0000$) and “Being an entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.34510, $p = 0.0000$).

- The entrepreneurial intent factor “I had a strong intention to start my own business before I started with my qualification” (C9) had a weak relationship with the all six attitudes D1 to D6: “Being an entrepreneur implies more advantages than disadvantages to me” (D1, Somer’s d value = 0.32322, $p = 0.0000$); “A career as an entrepreneur is totally attractive to me” (D2, Somer’s d value = 0.36543, $p = 0.0000$); “If I had the opportunity and resources, I would like to start a business” (D3, Somer’s d value = 0.38990, $p = 0.0000$); “Amongst various options, I would rather be an entrepreneur” (D4, Somer’s d value = 0.32539, $p = 0.0000$); “Being an entrepreneur would give me great satisfaction” (D5, Somer’s d value = 0.26743, $p = 0.0000$) and “My qualification has contributed positively to my attitude toward becoming an entrepreneur” (D6, Somer’s d value = 0.27720, $p = 0.0000$).

Additional results for the relationship between the attitude towards becoming an entrepreneur and entrepreneurial knowledge and work experience of the respondents (section 8.5.4)

The results in table 1 show that the attitude towards becoming an entrepreneur (“A career as an entrepreneur is totally attractive to me” (D2)) was significantly but moderately related to ‘current ownership of the business’ (B3) (Cramer’s V test value = 0.20658, $p = 0.00562$), ‘having friends who are running businesses’ (B5) (Cramer’s V test value = 0.21771, $p = 0.00287$), ‘knowledge of any other person who is an entrepreneur’ (B6) (Cramer’s V test value = 0.22386, $p = 0.00208$) and ‘having tried to start a business before’ (B7) (Cramer’s V test value = 0.23633, $p = 0.00085$). No significant relationships were found between entrepreneurial knowledge and work experience as measured in section B of the questionnaire and any of the other five factors of the attitude towards becoming an entrepreneur as detailed in table 1.

Table 1: Correlations between the entrepreneurial knowledge and work experience of the respondents and their attitude towards becoming an entrepreneur

Correlations with the attitude towards becoming an entrepreneur (D2 – A career as an entrepreneur is totally attractive to me)	Cramer's V value	Approximate significance (p-value)	Statistical significance
B3. Are you currently running a business?	0.20658	0.00562	Significant at the 1% level of significance
B5. Are any of your friends running a business?	0.21771	0.00287	Significant at the 1% level of significance
B6. Do you know any other person who is an entrepreneur?	0.22386	0.00208	Significant at the 1% level of significance
B7. Have you ever tried to start a business before?	0.23633	0.00085	Significant at the 1% level of significance

The relationship between perceived behavioural control of the respondents and their intention to start a business (section 8.6.3)

Where moderate relationships did not exist, significant (at the 1% and 5% level of significance) but weak (Somers' d values between 0.2 and 0.4) relationship between entrepreneurial intent and perceived behavioural control was found on the following (results in table 4 of appendix 2):

- The entrepreneurial intent factor "I am ready to do anything to be an entrepreneur" (C1) had weak relationship with perceived behavioural control factors: "To start a business and keep it working would be easy for me" (E1, Somers' d value = 0.22414, p = 0.00000); "I am able to control the creation process of a new business" (E2, Somers' d value = 0.31819, p = 0.0000); "If I tried to start a business, I would have a high chance of being successful" (E7, Somers' d value = 0.20708, p = 0.00002); and "My qualification has provided me with sufficient knowledge to start a business" (E9, Somers' d value = 0.24002, p = 0.0000).

- The entrepreneurial intent factor “My professional goal is to be an entrepreneur” (C2) had a weak relationship with perceived behavioural control factors: “To start a business and keep it working would be easy for me” (E1, Somer’s d value = 0.25263, $p = 0.00000$); “I am able to control the creation process of a new business” (E2, Somer’s d value = 0.28717, $p = 0.00000$); “If I tried to start a business, I would have a high chance of being successful” (E7, Somer’s d value = 0.21148, $p = 0.00001$); “It would be very easy for me to develop a business idea” (E8, Somer’s d value = 0.21682, $p = 0.00000$); and “My qualification has provided me with sufficient knowledge to start a business” (E9, Somer’s d value = 0.22348, $p = 0.00001$).
- The entrepreneurial intent factor “I will make every effort to start and run my own business” (C3) had a weak relationship with perceived behavioural control factors: “To start a business and keep it working would be easy for me” (E1, Somer’s d value = 0.27055, $p = 0.00000$); “I am able to control the creation process of a new business” (E2, Somer’s d value = 0.35814, $p = 0.00000$); “I believe I would be completely able to start a business” (E3, Somer’s d value = 0.38416, $p = 0.00000$); “If I tried to start a business, I would have a high chance of being successful” (E7, Somer’s d value = 0.26745, $p = 0.00000$); and “My qualification has provided me with sufficient knowledge to start a business” (E9, Somer’s d value = 0.23703, $p = 0.00001$).
- The entrepreneurial intent factor “I am determined to create a business venture in the future” (C4) had a weak relationship with perceived behavioural control factors: “To start a business and keep it working would be easy for me” (E1, Somer’s d value = 0.20498, $p = 0.00001$); “I am able to control the creation process of a new business” (E2, Somer’s d value = 0.26400, $p = 0.00000$); “I believe I would be completely able to start a business” (E3, Somer’s d value = 0.34985, $p = 0.00000$); “I am prepared to do anything to be an entrepreneur” (E4, Somer’s d value = 0.38275, $p = 0.00000$) and “If I tried to start a business, I would have a high chance of being successful” (E7, Somer’s d value = 0.23436, $p = 0.00000$).

- The entrepreneurial intent factor “I do not have doubts about ever starting my own business in the future” (C5) had a weak relationship with perceived behavioural control factors: “To start a business and keep it working would be easy for me” (E1, Somer’s d value = 0.27530, p = 0.0000); “I am able to control the creation process of a new business” (E2, Somer’s d value = 0.31044, p = 0.0000); “I am prepared to do anything to be an entrepreneur” (E4, Somer’s d value = 0.37211, p = 0.0000); “If I tried to start a business, I would have a high chance of being successful” (E7, Somer’s d value = 0.24096, p = 0.0000); “It would be very easy for me to develop a business idea” (E8, Somer’s d value = 0.20026, p = 0.00003); and “My qualification has provided me with sufficient knowledge to start a business” (E9, Somer’s d value = 0.21440, p = 0.0000).
- The entrepreneurial intent factor “I have very seriously thought of starting a business in the future” (C6) had a weak relationship with perceived behavioural control factors: “To start a business and keep it working would be easy for me” (E1, Somer’s d values = 0.24301, p = 0.0000); “I am able to control the creation process of a new business” (E2, Somer’s d values = 0.26533, p = 0.0000); “If I tried to start a business, I would have a high chance of being successful” (E7, Somer’s d values = 0.21968, p = 0.0000); “It would be very easy for me to develop a business idea” (E8, Somer’s d values = 0.23699, p = 0.0000); and “My qualification has provided me with sufficient knowledge to start a business” (E9, Somer’s d values = 0.20551, p = 0.00001).
- The entrepreneurial intent factor “I have strong intention of ever starting a business in the future” (C7) had a weak relationship with perceived behavioural control factors “To start a business and keep it working would be easy for me” (E1, Somer’s d values = 0.25861, p = 0.0000); “I am able to control the creation process of a new business” (E2, Somer’s d values = 0.33867, p = 0.0000); “If I tried to start a business, I would have a high chance of being successful” (E7, Somer’s d values = 0.27763, p = 0.0000); “It would be very easy for me to develop a business idea” (E8, Somer’s d values = 0.24578, p = 0.0000); and “My qualification has provided me with sufficient knowledge to start a business” (E9, Somer’s d values = 0.28858, p = 0.0000).

- The entrepreneurial intent factor “My qualification has contributed positively towards my interest to start a business” (C8) had a weak relationship with perceived behavioural control factors: “I am able to control the creation process of a new business” (E2, Somer’s d values = 0.26952, p = 0.0000); “I believe I would be completely able to start a business” (E3, Somer’s d value = 0.32100, p = 0.0000); “I am prepared to do anything to be an entrepreneur” (E4, Somer’s d value = 0.27606, p = 0.0000); “If I tried to start a business, I would have a high chance of being successful” (E7, Somer’s d value = 0.20701, p = 0.00003) and “My qualification has provided me with sufficient knowledge to start a business” (E9, Somer’s d value = 0.33722, p = 0.0000).
- The entrepreneurial intent factor “I had a strong intention to start my own business before I started with my qualification” (C9) had a weak relationship with perceived behavioural control factors: “To start a business and keep it working would be easy for me” (E1, Somer’s d value = 0.25124, p = 0.0000); “I am able to control the creation process of a new business” (E2, Somer’s d values = 0.27670, p = 0.0000); “I believe I would be completely able to start a business” (E3, Somer’s d value = 0.30226, p = 0.0000); “I am prepared to do anything to be an entrepreneur” (E4, Somer’s d value = 0.28072, p = 0.0000); “If I tried to start a business, I would have a high chance of being successful” (E7, Somer’s d value = 0.21018, p = 0.00002); “It would be very easy for me to develop a business idea” (E8, Somer’s d value = 0.21266, p = 0.00002) and “My qualification has provided me with sufficient knowledge to start a business” (E9, Somer’s d value = 0.23096, p = 0.0000).

In addition to the moderate and weak relationships reported above, the results revealed a significant (at the 1% and 5% level of significance) but very weak relationship (with Somer’s d values between 0 and 0.2) between entrepreneurial intent and perceived behavioural control (detailed results in table 4 of appendix 2) as follows:

- The entrepreneurial intent factor “I am ready to do anything to be an entrepreneur” (C1) had a very weak relationship with the perceived behavioural control factor: “It would be very easy for me to develop a business idea” (E8).

- The entrepreneurial intent factor “My professional goal is to be an entrepreneur” (C2) had a very weak relationship with the perceived behavioural control factor: “If I wanted to I could easily start and run a business” (E6).
- The entrepreneurial intent factor “I will make every effort to start and run my own business” (C3) had a very weak relationship with perceived behavioural control factors: “I know all about the necessary practical details needed to start a business” (E5) and “It would be very easy for me to develop a business idea” (E8).
- The entrepreneurial intent factor “I am determined to create a business venture in the future” (C4) had a very weak relationship with perceived behavioural control factors: “It would be very easy for me to develop a business idea” (E8) and “My qualification has provided me with sufficient knowledge to start a business” (E9).
- The entrepreneurial intent factor “I do not have doubts about ever starting my own business in the future” (C5) had a very weak relationship with perceived behavioural control factors: “I know all about the necessary practical details needed to start a business” (E5) and If I wanted to, I could easily start and run a business (E6).
- The entrepreneurial intent factor “I have very seriously thought of starting a business in the future” (C6) had a very weak relationship with the perceived behavioural control factor: “I know all about the necessary practical details needed to start a business” (E5).
- The entrepreneurial intent factor “I have strong intention of ever starting a business in the future” (C7) had a very weak relationship with the perceived behavioural control factor: “I know all about the necessary practical details needed to start a business” (E5).
- The entrepreneurial intent factor “My qualification has contributed positively towards my interest to start a business” (C8) had a very weak relationship with

perceived behavioural control factors: “To start a business and keep it working would be easy for me” (E1); “I know all about the necessary practical details needed to start a business” (E5) and “It would be very easy for me to develop a business idea” (E8).

