THE CORRELATION BETWEEN ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT: TOWARDS A FRAMEWORK FOR OPTIMISING ITS CONTRIBUTION TO THE ECONOMIC DEVELOPMENT OF SOUTH AFRICA

By

SAMUEL JOHN CHIROMO

Submitted in fulfilment of the requirements for

the degree of

DOCTOR OF PHILOSOPHY

in the subject

MANAGEMENT STUDIES

at the

UNIVERSITY OF SOUTH AFRICA

Supervisor: Professor Gwendoline Vusumuzi Nani

November 2022

ABSTRACT

This study sought to establish the correlation between entrepreneurship and the economic development of South Africa. The study employed a pragmatism paradigm, and adopted a mixed-methods approach and a descriptive mixed method design. The population comprised 358 entrepreneurship experts drawn from Johannesburg Stock Exchange-listed companies, and 111 economic development experts drawn from academic institutions in Gauteng, a province of South Africa. Cluster sampling and census were adopted as the sampling approaches. Quantitative and qualitative data were solicited through an embedded questionnaire comprising both closed and open-ended questions. A total of 350 questionnaires were distributed and 273 were completed and returned, giving a 78% response rate. Descriptive and inferential statistics were used to analyse the quantitative data by utilising the Statistical Analysis Software. Spearman's rho correlation analysis was conducted to determine the significant correlation between entrepreneurship and economic development dimensions. Due to multivariate relationships between entrepreneurship and economic variables, the study also adopted inferential multivariate analysis to determine the statistically significant relationships among these variables. Thematic analysis provided an interpretation of qualitative data pertaining to the optimisation of the entrepreneurship policy framework and its implementation in South Africa. The study established a fragmented mutual determinant relationship between entrepreneurship and economic development in South Africa. The study also revealed that opportunity and necessity entrepreneurship, the elements of economic development, entrepreneurial policy framework conditions, and elements of the entrepreneurship policy framework, are crucial for improving the mutual determinant relationship between entrepreneurship and the economic development of South Africa.

The study concluded that there is a fragmented mutual determinant relationship between entrepreneurship and the economic development in South Africa. Further conclusions were that opportunity as well as necessity entrepreneurship, elements of economic development, entrepreneurial policy framework conditions, and elements of the entrepreneurship policy framework play a crucial role for entrepreneurship to contribute significantly to the economic development of South Africa. Based on these conclusions, a number of recommendations are made.

There should be a combination of some of the opportunity and necessity entrepreneurship determinants for entrepreneurship to significantly contribute to the South African economic development. In order to improve the entrepreneurial policy framework conditions of South Africa, certain provisions are required. Firstly, goods and services markets should be expanded; industrialisation, technology and economies of scale should be promoted. Secondly, policies where business incubators are mandated to assess the level of entrepreneurial skills of individuals before providing them with the funding are necessary. These policies should also promote business sophistication in the economy. Thirdly, there should be an improvement in the efficiency of public institutions to ensure effective implementation of structural reforms and African research methodologies. Fourthly, the South African government should focus on improving human capital through practical entrepreneurship education and skills training, and creating a more enabling environment that removes negative perceptions about entrepreneurship. Government should also ease the bureaucracy that hampers entrepreneurship.

Based on the findings and extensive literature review, the contribution of the current study to scholarship is the framework that was developed. This framework is meant to optimise the contribution of entrepreneurship to the economic development of South Africa. This particular research only focused on determining the correlation between entrepreneurship and the economic development of South Africa. Further studies could be conducted on financial support as a determinant of the correlation between entrepreneurship and the economic development of South Africa, and the correlation between entrepreneurship and the economic development in other African countries.

Key words: Entrepreneurship; Economic development; Income; Unemployment; Poverty; Inequality; Human welfare.

DECLARATION

I, Samuel John Chiromo, declare that "The correlation between entrepreneurship and economic development: Towards a framework for optimising its contribution to the economic development 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. I have not previously submitted this thesis for a degree at the University of South Africa (Unisa) or any other university. This thesis is submitted in fulfilment of the requirements for Doctor of Philosophy (PhD) Degree in Management Studies.

....

SAMUEL JOHN CHIROMO **DATE**

DECLARATION ON PLAGIARISM

I, **Samuel John Chiromo**, Student Number **43431542** hereby declare that I am fully aware of the University of South Africa's policy on plagiarism. I have taken every precaution to comply with the regulations.

....

SAMUEL JOHN CHIROMO **DATE**

DECLARATION ON RESEARCH ETHICAL CLEARANCE

I, **Samuel, John Chiromo**, hereby declare that I am fully aware of the University of South Africa's policy on research ethics. I complied with the regulations by obtaining an ethical clearance certificate reference number 2020_CEMS_DAM_008.

....

SAMUEL JOHN CHIROMO **DATE**

DEDICATION

This thesis, the most significant intellectual work of my life, is dedicated to my late father, Mr John Chiromo, who strove to get resources for me to go to school. In loving memory of my late father who said, “Never cease in educating yourself, as that is where your bright future lies.”

ACKNOWLEDGEMENTS

I would like to express my gratitude to God for providing me with the academic intellect to complete my PhD studies.

My special thanks go to my supervisor, Prof. Gwendoline Vusumuzi Nani, for her guidance, patience, rigorous reviews and insightful feedback, which enabled me to complete this study on time. May God bless her and give her increasing academic wisdom to continue to guide and inspire students in their master's and doctoral studies.

I am profoundly grateful to Prof. Annemarie Davis who provided considerable support for my PhD studies. As the head of Unisa Graduate Studies and Research, Prof. Davis also assisted in the approval of my Unisa research grants. She was the first professor who identified my potential to become an academic and a scholar by selecting me to join the Unisa Postgraduate Fellowship Programme in 2016. She is always there to assist when students face challenges within her area of authority. May God bless her for the role that she is playing in assisting students in the College of Economics and Management Sciences.

I am thankful to the chair of the Applied Management Department, Dr Ntise Manchidi, for his support and encouragement.

I am sincerely grateful to the former chair of the Applied Management Department, Prof. Cinè van Zyl, for her guidance whenever I faced challenges during the course of my PhD studies.

Dr Nicolene Conradie deserves special thanks for her supervisory support during the process of the appointment of my supervisor at Unisa.

Prof. Joseph Chisasa, the chair of the Department of Finance, Risk Management & Banking – his unwavering support did not go unnoticed. I thank him for his inspiration and support.

I also want to thank Prof. Kunofiwa Tsaurai for his support at the beginning of my PhD journey. He provided advice on how to persevere when faced with storms during PhD studies.

Dr Risimati Khosa deserves my gratitude for his support during my entire PhD studies.

My appreciation is extended to my colleagues in the Applied Management Department and the Department of Business Management, for their emotional support and encouragement. Special

thanks go to my colleague Mr Amkela Ngwenya, with whom I could interact and debate on how we could shape my PhD research.

My sincere gratitude also goes to the Unisa librarians working at the main library in Pretoria. They assisted me tirelessly as I searched for literature for the study.

The list would be incomplete if I left out the statistician, Mr Andries Masenge, who assisted in analysing the data for both the pilot and the full study.

I also want to thank the participants of my study whose input made this study possible.

Special thanks go to the language editor, Ms Jackie Viljoen, for editing the thesis.

My wife, Grace, my son, Gregory, and my daughters, Diana and Florence, words fail me. All I can say is, thank you for your patience, love and support.

The beautiful thing about learning is that nobody can take it away from you

– BB King

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

ACBF	African Capacity Building Foundation
AfDB	African Development Bank
ASEAN	Association of South East Asian Nations
BTEC	bachelor's degree in Technology
CAQDAS	computer-assisted qualitative data analysis software
CEO	chief executive officer
COVID	Coronavirus disease
Dti	Department of Trade and Industry
EFCs	entrepreneurial framework conditions
EPF	entrepreneurship policy framework
EU	European Union
FDI	foreign direct investment
GDP	gross domestic product
GEM	Global Entrepreneurship Monitor
GEN	Global Entrepreneurship Network
IBM	International Business Machines
ICSB	International Council for Small Business
IFC	International Finance Corporation
ILO	International Labour Office
IMF	International Monetary Fund
IoDSA	Institute of Directors in Southern Africa
IPOs	initial public offerings
IT	information technology
JSE	Johannesburg Stock Exchange
KMO	Kaiser–Meyer–Olkin
MANCOVA	multivariate analysis of covariance
MDGs	Millennium Development Goals
NES	National Expert Survey
OECD	Organisation for Economic Co-operation and Development
PhD	Doctor of Philosophy
R&D	research and development

RDP	Reconstruction and Development Programme
SEDA	Small Enterprise Development Agency
SEFA	Small Enterprise Finance Agency
SIDA	Swedish International Development Cooperation Agency
SME	small and medium enterprises
SMME	small, medium and micro-enterprise
SPSS	Statistical Package for the Social Sciences
TUT	Tshwane University of Technology
UJ	University of Johannesburg
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
Unisa	University of South Africa
UP	University of Pretoria
URERC	Unisa Research Ethics Review Committee
USA	United States of America
VUT	Vaal University of Technology
WB	World Bank
WEF	World Economic Forum
Wits	University of Witwatersrand

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 CHAPTER OVERVIEW

Chapter One provides insights into the factors that necessitated this study. The chapter is presented as follows: section 1.2 focuses on the introduction to the study. The background to the study is given in section 1.3. Section 1.4 examines the problem statement. The purpose, objectives and research questions are provided in section 1.5, section 1.6 and section 1.7 respectively. Section 1.8 presents the significance of the study. An overview of the research methodology is given in section 1.9. Sections 1.10 and 1.11 focus on delimitations and limitations of the study. Sections 1.12 and 1.13 provide assumptions and definitions of key terms of the study. Section 1.14 provides an outline of the rest of the study, and the chapter summary is given in section 1.15.

1.2 INTRODUCTION

The significance of entrepreneurship in boosting economic development in developed, emerging and developing countries has been sufficiently documented (Demirdag, 2018:2; Lafuente & Vaillant, 2016:101; Stam & Van Stel, 2009:1). The dimensions of entrepreneurship, such as creativity, innovation and risk taking that contribute to economic development, have been integrated into policies of various countries (Herrington & Coduras, 2019:14). However, the challenge to policymakers and economists is that they are unable to identify the type of entrepreneurship that contributes significantly to economic development. South Africa is an example in this regard. This dilemma has resulted in a call for government policies that promote the right type of entrepreneurship in developing countries (Van Vuuren & Alemayehu, 2018:9).

The nexus between entrepreneurship and economic development is entrenched in three elements. The first element explains the general knowledge of the role of entrepreneurship in terms of economic development. Economists such as Kirzner (1973), Knight (1921) and Schumpeter (1934) emphasise this role of entrepreneurship. Knight (1921) emphasises the risk-taking element of entrepreneurship whereby judgement and non-probabilistic uncertainty are exercised when making future-directed decisions that enhance entrepreneurship in an economy. Schumpeter (1934) highlights the innovation element of entrepreneurship when he describes

economic development as a historical process of structural changes substantially driven by innovation. Kirzner (1973) asserts that entrepreneurship facilitates adjustment to change by spotting opportunities for profitable arbitrage that lead markets of countries to equilibrium.

The second element provides the mathematical modelling of economic development. This model assumes that technological progress is exogenous and that it plays a role in boosting economic development (see Adusei, 2016). This implies that economic development can be improved by advancing technology without an effort of an individual (see Momani, 2017). Contrary to this model, scholars agree that economic development and technological progress are determined by entrepreneurship that generates innovations (see Adusei, 2016:203; Momani, 2017:25; Zaki & Rashid, 2016:4). However, in certain models, entrepreneurship was not recognised, such as the neoclassical growth model, which was introduced by Robert Solow in 1956.

The economic development theories lack the general theory of entrepreneurship that has a variety of economic development outcomes (see Naudé, 2018). However, there is an extension of the notion and knowledge of the contribution of entrepreneurship to economic development. As a result, global institutions, governments and policymakers have an interest in the role of entrepreneurship in promoting economic development. Despite the attention of policymakers on the role of entrepreneurship, it is still unclear how entrepreneurship promotes economic development. It is also unclear how entrepreneurship can be promoted best for it to make a meaningful contribution to economic development. Naudé (2018:4), a well-known economist, commented –

> [T]he theoretical and empirical cases for understanding the role of entrepreneurship are not yet solid. Evidence on whether entrepreneurship matters for economic development is not straightforward; how entrepreneurship has been promoted and how it contributes to development in countries such as China and the East Asian Tigers is still a matter of contention.