- The entrepreneurial intent factor “I had a strong intention to start my own business before I started with my qualification” (C9) had a weak relationship with perceived behavioural control factors: “I know all about the necessary practical details needed to start a business” (E5) and “If I wanted to, I could easily start and run a business” (E6).

The relationship between perceived behavioural control and entrepreneurial knowledge and work experience of the respondents (section 8.6.4)

The test results in table 2 revealed that five of the seven factors of entrepreneurial knowledge and work experience of the respondents were significantly associated (at the 1% and 5% level of significance) with only one factor of perceived behavioural control, namely “I know all about the necessary practical details needed to start a business” (E5). The results indicate that “I know all about the necessary practical details needed to start a business” (E5) was statistically significantly moderately associated (Cramer’s V test values were just above 0.2) with ‘current ownership of the business’ (B3) (Cramer’s V test value = 0.22560, $p = 0.00169$) and ‘having friends who running a business’ (B5) (Cramer’s V test value = 0.21108, $p = 0.00458$). In addition, “I know all about the necessary practical details needed to start a business” (E5) had a statistically significant weak association (Cramer’s V test values were below 0.2) with ‘having family members who are running a business’ (B4) (Cramer’s V test value = 0.18242, $p = 0.02325$); ‘knowledge of any other person who is an entrepreneur’ (B6) (Cramer’s V test value = 0.17130, $p = 0.04339$) and ‘having tried to start a business before’ (B7) (Cramer’s V test value = 0.18355, $p = 0.02320$). No significant relationships were found between entrepreneurial knowledge and work experience as measured in section B of the questionnaire and any of the other eight factors of perceived behavioural control detailed in table 2.

Table 2: Correlations between the entrepreneurial knowledge and work experience of the respondents and their perceived behavioural control

Correlations with PBC (E5 – I know all about the necessary practical details needed to start a business)	Cramer's V Value	Approximate significance (p-value)	Statistical significance
<i>Work experience</i>			
B3. Are you currently running a business?	0.22560	0.00169	Significant at the 1% level of significance
<i>Entrepreneurial knowledge</i>			
B4. Are any of your family members running a business?	0.18242	0.02325	Significant at the 5% level of significance
B5. Are any of your friends running a business?	0.21108	0.00458	Significant at the 1% level of significance
B6. Do you know any other person who is an entrepreneur?	0.17130	0.04339	Significant at the 5% level of significance
B7. Have you ever tried to start a business before?	0.18355	0.02320	Significant at the 5% level of significance

Additional results for the relationship between the level of awareness of entrepreneurial support initiatives and entrepreneurial intent (section 8.7.2)

The results for the relationship between the nine entrepreneurial intent factors (C1 to C9) and 26 entrepreneurial support factors are as follows:

- The entrepreneurial intent factor “I am ready to do anything to be an entrepreneur” (C1) had a significant (at the 1% and 5% level of significance) but very weak relationship (Somers's d values that were below 0.2) with 15 of 26 entrepreneurial support factors: “It would be easy for me to access support from government institutions” (F3) and “It would be easier for me to receive support from the people that I know than from the government” (F5) and the respondents' knowledge of the following government institutions and their services or funds: “Seda” (F6a) and “its services” (F6b); “the services offered by the IDC” (F7b); “Khula” (F8a); “CIPRO” (F9a) and “its services” (F9b); “the services offered by

SAMAF” (F11b); “LIMDEV” (F14a) and “its services” (F14b); “LIBSA” (F15a) and “its services” (F15b); and “ECDC” (F16a) and “its services” (F16b).

- The entrepreneurial intent factor “My professional goal is to be an entrepreneur” (C2) had a significant (at the 1% and 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 17 of 26 entrepreneurial support factors: “I know the different types of support that is offered to people who want to start their own businesses” (F2); “It would be easy for me to access support from government institutions” (F3); “It would be easier for me to receive support from the people that I know than from the government” (F5) and the respondents’ knowledge of the following government institutions and their services or funds: “Seda” (F6a) and “its services” (F6b); “the IDC” (F7a) and “its services” (F7b); “Khula” (F8a); “CIPRO” (F9a) and “its services” (F9b); “the UYF” (F12a); “the NYDA” (F13); “LIMDEV” (F14a); “LIBSA” (F15a) and “its services” (F15b); and “the ECDC” (F16a) and “its services” (F16b).
- The entrepreneurial intent factor “I will make every effort to start and run my own business” (C3) had a significant (at the 1% and 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 20 of the 26 entrepreneurial support factors: “I know the different types of support that is offered to people who want to start their own businesses” (F2); “It would be easier for me to receive support from the people that I know than from the government” (F5) and the respondents’ knowledge of the following government institutions and their services or funds: “Seda” (F6a) and “its services” (F6b); “the IDC” (F7a); “Khula” (F8a); “CIPRO” (F9a); “the NEF” (F10a) and “its services” (F10b); “SAMAF” (F11a) and “its services” (F11b); “the UYF” (F12a); “the NYDA” (F13); LIMDEV” (F14a) and “its services” (F14b); “LIBSA” (F15a) and “its services” (F15b); and “the ECDC” (F16a) and “its services” (F16b). Additionally, the respondents’ knowledge of “the services offered by CIPRO” (F9b) had a weak relationship with “I will make every effort to start and run my own business” (C3, Somer’s d value = 0.22093, p = 0.0000).

- The entrepreneurial intent factor “I am determined to create a business venture in the future” (C4) had a significant (at the 1% and 5% level of significance) but very weak relationship (Somers’s d values that were below 0.2) with 13 of the 26 entrepreneurial support factors: “I know the different types of support that is offered to people who want to start their own businesses” (F2); “It would be easier for me to receive support from the people that I know than from the government” (F5) and the respondents’ knowledge of the following government institutions and their services or funds: “Seda” (F6a) and “its services” (F6b); “CIPRO” (F9a) and “its services” (F9b); “the UYF” (F12a); “the NYDA” (F13); LIMDEV” (F14a) and “its services” (F14b); “LIBSA” (F15a); and “the ECDC” (F16a) and “its services” (F16b).
- The entrepreneurial intent factor “I do not have doubts about ever starting my own business in the future” (C5) had a significant (at the 1% and 5% level of significance) but very weak relationship (Somers’s d values that were below 0.2) with four of the 26 entrepreneurial support factors: “I know the different types of support that is offered to people who want to start their own businesses” (F2); “Information about government support for people who want to start their own businesses is easily accessible” (F4) and the respondents knowledge of the government institution “Seda” (F6a) and “its services” (F6b).
- The entrepreneurial intent factor “I have very seriously thought of starting a business in the future” (C6) had a significant (at the 1% and 5% level of significance)but very weak relationship (Somers’s d values that were below 0.2) with 12 of the 26 entrepreneurial support factors: “I know the different types of support that is offered to people who want to start their own businesses” (F2); “It would be easier for me to receive support from the people that I know than from the government” (F5) and the respondents’ knowledge of the following government institutions and their services or funds: “Seda” (F6a) and “its services” (F6b); “the services offered by the IDC” (F7a); “Khula” (F8a) and “its services” (F8b); “CIPRO” (F9a) and “its services” (F9b); “the UYF” (F12a); and “the ECDC” (F16a) and “its services” (F16b).

- The entrepreneurial intent factor “I have a strong intention of ever starting a business in the future” (C7) had a significant (at the 1% and 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 10 of the 26 entrepreneurial support factors: “I know the different types of support that is offered to people who want to start their own businesses” (F2); “It would be easy for me to access support from government institutions” (F3); “Information about government support for people who want to start their own businesses is easily accessible” (F4); “It would be easier for me to receive support from the people that I know than from the government” (F5) and the respondents’ knowledge of the following government institutions and their services or funds: “Seda” (F6a) and “its services” (F6b); “the services offered by CIPRO” (F9b); “the services offered by SAMAF” (F11b); and “the ECDC” (F16a) and “its services” (F16b).
- The entrepreneurial intent factor “My qualification has contributed positively towards my interest to start a business” (C8) had a significant (at the 1% and 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with six of the 26 entrepreneurial support factors: “I know the different types of support that is offered to people who want to start their own businesses” (F2) and the respondents’ knowledge of: “Seda” (F6a); “the services offered by the IDC” (F7a); “Khula” (F8a); and “the ECDC” (F16a) and “its services” (F16b). In addition, a weak relationship (with Somer’s d value of above 0.2 but less than 0.4) was also found between the entrepreneurial intent factor “My qualification has contributed positively towards my interest to start a business” (C8) and the respondents’ level of knowledge about “the services offered by Seda” (F6b, Somer’s d value = 0.20397, $p = 0.00000$).
- The entrepreneurial intent factor “I had a strong intention to start my own business before I started with my qualification” (C9) had a significant (at the 1% and 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 20 of the 26 entrepreneurial support factors: “It would be easy for me to access support from government institutions” (F3) and the respondents’ knowledge of the following government institutions and their

services or funds: “Seda” (F6a) and “its services” (F6b); “the IDC” (F7a) and “its services” (F7b); “Khula” (F8a) and “its services” (F8b); “CIPRO” (F9a) and “its services” (F9b); “the NEF” (F10a) and “its services” (F10b); “the services offered by SAMAF” (F11b); “the UYF” (F12a) and “the services that were offered by the UYF” (F12b); “LIMDEV” (F14a) and “its services” (F14b); “LIBSA” (F15a) and “its services” (F15b); and “the ECDC” (F16a) and “its services” (F16b).

Additional results for the relationship between the level of awareness of entrepreneurial support initiatives and the attitude towards becoming an entrepreneur (section 8.7.3)

The results for the relationship between the six attitude factors (C1 to C9) and 26 entrepreneurial support factors are as follows:

- The attitude factor “Being an entrepreneur implies more advantages than disadvantages to me” (D1) had a significant (at the 1% and 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 7 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “Information about government support for people who want to start their own businesses is easily accessible” (F4) and the respondents’ knowledge of the following government institutions and their services or funds: “Seda” (F6a) and “its services” (F6b); “the IDC” (F7a) and “its services” (F7b); and “the ECDC” (F16a) and “its services” (F16b).
- The attitude factor “A career as an entrepreneur is totally attractive to me” (D2) had a significant (at the 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 16 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “The government provides good support for people who want to start a business” (F1); “I know the different types of support that is offered to people who want to start their own businesses” (F2); and “It would be easy for me to access support from government institutions” (F3) and the respondents’ knowledge of the following government institutions and their services or funds: “the IDC” (F7a); “Khula” (F8a) and “its services” (F8b); “CIPRO” (F9a) and “its services” (F9b); “the NEF” (F10a) and “its services”

(F10b); “the services offered by SAMAF” (F11b); “the UYF” (F12a) and “the services that were offered by the UYF” (F12b); “the NYDA” (F13); “LIMDEV” (F14a); and “the services offered by the ECDC” (F16b). The findings further reveal that a significant but weak relationship (with Somer’s d values above 0.2 but less than 0.4) exists between “A career as an entrepreneur is totally attractive to me” (D2) and four of the 21 entrepreneurial support factors relating to the knowledge of: “the ECDC” (F16a, Somer’s d value = 0.20410, p = 0.0000); “Seda” (F6a, Somer’s d value = 0.26325, p = 0.0000); “the services offered by Seda” (F6b, Somer’s d value = 0.20411, p = 0.0000) and “the services offered by IDC” (F7b, Somer’s d value = 0.22674, p = 0.0000).

- The attitude factor “If I had the opportunity and resources, I would like to start a business” (D3) had a significant (at the 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 19 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “I know the different types of support that is offered to people who want to start their own businesses” (F2) and “It would be easier for me to receive support from people that I know than from the government” (F5) and the respondents’ knowledge of the following government institutions and their services or funds: “Seda” (F6a) and “its services” (F6b); “the IDC” (F7a) and “its services” (F7b); “Khula” (F8a) and “its services” (F8b); “CIPRO” (F9a) and “its services” (F9b); “the services offered by SAMAF” (F11b); “the UYF” (F12a) and “the services that were offered by the UYF” (F12b); “the NYDA” (F13); “the services offered by LIMDEV” (F14b); “LIBSA” (F15a) and “its services” (F15b); and “the ECDC” (F16a) and “its services” (F16b).
- The attitude factor “Amongst various options, I would rather be an entrepreneur” (D4) had a significant (at the 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 12 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “I know the different types of support that is offered to people who want to start their own businesses” (F2); and “It would be easy for me to access support from government institutions” (F3) and the respondents’ knowledge of the following government institutions and their

services or funds: “Seda” (F6a) and “its services” (F6b); “the services offered by the IDC” (F7b); “the services offered by CIPRO” (F9b); “the NEF” (F10a); “the UYF” (F12a) and “the services that were offered by the UYF” (F12b); “the NYDA” (F13); and “the ECDC” (F16a) and “its services” (F16b).

- The attitude factor “Being an entrepreneur would give me great satisfaction” (D5) had a significant (at the 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 10 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “I know the different types of support that is offered to people who want to start their own businesses” (F2); “It would be easy for me to access support from government institutions” (F3); and “It would be easier for me to receive support from people that I know than from the government” (F5) as well as the respondents’ knowledge of the following government institutions and their services or funds: “Seda” (F6a) and “its services” (F6b); “the services offered by CIPRO” (F9b); “the UYF” (F12a) and “the services that were offered by the UYF” (F12b); and “the ECDC” (F16a) and “its services” (F16b).
- The attitude factor “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6) had a significant (at the 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 14 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “The government provides good support for people who want to start a business” (F1); “I know the different types of support that is offered to people who want to start their own businesses” (F2); “It would be easy for me to access support from government institutions” (F3); “It would be easier for me to receive support from people that I know than from the government” (F5) and the respondents’ knowledge of the following government institutions and their services or funds: “the services offered by Seda” (F6b); “the IDC” (F7a) and “its services” (F7b); “Khula” (F8a); “CIPRO” (F9a) and “its services” (F9b); “the UYF” (F12a) and “the services that were offered by the UYF” (F12b); and “the ECDC” (F16a) and “its services” (F16b). Additionally, a significant but weak relationship (with Somer’s d value above 0.2 but less than 0.4) was found between “My qualification has

contributed positively to my attitude towards becoming an entrepreneur” (D6) and the knowledge of “Seda” (F6a, Somer’s d value = 0.20392, $p = 0.0000$).

Additional results for the relationship between the level of awareness of entrepreneurial support initiatives and perceived behavioural control (section 8.7.4)

The results for the relationship between awareness of entrepreneurial support initiatives and perceived behavioural control was found to be weak (Somer’s d values that were above 0.2 but less than 0.4) and very weak (Somer’s d values below 0.2) and are reported as follows (detailed results in table 7 of appendix 2):

- Perceived behavioural control factor “To start a business and keep it working would be easy for me” (E1) had a significant (at the 1% and 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 20 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “The government provides good support for people who want to start a business” (F1); “It would be easy for me to access support from government institutions” (F3) and “information about the government support for people who want to start their own businesses is easily accessible” (F4) and the respondents’ knowledge of the following government institutions and their services or funds: “Seda” (F6a) and “its services” (F6b); “the IDC” (F7a) and “its services” (F7b); “Khula” (F8a) and “its services” (F8b); “CIPRO” (F9a) and “its services” (F9b); “the services offered by the NEF” (F10b); “SAMAF” (F11a) and “its services” (F11b); “the UYF” (F12a); “LIMDEV” (F14a) and “its services” (F14b); “LIBSA” (F15a) and “its services” (F15b); and “the ECDC” (F16a).
- Perceived behavioural control factor “I am able to control the creation process of a new business” (E2) had a significant (at the 1% and 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 18 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “The government provides good support for people who want to start a business” (F1) and “It would be easy for the respondents to access support from the government institutions” (F3) and the respondents’ knowledge of the following government institutions and

their services or funds: “Seda” (F6a) and “its services” (F6b); “the IDC” (F7a) and “its services” (F7b); “Khula” (F8a); “CIPRO” (F9a) and “its services” (F9b); “the services offered by the NEF” (F10b); “the services offered by SAMAF” (F11b); “the UYF” (F12a) and “the services that were offered by the UYF” (F12b); “LIMDEV” (F14a); “LIBSA” (F15a) and “its services” (F15b); and “the ECDC” (F16a) and “its services” (F16b).

- Perceived behavioural control factor “I believe I would be completely able to start a new business” (E3) had a significant (at the 1% and 5% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with 2 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): the knowledge of “the UYF” (F12a, Somer’s d value = 0.21194, p = 0.0000) and “Khula” (F8a, Somer’s d value = 0.20889, p = 0.0000). Additionally, this perceived behavioural control factor had a significant (at the 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 23 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “The government provides good support for people who want to start a business” (F1); “I know the different types of support that is offered to people who want to start their own businesses” (F2); “It would be easy for me to access support from the government institutions” (F3); “Information about the government support for people who want to start their own businesses is easily accessible” (F4) and “It would be easier for me to receive support from the people that I know than from the government” (F5) and the respondents’ knowledge of the following government institutions and their services or funds: “Seda” (F6a) and “its services” (F6b); “the IDC” (F7a) and “its services” (F7b); “the services offered by Khula” (F8b); “CIPRO” (F9a) and “its services” (F9b); “the NEF” (F10a) and “its services” (F10b); “SAMAF” (F11a) and “its services” (F11b); “the services that were offered by the UYF” (F12b); “LIMDEV” (F14a) and “its services” (F14b); “LIBSA” (F15a) and “its services” (F15b); and “the ECDC” (F16a) and “its services” (F16b).
- Perceived behavioural control factor “I am prepared to do anything to be an entrepreneur” (E4) had a significant (at the 1% and 5% level of significance) but

very weak relationship (Somers's d values that were below 0.2) with 17 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): "The government provides good support for people who want to start a business" (F1); "It would be easy for me to access support from government institutions" (F3); and "It would be easier for me to receive support from the people that I know than from the government" (F5) and the respondents' knowledge of the following government institutions and their services or funds: "Seda" (F6a) and "its services" (F6b); "the services offered by the IDC" (F7b); "the services offered by Khula" (F8b); "CIPRO" (F9a); "the services offered by SAMAF" (F11b); "the UYF" (F12a) and "the services that were offered by the UYF" (F12b); "LIMDEV" (F14a) and "its services" (F14b); "LIBSA" (F15a) and "its services" (F15b); and "the ECDC" (F16a) and "its services" (F16b).

- Perceived behavioural control factor "I know all about the necessary practical details needed to start a business" (E5) had a significant (at the 1% and 5% level of significance) but weak relationship (Somers's d values that were above 0.2 but less than 0.4) with one of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): "I know the different types of support offered to people who want to start their own businesses" (F2, Somers's d value = 0.22615, p = 0.0000). In addition, this perceived behavioural control factor had a significant (at the 5% level of significance) but very weak relationship (Somers's d values that were below 0.2) with 19 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): "The government provides good support for people who want to start a business" (F1); "It would be easy for me to access support from the government institutions" (F3) and "Information about the government support for people who want to start their own businesses is easily accessible" (F4) and the respondents' knowledge of the following government institutions and their services or funds: "Seda" (F6a) and "its services" (F6b); "the IDC" (F7a); "the services offered by Khula" (F8b); "CIPRO" (F9a) and "its services" (F9b); "the NEF" (F10a) and "its services" (F10b); "SAMAF" (F11a) and "its services" (F11b); "the UYF" (F12a) and "the services that were offered by the UYF" (F12b); "LIMDEV" (F14a); "the services offered by LIBSA" (F15a); and "the ECDC" (F16a) and "its services" (F16b).

- Perceived behavioural control factor “If I wanted to, I could easily start and run a business” (E6) had a significant (at the 1% and 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 13 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “The government provides good support for people who want to start a business” (F1); “I know the different types of support that is offered to people who want to start their own businesses” (F2); “It would be easy for the respondents to access support from the government institutions” (F3) and “Information about the government support for people who want to start their own businesses is easily accessible” (F4) and the respondents’ knowledge of the following government institutions and their services or funds: “Seda” (F6a) and “its services” (F6b); “the IDC” (F7a); “the NEF” (F10a) and “its services” (F10b); “the UYF” (F12a) and “the services that were offered by the UYF” (F12b); “LIMDEV” (F14a); and “the services offered by LIBSA” (F15b).
- Perceived behavioural control factor “If I tried to start a business, I would have a high chance of being successful” (E7) had a significant (at the 1% and 5% level of significance) but weak relationship (Somer’s d values that were above 0.2 but less than 0.4) with two of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “It would be easy for me to access support from the government institutions” (F3, Somer’s d value = 0.20358, p = 0.00001) and “Information about the government support for people who want to start their own businesses is easily accessible” (F4, Somer’s d value = 0.20218, p = 0.00003). Moreover, this perceived behavioural control factor had a significant (at the 5% level of significance) but very weak relationship (Somer’s d values that were below 0.2) with 14 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “The government provides good support for people who want to start a business” (F1); “I know the different types of support that is offered to people who want to start their own businesses” (F2) and “It would be easier for me to receive support from the people that I know than from the government” (F5) and the respondents’ knowledge of the following government institutions and their services or funds: “Seda” (F6a) and “its services” (F6b); “the IDC” (F7a) and “its services” (F7b);

“CIPRO” (F9a) and “its services” (F9b); “the UYF” (F12a); “LIMDEV” (F14a) and “its services” (F14b); and “LIBSA” (F15a) and “its services” (F15b).