The third element embraces the empirical modelling and measurement of the correlation between entrepreneurship and economic development. The role of entrepreneurship to economic development has been generated in extensive empirical studies (see Adusei, 2016:202; Hessels & Naudé, 2017:3; Lafuente & Vaillant, 2016:101; Omoruyi, Olamide, Gomolemo & Donath, 2017:2; Stam & Van Stel, 2009:1). However, these studies are predominantly from developed countries. In developing countries, such as South Africa, such

studies are scarce. Studies that link entrepreneurship to economic development from a South African perspective are therefore noticeably absent. It seems that South African policymakers lack a framework to assist them in optimising the contribution of entrepreneurship to the economic development of South Africa. This framework had to be developed from a study conducted within the context of South Africa, and the current study therefore endeavoured to develop a framework of such a nature.

1.3 BACKGROUND TO THE STUDY

Entrepreneurship is acknowledged as the backbone of economic development through its critical role in poverty reduction, employment creation, wealth distribution and innovation (Lafuente & Vaillant, 2016:101; Stam & Van Stel, 2009:1). However, this phenomenon should not be taken for granted, as the role of entrepreneurship on economic development has mixed empirical evidence. According to Hessels and Naudé (2017:3), the positive effect of entrepreneurship on economic development is overestimated while its negative effect is underestimated, as most scholars focus on the positive effect and ignore the negative effect of entrepreneurship on economic development. This ideology is consistent with the findings of studies conducted by Shane (2009:142) and Sautet (2013:387). According to Shane (2009:142), start-up entrepreneurship is not innovative. It creates very few jobs, resulting in low economic development. Sautet (2013:389) argues that, while a positive correlation exists between entrepreneurship and economic development in developed countries, such correlation has not been clearly established for developing countries. Dvouletý, Gordievskaya and Procházka (2018:9) also assert that there is a need to explain the negative and unproductive correlation that exists between entrepreneurship and the economic development of developing countries to identify adequate sources for policy improvement.

Other studies also reveal that the influence of entrepreneurship on economic development between developed and developing countries differs extensively (see Avnimelech, Zelekha & Sharabi, 2014:240; Doran, McCarthy & O'Connor, 2018:6; Marcotte, 2014:180). For instance, studies by Omoruyi *et al*. (2017:2) and Adusei (2016:202) reveal that, while entrepreneurship has a positive effect on per capita gross domestic product (GDP) in developed countries, its influence on per capita GDP in developing countries is minimal. This seems to be a measurement issue due to some informal economic activities not being recorded in developing countries, resulting in entrepreneurship being put in a position of less or no contribution to

economic development in such countries. Okoye, Ogunoh and Mbakwe (2016:52) argue that, even if informal economic activities in developing countries were recorded, their contribution to GDP growth rate would be minimal. This argument is supported by Knox, Bressers, Mohlakoana and De Groot (2019:24) who agree that, despite the significance of informal economic activities, these activities are deemed necessity-driven without a potential to contribute to economic development. Nonetheless, Mahadea and Zogli (2019:2) argue that informal economic activities represent 66% of the total economic activities in developing countries. This is an indication that these activities have the potential to contribute to economic development. However, surprisingly, informal economic activities contribute only about 5% to 7% of the GDP of those countries (see Okoye, Ogunoh & Mbakwe, 2016). This clearly indicates that informal economic activities contribute minimally to economic development of developing countries. Nonetheless, this assertion would require an empirical study, as it is still debatable (Naudé, 2018). Sautet (2013:387) also found that, although entrepreneurship is socially productive, it does not increase the level of economic development that would reduce mass poverty of societies. This creates a dilemma regarding the nature of the correlation between entrepreneurship and economic development. More scientific studies are therefore needed in order to determine more about this relationship.

Acs, Szerb and Lloyd (2018:25) studied the relationship between entrepreneurship, economic development and prosperity. Findings revealed that countries move through three stages of economic development, and at some stages, entrepreneurship has minimal effects on economic development. Acs, Szerb *et al.* (2018:4) found these stages to be:

- a factor-driven stage, characterised by high rates of agricultural self-employment and low-cost efficiencies in the production of goods and services;
- an efficiency-driven stage during which countries have efficient productive practices and entrepreneurs exploit economies of scale; and
- an innovation-driven stage when entrepreneurship is able to increase productive activities, and economic development is more acknowledged than in the other stages.

Naudé's (2018:5) study revealed similar findings, namely that entrepreneurship is very low in the early stages of economic development. At these early stages, entrepreneurship plays a less pronounced role. The contribution of entrepreneurship to economic development is mainly acknowledged at the innovation-driven stage where economic development is driven by

knowledge and competition. Most developing countries do not reach the innovation-driven stage, which makes it difficult for them to survive economically (Van Vuuren & Alemayehu, 2018:1). For instance, South Africa is at the efficiency-driven stage of economic development. At this point, competitiveness is driven by higher education and training, efficient goods markets, well-functioning labour markets, sophisticated financial markets, a large domestic or foreign market, and the ability to harness the benefits of existing technologies (see Schwab, 2013:8). Although efficiency-driven countries are known for the abundance of untapped entrepreneurial opportunities, Van Vuuren and Alemayehu (2018:1) argue that these countries are characterised by economic unpredictability, low entrepreneurial culture, a decreasing rate in self-employment, high levels of volatility as well as low growth prospects and low aspirations. Bakari (2017:3) concurs that South Africa remains a developing country that is efficiency-driven with high levels of unemployment, poverty and inequality.

In line with Naudé's (2013:5) study, Dhahri and Omri (2018:66) and Nițu, Feder and Munteanu (2017:16) also found a different version of the influence of entrepreneurship on economic development. In efficiency-driven countries, entrepreneurship therefore positively affects economic development, whereas in the innovation-driven countries, entrepreneurship returns no statistically significant effects on economic development. Some studies argue that economic development may be affected minimally by entrepreneurship in countries that lack efficient and effective institutions (Dvouletý *et al.*, 2018; Lucas & Fuller, 2017). Lucas and Fuller's (2017:46) study points out such countries are characterised by weak enforcement of property rights, uncompetitive market prices, and cumbersome regulations.

It is acknowledged that developing countries have abundant resources, an entrepreneurial spirit and dynamic private sectors, such that they have the potential to be entrepreneurially successful and grow faster. As a result, their economic development is supposed to be further advanced than that of their developed counterparts (see Adusei, 2016:203; Organisation for Economic Co-operation and Development [OECD], 2017b:30). Scholars, such as Zaki and Rashid (2016:4), Adusei (2016:203) and Momani (2017:25), acknowledge that entrepreneurship in developing countries exploits new business opportunities, creates new jobs, and spills over knowledge, which may result in an increase of economic development in these countries. Contrary to this ideology, research demonstrates that developing countries have shown relatively low levels of entrepreneurship activities, which have resulted in relatively low economic development (see Okoye, Ogunoh & Mbakwe, 2016). Some of the reasons for low

levels of entrepreneurship activities in developing countries include but are not limited to, lower competitiveness, weaker business environment and larger human capital gaps (Brixiová & Ncube, 2015:2). The African GDP, which is one of the measures of economic development in developing countries, slowed down significantly to 2.2% in 2016, compared to 3.4% in 2015 (OECD 2017a:30; Van Niekerk, 2017:2). In Africa, although the growth rate of the domestic product was maintained at 3.4% in 2019, this rate is below the average of 5% of growth in the region, resulting in a decline of its economic development (African Development Bank [AfDB], 2020:1).

South Africa – as one of the developing countries – is no exception. Some studies have revealed that entrepreneurship is contributing significantly to the economic development of the country (Ayankoya, 2016:267; Lekhanya, 2016:18). Other studies have indicated that entrepreneurship has a minimal contribution to the economic development of South Africa (Van Vuuren & Alemayehu, 2018:9). The argument by those that say that the contribution of entrepreneurship to economic development is minimal, is based on the increased level of unemployment, poverty and inequality the country is currently facing (Global Entrepreneurship Monitor [GEM], 2016:120; Luiz & Mariotti, 2011:10; OECD, 2017a:45).

This then triggered the following gaps:

- the correlation between entrepreneurship and economic development is fragmented, which then requires further scientific studies in order to understand the significant nature of this correlation;
- the nature of entrepreneurship, which contributes significantly to economic development, has not been researched sufficiently; and
- the stage of economic development that significantly contributes to the promotion of entrepreneurship in South Africa is not well documented.

These have resulted in a dilemma for policymakers in terms of the nature of entrepreneurship and the stage of economic development that should be promoted in order to enhance the contribution of entrepreneurship to the economic development of South Africa. Van Vuuren and Alemayehu (2018:9) suggest that, although entrepreneurship is believed to be the instrument for economic development in South Africa, it is crucial to examine the nature of entrepreneurship that contributes most significantly to the economic development of the country.

This study therefore sought to –

- investigate scientifically the correlation between entrepreneurship and economic development;
- examine the nature of entrepreneurship that contributes most significantly to the economic development of South Africa; and
- determine the stage of economic development that contributes most significantly to the promotion of entrepreneurship in the country.

1.4 STATEMENT OF THE PROBLEM

It is well documented that entrepreneurship is the backbone of economic development through its critical role in poverty reduction, employment creation, wealth distribution, and innovation (Adusei, 2016:202; Lafuente & Vaillant, 2016:99; Naudé, 2018:8; Omoruyi *et al*., 2017:2). Nonetheless, scholars do not agree on the level of contribution of entrepreneurship to the economic development in developed and developing countries. On the one hand, some studies indicate that entrepreneurship contributes more to economic development in developed countries than in developing countries (Doran *et al*., 2018:6). On the other hand, other studies reveal that, in some developed and developing countries, the contribution of entrepreneurship to economic development is minimal (Avnimelech *et al*., 2014:240; Marcotte, 2014:180). Naudé (2013:5), Acs, Estrin *et al*. (2018:25), Van Vuuren and Alemayehu (2018:1) observe that entrepreneurship differs extensively during the factor-driven, efficiency-driven and innovation-driven stages of economic development. The stage of economic development that contributes most significantly to entrepreneurship in both developed and developing countries is unclear.

There are also contradicting findings regarding the contribution of entrepreneurship to the economic development of South Africa. For instance, Ayankoya (2016:4) and Lekhanya (2016:5) argue that entrepreneurship is contributing significantly to the economic development of South Africa. Contrary to these views, Luiz and Mariotti (2011:45), GEM (2016:180) and the OECD (2017b:7) indicate that entrepreneurship has a minimal contribution to the economic development of South Africa, which is manifested in the increased level of unemployment, poverty and inequality that the country is facing.

Hessels and Naudé (2017:2) mention that the nexus between entrepreneurship and economic development is fragmented and not based on a unifying theoretical approach, while there is also a dearth of studies on this phenomenon. This then triggers the need for a framework for optimising the contribution of entrepreneurship to the economic development of developing countries, such as South Africa. Such framework should incorporate the following:

- the significant relationship between entrepreneurship and economic development within a South African context;
- the nature of entrepreneurship that would contribute most significantly to the economic development of South Africa; and
- the stage of economic development that needs to be promoted in order for entrepreneurship to contribute significantly to the economic development of the country.

The current study therefore sought to develop a framework of such a nature.

1.5 PURPOSE OF THE STUDY

The purpose of the current study was to design a framework for optimising the contribution of entrepreneurship to the economic development of South Africa. The proposed framework sought to provide entrepreneurial practices that are relevant to South Africa in terms of the contribution of entrepreneurship to economic development. It was envisaged that the framework would be a useful instrument for policymakers, entrepreneurs and any other relevant stakeholders.

1.6 OBJECTIVES OF THE STUDY

The study was guided by the following objectives:

1.6.1 Primary objective

The primary objective of this study was to examine the significant correlation between entrepreneurship and the economic development of South Africa.

1.6.2 Secondary objectives

In order to examine the primary objective fully, the following secondary objectives were set:

- to investigate the type of entrepreneurship that significantly contributes to economic development in general;
- to determine the type of entrepreneurship that significantly contributes to the economic development of South Africa;
- to investigate the stage of economic development that significantly contributes to entrepreneurship in general;
- to determine the stage of economic development that significantly promotes entrepreneurship in South Africa;
- to identify gaps in the existing general frameworks on the correlation between entrepreneurship and economic development; and
- to develop a framework for optimising the significant contribution of entrepreneurship to the economic development of South Africa.

1.7 RESEARCH QUESTIONS

The following primary and secondary research questions guided this study.

1.7.1 Primary research question

What is the significant correlation between entrepreneurship and the economic development of South Africa?

1.7.2 Secondary research questions

In order to examine the primary research question fully, the following secondary research questions were posed:

- What is the type of entrepreneurship that significantly contributes to economic development in general?
- What is the type of entrepreneurship that significantly contributes to the economic development of South Africa?