- Perceived behavioural control factor “It would be very easy for me to develop a business idea” (E8) had a significant (at the 1% and 5% level of significance) but weak relationship (Somers’s d values that were above 0.2 but less than 0.4) with six of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “I know the different types of support that is offered to people who want to start their own businesses” (F2, Somers’s d value = 0.22562, p = 0.0000) and “It would be easy for me to access support from government institutions” (F3, Somers’s d value = 0.23138, p = 0.0000) and the respondents’ knowledge of “UYF” (F12a, Somers’s d value = 0.25893, p = 0.0000) and “the services that were offered by UYF” (F12b, Somers’s d value = 0.23284, p = 0.0000), “Seda” (F6a, Somers’s d value = 0.23198, p = 0.0000) and “the services offered by Seda” (F6b, Somers’s d value = 0.20963, p = 0.0000). In addition, this perceived behavioural control factor had a significant (at the 5% level of significance) but very weak relationship (Somers’s d values that were below 0.2) with 14 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “The government provides good support for people who want to start a business” (F1) and “Information about the government support for people who want to start their own businesses is easily accessible” (F4) and the respondents’ knowledge of the following government institutions and their services or funds: “the IDC” (F7a) and “its services” (F7b); “Khula” (F8a) and “its services” (F8b); “CIPRO” (F9a) and “its services” (F9b); “the NEF” (F10a) and “its services” (F10b); “the services offered by SAMAF” (F11b); “LIMDEV” (F14a); and “the ECDC” (F16a) and “its services” (F16b).
- Perceived behavioural control factor “My qualification has provided me with sufficient knowledge to start a business” (E9) had a significant (at the 1% and 5% level of significance) but weak relationship (Somers’s d values that were above 0.2 but less than 0.4) with two of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): “I know the different types of support that is offered to people who want to start their own businesses” (F2, Somers’s d value = 0.24757, p = 0.0000) and “It would be easy for me to access support from government institutions” (F3,

Somer's d value = 0.20518, $p = 0.00001$). Additionally, this perceived behavioural control factor had a significant (at the 5% level of significance) but very weak relationship (Somer's d values that were below 0.2) with 18 of the 26 entrepreneurial support factors (F1 to F16b of appendix 1): "The government provides good support for people who want to start a business" (F1); "Information about the government support for people who want to start their own businesses is easily accessible" (F4) and "It would be easier for me to receive support from the people that I know than from the government" (F5) as well as the respondents' knowledge of the following government institutions and their services or funds: "Seda" (F6a) and "its services" (F6b); "the IDC" (F7a); "Khula" (F8a) and "its services" (F8b); "CIPRO" (F9a) and "its services" (F9b); "the services offered by SAMAF" (F11b); "the UYF" (F12a) and "the services that were offered by the UYF" (F12b); "LIMDEV" (F14a); "LIBSA" (F15a) and "its services" (F15b); and "the ECDC" (F16a) and "its services" (F16b).

Additional results for the relationship between social capital and entrepreneurial intent (section 8.8.2)

The results in table 8 of appendix 2 show that some factors of social capital had a very weak (Somer's d values below 0.2) but significant (at the 1% level and 5% level of significance) relationship with some of the entrepreneurial intent factors as follows:

- The social capital factor "I personally know someone who is an entrepreneur in my family" (G1) had a very weak but significant relationship with three of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: "My professional goal is to be an entrepreneur" (C2); "I am determined to create a business venture in the future" (C4) and "I had a strong intention to start my own business before I started with my qualification" (C9).
- The social capital factor "I have a friend who is an entrepreneur" (G2) had a very weak but significant relationship with three of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: "I am determined to create a business venture in the future" (C4); "My qualification has contributed positively towards my interest

to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).

- The social capital factor “I personally know other people who are entrepreneurs” (G3) had a very weak but significant relationship with all nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “My professional goal is to be an entrepreneur” (C2); “I will make every effort to start and run my own business” (C3); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6); “I have a strong intention of ever starting a business in the future” (C7); “My qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).
- The social capital factor “I personally know successful entrepreneurs in my community” (G4) had a very weak but significant relationship with seven of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “My professional goal is to be an entrepreneur” (C2); “I am determined to create a business venture in the future” (C4); “I have very seriously thought of starting a business in the future” (C6); “I have a strong intention of ever starting a business in the future” (C7); “My qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).
- The social capital factor “My immediate family would approve of my decision to start a business” (G5) had a very weak but significant relationship with two of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “My qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).

- The social capital factor “My friends would approve of my decision to start a business” (G6) had a very weak but significant relationship with two of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “My qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).
- The social capital factor “My colleagues would approve of my decision to start a business” (G7) had a very weak but significant relationship with four of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); “My qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).
- The social capital factor “My immediate family values entrepreneurial activity above other activities and careers” (G8) had a very weak but significant relationship with seven of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “I will make every effort to start and run my own business” (C3); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6); “I have a strong intention of ever starting a business in the future” (C7); “My qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).
- The social capital factor “My colleagues value entrepreneurial activity above other activities and careers” (G9) had a very weak but significant relationship with eight of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “I will make every effort to start and run my own business” (C3); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6); “I have a strong intention of ever starting a business in the future” (C7); “My

qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).

- The social capital factor “My friends value entrepreneurial activity above other activities and careers” (G10) had a very weak but significant relationship with one of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “I had a strong intention to start my own business before I started with my qualification” (C9).
- The social capital factor “The culture in my country is highly favourable towards the entrepreneurial activity” (G11) had a very weak but significant relationship with two of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “I am determined to create a business venture in the future” (C4) and “I had a strong intention to start my own business before I started with my qualification” (C9).
- The social capital factor “In my country, entrepreneurial activity is considered to be worthwhile, despite the risks” (G12) had a very weak but significant relationship with eight of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “My professional goal is to be an entrepreneur” (C2); “I will make every effort to start and run my own business” (C3); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6); “I have a strong intention of ever starting a business in the future” (C7) and “My qualification has contributed positively towards my interest to start a business” (C8).
- The social capital factor “I can rely on my family for assistance in starting a business” (G13) had a very weak but significant relationship with all nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “My professional goal is to be an entrepreneur” (C2); “I will make every effort to start and run my own business” (C3); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever

starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6); “I have a strong intention of ever starting a business in the future” (C7); “My qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).

- The social capital factor “I can rely on my friends for assistance in starting a business” (G14) had a very weak but significant relationship with three of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “I am determined to create a business venture in the future” (C4); “I have a strong intention of ever starting a business in the future” (C7) and “My qualification has contributed positively towards my interest to start a business” (C8).
- The social capital factor “I can rely on other entrepreneurs for assistance in starting a business” (G15) had a very weak but significant relationship with six of the nine (C1 to C9 of appendix 1) entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “My professional goal is to be an entrepreneur” (C2); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6); “My qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).

Additional results for the relationship between social capital and the attitude towards becoming an entrepreneur (section 8.8.3)

The results in table 9 of appendix 2 show that some factors of social capital had a very weak (Somers’ d values were below 0.2) but significant (at the 1% and 5% level of significance) relationship with some of the factors of attitude towards becoming an entrepreneur as follows:

- The social capital factor “I personally know someone who is an entrepreneur in my family” (G1) had a very weak but significant relationship with two of the six (D1 to D6 of appendix 1) attitude factors: “A career as an entrepreneur is totally

attractive to me” (D2) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6).

- The social capital factor “I have a friend who is an entrepreneur” (G2) had a very weak but significant relationship with four of the six (D1 to D6 of appendix 1) attitude factors: “A career as an entrepreneur is totally attractive to me” (D2); “If I had the opportunity and resources, I would like to start a business” (D3); “Amongst various options, I would rather be an entrepreneur” (D4) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6).
- The social capital factor “I personally know other people who are entrepreneurs” (G3) had a very weak but significant relationship with four of the six (D1 to D6 of appendix 1) attitude factors: “Being an entrepreneur implies more advantages than disadvantages to me” (D1); “If I had the opportunity and resources, I would like to start a business” (D3); “Being an entrepreneur would give me great satisfaction” (D5) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6).
- The social capital factor “I personally know successful entrepreneurs in my community” (G4) had a very weak but significant relationship with five of the six (D1 to D6 of appendix 1) attitude factors: “A career as an entrepreneur is totally attractive to me” (D2); “If I had the opportunity and resources, I would like to start a business” (D3); “Amongst various options, I would rather be an entrepreneur” (D4); “Being an entrepreneur would give me great satisfaction” (D5) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6).
- The social capital factor “My immediate family would approve of my decision to start a business” (G5) had a very weak but significant relationship with one of the six (D1 to D6 of appendix 1) attitude factors: “Being an entrepreneur implies more advantages than disadvantages to me” (D1).

- The social capital factor “My friends would approve of my decision to start a business” (G6) had a very weak but significant relationship with one of the six (D1 to D6 of appendix 1) attitude factors: “Being an entrepreneur implies more advantages than disadvantages to me” (D1).
- The social capital factor “My colleagues would approve of my decision to start a business” (G7) had a very weak but significant relationship with two of the six (D1 to D6 of appendix 1) attitude factors: “If I had the opportunity and resources, I would like to start a business” (D3) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6).
- The social capital factor “My immediate family values entrepreneurial activity above other activities and careers” (G8) had a very weak but significant relationship with one of the six (D1 to D6 of appendix 1) attitude factors: “Being an entrepreneur implies more advantages than disadvantages to me” (D1).
- The social capital factor “My colleagues value entrepreneurial activity above other activities and careers” (G9) had a very weak but significant relationship with two of the six (D1 to D6 of appendix 1) attitude factors: “Being an entrepreneur implies more advantages than disadvantages to me” (D1) and “Being an entrepreneur would give me great satisfaction” (D5).
- The social capital factor “My friends value entrepreneurial activity above other activities and careers” (G10) had a very weak but significant relationship with one of the six (D1 to D6 of appendix 1) attitude factors: “Being an entrepreneur implies more advantages than disadvantages to me” (D1).
- The social capital factor “The culture in my country is highly favourable towards the entrepreneurial activity” (G11) had a very weak but significant relationship with two of the six (D1 to D6 of appendix 1) attitude factors: “Being an entrepreneur implies more advantages than disadvantages to me” (D1) and “If I had the opportunity and resources, I would like to start a business” (D3).