- What is the stage of economic development that significantly contributes to entrepreneurship in general?
- What is the stage of economic development that significantly promotes entrepreneurship in South Africa?
- What are the gaps in the existing general frameworks on the correlation between entrepreneurship and economic development?
- How can a framework to optimise the significant correlation between entrepreneurship and economic development from a South African perspective be developed?

1.8 SIGNIFICANCE OF THE STUDY

It was expected that the study would make theoretical, methodological and practical contributions to the fields of both entrepreneurship and economic development.

1.8.1 Potential theoretical contribution of the study

It was envisaged that the study would make a unique theoretical contribution by creating a theoretical understanding of the correlation between entrepreneurship and economic development in developing countries, specifically in South Africa. At the time of this research, the correlation between entrepreneurship and economic development was fragmented and not well explained by the existing theories. Furthermore, these theories were developed from studies predominantly conducted in developed countries; hence, their application in developing countries seemed to be ineffective. The current study investigated this correlation scientifically, and came up with a novel framework from the perspective of a developing country.

1.8.2 The potential methodological contribution

In order for the current study to make a methodological contribution, mixed quantitative and qualitative research data were used. Previous studies on this phenomenon were predominantly quantitative and secondary data were used. Unlike the previous studies, this study used both quantitative and qualitative approaches and both primary and secondary data were used. By employing a mixed-method approach, the researcher was able to gather in-depth data that conceptualised the realities of entrepreneurs, and to combine it with quantitative data that added value to the understanding of this contribution from a South African perspective.

De Vos, Strydom, Fouché and Delport (2016:43) argue that, by mixing quantitative and qualitative research data, the researcher gains in-depth understanding and corroboration, while offsetting the weaknesses inherent in using each approach by itself. Saunders, Lewis and Thornhill (2016:171) assert that studies that solely depend on secondary data suffer data reliability and validity limitations, and that their reputation, accuracy and consistency are difficult to determine.

1.8.3 The potential practical contribution

After conducting the initial literature review, the researcher found that there was not yet any framework on the correlation between entrepreneurship and economic development that had been developed within a South African context. It was therefore envisaged that the current study would contribute to the field by developing such a framework. The framework would consist of entrepreneurial practices identified through this scientific study. The proposed framework was expected to have a positive influence on economic development when applied by entrepreneurs and economic development practitioners. It was therefore expected to assist in addressing the socio-economic challenges that the country is currently facing.

1.9 RESEARCH METHODOLOGY

This section provides an overview of the methodology that was employed in the study, namely the research paradigm, research approach, research design, population, sample and sampling techniques, data-collection instruments and procedures, data analysis, reliability and validity, credibility and trustworthiness, and ethical considerations. More detail on methodology is provided in Chapter Five.

1.9.1 Research paradigm

The current study resided in the pragmatic world view. The researcher focused on the research problem and question, and used all approaches available to understand the problem (Kaushik & Walsh, 2019:4). The knowledge that entrepreneurship contributes to economic development is widely known. However, the type of entrepreneurship that contributes to economic development, and the stages of economic development that could promote entrepreneurship in South Africa, seemed to have been studied insufficiently. The pragmatic philosophy was deemed relevant for this study because the researcher concentrated on finding the best solution to the problem under study rather than focusing on the methods to be deployed.

1.9.2 Research approach

This study adopted a mixed-method approach, which combines the application of quantitative and qualitative research approaches. De Vos *et al.* (2016:435) assert that, by mixing both quantitative and qualitative research data, the researcher gains breadth and depth of understanding and corroboration, while offsetting the weaknesses inherent in using each approach. The rationale for choosing this approach was that a single approach was not sufficient to address the research problem (see Saunders *et al*., 2016:172). In the current study, the quantitative approach was used to measure the extent of the relationship between entrepreneurship and economic development from a South African perspective. The qualitative approach was used to analyse a policy framework for optimising the contribution of entrepreneurship to economic development of South Africa critically. As a result, a concurrent (QUAN + QUAL) triangulation approach was applied in which both quantitative and qualitative data were collected simultaneously. This supported the explanation of quantitative findings, the identification of threats for validity, and the generalisation of qualitative findings of the study (Kelle, Kühberge & Bernhard, 2019:4).

1.9.3 Research design

The study adopted a descriptive mixed-method design where an embedded questionnaire was used as the data-collecting instrument. The embedded questionnaire comprised both open-ended and closed questions (Mannino, 2014:39). This mixed-method approach was supported by Saunders *et al.* (2016:173) who assert that this approach may lead to greater confidence in the conclusion of the study. In this case, the shortcomings of using only quantitative data were offset by using both quantitative and qualitative data collected using the embedded questionnaire. The researcher therefore collected qualitative data as part of the predominantly correlational study to help explain how the mechanisms work in the correlational model as indicated in Figure 1.1:

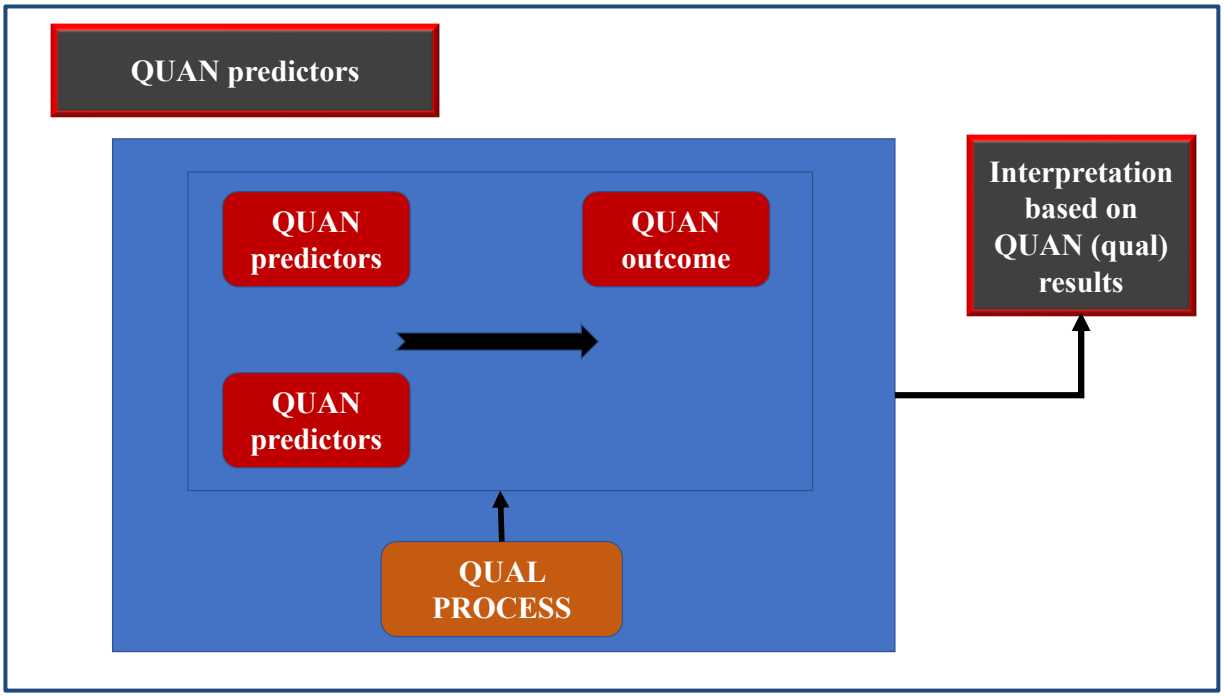

Figure 1.1: A mixed-method design: Embedded correlational model

Source: Creswell (2014:272)

Figure 1.1 indicates the embedded correlational model that was adopted in the current study. The researcher predominantly analysed quantitative data on the correlation between entrepreneurship and economic development. The researcher then analysed qualitative data to acquire the in-depth views on an entrepreneurship policy framework. These two data sets were triangulated to facilitate the development of the robust framework for optimising the contribution of entrepreneurship to economic development in South Africa.

1.9.4 Population

The population of a study is defined as the entire group of individuals, events or things of interest that the researcher wishes to investigate and from which he or she makes inferences (Sekaran & Bougie, 2012:262). The population for the current study comprised 358 entrepreneurship experts, namely the chief executive officer (CEO) and directors of Johannesburg Stock Exchange (JSE) listed companies, and 111 Economics experts comprising academics with doctoral degrees in Economics in Gauteng, South Africa. The underlying motive for choosing them was that they were regarded as experts in the fields of entrepreneurship and economic development respectively (see Kemp & Viviers, 2018:10; Newlyn, 2015:1; Stock & Siegfried, 2014:2). For this reason, they were expected to make

meaningful contributions to the body of knowledge regarding the correlation between entrepreneurship and economic development in South Africa.

1.9.5 Sample and sampling techniques

A sample is a subset of the research population, which comprises some members selected from the population (Sekaran & Bougie, 2012:262). In other words, only some elements of the population form the sample. Cluster sampling and census were adopted to determine the sample of the study. According to Leedy and Ormrod (2016:162), where a population of interest is spread over a large geographical area, such that it is not feasible for the study to cover the entire area, the researcher can subdivide the area into smaller areas, or clusters. These clusters should be as similar to one another as possible. Saunders *et al.* (2016:293) concur that cluster sampling can overcome problems associated with a geographically dispersed population or where it is expensive and time-consuming to conduct a study in such dispersed population.

The fact that JSE-listed companies and experts in Economics were spread over the entire South Africa made it not feasible and practical to conduct the study using the entire South Africa. Cluster sampling therefore fitted well in this study. As the population category of Economics experts was of a manageable size, the census sampling technique was adopted, and the entire population formed the sample. Saunders *et al.* (2016:212) contend that it is possible to collect data from the entire population if it is of a manageable size. Table 1.1 presents a summary of the profile of the population and the sample of the study.

Table 1.1: The profile of the population and the sample of the study

Target population categories	Population size	Sample size	Percentage of the total population	Sampling approach
Entrepreneurship experts	358	239	(358/469*100)=76**%**	Cluster sampling
Economics experts	111	111	(111/469*100)=24**%**	Census
Total	**469**	**350**	**100%**	

Source: Researcher's own compilation

Out of 358 listed companies (JSE, 2019), 239 companies had offices in Gauteng at the time, and were included in the cluster on which the current study was focused. As the list of Economics experts was of a manageable size, all 111 experts were included as respondents of the study (i.e. the census method). According to Saunders *et al.* (2016:274), a census approach involves collection of data from every possible member of the population.

1.9.6 Data-collection instruments and procedures

The study adopted the mixed-method approach as data was collected using an embedded questionnaire consisting of both closed and open-ended questions (Saunders *et al.*, 2016:172). Closed-ended questions catered for the quantitative part of the study, whereas open-ended questions catered for the qualitative part. The use of a questionnaire has proved to be appropriate where the researcher requires an analytical approach exploring relationships between variables (Gray, 2013:352). Besides, Creswell and Creswell (2018:85) and Gray (2013:352) reaffirm that the popularity of questionnaires as an instrument for data collection is based on some of the inherent advantages of questionnaires. These include the fact that questionnaires can be sent to a large number of respondents at a relatively low cost, and questionnaires may have a high response rate. A questionnaire therefore fitted well in this study because questionnaires were sent to a large number of experts in the fields of entrepreneurship and economic development in order to understand the phenomena in question. The embedded questionnaire was firstly used in a pilot study to test its validity and reliability before being used in the main study (Saunders *et al*., 2016:182).

1.9.7 Data analysis

Two types of data were collected in this study, quantitative and qualitative data. The researcher analysed qualitative data thematically by firstly transcribing the responses to the open-ended questions and assigning codes to the data. Active interpretation was then conducted by sorting the codes into themes. Thereafter, the themes were reviewed and refined by analysing all the extracts related to codes in order to explore whether they supported the themes, whether there were contradictions, and whether there was overlapping of themes. The researcher then described each theme identified from the qualitative data (Onwuegbuzie & Combs, 2011:6). The researcher therefore followed the following steps to analyse qualitative data thematically:

- familiarising himself with the data by reading through the responses over and over again to make sense of it;
- assigning codes to the data;
- searching for themes for the coded data; and
- interpreting the themes and writing.

1.9.8 Reliability and validity

Taherdoost (2016:33) indicates that validity and reliability complement each other. Although reliability is relevant for a study, it is not adequate unless combined with validity. In other words, for a test to be reliable, it also needs to be valid.

1.9.8.1 Reliability of the study

Mohajan (2017:15) explains reliability as the degree to which measurements can be repeated when different people conduct the measurement on different occasions under different situations, supposedly with alternative instruments, which measure the same construct or skill. Taherdoost (2016:33) describes reliability as "the extent to which a measurement of a phenomenon provides stable and consistent results". Cooper and Schindler (2009:374) indicate that Cronbach's alpha can be used to test for reliability. Cronbach's alpha measures the extent to which the instrument items reflect the same underlying constructs (Cooper & Schindler, 2009:374).

According to Taherdoost (2016:33), Cronbach's alpha coefficient is the most commonly used measure of internal consistency reliability in quantitative studies. No absolute rules exist for internal consistencies. However, most researchers agree on a minimum internal consistency coefficient of .70 (see Cooper & Schindler, 2009:374; Taherdoost, 2016:33). The questionnaire for the current study was tested for reliability using Cronbach's alpha test before using the questionnaire in the main part of the study.

1.9.8.2 Validity of the study

Validity of a study explains how well the collected data cover the actual area of investigation (Taherdoost, 2016:29). According to Gray (2013:375), validity of the study therefore means that the study should measure what it is intended to measure. To ensure validity of the current study, a comprehensive review of key literature was conducted. The review determined the correlation between entrepreneurship and economic development. Key concepts of this correlation were integrated into the instrument. The questionnaire was subjected to assessment by the research supervisor and the statistician. In addition, the questionnaire was piloted in order to validate the questions and to ensure that it measured what it was intended to measure. Furthermore, the researcher made use of a statistician to test the results of the pilot study for consistency before the questionnaire was self-administered.

1.9.9 Credibility and trustworthiness

To ensure trustworthiness and credibility of the qualitative data, the researcher sent the findings to the participants for confirmation and approval. The researcher also extensively and thoroughly describes the process he adopted in the study for others to follow and replicate the study. The researcher further kept a detailed record of the processes followed in the study (see Kumar, 2014:201). In addition, the participants were experts in the fields of entrepreneurship and economics. They were fully informed of the study and their informed consent was sought before they took part in the study. In addition, the researcher conducted member checking as the findings and conclusions of the study were shared with the participants involved. This allowed participants to analyse the findings critically and comment on them where necessary (Creswell, 2014:251).

1.9.10 Ethical considerations

Because the current study involved human beings, the researcher obtained permission from the University of South Africa (Unisa) Research Ethics Review Committee to conduct the study prior to the commencement of the research process (see Creswell, 2013:116). Some of the participants of the study were drawn from various Departments of Economics of public universities operating in Gauteng. These universities were the University of South Africa(Unisa), the Tshwane University of Technology (TUT), the University of Johannesburg (UJ), the University of Pretoria (UP), the University of Witwatersrand (Wits) and the Vaal University of Technology (VUT). General agreements about what was proper and improper in

a study were put in place, and throughout the research process, the researcher adhered to the general ethics guidelines (see Bless & Higson-Smith, 2013:31; Van Zyl, 2013:137) and the ethics guidelines provided by Unisa.

The researcher explained to the participants that participation was not compulsory, and that they could withdraw from the study at any time without any penalties. Before distributing the questionnaire, the researcher obtained verbal informed consent from the participants (see Creswell, 2013). The researcher also ensured that the participants were not exposed to any undue physical or psychological harm, by striving to be honest and respectful towards all participants (see Gray, 2013). The researcher and the participants had a clear understanding in respect of the confidentiality of the results of the study. All the information and responses available during the study were kept private and anonymous to protect the identities of the participants (Maree, 2013:124).

1.10 DELIMITATIONS OF THE STUDY

This study had both physical and theoretical delimitations as described herein.

1.10.1 Physical delimitations

This study was limited to Gauteng, as indicated in Figure 1.2. Gauteng is the most entrepreneurial and economic province in South Africa, which contributes about 34% of the South African GDP (see Gauteng Provincial Government, 2016). The province dominates in manufacturing in South Africa, especially in terms of heavy industry. It has long been the fastest growing and richest province in the country (see Gauteng Socio-Economic Review and Outlook, 2016). As a result of entrepreneurial and economic activities, Gauteng enjoys higher incomes, employment, education and infrastructure than other provinces (The Real Economy Bulletin, 2016). Gauteng was therefore chosen as the region where the current study was conducted due to its high performance in terms of entrepreneurial and economic activities (Gauteng Socio-Economic Review and Outlook, 2016:23).

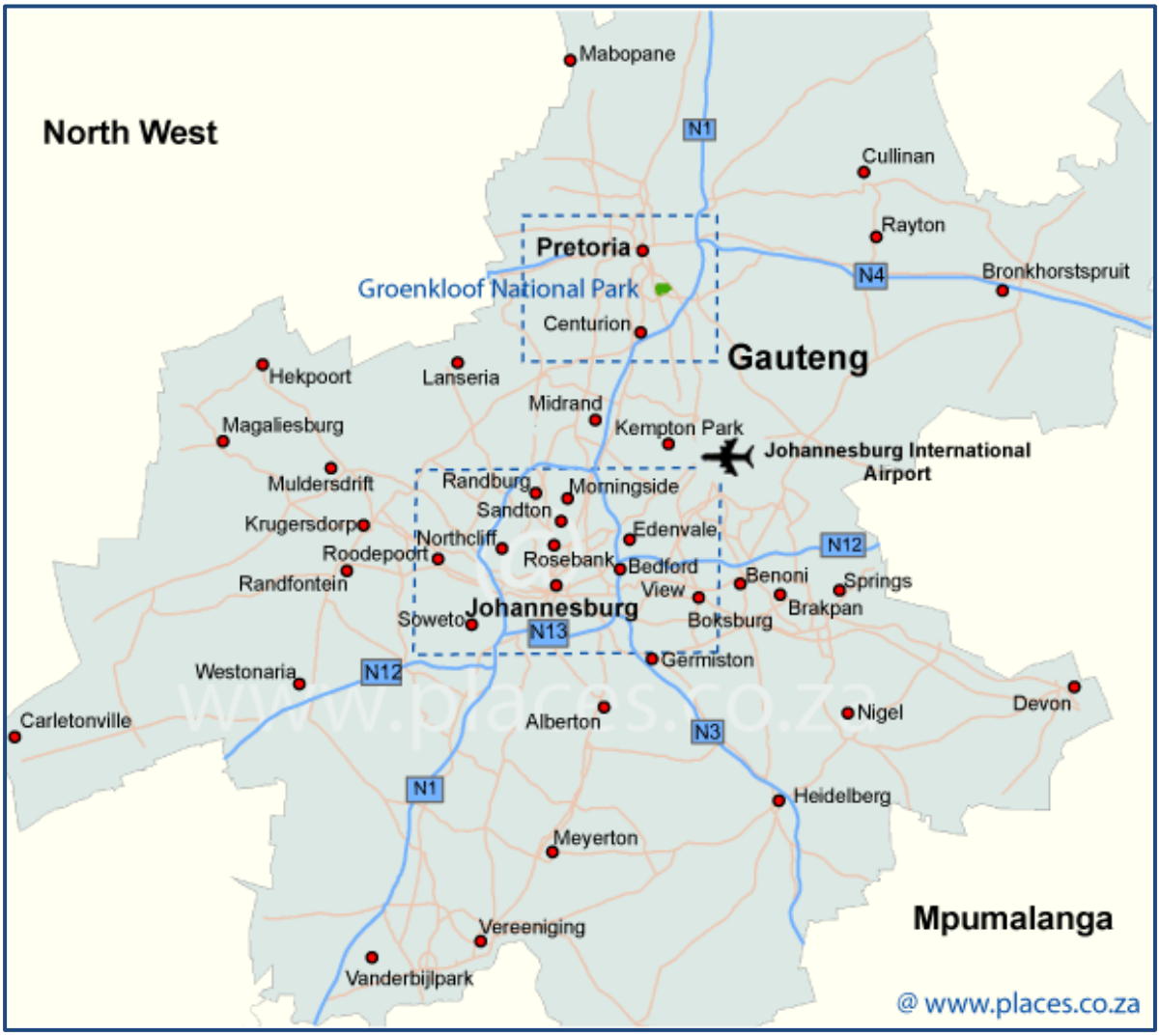

Figure 1.2: Map of Gauteng

Figure 1.2 indicates the areas covered by the study. The study focused on entrepreneurship and Economics experts whose academic institutions and/or companies operated in Gauteng at the time of this research.

1.10.2 Theoretical delimitations

There are various theories of entrepreneurship and economic development. However, the current study mainly focused on those theories that integrate the correlation of entrepreneurship and economic development. These studies were Cantillon's (1755) theory of entrepreneurship, Jean-Baptiste Say's (1828) theory on law of markets, Knight's (1921) theory on risk, uncertainty and profit, and Schumpeter's (1934) theory of economic development.

1.11 LIMITATIONS OF THE STUDY

This study, like any other research, had some limitations. Firstly, some of the CEOs were unwilling to participate and to complete the questionnaires out of fear that the confidential information of their companies might be leaked to their competitors. To address this limitation, it was stated on the cover page of the questionnaire that the information provided by the respondents would be used for research purposes only and that confidentiality would be adequately maintained. Secondly, the study faced time constraints. As a result, it was only conducted in Gauteng. To ensure sufficient time for conducting the study, the researcher – as an employee of an academic institution – utilised his study leave entitlement. Thirdly, the researcher experienced financial challenges. To mitigate this challenge, the researcher made use of bursary funds available from the institution.

1.12 ASSUMPTIONS OF THE STUDY

Assumptions of a study are essentially issues, ideas or positions found anywhere – from the beginning of the study design to the final report – that are taken for granted and viewed as reasonable and widely accepted (see Theofanidis & Fountouki, 2019:160). The current study assumed that it was common knowledge that entrepreneurship contributes to economic development. It also assumed that the inclusion criteria of the study sample were appropriate, and that the study sample was representative of the population from which the study would make inferences.

The study further assumed that participants would have a sincere interest in participating in the study as the phenomena that entrepreneurship contributes to economic development has both social and economic dimensions that affect the wellbeing of the community at large. In addition, participants were volunteers who could withdraw from the study at any time and with no ramifications. It was therefore assumed that the respondents would complete the questionnaires honestly. Furthermore, it was also assumed that the integration of qualitative and quantitative traditions within the same study would be seen as complementary to each other. This assumption is supported by Greene and Caracelli (2003:99) who contend that the underpinning notion of a mixed-method approach is a pragmatic assumption that, to judge the value of a policy, the researcher should use whatever methods would generate concrete evidence to draw conclusions and make rational decisions.

1.13 DEFINITION OF KEY TERMS

The following definitions of key terms were used in the study:

Entrepreneurship

The current study adopted a definition of entrepreneurship that consolidated the critical elements of entrepreneurship. In this study, **entrepreneurship** was viewed as having the following elements:

- the identification of business opportunities (see Kosa & Mohammed, 2017:1);
- mobilisation of resources and skills to utilise the identified business opportunities (see Suddaby, Bruton & Si, 2015:3);
- risk taking, which involves taking actions that might have unpleasant or undesirable results (see Sowole, Hogue & Adeyeye, 2018:6);
- supply of goods and services to societies (see Remund, Peris-Ortiz and Gehrke, 2017:2); and
- economic progress to society as a result of the supply of goods and services (see Szaban & Skrzek-Lubasińska, 2018:95).

Opportunity entrepreneurship

Opportunity entrepreneurship triggers the creation of a business when there is an entrepreneurial opportunity. Factors resulting in opportunity entrepreneurship are profit motive, increased demand for products and services provided by start-ups, discovery of better production methods by the entrepreneur, increased entrepreneurial skills and abilities, and the availability of capital (Acs, Szerb *et al*., 2018:17; Gutterman, 2016:7). In this study, **opportunity entrepreneurship** therefore meant entrepreneurial undertakings triggered by entrepreneurial opportunity in the market.

Necessity entrepreneurship

Necessity entrepreneurship takes place when an individual is forced into starting a business out of necessity because of a lack of alternatives in the labour market. Individuals who are unemployed prior to starting the businesses are therefore likely to become necessity entrepreneurs because most of them start businesses due to their unemployment status.

Embarking on some sort of entrepreneurship is therefore the best option for them and their families to survive (Fairlie & Fossen, 2018:17; Sautet, 2013:391). In this study, **necessity entrepreneurship** was described as the kind of entrepreneurship where individuals start businesses because they cannot find a decent job.

Economic development

Economic development is defined as an increase in capacities in the economy that expand economic stakeholders' capabilities. These stakeholders are individuals, government institutions, communities, firms and industries. Economic development therefore takes place when countries with low living standards become countries with high living standards resulting in the improvement of the overall health, wellbeing, academic level as well as the general population of the country (see Feldman, Hadjimichael & Lanahan, 2016:7; Muller, Mekgwe & Marvellous, 2013:71; Taylor & Lybbert, 2015:4).