- The social capital factor “In my country, entrepreneurial activity is considered to be worthwhile, despite the risks” (G12) had a very weak but significant relationship with three of the six (D1 to D6 of appendix 1) attitude factors: “Being an entrepreneur implies more advantages than disadvantages to me” (D1); “If I had the opportunity and resources, I would like to start a business” (D3) and “Amongst various options, I would rather be an entrepreneur” (D4).
- The social capital factor “I can rely on my family for assistance in starting a business” (G13) had a very weak but significant relationship with four of the six (D1 to D6 of appendix 1) attitude factors: “Being an entrepreneur implies more advantages than disadvantages to me” (D1); “If I had the opportunity and resources, I would like to start a business” (D3); “Amongst various options, I would rather be an entrepreneur” (D4) and “Being an entrepreneur would give me great satisfaction” (D5).
- The social capital factor “I can rely on my friends for assistance in starting a business” (G14)) had a very weak but significant relationship with five of the six (D1 to D6 of appendix 1) attitude factors: “A career as an entrepreneur is totally attractive to me” (D2); “If I had the opportunity and resources, I would like to start a business” (D3); “Amongst various options, I would rather be an entrepreneur” (D4); “Being an entrepreneur would give me great satisfaction” (D5) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6).
- The social capital factor “I can rely on other entrepreneurs for assistance in starting a business” (G15) had a very weak but significant relationship with all six (D1 to D6 of appendix 1) attitude factors: “Being an entrepreneur implies more advantages than disadvantages to me” (D1); “A career as an entrepreneur is totally attractive to me” (D2); “If I had the opportunity and resources, I would like to start a business” (D3); “Amongst various options, I would rather be an entrepreneur” (D4); “Being an entrepreneur would give me great satisfaction” (D5) and “My qualification has contributed positively to my attitude towards becoming an entrepreneur” (D6).

Additional results for the relationship between social capital and perceived behavioural control (section 8.8.4)

The results in table 10 of appendix 2 show that some of the social capital factors had a very weak (Somer's d values were below 0.2) but significant (at the 1% level and 5% level of significance) relationship with some of the factors constituting perceived behavioural control as follows:

- The social capital factor "I personally know someone who is an entrepreneur in my family" (G1) had a very weak but significant relationship with four of the nine perceived behavioural control factors: "To start a business and keep it working would be easy for me" (E1); "If I tried to start a business, I would have a high chance of being successful" (E7); "It would be very easy for me to develop a business idea" (E8) and "My qualification has provided me with sufficient knowledge to start a business" (E9).
- The social capital factor "I have a friend who is an entrepreneur" (G2) had a very weak but significant relationship with five of the nine perceived behavioural control factors: "I am able to control the creation process of a new business" (E2); "I am prepared to do anything to be an entrepreneur" (E4); "I know all about the necessary practical details needed to start a business" (E5); "If I wanted to, I could easily start and run a business" (E6) and "It would be very easy for me to develop a business idea" (E8).
- The social capital factor "I personally know other people who are entrepreneurs" (G3) had a very weak but significant relationship with five of the nine perceived behavioural control factors: "I believe I would be completely able to start a business" (E3); "I know all about the necessary practical details needed to start a business" (E5); "If I tried to start a business, I would have a high chance of being successful" (E7); "It would be very easy for me to develop a business idea" (E8) and "My qualification has provided me with sufficient knowledge to start a business" (E9).

- The social capital factor “I personally know successful entrepreneurs in my community” (G4) had a very weak but significant relationship with six of the nine perceived behavioural control factors: “I am prepared to do anything to be an entrepreneur” (E4); “I know all about the necessary practical details needed to start a business” (E5); “If I wanted to, I could easily start and run a business” (E6); “If I tried to start a business, I would have a high chance of being successful” (E7); “It would be very easy for me to develop a business idea” (E8) and “My qualification has provided me with sufficient knowledge to start a business” (E9).
- The social capital factor “My immediate family would approve of my decision to start a business” (G5) had a very weak but significant relationship with five of the nine perceived behavioural control factors: “To start a business and keep it working would be easy for me” (E1); “I am able to control the creation process of a new business” (E2); “I know all about the necessary practical details needed to start a business” (E5); “It would be very easy for me to develop a business idea” (E8) and “My qualification has provided me with sufficient knowledge to start a business” (E9).
- The social capital factor “My friends would approve of my decision to start a business” (G6) had a very weak but significant relationship with six of the nine perceived behavioural control factors: “To start a business and keep it working would be easy for me” (E1); “I am able to control the creation process of a new business” (E2); “I know all about the necessary practical details needed to start a business” (E5); “If I tried to start a business, I would have a high chance of being successful” (E7); “It would be very easy for me to develop a business idea” (E8) and “My qualification has provided me with sufficient knowledge to start a business” (E9).
- The social capital factor “My colleagues would approve of my decision to start a business” (G7) had a very weak but significant relationship with five of the nine perceived behavioural control factors: “To start a business and keep it working would be easy for me” (E1); “I am able to control the creation process of a new

business" (E2); "I am prepared to do anything to be an entrepreneur" (E4); "If I wanted to, I could easily start and run a business" (E6) and "If I tried to start a business, I would have a high chance of being successful" (E7).

- The social capital factor "My immediate family values entrepreneurial activity above other activities and careers" (G8) had a very weak but significant relationship with eight of the nine perceived behavioural control factors: "To start a business and keep it working would be easy for me" (E1); "I am able to control the creation process of a new business" (E2); "I believe I would be completely able to start a business" (E3); "I know all about the necessary practical details needed to start a business" (E5); "If I wanted to, I could easily start and run a business" (E6); "If I tried to start a business, I would have a high chance of being successful" (E7); "It would be very easy for me to develop a business idea" (E8) and "My qualification has provided me with sufficient knowledge to start a business" (E9).
- The social capital factor "My colleagues value entrepreneurial activity above other activities and careers" (G9) had a very weak but significant relationship with seven of the nine perceived behavioural control factors: "To start a business and keep it working would be easy for me" (E1); "I am able to control the creation process of a new business" (E2); "I believe I would be completely able to start a business" (E3); "I am prepared to do anything to be an entrepreneur" (E4); "If I tried to start a business, I would have a high chance of being successful" (E7); "It would be very easy for me to develop a business idea" (E8) and "My qualification has provided me with sufficient knowledge to start a business" (E9).
- The social capital factor "My friends value entrepreneurial activity above other activities and careers" (G10) had a very weak but significant relationship with seven of the nine perceived behavioural control factors: "To start a business and keep it working would be easy for me" (E1); "I am able to control the creation process of a new business" (E2); "I believe I would be completely able to start a business" (E3); "I know all about the necessary practical details needed to start a business" (E5); "If I tried to start a business, I would have a high chance of being

successful" (E7); "It would be very easy for me to develop a business idea" (E8) and "My qualification has provided me with sufficient knowledge to start a business" (E9).

- The social capital factor "The culture in my country is highly favourable towards the entrepreneurial activity" (G11) had a very weak but significant relationship with four of the nine perceived behavioural control factors: "I am able to control the creation process of a new business" (E2); "I know all about the necessary practical details needed to start a business" (E5); "If I tried to start a business, I would have a high chance of being successful" (E7) and "It would be very easy for me to develop a business idea" (E8).
- The social capital factor "In my country, entrepreneurial activity is considered to be worthwhile, despite the risks" (G12) had a very weak but significant relationship with eight of the nine perceived behavioural control factors: "I am able to control the creation process of a new business" (E2); "I believe I would be completely able to start a business" (E3); "I am prepared to do anything to be an entrepreneur" (E4); "I know all about the necessary practical details needed to start a business" (E5); "If I wanted to, I could easily start and run a business" (E6); "If I tried to start a business, I would have a high chance of being successful" (E7); "It would be very easy for me to develop a business idea" (E8) and "My qualification has provided me with sufficient knowledge to start a business" (E9).
- The social capital factor "I can rely on my family for assistance in starting a business" (G13) had a very weak but significant relationship with six of the nine perceived behavioural control factors: "I am able to control the creation process of a new business" (E2); "I know all about the necessary practical details needed to start a business" (E5); "If I wanted to, I could easily start and run a business" (E6); "If I tried to start a business, I would have a high chance of being successful" (E7); "It would be very easy for me to develop a business idea" (E8) and "My qualification has provided me with sufficient knowledge to start a business" (E9).

- The social capital factor “I can rely on my friends for assistance in starting a business” (G14)) had a very weak but significant relationship with five of the nine perceived behavioural control factors: “I am able to control the creation process of a new business” (E2); “I believe I would be completely able to start a business” (E3); “I am prepared to do anything to be an entrepreneur” (E4); “If I tried to start a business, I would have a high chance of being successful” (E7) and “It would be very easy for me to develop a business idea” (E8).
- The social capital factor “I can rely on other entrepreneurs for assistance in starting a business” (G15) had a very weak but significant relationship with seven of the nine perceived behavioural control factors: “To start a business and keep it working would be easy for me” (E1); “I am able to control the creation process of a new business” (E2); “I believe I would be completely able to start a business” (E3); “If I wanted to, I could easily start and run a business” (E6); “If I tried to start a business, I would have a high chance of being successful” (E7); “It would be very easy for me to develop a business idea” (E8) and “My qualification has provided me with sufficient knowledge to start a business” (E9).

The relationship between entrepreneurial self-efficacy and entrepreneurial intent (section 8.9.3)

In the searching phase the intention of the respondents to start a business was significantly (at the 1% and 5% level of significance) related to how they perceived their own ESE in terms of their ability to “generate a new idea for a product or service” (H1), “identify the need for a new product or service” (H2) and “design a product or service that will satisfy customer needs and wants” (H3). These results mean that the intention of the respondents to start a business was significantly related to all three of the ESE factors in the searching phase. The findings regarding the relationship between ESE factors in this phase and entrepreneurial intent are as follows:

- The ability to “generate a new idea for a product or service” (H1) had a significant (at the 1% level of significance) relationship with all nine entrepreneurial intent factors (C1 to C9 of appendix 1). The relationship was found to be weak

(Somer's d values above 0.2 but less than 0.4) for four of the nine entrepreneurial intent factors: "My professional goal is to be an entrepreneur" (C2); "I have very seriously thought of starting a business in the future" (C6); "I have a strong intention of ever starting a business in the future" (C7); and "I had a strong intention to start my own business before I started with my qualification" (C9). This ESE factor also had a very weak (Somer's d values were below 0.2) relationship with five of the nine entrepreneurial intent factors that include: "I am ready to do anything to be an entrepreneur" (C1); "I will make every effort to start and run my own business" (C3); "I am determined to create a business venture in the future" (C4); "I do not have doubts about ever starting my own business in the future" (C5) and "My qualification has contributed positively towards my interest to start a business" (C8).