Having analysed various elements of economic development, this study adopted a consolidation of the critical and profound elements of economic development. The study therefore adopted income growth, poverty reduction, reduction of inequality and improvement of human welfare as the critical and profound elements of **economic development**. Taylor and Lybbert (2015:66) confirm that these elements form a central theme of economic development.

Poverty

Poverty is a condition whereby one lacks a typically or generally acceptable amount of money or possession of materials. Poverty is said to exist when people lack the means to satisfy their basic needs necessary for survival, and is reflected in a prevailing standard of living in the community. Conditions of poverty are poor health, low levels of education or skills, an unwillingness to work, high rates of disruptive or disorderly behaviour, and an inability to provide for future needs (see Cobbinah, Black & Thwaites, 2013:25; Fourie, 2011:20; Todaro & Smith, 2015:226; Umaru & Tende, 2013:1583). In this study, **poverty** therefore meant the condition whereby individuals lack financial, material and environmental resources to satisfy their basic needs.

Inequality

Inequality refers to the measurement of imbalance or unequal distribution in a system, which may be social, economic, political or diversity. In Economics, it refers to how economic metrics are distributed among individuals in a group, among groups in a set of population, or among countries. Economists generally reckon there are about three broad areas of economic disparity, namely with respect to wealth, known as **wealth inequality**, income or income inequality, and consumption or consumption inequality. **Inequality of outcome** from economic transactions occurs when some individuals gain much more than others from an economic transaction. **Inequality of opportunity** occurs when individuals are denied access to institutions or employment, which limits their ability to benefit from living in a market economy (see Furceri & Ostry, 2019:494; Mayhew & Wills, 2019:353; United Nations Development Programme [UNDP], 2016:1). In this study, inequality meant social, economic and political disparity in a population, which is used to measure the imbalance or unequal distribution in a system.

Unemployment

Unemployment is found where a person who is actively looking for employment is unable to find work. The definition of unemployment therefore only caters for those individuals who are searching for work. Those people who are not searching for work are excluded when defining unemployment. The definition of unemployment is based on three criteria, namely without work, presently available for work and looking for work. Being 'without work' means that an individual is not in any form of employment where he or she can be remunerated. The criterion of 'presently available for work' means that an individual must make him- or herself available for a job during the reference duration. If the individual is 'looking for work,' it means he or she must take an active step to look for employment, for example through applying for advertised jobs. These criteria have been accepted globally, and they are used as guidelines for defining **unemployment** in different countries (see Fourie, 2011:8; Lloyd & Leibbrandt, 2014:87; Mncayi 2016:11). These criteria were therefore also adopted in the current study.

Income

Income is the amount of money or its equivalent received during a certain time in exchange for labour or services, from the sale of goods or property, or as profit from financial investments. It comprises royalties or an endowment or any other type of payment that a person or an institution receives on a periodic or regular basis (see Brooks, 2018:253; Van Wyk &

Dippenaar, 2017:3). In this study, **income** meant the amount of money and returns received by an individual or institution in exchange for labour and services, or as a result of financial investments.

Human welfare

Human welfare refers to an overall condition emphasising happiness and contentment of an individual. It also refers to one's standard of living in financial or material ways. Human welfare corresponds to different ideas of what human beings strive for regarding pleasure and satisfaction, namely –

- an emotional state of wellbeing characterised by positive or pleasant emotions ranging from contentment to intense joy (see Medvedev & Landhuis, 2018:1);
- living a good life or flourishing – the Aristotelian "living well and doing well" (Thomas, Bose & Aswathi, 2019:2);
- wellbeing and its relation to health (see Hendriks & Bartram, 2019:284).

In this study, **human welfare** meant happiness, contentment or the overall standard of living in terms of the financial or material possessions of an individual.

1.14 OUTLINE OF THE REST OF THE STUDY

The rest of the thesis consists of the following chapters.

Chapter Two: The concept of entrepreneurship

Chapter Two will present the type concept of entrepreneurship and the significance of this. The chapter focuses on the schools of thought for defining entrepreneurship and the types of entrepreneurship. It also presents the type of entrepreneurship that significantly contributes to economic development. Particular emphasis is also placed on the multidisciplinary nature of the concept of entrepreneurship.

Chapter Three: The concept of economic development

This chapter presents the relevance and definitions of economic development. It also presents the elements of economic development that contribute to entrepreneurship in general. Emphasis is placed on the multidisciplinary nature of the concept of economic development. This chapter

also presents the outcome of a critically analysis of the stages of economic development in general, the dimensions of economic development as well as entrepreneurial characteristics at each stage.

Chapter Four: The correlation between entrepreneurship and economic development

Chapter Four presents existing literature on the correlation between entrepreneurship and economic development, both from theoretical and empirical perspectives. The chapter also reflects an evaluation of the existing frameworks and models on the contribution of entrepreneurship to economic development. Furthermore, the chapter highlights entrepreneurial framework conditions (EFCs) and the entrepreneurship policy framework that optimises economic development.

Chapter Five: Research methodology

This chapter discusses the research methodology used to address the research objectives of the study. Justification of such research methodology is proffered by evaluating alternative research designs and methodologies; thus pronouncing the selected research methodology as being most appropriate to address the research questions and problem. The chapter presents the research paradigm, research approach, research design, population, sample and sampling techniques, data-collection procedures, data-analysis procedures and ethical considerations of the study.

Chapter Six: Data presentation, analysis and discussion of findings

This chapter presents an analysis of primary and secondary data as well as the results of the study. The chapter provides empirical findings on demographic variables, the results of Cronbach's alpha test for reliability of the measuring instrument (i.e. the questionnaire), and the descriptive, correlation and inferential statistics of the study. Furthermore, it presents the analysis of quantitative data, a thematic analysis of qualitative data as well as the triangulation of qualitative and quantitative findings. Chapter Six also discusses the empirical findings of the study on the correlation between entrepreneurship and economic development of South Africa in relation to literature reviewed. It also discusses the type of entrepreneurship that contributes to economic development in South Africa and the stage of economic development that significantly promotes entrepreneurship in South Africa.

Chapter Seven: Summary, conclusion and recommendations

This chapter presents a summary of the research findings, the conclusions, limitations of the study, the contribution of the study, recommendations, and areas for further study. The chapter also presents a framework for optimising the contribution of entrepreneurship to the economic development of South Africa, which is the main contribution of the study.

1.15 CHAPTER SUMMARY

Chapter One presented insights into the factors that necessitated this study by providing the introduction and background of the study, the statement of the problem, research objectives and research questions. The chapter also presented the significance of the study and an overview of the research methodology that was employed in the study. This was followed by a discussion of the delimitations, limitations, assumptions and definitions of key terms of the study. Finally, the chapter presented an outline of the rest of the thesis.

Chapter Two discusses literature on the concept of entrepreneurship.

CHAPTER TWO

THE CONCEPT OF ENTREPRENEURSHIP

2.1 CHAPTER OVERVIEW

Chapter Two addresses the first sub-objective of the study: to investigate the type of entrepreneurship that significantly contributes to economic development in general. The chapter discusses the schools of thought for defining entrepreneurship as well as the types of entrepreneurship. The chapter further provides an insight into the dynamism of entrepreneurship and identifies the type of entrepreneurship that contributes to economic development.

2.2 DEFINITION AND RELEVANCE OF ENTREPRENEURSHIP

Entrepreneurship is a dynamic and complex phenomenon, as it is multidisciplinary in nature (see Demirdag, 2015:21). Scholars from different fields deploy different philosophical assumptions to produce scientific knowledge related to their respective fields (see Junaid, Durrani, Rashid & Shaheen, 2015:36). There are many approaches to defining entrepreneurship, such as schools of thought and functions attributed to entrepreneurship. The schools of thought approach has been cited as the most detailed approach of defining entrepreneurship (see Demirdag, 2015:21). The entrepreneurship schools of thought are divided into three categories: entrepreneurship as uncertainty or risk bearing, entrepreneurship as innovation and creativity, and entrepreneurship as opportunity seeking.

2.2.1 Entrepreneurship as uncertainty or risk bearing

According to Alexandru (2019:44), the term ‘risk’ originates from the French word *risque* and was derived around the seventeenth century. It is defined by the French explanatory dictionary *Le petit Larousse* as ‘danger’ (Coteanu, 1998:929). The term was then defined as the inconvenience to which individuals are exposed, a hazard and loss or failure. Block, Sandner and Spiegel (2015:4) define ‘risk’ as “the possibility to reach a danger or bear a damage”. Risk bearing is one of the dimensions used to define entrepreneurship. For instance, Antoncic *et al.* (2018:4) note that risk bearing can be manifested in the entrepreneurial effort towards a new business conception that tends to have a high probability of failure. Block *et al.* (2015:4) argue

that the risk bearing of entrepreneurship is exhibited in the bundling of resources in original ways. The earliest definition of entrepreneurship, dating from the eighteenth century, used entrepreneurship as an economic concept describing it as the process of bearing the risk of buying at certain prices and selling at uncertain prices. Similarly, Chavez (2016:8) argues that the process of entrepreneurship involves the creation of an innovative economic organisation for the purpose of returns or growth under the condition of risk bearing.

Similar to the definition of entrepreneurship, the definition of risk is also complex and multifaceted. Imran *et al.* (2019:1) understand entrepreneurship as associated with risk bearing. This risk-bearing aspect relates to the chance and probability of the success of novel and sustainable business ventures, ideas, products or services. Such an initiative is likely to benefit the development and economic growth of society. Vesković (2014:115) describes risk as related to the uncertainty in the loss occurrence that follows a particular process. He further describes it as "uncertainty about the occurrence of economic loss" and "measurable uncertainty" (Vesković, 2014:115). According to Imran *et al.* (2019:1), one of the essential attributes of entrepreneurship is an internal locus of control, which caters for the handling of difficult situations and finding solutions to complex problems. Nevertheless, if there is no strong relationship between entrepreneurship and risk bearing, then it is difficult for entrepreneurship to embrace an internal locus of control. Despite the internal locus of control, entrepreneurs therefore need autonomy to take risks.

Antoncic *et al.* (2018:3) concur that entrepreneurship involves risk bearing, as it expresses creative thinking and initiative and changing resources and situations by utilising social and economic mechanisms. Kerr, Kerr and Xu (2018:15) assert that entrepreneurship is less neurotic than management, as entrepreneurship has the attribute of exceptional self-confidence to take on the risks of starting a venture. In contrast, Alexandru (2019:43) describes a risk as the result of the use of resources that has the probability of losses or lower incomes than planned. Kerr *et al.* (2018:18) argue that, despite the multidimensional nature of risk, scholars agree that entrepreneurship needs to be characterised by risk bearing that promotes the creation and recognition of business opportunities. Entrepreneurship also involves risk bearing when innovating new products and concepts that can be brought to the market. Risk taking is therefore regarded as the predictor of entrepreneurial performance in both new and established businesses.

Nonetheless, Linton (2019:4) argues that not all risks are associated with entrepreneurship. He emphasises that risks, such as psychological, social and financial risks, are more related to entrepreneurship than other risks. **Psychological** risk is the risk of mental health, such as mental tensions, stress, anxiety and other mental factors that have many destructive influences because of the complexity of the entrepreneurial process. **Social** risks are also apparent in entrepreneurship as entrepreneurial initiative needs high energy and is time-consuming. Entrepreneurship may involve the confrontation of some social and family damages, such as deficiencies and problems, resulting in absence from home and negative effects on the families of individuals who practise entrepreneurship. **Financial** risks also exist in entrepreneurship as most entrepreneurial initiatives are financed by savings and personal finances, and failure of such initiatives could cause loss of personal savings for individuals who practise entrepreneurship. Imran *et al.* (2019:23) claims that entrepreneurship is linked to risk bearing, as it involves a combination of various resources in the entrepreneurial process. In this process, resources are allocated specifically to the task of risk management. This task is generally in the form of an enterprise risk management framework in which all business risks are identified on a robust basis. This framework also involves the preparation of mitigation plans either to eliminate or to reduce the risk to an acceptable and manageable level for the size and nature of the organisation.

Contrary to risk-bearing ideology, Brockhaus (1980) found that risk bearing could not differentiate whether entrepreneurship is taking place or not. Risk-bearing might therefore not be regarded as an important trait for entrepreneurship. Antoncic *et al*. (2018:3) disagree with this finding, and they express that there are many studies, which found that entrepreneurship must be innovative, creative, dynamic and flexible and that bearing risk occurs at every stage of the entrepreneurial process. Other scholars, such as Sowole *et al.* (2018:6), also acknowledge risk bearing as an integral component of entrepreneurship by describing entrepreneurship as entrepreneurial orientation characterised by proactivity, autonomy, risk taking, innovativeness, competitiveness and aggressiveness.

In consolidating all the opinions and arguments in respect of entrepreneurship as uncertainty or risk bearing, risk bearing is seen as a critical part of the definition of entrepreneurship. It embraces other traits of entrepreneurship, such as innovation, creativity, proactiveness and internal locus of control. Furthermore, risk taking is also the predictor of entrepreneurial

performance in both new and established businesses. It therefore contributes to the competitive edge of entrepreneurial undertakings.

2.2.2 Entrepreneurship as an innovation or creative destructor

Innovation originated from romance word, *innovare*, which means doing new and different things (see Uslu & Kedikli, 2019:2). Scientifically, the word 'innovation' can be traced back to 1911 when Schumpeter (1911) described it as inventiveness in basic meaning. He categorised innovation into three phases, namely invention, innovation and diffusion. The **invention** phase involves a discovery process of a new technical discipline. Invention is then commercialised at the innovation phase. **Innovation** is diffused for commercial use at the **diffusion** phase. However, in the modern world, innovation embraces all these phases and is regarded as a critical aspect of entrepreneurship (Uslu & Kedikli, 2019:2).

In 1934, Joseph Schumpeter described entrepreneurship as the invention, innovation and the destruction of the old patterns of action and thought (Demirdag, 2015:28; Uslu & Kedikli, 2019:2). Herman (2018:426) asserts that entrepreneurship disrupts the market equilibrium by recognising and developing novel products, processes or markets, and by satisfying the needs of customers and the environment. Entrepreneurship also disrupts the market equilibrium by helping businesses that are less productive to be more productive through the exploitation of the innovative abilities. Entrepreneurship therefore involves economic change, creative destruction and innovation of market equilibrium resulting in a novel development of products and services that satisfy customers.

Schumpeter (1942:83) believes that innovation is the heart of economic change, which spearheads the design of the "creative destruction" process, in which the new technologies replace the old ones. In other words, Schumpeter (1942:83) argues that innovation is a "process of industrial mutation that incessantly revolutionises the economic structure from within, incessantly destroying the old one and incessantly creating a new one". Entrepreneurs are therefore described as the critical mechanism for driving innovation and economic development. As a result, Lukes (2013:72) identifies innovation as one of the traits of entrepreneurship closely related to the individual who practises entrepreneurship and who has an interest in innovation. However, there are also factors that foster innovation. Hana (2013:84) notes that any innovative business must have enough ideas that it uses for implementing and marketing the invention. The business should also have employees with innovative knowledge

and skills, as the possibility of invention is based on people's knowledge and skills. The human factor is therefore a key element in the process of innovation. The innovative capability of the business therefore depends closely on its intellectual assets and on its ability to utilise these assets effectively and efficiently.

According to Demirdag (2015:26), innovation and creativity are the critical dimensions of entrepreneurship. These dimensions are closely related to entrepreneurial capability to cope with disequilibrium in the market. Qudah (2018:160) argues that innovation and creativity are indispensable skills needed for an individual to succeed in embarking on an entrepreneurial undertaking. Contrary to Demirdag's (2015) canon, Qudah (2018:160) argues that innovation is the product of creativity. **Creativity** is described as the entrepreneurial ability to create new and unique ideas, whereas **innovation** is described as the implementation of creativity to find solution to a problem (see Maritz & Donovan, 2015). The process of innovation involves the introduction of new solutions, new ideas, novel products or processes that lead to improved effectiveness or efficiency of an entrepreneurial undertaking. Although innovation is an integral dimension of entrepreneurship, Maritz and Donovan (2015:74) assert that entrepreneurship also relates to the discovery, evaluation and exploitation of opportunities. These opportunities exist in the process of business start-up, creation and growth, and they are key to economic development. The authors further assert that innovation relates to the development, adoption and exploitation of value-added activities in economic and social areas. Innovation is therefore a key factor for competitiveness and growth of the business undertaking. In contrast, Uslu and Kedikli (2019:7) suggest that entrepreneurship is a process that initiates creativity and innovation. In this context, there is a substantial link between entrepreneurship, creativity and innovation. Regardless of the fact that these concepts seem to be divided, they are rather contextually undividable and must be understood as elements within a system.

Filser, Kraus, Roig-Tierno, Kailer and Fischer (2019:4) agree that entrepreneurship is a process of opportunity recognition, the creation of goods and the exploitation of opportunities. Nonetheless, innovation is inseparable from this process. Innovation is "the generation, acceptance and implementation of new ideas, processes, products or services" and it plays a crucial role in the entrepreneurship process (Filser *et al.*, 2019:4). Qudah (2018:158) concurs that innovation is part of entrepreneurship, and entrepreneurs are described as individuals with the ability to transform the designs of production by exploiting an invention. Karlsson, Rickardsson and Wincent (2019:1) consequently view entrepreneurship and innovation as one

concept. They regard entrepreneurship and innovation as both mechanisms for finding new creative solutions to address challenges at various societal levels by searching for problem solutions from new perspectives, and using resources in new combinations in a business.

Karlsson *et al.* (2019), Qudah (2018:161) and Herman (2018:426) are in agreement, and assert that entrepreneurship, creativity and innovation form a feedback loop in which entrepreneurship breeds innovation and creativity and then vice versa. In this feedback loop, innovation is a channel through which entrepreneurs provide existing resources with better potential to create wealth. Innovation is also a way to create new wealth-producing resources. As a result, innovation which entails putting into practice the inventions, and creativity can both be fostered through entrepreneurship. However, Kritikos (2014:23) disagrees that there is a feedback loop between innovation, creativity and entrepreneurship. The rationale for this disagreement is that in some economies, the entrepreneurial and innovation ecosystems are fragile and dysfunctional. This is normally evident in economies with over-regulation, unfavourable business practices, rent-seeking behaviour, low investments in research and development, as well as prolonged processes to register patent and business licenses. All these restrain both innovation and entrepreneurship. Nevertheless, Pradhan, Arvin, Nair and Bennett (2020:11), Herman (2018:426) and Qudah (2018:158) argue that entrepreneurship and innovation influence each other. The rationale for their argument is that entrepreneurs capitalise on new innovations. These new innovations enhance the attainment and prosperity of existing products and services, and in some instances, low barriers to market entry. As a result, these lead to an increasing number of new entrepreneurs gaining access to market.

In summary, the definition of entrepreneurship reflects that an innovator or creative destructor plays a critical role in understanding the nature of the concept of entrepreneurship. Entrepreneurship as an innovator, on the one hand, involves the accumulation of innovative ideas that are used for implementing inventions. This involves the introduction of new solutions, products or processes that improve efficiency and effectiveness of an entrepreneurial undertaking. Entrepreneurship as a creative destructor, on the other hand, involves the creation of new and unique ideas. As a result, entrepreneurship acts as an agent of destruction in the economy as it destroys the old patterns of action and thought. It also disrupts the market equilibrium by recognising and developing novel products, processes or markets, and by satisfying the needs of the customers and the environment. The concepts of entrepreneurship, creativity and innovation are linked in such a way that one cannot separate them; hence,

entrepreneurship that lacks some of these dimensions is less likely to contribute to economic development.

2.2.3 Entrepreneurship as opportunity identification

Identification of opportunity is another critical element of entrepreneurship. The experience of disequilibrium in the market triggers opportunities, which, in turn, trigger entrepreneurship. As a result, entrepreneurship is described as the acknowledgement of undetected opportunities in the market (Demirdag, 2015:30). Quintero, Andrade and Ramírez (2019:107) argue that entrepreneurship consists of the discovery and exploitation of business opportunities. Consequently, they view entrepreneurship as the process of searching opportunities and exploiting them through business idea generation resulting in new business creation.

Kosa and Mohammed (2017:1) conceptualise entrepreneurship as the ability of an individual or a group of people to locate an opportunity and to use it to the benefit of the community, which, in turn, promotes individual or organisation innovation. Remund *et al.* (2017:2) consider entrepreneurship as the capacity of human capital to create products and services that are materialised in the businesses. Such human capital is characterised by opportunity discovery and factors such as entrepreneurial knowledge, creativity and skills. In summarising this definition, Gamede and Uleanya (2018:1) view entrepreneurship as a discipline that considers how, why and when opportunities are identified, created and put to use. An individual with an entrepreneurial orientation is characterised by proactivity, autonomy, risk taking, innovativeness, competitiveness and aggressiveness, all of which embrace opportunity discovery and exploitation (Sowole *et al.*, 2018:6).

Entrepreneurship is therefore about the discovery and pursuit of new ideas, using a multitude of artistic expressions and organisational forms as vehicles by which to express and convey these ideas to the public. Discovery is therefore the means of entrepreneurship pursuit by individuals who are ingenious and creative in finding ways that add to their own wealth, power and prestige, and these individuals operate in any area of life (Bridge, 2017:4; Essig, 2015:228).

Sutter, Bruton and Chen (2019:204) as well as Lundberg and Rehnfors (2018:152) describe opportunity identification as the discovery or creation of competitive imperfections in a factor or product market. As a result, entrepreneurship involves access to resources such as supply chain and technological skills that create additional new opportunities. Okoye (2018:102) further describes opportunity identification as the potential situation of wealth creation, which

is identified through an emergent procedure. Emergence implies that entrepreneurship is associated with entrepreneurial capabilities for making new wealth. According to Sutter *et al.* (2019:204), after identifying the opportunities, entrepreneurship exploits such opportunities by obtaining the resources, bundling those resources into capabilities, and combining the capabilities to create value. According to Reddy (2012:25), the existence of opportunity does not necessarily mean that those with entrepreneurial skills will automatically exploit the opportunity. It is therefore critical that identification and exploitation of a business idea triggers the establishment of a new venture. Hsieh and Wu (2019:315) consequently define entrepreneurship as the process of planning, initiating and operating a new venture. Through this process, creative ideas are converted into valuable novelties, which then provide solutions to the problems faced by customers. Omaruyi *et al*. (2017:1) concur that entrepreneurship is the creation of start-up businesses by individuals who coordinate their knowledge and skills to produce optimal products and services.

Having described entrepreneurship as part of operating a new venture; Sutter *et al*. (2019:199) define entrepreneurship as "situations in which new goods, services, raw materials, markets and organising methods can be introduced through the formation of new means, ends, or means-ends relationships". That is to say, it is a mechanism for transformational change that extends to social and institutional spheres. Through opportunity identification, entrepreneurship is therefore viewed as a remedy to economic problems, such as unemployment and poverty that communities face.

According to Okoye (2018:103) and Reddy (2012:25), opportunity is not derived from a vacuum. An entrepreneurial opportunity exists where there is a need, changes or issues that can be resolved. The sources of opportunity are technological, political and regulatory, social and demographic changes. Due to technological change, new solutions are introduced to the problems faced by societies, which then create an opportunity for entrepreneurs to allocate resources in an effective and efficient manner. In the same way, political and regulatory changes provide access to entrepreneurs to re-allocate resources in such a way that they are more profitable and facilitate the redistribution of income to members of the society. Socio-demographic opportunities, such as urbanisation, population dynamics and education infrastructure, also increase the need for entrepreneurial activities that an entrepreneur could utilise by bringing entrepreneurship to the community in demand.

Scholars, such as Lundberg and Rehnfors (2018:152), disagree with the conceptualisation of Reddy (2012:25) and Okoye (2018:103) that opportunities must be discovered. For Lundberg and Rehnfors, some opportunities can be located or discovered, while other opportunities may result from a creative process developed from the concepts and imaginations of entrepreneurship. They further argue that there are two categories of opportunities: **innovation** opportunities that relate to creation, and **arbitrage** opportunities that relate to awareness and discovery of market imperfections. Nevertheless, in both categories, opportunity identification is acknowledged as a core element of entrepreneurship. Booth, Chaperon, Kennell and Morrison (2020:1) add that entrepreneurs are agents of change, and it is through entrepreneurship that these agents can identify opportunities, take charge to exploit them, and give rise to a new business. In contrast, Kim, Tang and Wang (2020:2) view entrepreneurship as the instrument that does not only identify and exploit the opportunities, but also reduces shortfalls in a specific economic form. Its involvement in economic activities provides unlimited business opportunities. According to Pradhan *et al.* (2020:10), entrepreneurship is a mechanism for discovering business opportunities that have prospects of increasing the financial returns of business undertakings.

In summary, opportunity identification and exploitation are indeed integral parts of the definition of entrepreneurship. Scholars agree that entrepreneurs exploit the opportunity that is triggered by the experience of disequilibrium in the market, which then causes competitive imperfections in the factor or product market. Entrepreneurs search and locate opportunities. After discovering an opportunity, entrepreneurs obtain the resources, bundle those resources into capabilities, and combine the capabilities to create value. However, this opportunity is not derived from a vacuum. An entrepreneurial opportunity exists where there is a need, changes or issues that can be resolved. Some sources of opportunity are technological changes, political and regulatory changes, social and demographic changes.