- The ability to "identify the need for a new product or service" (H2) had a significant (at the 1% level of significance) relationship with all the nine entrepreneurial intent factors (C1 to C9 of appendix 1). The relationship was found to be weak (Somer's d values above 0.2 but less than 0.4) for eight of the nine entrepreneurial intent factors: "My professional goal is to be an entrepreneur" (C2); "I will make every effort to start and run my own business" (C3); "I am determined to create a business venture in the future" (C4); "I do not have doubts about ever starting my own business in the future" (C5); "I have very seriously thought of starting a business in the future" (C6); "I have a strong intention of ever starting a business in the future" (C7); "My qualification has contributed positively towards my interest to start a business" (C8) and "I had a strong intention to start my own business before I started with my qualification" (C9). This ESE factor also had a very weak (Somer's d values were below 0.2) relationship with one of the nine entrepreneurial intent factors: "I am ready to do anything to be an entrepreneur" (C1).
- The ability to "design a product or service that will satisfy customer needs and wants" (H3) had a significant (at the 1% level and 5% level of significance) relationship with all nine entrepreneurial intent factors (C1 to C9 of appendix 1). The relationship was found to be weak (Somer's d values above 0.2 but less than

0.4) for one of the nine entrepreneurial intent factors: “My qualification has contributed positively towards my interest to start a business” (C8). This ESE factor also had a very weak (Somers’s d values were below 0.2) relationship with eight of the nine entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1, significant at the 5% level of significance); “My professional goal is to be an entrepreneur” (C2); “I will make every effort to start and run my own business” (C3); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6); “I have a strong intention of ever starting a business in the future” (C7) and “I had a strong intention to start my own business before I started with my qualification” (C9).

With regard to the planning phase the intention of the respondents to start a business was significantly (at the 1% and 5% level of significance) related to all four ESE factors that include the ability “estimate customer demand for a new product or service” (H4); “determine a competitive price for a new product or service” (H5); “estimate the amount of start-up funds and working capital necessary to start a business” (H6) and “to design an effective marketing/ advertising campaign for a new product or service” (H7). The findings of the relationship between the intention of the respondents to start a business and ESE factors in the planning phase are as follows:

- The ability to “estimate customer demand for a new product or service” (H4) had a significant (at the 1% level and 5% level of significance) relationship with all nine entrepreneurial intent factors (C1 to C9 of appendix 1). However, the relationship was found to be very weak (Somers’s d values were below 0.2) for all nine entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1, significant at the 5% level of significance); “My professional goal is to be an entrepreneur” (C2); “I will make every effort to start and run my own business” (C3); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6); “I have a strong intention of ever starting a business in the future” (C7); “My qualification has contributed positively towards my interest to start a business”

(C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).

- The ability to “determine a competitive price for a new product or service” (H5) had a significant (at the 1% level and 5% level of significance) but very weak (Somer’s d values were below 0.2) relationship with seven of the nine entrepreneurial intent factors (C1 to C9 of appendix 1): “My professional goal is to be an entrepreneur” (C2, significant at the 5% level of significance); “I will make every effort to start and run my own business” (C3); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6); “I have a strong intention of ever starting a business in the future” (C7); “My qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).
- The ability to “estimate the amount of start-up funds and working capital necessary to start a business” (H6) had a significant (at the 1% level of significance) but very weak (Somer’s d values were below 0.2) relationship with all nine entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “My professional goal is to be an entrepreneur” (C2); “I will make every effort to start and run my own business” (C3); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6); “I have a strong intention of ever starting a business in the future” (C7); “My qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).
- The ability “to design an effective marketing/ advertising campaign for a new product or service” (H7) had a significant (at the 1% level of significance) relationship with all nine entrepreneurial intent factors (C1 to C9 of appendix 1). This ESE factor had a weak (Somer’s d values above 0.2 but less than 0.4) relationship with one of the nine entrepreneurial intent factors: “My professional

goal is to be an entrepreneur” (C2). The relationship was also found to be very weak (Somer’s d values were below 0.2) for the eight of the nine entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “I will make every effort to start and run my own business” (C3); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6); “I have a strong intention of ever starting a business in the future” (C7); “My qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).

In the marshalling phase, all six of the ESE factors were significantly (at the 1% level of significance) related to the intention of the respondents to start a business. The findings revealed that significant relationships exist between perceived ESE and the intention to start a business on ESE factors that include the ability to “get others to identify with and believe in the vision and plans for a new business” (H8), “make contact with and exchange information with others” (H9), “clearly and concisely explain verbally/in writing the business idea in simple terms” (H10), “develop relationships with key people who are connected to sources of capital” (H11), “develop and maintain favourable relationships with potential investors” (H12) and “identify potential sources of funding for investment in the business” (H13). The results for the relationship between these six ESE factors and entrepreneurial intent are as follows:

- The ability to “get others to identify with and believe in the vision and plans for a new business” (H8) had a significant (at the 1% level of significance) relationship with all nine entrepreneurial intent factors (C1 to C9 of appendix 1). This ESE factor had a weak (Somer’s d values above 0.2 but less than 0.4) relationship with one of the nine entrepreneurial intent factors: “I have a strong intention of ever starting a business in the future” (C7). Additionally, a very weak (Somer’s d values were below 0.2) relationship was found between this ESE factor and eight of the nine entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “My professional goal is to be an entrepreneur” (C2); “I will make every effort to start and run my own business” (C3); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of

starting a business in the future” (C6); “My qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).

- The ability to “make contact with and exchange information with others” (H9) had a significant (at the 1% level of significance) relationship with all nine entrepreneurial intent factors (C1 to C9 of appendix 1). The relationship was found to be weak (Somer’s d values above 0.2 but less than 0.4) for four of the nine entrepreneurial intent factors: “I am determined to create a business venture in the future” (C4); “I have very seriously thought of starting a business in the future” (C6); “I have a strong intention of ever starting a business in the future” (C7) and “My qualification has contributed positively towards my interest to start a business” (C8). This ESE factor also had a very weak (Somer’s d values were below 0.2) relationship with five of the nine entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “My professional goal is to be an entrepreneur” (C2); “I will make every effort to start and run my own business” (C3); “I do not have doubts about ever starting my own business in the future” (C5) and “I had a strong intention to start my own business before I started with my qualification” (C9).
- The ability to “clearly and concisely explain verbally/in writing the business idea in simple terms” (H10) had a significant (at the 1% level of significance) relationship with all nine entrepreneurial intent factors (C1 to C9 of appendix 1). The relationship was found to be weak (Somer’s d values above 0.2 but less than 0.4) for three of the nine entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “I will make every effort to start and run my own business” (C3) and “I have very seriously thought of starting a business in the future” (C6). This ESE factor also had a very weak (Somer’s d values were below 0.2) relationship with six of the nine entrepreneurial intent factors: “My professional goal is to be an entrepreneur” (C2); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); “I have a strong intention of ever starting a business in the future” (C7); “My qualification has contributed positively towards

my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).

- The ability to “develop relationships with key people who are connected to sources of capital” (H11) had a significant (at the 1% level of significance) relationship with all nine entrepreneurial intent factors (C1 to C9 of appendix 1). This ESE factor had a weak (Somer’s d values above 0.2 but less than 0.4) relationship with four of the nine entrepreneurial intent factors: “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6) and “My qualification has contributed positively towards my interest to start a business” (C8). In addition, a very weak (Somer’s d values were below 0.2) relationship was found between this ESE factor and five of the nine entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “My professional goal is to be an entrepreneur” (C2); “I will make every effort to start and run my own business” (C3); “I have a strong intention of ever starting a business in the future” (C7) and “I had a strong intention to start my own business before I started with my qualification” (C9).
- The ability to “develop and maintain favourable relationships with potential investors” (H12) had a significant (at the 1% level of significance) relationship with all nine entrepreneurial intent factors (C1 to C9 of appendix 1). The relationship was found to be weak (Somer’s d values above 0.2 but less than 0.4) for six of the nine entrepreneurial intent factors: “I will make every effort to start and run my own business” (C3); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6); “I have a strong intention of ever starting a business in the future” (C7) and “My qualification has contributed positively towards my interest to start a business” (C8). This ESE factor also had a very weak (Somer’s d values were below 0.2) relationship with three of the nine entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “My professional goal is to be

an entrepreneur” (C2) and “I had a strong intention to start my own business before I started with my qualification” (C9).

- The ability to “identify potential sources of funding for investment in the business” (H13) had a significant (at the 1% level of significance) relationship with all nine entrepreneurial intent factors (C1 to C9 of appendix 1). The relationship was found to be weak (Somer’s d values above 0.2 but less than 0.4) for eight of the nine entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “My professional goal is to be an entrepreneur” (C2); “I will make every effort to start and run my own business” (C3); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6); “I have a strong intention of ever starting a business in the future” (C7) and “My qualification has contributed positively towards my interest to start a business” (C8). This ESE factor also had a very weak (Somer’s d values were below 0.2) relationship with one of the nine entrepreneurial intent factors: “I had a strong intention to start my own business before I started with my qualification” (C9).

For the implementation phase, the intention of the respondents to start a business was significantly (at the 1% and 5% level of significance) related to how they perceived their own ESE with regard to all 11 factors in this phase, namely, their ability to “recruit and train new employees” (H14), “delegate tasks and responsibilities to employees in the business” (H15), “supervise employees” (H16), “deal effectively with day-to-day problems and crises” (H17), “inspire, encourage and motivate employees” (H18), “develop a working environment that encourages people to try out new things” (H19), “persist in the face of adversity” (H20), “make decisions under uncertainty and risk” (H21), and “organise and maintain the financial records of the business” (H22); “manage financial assets of the business” (H23) and “read and interpret financial statements” (H24). The findings revealed that ESE factors in this phase were significantly related to the intention of the respondents to start a business as follows:

- The ability to “recruit and train new employees” (H14) had a significant (at the 1% level of significance) relationship with all nine entrepreneurial intent factors (C1 to

C9 of appendix 1). This ESE factor had a weak (Somers's d values above 0.2 but less than 0.4) relationship with four of the nine entrepreneurial intent factors: "My professional goal is to be an entrepreneur" (C2); "I am determined to create a business venture in the future" (C4); "I have very seriously thought of starting a business in the future" (C6) and "I have a strong intention of ever starting a business in the future" (C7). In addition, a very weak (Somers's d values were below 0.2) relationship was found between this ESE factor and five of the nine entrepreneurial intent factors: "I am ready to do anything to be an entrepreneur" (C1); "I will make every effort to start and run my own business" (C3); "I do not have doubts about ever starting my own business in the future" (C5); "My qualification has contributed positively towards my interest to start a business" (C8) and "I had a strong intention to start my own business before I started with my qualification" (C9).