2.2.4 Combination of different schools of thought in the definition of entrepreneurship

Scholars, such as Toscher and Bjorno (2019:2), Szaban and Skrzek-Lubasińska (2018:95), Petkovska, Mirchevska and Angelova (2017:87), Junaid *et al.* (2015:36), Essig (2015:2) and Suddaby *et al.* (2015:3), agree that the definition of entrepreneurship is multifaceted. It has various dimensions, such as risk taking, creativity, proactiveness, innovation, opportunity identification and exploitation; hence, it is a combination of different schools of thought. For

instance, Junaid *et al.* (2015:36) view entrepreneurship as an economic phenomenon, which has three overarching roles:

- it is an instrument for converting technical information into optimal products and services;
- it improves equilibrium by eliminating inefficiencies in the market; and
- it brings entrepreneurial innovation in products and services, which result in economic progress.

Entrepreneurship is therefore related to sustainable and creative ideas in which innovation is one of the integral elements that play a critical role in creating economic value through a certain business undertaking (Petkovska *et al*., 2017:87).

Toscher and Bjorno (2019:2) conceptualise entrepreneurship as a management process through which workers seek to support their creativity and autonomy, advance their capacity for adaptability, and create artistic as well as economic and social value. Despite agreeing with Toscher and Bjorno (2019:2), Essig (2015:2) argues that entrepreneurship is a creative rather than a managerial process as it involves converting means to desirable ends through a mediating structure or organisation that may be called a 'firm', even if that firm is an individual artist working as a sole proprietor.

From a Schumpeterian perspective, entrepreneurship is a process that involves various activities, such as the introduction of a new product or service, the application of contemporary ways of production or sale, and the identification of a new market for the products or services. This type of entrepreneurship also involves the availability of new sources of raw materials or semi-finished products, and the application of new organisational form within sectors (Szaban & Skrzek-Lubasińska, 2018:95). Although a Schumpeterian perspective (see Szaban & Skrzek-Lubasińska, 2018:95) views the first stage of entrepreneurship as "the introduction of a new product or service", a product can only be introduced in the market where there is entrepreneurial opportunity for or creativity of the entrepreneur. These entrepreneurial activities are promoted by the existence of technology, stable political and flexible regulatory climates, and demographic shifts. In some instances, the creative imagination and social skills of the entrepreneur play a critical role to promote entrepreneurship. Steve Jobs who designed the iPhone (see Szaban & Skrzek-Lubasińska, 2018:95), for instance did not see a product need for an iPhone in the competitive environment, but he rather creatively imagined that he could

design and promote a product that consumers did not even realise they wanted. Entrepreneurship therefore extends beyond identifying opportunities and filling gaps in the market (Suddaby *et al.,* 2015:3).

The current study consequently adopted a definition of entrepreneurship that consolidates the critical elements of entrepreneurship. In this study, entrepreneurship was therefore viewed as having the following elements:

- the identification of business opportunities (see Kosa & Mohammed, 2017:1);
- mobilisation of resources and skills to utilise the identified business opportunities (see Suddaby *et al.,* 2015:3);
- risk taking which involves taking actions that might have unpleasant or undesirable results (see Sowole *et al*., 2018:6);
- supply of goods and services to the societies (see Remund *et al*., 2017:2); and
- economic progress to the society as a result of the supply of goods and services (see Szaban and Skrzek-Lubasińska, 2018:95).

Entrepreneurship has different dimensions (Junaid *et al*., 2015:36). For this reason, the next section discusses the types of entrepreneurship and their dimensions.

2.3 TYPES OF ENTREPRENEURSHIP

Entrepreneurship has diverse characteristics; hence, there are many types of entrepreneurship (McCaffrey, 2018:7). According to Gutterman (2016:5), it is critical to analyse the different types of entrepreneurship before assessing the features of entrepreneurs, their motivational factors for choosing a particular type of entrepreneurship, and the contribution of such entrepreneurship to economic development. This study mainly focused on opportunity and necessity entrepreneurship. According to Fredström, Peltonen and Wincent (2020:2), contrasting opportunity and necessity entrepreneurship is a key construct in understanding the development ability of a country and its entrepreneurship productivity. The opportunity-to-necessity entrepreneurship ratio points to technological change, structural transformation, and economic development. Williams and Youssef (2014:41) concur that in most economies, nearly all types of entrepreneurship can be sorted into opportunity or necessity entrepreneurship categories. In the current study, a consideration of entrepreneurship based on the ratio of

opportunity-to-necessity entrepreneurship was key to investigating the contribution of entrepreneurship to economic development. This section therefore endeavours to give insight into the types of entrepreneurship relevant to the current study.

2.3.1 Opportunity entrepreneurship

According to Acs, Szerb *et al.* (2018:17), opportunity entrepreneurship triggers the creation of a business when there is an entrepreneurial opportunity. Factors that promote opportunity entrepreneurship are the profit motive, an increased demand for products and services provided by start-ups, discovery of a better production method by the entrepreneur, increased entrepreneurial skills and abilities of the entrepreneur, and the availability of capital. Fairlie and Fossen (2018:5) concur that the demand for products and services offered by start-ups might result in high opportunity entrepreneurship. Entrepreneurs might sometimes identify a better production method than the methods used by their competitors. In such a situation, opportunity entrepreneurship is likely to flourish. Opportunity entrepreneurship is also acknowledged where entrepreneurial abilities of the entrepreneur improve or increase. This may also be noticed when capital becomes more readily available or cheaper, which results in increasing opportunities for business creation.

Fredström *et al.* (2020:2) are of the opinion that opportunity entrepreneurs choose to engage in entrepreneurship because they locate opportunities that could increase their returns. Jafari-Sadeghi (2019:2) therefore views the concept of opportunity entrepreneurship as referring to the business creation practices that recognise better business opportunities. According to Block and Wagner (2010:157), opportunity entrepreneurship is apparent in situations where an individual voluntarily leaves his or her paid job to start a business, and this individual is drawn into entrepreneurship by an earlier recognised entrepreneurial opportunity. Opportunity entrepreneurship might also be apparent in cases where an individual becomes an entrepreneur after intentionally moving through a variety of jobs in which he or she had acquired competencies relevant to start his or her own business. Van der Zwan, Thurik, Verheul and Hessels (2016:274) describe opportunity entrepreneurship as start-up efforts “to take advantage of a business opportunity”.

Opportunity entrepreneurship is not only acknowledged when an individual leaves the job; it is also apparent when individuals who are wage or salary workers, register in learning institutions to acquire entrepreneurial knowledge and skills. It is further apparent when the individual is not

actively seeking a job before starting a business (Fairlie & Fossen, 2018:6). This argument is supported by Nasiri and Hamelin (2018:66) who argue that individuals who are opportunity-driven entrepreneurs possess a higher level of education than those are not opportunity-driven. Education is therefore a critical instrument to foster opportunity-driven entrepreneurship. Gutterman (2016:7) comments that opportunity entrepreneurship is 'pull' entrepreneurship. In 'pull' entrepreneurship, the individual develops an interest to establish a new venture through as training and exposure to business that creates confidence in him or her to look for new business opportunities to exploit.

Scholars, such as Van der Zwan *et al*. (2016:274), found that motivation to start a business has consequences for the manner in which a business is managed. For example, business aspiration, the market strategy viability and business performance are likely to be high when an entrepreneur pursues opportunity entrepreneurship. This implies that there seems to be a positive relationship between opportunity entrepreneurship and the performance of a business. According to Cai (2015:51), opportunity entrepreneurship therefore has a positive influence on economic development, as it has an effect on technological change. It is likely to create employment, reduce poverty and embrace innovation.

It is thus clear that opportunity entrepreneurship comprises the creation of a business after an entrepreneurial opportunity, such as demand for products and services, production methods, entrepreneurial abilities, and availability of capital, had been identified. In most cases, education is a critical instrument to foster opportunity-driven entrepreneurship (Nasiri & Hamelin, 2018:66). This type of entrepreneurship is characterised by business aspiration, viability of market strategy, and high business performance. Opportunity entrepreneurship is therefore positively correlated to the business performance, which then contributes to the economic development.

2.3.2 Necessity entrepreneurship

Necessity entrepreneurship, on the other hand, occurs when an individual starts a business because he or she has no other income options. Individuals seeking to meet their basic needs find necessity entrepreneurship attractive, while entrepreneurial opportunities reaching more ambitious goals are difficult to identify and pursue (Fredström *et al*., 2020:3). An individual starts this type of entrepreneurship because of 'push' motives as a way to compensate for a lack of other sources of employment and is often linked to informal activities, unemployment,

economic recession and poverty (Amorós, Ciravegna, Mandakovic & Stenholm, 2019:728). In this case, individuals are 'pushed' into the entrepreneurial endeavours as a survival strategy in the absence of alternatives (Williams & Youssef, 2014:41).

According to Adu-Gyamfi, Kuada and Asongu (2018:8), necessity entrepreneurship usually manifests where there is absence of jobs or the presence of war or famine. These factors may cause individuals to start businesses at home or elsewhere for the sake of survival. The motive behind the establishment of such businesses may be premised on the human instinct to survive in the absence of resources in terms of property, wealth, group unity and cultural values. Due to many resource constraints, necessity-driven businesses are usually relatively small, providing marginal employment for a single individual, and largely end up operating outside the economic mainstream. This justifies why necessity entrepreneurship is sometimes referred to as informal entrepreneurship.

Anokhin and Wincent (2012:43) argue:

> Where individuals plunge into entrepreneurship out of necessity, and not to pursue high quality opportunities, one may expect their impact to be low. Where they go after high potential opportunities, they are likely to bring about innovation and improve overall competitiveness.

Mrożewski and Kratzer (2017:1130) assert that necessity entrepreneurship is characterised by a negligible extent of innovation and has no significant relationship or even a negative relationship with innovation, when the aggregated national level is taken into consideration. This tendency is a result of the fact that necessity entrepreneurship practised by unemployed individuals tends to have little human capital and entrepreneurial talent. Necessity entrepreneurship is therefore typically classified as self-employment rather than as growth entrepreneurship (see Cross & Morales, 2007:5). It therefore does not contribute significantly to the economic development of a country. Anokhin and Wincent (2012:28) support the observation that in developing countries, having various entrepreneurial activities does not necessarily boost economic development because the existence of entrepreneurial activities is highly linked to necessity entrepreneurship. According to Adu-Gyamfi *et al.* (2018:9), this observation is consistent with a Schumpeterian viewpoint, namely that, in necessity entrepreneurship, creativity or innovativeness is low because it does not creatively destroy existing resources to bring out a new product or process of production, resulting in perpetually "no-growth" (Adu-Gyamfi *et al.*, 2018:9) businesses.

However, studies conducted by Williams and Youssef (2014:41) and Cross and Morales (2007:5) reveal that, although external pressures such as economic restructuring and unemployment force individuals to be involved in necessity entrepreneurship, most of them do so voluntarily. Most are therefore involved in necessity entrepreneurship by setting their careers on a new path and by transforming their work identity or revealing their true selves. These studies also show that, even those who began as necessity-driven entrepreneurs, joining due to constrained opportunities in the formal economy, tend to develop a long-term commitment to their informal sector businesses. For instance, street vendors are conventionally represented as necessity-driven entrepreneurs. The above studies found that most of them do so out of choice. They voluntarily operate in the informal economy to avoid the costs, time and effort of formal registration. The informal economy further offers potential benefits not found in formal economy, such as flexible hours, job training and entry into the labour force, opportunity for economic independence, better wages, avoidance of taxes and inefficient government regulations. These studies therefore depict informal entrepreneurship as either universally necessity-driven or universally opportunity-driven.

Similarly, Cai (2015:54) says joblessness has a positive influence on the probability of both necessity and opportunity entrepreneurship, and this influence seems to be a predominant feature in necessity entrepreneurship. Cai (2015:54) explains that, about one in two among the nascent necessity entrepreneurs was unemployed. In contrast, this proportion is only one in five among the nascent opportunity entrepreneurs (see Cai,2015). This further confirms that unemployment is a key factor that drives an individual to necessity entrepreneurship.

From a Kirznerian viewpoint of entrepreneurship (see Kirzner, 1973), although individuals who embark on necessity entrepreneurship start their businesses out of necessity, they may also exhibit the quality of alertness and look out for any opportunity that allows them to satisfy basic needs. This way, they may act proactively in search of opportunities. Leaning on these observations, it can be argued that there are different types of necessity entrepreneurship. Some are driven by economic survival motives while others are driven by intrinsic goals, such as independence, personal freedom or flexibility in balancing their business and domestic lives (Adu-Gyamfi *et al*., 2018:10). This demonstrates that, in some situations, entrepreneurial activities associated with opportunity entrepreneurship may be identified within necessity entrepreneurship. However, the influence of necessity entrepreneurship on the overall entrepreneurial activities is minimal, as it cannot be classified as opportunity entrepreneurship.