- The ability to "delegate tasks and responsibilities to employees in the business" (H15) had a significant (at the 1% level and 5% level of significance) relationship with all nine entrepreneurial intent factors (C1 to C9 of appendix 1). This ESE factor had a weak (Somers's d values above 0.2 but less than 0.4) relationship with one of the nine entrepreneurial intent factors: "My qualification has contributed positively towards my interest to start a business" (C8). Additionally, a very weak (Somers's d values were below 0.2) relationship was found between this ESE factor and eight of the nine entrepreneurial intent factors: "I am ready to do anything to be an entrepreneur" (C1, significant at the 5% level of significance); "My professional goal is to be an entrepreneur" (C2); "I will make every effort to start and run my own business" (C3); "I am determined to create a business venture in the future" (C4); "I do not have doubts about ever starting my own business in the future" (C5); "I have very seriously thought of starting a business in the future" (C6); "I have a strong intention of ever starting a business in the future" (C7) and "I had a strong intention to start my own business before I started with my qualification" (C9).
- The ability to "supervise employees" (H16) had a significant (at the 1% level of significance) relationship with all the nine entrepreneurial intent factors (C1 to C9

of appendix 1). The relationship was found to be weak (Somer's d values above 0.2 but less than 0.4) for four of the nine entrepreneurial intent factors: "My professional goal is to be an entrepreneur" (C2); "I will make every effort to start and run my own business" (C3); "I have a strong intention of ever starting a business in the future" (C7) and "My qualification has contributed positively towards my interest to start a business" (C8). This ESE factor also had a very weak (Somer's d values were below 0.2) relationship with five of the nine entrepreneurial intent factors: "I am ready to do anything to be an entrepreneur" (C1); "I am determined to create a business venture in the future" (C4); "I do not have doubts about ever starting my own business in the future" (C5); "I have very seriously thought of starting a business in the future" (C6) and "I had a strong intention to start my own business before I started with my qualification" (C9).

- The ability to "deal effectively with day-to-day problems and crises" (H17) had a significant (at the 1% level of significance) relationship with all nine entrepreneurial intent factors (C1 to C9 of appendix 1). The relationship was found to be weak (Somer's d values above 0.2 but less than 0.4) for six of the nine entrepreneurial intent factors: "I am ready to do anything to be an entrepreneur" (C1); "My professional goal is to be an entrepreneur" (C2); "I will make every effort to start and run my own business" (C3); "I do not have doubts about ever starting my own business in the future" (C5); "I have a strong intention of ever starting a business in the future" (C7) and "My qualification has contributed positively towards my interest to start a business" (C8). This ESE factor also had a very weak (Somer's d values were below 0.2) relationship with three of the nine entrepreneurial intent factors: "I am determined to create a business venture in the future" (C4); "I have very seriously thought of starting a business in the future" (C6) and "I had a strong intention to start my own business before I started with my qualification" (C9).
- The ability to "inspire, encourage and motivate employees" (H18) had a significant (at the 1% level and 5% level of significance) relationship with all nine entrepreneurial intent factors (C1 to C9 of appendix 1). This ESE factor had a weak (Somer's d values above 0.2 but less than 0.4) relationship with five of the

nine entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “My professional goal is to be an entrepreneur” (C2); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5) and “I have very seriously thought of starting a business in the future” (C6). Additionally, a very weak (Somer’s d values were below 0.2) relationship was found between this ESE factor and four of the nine entrepreneurial intent factors “I will make every effort to start and run my own business” (C3); “I have a strong intention of ever starting a business in the future” (C7); “My qualification has contributed positively towards my interest to start a business” (C8, significant at the 5% level of significance) and “I had a strong intention to start my own business before I started with my qualification” (C9).

- The ability to “develop a working environment that encourages people to try out new things” (H19) had a significant (at the 1% level of significance) relationship with all nine entrepreneurial intent factors (C1 to C9 of appendix 1). The relationship was found to be weak (Somer’s d values above 0.2 but less than 0.4) for four of the nine entrepreneurial intent factors: “My professional goal is to be an entrepreneur” (C2); “I am determined to create a business venture in the future” (C4); “I have very seriously thought of starting a business in the future” (C6); and “I have a strong intention of ever starting a business in the future” (C7). This ESE factor also had a very weak (Somer’s d values were below 0.2) relationship with five of the nine entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1); “I will make every effort to start and run my own business” (C3); “I do not have doubts about ever starting my own business in the future” (C5); “My qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9).
- The ability to “persist in the face of adversity” (H20) had a significant (at the 1% level and 5% level of significance) relationship with eight of the nine entrepreneurial intent factors (C1 to C9 of appendix 1). The relationship was found to be weak (Somer’s d values above 0.2 but less than 0.4) for one of the

nine entrepreneurial intent factors: “I have a strong intention of ever starting a business in the future” (C7). This ESE factor also had a very weak (Somer’s d values were below 0.2) relationship with seven of the nine entrepreneurial intent factors: “I am ready to do anything to be an entrepreneur” (C1, significant at the 5% level of significance); “My professional goal is to be an entrepreneur” (C2); “I will make every effort to start and run my own business” (C3); “I am determined to create a business venture in the future” (C4, significant at the 5% level of significance); “I do not have doubts about ever starting my own business in the future” (C5); “I have very seriously thought of starting a business in the future” (C6) and “My qualification has contributed positively towards my interest to start a business” (C8, significant at the 5% level of significance).

- The ability to “make decisions under uncertainty and risk” (H21) had a significant (at the 1% level and 5% level of significance) relationship with eight of the nine entrepreneurial intent factors (C1 to C9 of appendix 1). This ESE factor had a weak (Somer’s d values above 0.2 but less than 0.4) relationship with two of the nine entrepreneurial intent factors: “I have very seriously thought of starting a business in the future” (C6) and “I have a strong intention of ever starting a business in the future” (C7). In addition, a very weak (Somer’s d values were below 0.2) relationship was found between this ESE factor and six of the nine entrepreneurial intent factors: “My professional goal is to be an entrepreneur” (C2); “I will make every effort to start and run my own business” (C3); “I am determined to create a business venture in the future” (C4); “I do not have doubts about ever starting my own business in the future” (C5); and “My qualification has contributed positively towards my interest to start a business” (C8) and “I had a strong intention to start my own business before I started with my qualification” (C9, significant at the 5% level of significance).
- The ability to “organise and maintain the financial records of the business” (H22) had a significant (at the 1% level and 5% level of significance) relationship with five of the nine entrepreneurial intent factors (C1 to C9 of appendix 1). The relationship was found to be weak (Somer’s d values above 0.2 but less than 0.4) for two of the nine entrepreneurial intent factors: “I do not have doubts about ever

starting my own business in the future” (C5) and “I have a strong intention of ever starting a business in the future” (C7). This ESE factor also had a very weak (Somer’s d values were below 0.2) relationship with three of the nine entrepreneurial intent factors: “I will make every effort to start and run my own business” (C3, significant at the 5% level of significance); “I am determined to create a business venture in the future” (C4, significant at the 5% level of significance) and “My qualification has contributed positively towards my interest to start a business” (C8).

- The ability to “manage financial assets of the business” (H23) had a significant (at the 1% level and 5% level of significance) but very weak (Somer’s d values were below 0.2) relationship with four of the nine entrepreneurial intent factors (C1 to C9 of appendix 1) that include: “I do not have doubts about ever starting my own business in the future” (C5) (significant at the 1% level of significance); “I have very seriously thought of starting a business in the future” (C6, significant at the 5% level of significance); “I have a strong intention of ever starting a business in the future” (C7, significant at the 5% level of significance) and “My qualification has contributed positively towards my interest to start a business” (C8, significant at the 5% level of significance).
- The ability to “read and interpret financial statements” (H24) had a significant (at the 5% level of significance) but very weak (Somer’s d values were below 0.2) relationship with three of the nine entrepreneurial intent factors (C1 to C9 of appendix 1) that include: “I do not have doubts about ever starting my own business in the future” (C5); “I have a strong intention of ever starting a business in the future” (C7) and “My qualification has contributed positively towards my interest to start a business” (C8).

APPENDIX 4 LETTERS

Private Bag X5050
THOHOYANDOU
0950
Phone: 015 962 8376

13 April 2010

Dr Ilze Swarts
Head of Department: Management and Entrepreneurship
Tshwane University of Technology
Polokwane Campus
Polokwane
0700

Dear Dr Swarts

My name is Justice Malebana, a former ND Management student at the Polokwane Campus of the then Technikon Pretoria. I am a registered DCom Business Management student at Unisa since 2008 and I am researching about the factors that influence entrepreneurial intent of students in the rural provinces of South Africa with specific reference to the Eastern Cape and Limpopo.

The focus of my research is on the role of exposure to entrepreneurship education, entrepreneurial support and social capital in the formation of entrepreneurial intent. In order to achieve the objectives of this research I hereby request your assistance with the distribution of questionnaires to the final year students in both ND: Management and ND: Entrepreneurship. These groups have been chosen because they are at a stage where they must make career decisions of which starting a business could be one of them. Preferably, I would appreciate if these questionnaires can be distributed during your lectures so that students can be able to complete them as fully as possible. The data collected will be used solely for the purpose of this research and the personal details of students as requested on the questionnaires will be used only in cases where clarification is needed on some of the responses. The data collected for this research is necessary for me obtain my doctorate degree.

Additional information has been given in the attached research proposal. You can contact me at 083 694 2676 or by e-mail: malebanaj@webmail.co.za should you need any further clarification.

Thank you for your assistance in advance.

Yours sincerely

Justice Malebana

Private Bag X5050
THOHOYANDOU
0950
Phone: 015 962 8376

20 April 2010

Mr MW Dinga
Department of Accounting and Internal Auditing
Tshwane University of Technology
Polokwane Campus
Polokwane
0700

Dear Mr Dinga

This letter serves to confirm our telephonic conversation on the date as indicated above. I am a registered DCom Business Management student at Unisa since 2008 and I am researching about the factors that influence entrepreneurial intent of students in the rural provinces of South Africa with specific reference to the Eastern Cape and Limpopo.

The focus of my research is on the role of exposure to entrepreneurship education, entrepreneurial support and social capital in the formation of entrepreneurial intent. In order to achieve the objectives of this research I hereby request your assistance with the distribution of questionnaires to the final year students in ND: Internal Auditing. These students have been chosen because they are at a stage where they must make career decisions of which starting a business could be one of them. Preferably, I would appreciate if these questionnaires can be distributed during your lectures so that students can be able to complete them as fully as possible. The data collected will be used solely for the purpose of this research and the personal details of students as requested on the questionnaires will be used only in cases where clarification is needed on some of the responses. The data collected for this research is necessary for me obtain my doctorate degree.

Attached documents include the letter from the Supervisor and the Questionnaire. You can contact me at 083 694 2676 or by e-mail: malebanaj@webmail.co.za should you need any further clarification. In case you are willing to assist me please indicate in your response whether I should courier the hard copies of the questionnaires to you and the number of students you have at third year level.

Thank you for your assistance in advance.

Yours sincerely

Justice Malebana

Private Bag X5050
THOHOYANDOU
0950
Phone: 015 962 8376

13 April 2010

Mr M Macutwana
Department of Management Studies
Walter Sisulu University
Zamukulungisa Campus
Mthatha
5099

Dear Mr Macutwana

This letter serves to confirm our telephonic conversation on the date as indicated above. I am a registered DCom Business Management student at Unisa since 2008 and I am researching about the factors that influence entrepreneurial intent of students in the rural provinces of South Africa with specific reference to the Eastern Cape and Limpopo.

The focus of my research is on the role of exposure to entrepreneurship education, entrepreneurial support and social capital in the formation of entrepreneurial intent. In order to achieve the objectives of this research I hereby request your assistance with the distribution of questionnaires to the final year students in ND: Management. These students have been chosen because they are at a stage where they must make career decisions of which starting a business could be one of them. Preferably, I would appreciate if these questionnaires can be distributed during your lectures so that students can be able to complete them as fully as possible. The data collected will be used solely for the purpose of this research and the personal details of students as requested on the questionnaires will be used only in cases where clarification is needed on some of the responses. The data collected for this research is necessary for me obtain my doctorate degree.

Attached documents include the letter from the Supervisor and the Questionnaire. You can contact me at 083 694 2676 or by e-mail: malebanaj@webmail.co.za should you need any further clarification.

Thank you for your assistance in advance.

Yours sincerely

Justice Malebana

Private Bag X5050
THOHOYANDOU
0950
Phone: 015 962 8376

13 April 2010

Mr JK Ntupanyama
Department of Accounting and Internal Auditing
Walter Sisulu University
Zamukulungisa Campus
Mthatha

Dear Mr Ntupanyama

This letter serves to confirm our telephonic conversation on the date as indicated above. I am a registered DCom Business Management student at Unisa since 2008 and I am researching about the factors that influence entrepreneurial intent of students in the rural provinces of South Africa with specific reference to the Eastern Cape and Limpopo.

The focus of my research is on the role of exposure to entrepreneurship education, entrepreneurial support and social capital in the formation of entrepreneurial intent. In order to achieve the objectives of this research I hereby request your assistance with the distribution of questionnaires to the final year students in ND: Internal Auditing and ND: Cost and Management Accounting. These students have been chosen because they are at a stage where they must make career decisions of which starting a business could be one of them. Preferably, I would appreciate if these questionnaires can be distributed during your lectures so that students can be able to complete them as fully as possible. The data collected will be used solely for the purpose of this research and the personal details of students as requested on the questionnaires will be used only in cases where clarification is needed on some of the responses. The data collected for this research is necessary for me obtain my doctorate degree.

Attached documents include the letter from the Supervisor and the Questionnaire. You can contact me at 083 694 2676 or by e-mail: malebanaj@webmail.co.za should you need any further clarification.

Thank you for your assistance in advance.

Yours sincerely

Justice Malebana

Private Bag X5050
THOHOYANDOU
0950
Phone: 015 962 8376

13 April 2010

Mr J Nel
Department of Management Studies
Walter Sisulu University
IBIKA Campus
Butterworth

Dear Mr Nel

This letter serves to confirm our telephonic conversation on the date as indicated above. I am a registered DCom Business Management student at Unisa since 2008 and I am researching about the factors that influence entrepreneurial intent of students in the rural provinces of South Africa with specific reference to the Eastern Cape and Limpopo.

The focus of my research is on the role of exposure to entrepreneurship education, entrepreneurial support and social capital in the formation of entrepreneurial intent. In order to achieve the objectives of this research I hereby request your assistance with the distribution of questionnaires to the final year students in ND: Management. These students have been chosen because they are at a stage where they must make career decisions of which starting a business could be one of them. Preferably, I would appreciate if these questionnaires can be distributed during your lectures so that students can be able to complete them as fully as possible. The data collected will be used solely for the purpose of this research and the personal details of students as requested on the questionnaires will be used only in cases where clarification is needed on some of the responses. The data collected for this research is necessary for me obtain my doctorate degree.

Attached documents include the letter from the Supervisor and the Questionnaire. You can contact me at 083 694 2676 or by e-mail: malebanaj@webmail.co.za should you need any further clarification.

Thank you for your assistance in advance.

Yours sincerely

Justice Malebana

Private Bag X5050
THOHOYANDOU
0950
Phone: 015 962 8376

22 April 2010

Mrs B Rayamajhi
Department of Accounting and Internal Auditing
Walter Sisulu University
Ibika Campus
Butterworth

Dear Mrs Rayamajhi

This letter serves to confirm our telephonic conversation on the date as indicated above. I am a registered DCom Business Management student at Unisa since 2008 and I am researching about the factors that influence entrepreneurial intent of students in the rural provinces of South Africa with specific reference to the Eastern Cape and Limpopo.

The focus of my research is on the role of exposure to entrepreneurship education, entrepreneurial support and social capital in the formation of entrepreneurial intent. In order to achieve the objectives of this research I hereby request your assistance with the distribution of questionnaires to the final year students in ND: Internal Auditing and ND: Cost and Management Accounting. These students have been chosen because they are at a stage where they must make career decisions of which starting a business could be one of them. Preferably, I would appreciate if these questionnaires can be distributed during your lectures so that students can be able to complete them as fully as possible. The data collected will be used solely for the purpose of this research and the personal details of students as requested on the questionnaires will be used only in cases where clarification is needed on some of the responses. The data collected for this research is necessary for me obtain my doctorate degree.

Attached documents include the letter from the Supervisor and the Questionnaire. You can contact me at 083 694 2676 or by e-mail: malebanaj@webmail.co.za should you need any further clarification.

Thank you for your assistance in advance.

Yours sincerely

Justice Malebana

Private Bag X5050
THOHOYANDOU
0950
Phone: 015 962 8376

16 April 2010

Mrs R Luzuka
Department of Accounting and Internal Auditing
Walter Sisulu University
Potsdam Campus
East London

Dear Mrs Luzuka

This letter serves to confirm our telephonic conversation on the date as indicated above. I am a registered DCom Business Management student at Unisa since 2008 and I am researching about the factors that influence entrepreneurial intent of students in the rural provinces of South Africa with specific reference to the Eastern Cape and Limpopo.

The focus of my research is on the role of exposure to entrepreneurship education, entrepreneurial support and social capital in the formation of entrepreneurial intent. In order to achieve the objectives of this research I hereby request your assistance with the distribution of questionnaires to the final year students in ND: Internal Auditing and ND: Cost and Management Accounting/Management Information systems. These students have been chosen because they are at a stage where they must make career decisions of which starting a business could be one of them. Preferably, I would appreciate if these questionnaires can be distributed during your lectures so that students can be able to complete them as fully as possible. The data collected will be used solely for the purpose of this research and the personal details of students as requested on the questionnaires will be used only in cases where clarification is needed on some of the responses. The data collected for this research is necessary for me obtain my doctorate degree.

Attached documents include the letter from the Supervisor and the Questionnaire. You can contact me at 083 694 2676 or by e-mail: malebanaj@webmail.co.za should you need any further clarification.

Thank you for your assistance in advance.

Yours sincerely

Justice Malebana

Private Bag X5050
THOHOYANDOU
0950
Phone: 015 962 8376

13 April 2010

Ms B Mpepo
Department of Marketing
Walter Sisulu University
Potsdam Campus
East London

Dear Ms Mpepo

This letter serves to confirm our telephonic conversation on the date as indicated above. I am a registered DCom Business Management student at Unisa since 2008 and I am researching about the factors that influence entrepreneurial intent of students in the rural provinces of South Africa with specific reference to the Eastern Cape and Limpopo. If you remember I have once asked you for learner guides to make comparisons of your course contents with those of TUT some time last year.

The focus of my research is on the role of exposure to entrepreneurship education, entrepreneurial support and social capital in the formation of entrepreneurial intent. In order to achieve the objectives of this research I hereby request your assistance with the distribution of questionnaires to the final year students in ND: Small Business Management/Entrepreneurship. These students have been chosen because they are at a stage where they must make career decisions of which starting a business could be one of them. Preferably, I would appreciate if these questionnaires can be distributed during your lectures so that students can be able to complete them as fully as possible. The data collected will be used solely for the purpose of this research and the personal details of students as requested on the questionnaires will be used only in cases where clarification is needed on some of the responses. The data collected for this research is necessary for me obtain my doctorate degree.

Attached documents include the letter from the Supervisor and the Questionnaire. You can contact me at 083 694 2676 or by e-mail: malebanaj@webmail.co.za should you need any further clarification.

Thank you for your assistance in advance.

Yours sincerely

Justice Malebana

Private Bag X5050
THOHOYANDOU
0950
Phone: 015 962 8376

13 April 2010

Mr L Majova
Department of People Management and Development
Walter Sisulu University
Potsdam Campus
East London

Dear Mr Majova

This letter serves to confirm our telephonic conversation on the date as indicated above. I am a registered DCom Business Management student at Unisa since 2008 and I am researching about the factors that influence entrepreneurial intent of students in the rural provinces of South Africa with specific reference to the Eastern Cape and Limpopo.

The focus of my research is on the role of exposure to entrepreneurship education, entrepreneurial support and social capital in the formation of entrepreneurial intent. In order to achieve the objectives of this research I hereby request your assistance with the distribution of questionnaires to the final year students in ND: Management. These students have been chosen because they are at a stage where they must make career decisions of which starting a business could be one of them. Preferably, I would appreciate if these questionnaires can be distributed during your lectures so that students can be able to complete them as fully as possible. The data collected will be used solely for the purpose of this research and the personal details of students as requested on the questionnaires will be used only in cases where clarification is needed on some of the responses. The data collected for this research is necessary for me obtain my doctorate degree.

Attached documents include the letter from the Supervisor and the Questionnaire. You can contact me at 083 694 2676 or by e-mail: malebanaj@webmail.co.za should you need any further clarification.

Thank you for your assistance in advance.

Yours sincerely

Justice Malebana