Van der Zwan *et al.* (2016:277) concur that necessity entrepreneurship is characterised by individuals who were dismissed from their jobs and/or individuals who decided to leave wage employment because their employers did not want to commercialise their ideas or inventions. Van der Zwan *et al.* (2016:277) also acknowledge that necessity entrepreneurship is common in individuals who cannot get any sort of employment, for example, due to a lack of educational or language skills or as a result of criminal backgrounds. Notwithstanding the role played by the different motives, the desire to be independent is generally agreed upon as the dominant factor explaining the reason underlying the existence of necessity entrepreneurship. The study by Van der Zwan *et al.* (2016:288) also found that, in terms of business survival or exit from employment, it is critically important to distinguish between divergent exit paths, such as involuntary and voluntary exits. In their study, Van der Zwan *et al.* (2016) found that individuals who were involved in necessity entrepreneurship were likely to exit through failure. Individuals who believe that it is difficult to start their own businesses due to a lack of available financial support, are likely to have necessity start-up motivations.

In consolidating all the opinions and arguments in respect of necessity entrepreneurship, it was established that necessity entrepreneurship occurs when an individual starts a business because he or she has no other income options. Such an individual starts this type of entrepreneurship because of 'push' motives as a way to compensate for a lack of other sources of employment, and is often linked to informal activities, unemployment, economic recession and poverty. Necessity entrepreneurship is characterised by a negligible extent of innovation and has no significant relationship – or even has a negative relationship – with innovation resulting in perpetually 'no-growth' businesses. From a Kirznerian viewpoint of entrepreneurship (see Kirzner, 1973), although individuals who embark on necessity entrepreneurship start their businesses out of necessity, they may exhibit the quality of alertness and look out for any opportunity that allows them to satisfy basic needs. It can therefore be argued that there are different types of necessity entrepreneurship. Some are driven by economic survival motives while others are driven by intrinsic goals, such as independence, personal freedom or flexibility in balancing their business and domestic lives. Although some of these elements relate to opportunity entrepreneurship, their influence on overall entrepreneurial activities is minimal. This type of entrepreneurship is consequently still called necessity entrepreneurship. Nonetheless, necessity entrepreneurship constrains entrepreneurial growth and development; hence, its contribution to economic development is minimal.

2.3.3 Other types of entrepreneurship linked to opportunity and necessity entrepreneurship

Williams and Youssef (2014:41) state that almost all types of entrepreneurship are linked to opportunity or necessity entrepreneurship. This assertion has been adopted by the current study as it simplifies the process of determining the type of entrepreneurship that significantly contributes to economic development. The focus here is therefore on two types of entrepreneurship, namely opportunity and necessity entrepreneurship, instead of on various entrepreneurship types.

In order to have an insight into the linkage between opportunity entrepreneurship, necessity entrepreneurship and various entrepreneurship types, this section provides an overview of how this linkage is manifested. Gutterman (2016:7) explains opportunity entrepreneurship as 'pull' entrepreneurship, and necessity entrepreneurship as 'push' entrepreneurship. In 'pull' entrepreneurship, the individual develops an interest to establish a new venture by factors such as training and exposure to business that create confidence in him or her to look for new business opportunities to exploit. In 'push' entrepreneurship, the individual decides to be involved in entrepreneurship due to unanticipated and unwelcome lifecycle developments, such as loss of employment, a lack of satisfaction with current employment and other career setbacks. Sometimes, this type of entrepreneurship is called reluctant entrepreneurship (see Gutterman, 2016:7)).

Sauka (2017:15) and McCaffrey (2018:7) identify entrepreneurship as being either productive or unproductive or destructive. **Productive** entrepreneurship generally results in positive output on either a venture (by maximising profit) or on society (by improving living standards). This type of entrepreneurship is characterised by business aspiration, viability of market strategy and high business performance; hence, its relationship with opportunity entrepreneurship. **Unproductive** entrepreneurship generally adds no economic value to either the venture or society. As this is also a case of necessity entrepreneurship, unproductive entrepreneurship is therefore related to necessity entrepreneurship. **Destructive** entrepreneurship presents a situation whereby illegal activities, such as corruption and crime, attract stakeholders and create negative output in society. Champeyrache (2018:159) identifies mafia entrepreneurship as being related to destructive entrepreneurship. Mafia entrepreneurship involves illegal activities, such as money laundering organised by criminals who act in the economy in the name of entrepreneurship. Their activities are however detrimental to the economic development of the

society in which they operate. This is then clearly indicates that neither destructive entrepreneurship nor mafia entrepreneurship adds any economic value to either the venture or the society.

Dahlstrand and Stevenson (2010:7) grouped entrepreneurship into ordinary and innovative entrepreneurship. **Ordinary** entrepreneurship is characterised by a high contribution to job creation in the economy. **Innovative** entrepreneurship contributes to both job and wealth creation, and these businesses have a higher growth rate compared to those of ordinary entrepreneurs. Innovative entrepreneurship has a high level of translating an idea or invention into a good or service that creates economic value to the society. These characteristics, namely the high contribution to job creation and the high level of translating ideas into goods or services, are also the characteristics of opportunity entrepreneurship. As a result, both ordinary and innovative entrepreneurships are linked to opportunity entrepreneurship.

Looking at the factors that drive one to practise entrepreneurship, the best technique is to approach the entrepreneurs themselves about the motivational factors for their decisions to practise entrepreneurship. In the current study, a scientific analysis of empirical data was conducted to determine the significant contribution of both necessity and opportunity entrepreneurship to economic development. The driving factors for entrepreneurs to practise entrepreneurship and the entrepreneurial outcomes provided insight into the type of entrepreneurship that contributes significantly to economic development. Hessels, Van Gelderen and Thurik (2008:324) emphasise that the driving motivational factors to practise entrepreneurship may determine the goals for and aspirations of the entrepreneurial undertaking, which in turn may determine economic development outcomes.

2.4 CHAPTER SUMMARY

In this chapter, literature was reviewed over two parts of the chapter. The first part dealt with the definition and relevance of entrepreneurship. The researcher discussed the dimensions of the definition of entrepreneurship, namely risk taking, creativity and innovation. In consolidating the multiple definitions of entrepreneurship from various scholars, the current study viewed entrepreneurship as having elements, such as the identification of the business opportunities and mobilisation of resources and skills to utilise the identified business opportunities. It also viewed entrepreneurship as having elements, such as risk taking (which involves taking actions that might have unpleasant or undesirable results), supply of goods and

services to societies, and economic progress in society as a result of the supply of goods and services.

In the second half of the chapter, literature was reviewed in terms of the research question to investigate the nature of entrepreneurship that significantly contributes to economic development in general. The review focused on opportunity entrepreneurship and necessity entrepreneurship. Opportunity entrepreneurship refers to the creation of a business after an entrepreneurial opportunity, such as a demand for products and services, production methods, entrepreneurial abilities and availability of capital, had been identified. Necessity entrepreneurship is found where an individual starts a business because he or she has no other income options. Such an individual starts this type of entrepreneurship because of 'push motives', as a way to compensate for a lack of other sources of employment and this type is often linked to informal activities, unemployment, economic recession and poverty. Various scholars agree that opportunity entrepreneurship has the potential to contribute significantly to economic development in both developed and developing economies.

Chapter Three discusses the definition, elements and stages of economic development and how these contribute to entrepreneurship in general.

CHAPTER THREE

THE CONCEPT OF ECONOMIC DEVELOPMENT

3.1 CHAPTER OVERVIEW

Chapter Three addresses the third sub-objective of the study: To investigate the stage of economic development that significantly contributes to entrepreneurship in general. The researcher discusses the definition and relevance of economic development as well as elements and stages of economic development and, explains how these elements and stages contribute to entrepreneurship. The chapter provides some insight into the dynamism of economic development and identifies the stage of economic development that significantly contributes to entrepreneurship.

3.2 DEFINITION AND RELEVANCE OF ECONOMIC DEVELOPMENT

Although economic development seems to be an important concept in academic research and fiscal policy documents, there is no unanimity in its definition (Gurak, 2015:228; Taylor & Lybbert, 2015:4). 'Economic development' is synonymous with 'economic performance', 'economic outcome', 'regional growth', 'community development' and 'regional development' (see Aparicio, 2017:19; Pittman & Phillips, 2014:1792). As a result, De Janvry and Sadoulet (2016:30) describe economic development as the enhancement of human wellbeing. Heys, Martin and Mkandawire (2019:2) define wellbeing (or welfare) as "a measure of the utility or satisfaction the society derives from the consumption of goods and services". Some of these goods and services are economic and some are non-economic. The economic goods are associated with material living standards. Non-economic goods and services are associated with the quality of life of society.

Feldman *et al.* (2016:7) define economic development as an increase of capacities in the country that expands economic stakeholders' capabilities. Muller *et al.* (2013:71) and Aparicio (2017:10) indicate that these stakeholders are individuals, government institutions, communities, firms and industries. Economic development takes place when countries with low living standards become countries with high living standards resulting in the improvement of the overall health, wellbeing and academic level of the general population of the country. According to Haller (2012:66) and Taylor and Lybbert (2015:4), economic development is not

only characterised by expansion of economic capabilities of the country; it also generates social qualitative and structural changes that enhance the country and increases national product. As a result, Peach (2018:295) states that significant structural changes play a critical role in terms of the existence of economic development. Other examples of changes that prompt economic development are an increase in education and skills in labour force, technical skills developed within the country, health of citizens as well as an increase in the capacities of the country to adapt to new technologies (Nafziger, 2015:14; OECD, 2019:26).

According to Peach (2018:295), structural change is the distinct variable that differentiates economic development from economic growth. Economic growth is described as the expansion in critical economic variables, such as GDP, income or employment, and these measures are indicated in per capita terms. The extent of economic growth can be expressed in numbers, and is achieved by producing more goods and services in all sectors of the country without significant structural changes. Economic development and economic growth nevertheless share some of the measures. Aparicio (2017:3) asserts that economic growth is a relevant condition (but not sufficient) for economic development, and the measures of economic growth, such as aggregated and per capita GDP, labour productivity and index of social progress, are accurate measures of economic development. Pittman and Phillips (2014:1792) maintain that traditional measures of economic development, such as gross domestic and national product, do not provide accurate measures; hence, there is a need for measures that fully reflect economic sustainability. As a result, Pittman and Phillips (2014:1792) suggest that community and regional indicators and other methods for evaluating future economic outcomes that reflect not only economic elements but also social and environmental elements, may paint a holistic picture of the level of economic development in the region or country.

Muller *et al.* (2013:71) and Esmail (2019:70) mention that socio-cultural, political and economic indicators reflect the institutional and behavioural changes that underpin the process of economic development. Scholars, such as Taylor and Lybbert (2015:4), Cervantes and Jorge Villasenor (2015:83), Freimann (2016:257) and Murad and Alshyab (2019:366), therefore concur that cultural diversity, political stability and economic progress have a positive influence on economic development. It is therefore through the economic development process that the country improves its economic, political and social wellbeing of its citizens.

Looking more deeply at the definition of economic development, Pittman and Phillips (2014:1792) view economic development as both a process and an outcome, which are closely associated with community development. According to Pittman and Phillips (2014:1792) –

> [Community development] produces assets for improving the quality of life and business climate. Economic development mobilises these assets to realize benefits for the community. Community development, therefore can be viewed as creating a 'development ready' community; a good place to live, work and play with a good labor force, quality of life, infrastructure, education system and government, that facilitates successful economic development. The process of economic development is characterized by increased outcome, better jobs, increased incomes and wealth, and an increase in the standard of living.

Although economic development has complex definitions, elements and characteristics, Toma, Grigore and Marinescu (2014:439) argue that economic development does not operate in isolation. Entrepreneurship is central to the functioning of market economies, resulting in economic development. Entrepreneurship attracts and grows businesses, creates employment, provides citizens with goods and services, and pays taxes through which economic development is expanded. Nonetheless, Abdesselam, Bonnet, Renou-Maissant and Aubry (2017:3), Halvarsson, Korpi and Wennberg (2018:278) as well as Kaur and Singh (2016:205) argue that economic development also contributes to the level of entrepreneurship in the country. Economic development elements, such as income growth, employment generation, alleviation of inequality, innovation and human welfare, drive and shape entrepreneurial activity in the country. This demonstrates a determinant relationship between economic development and entrepreneurship.

De Janvry and Sadoulet (2016:30) identify seven elements of economic development, namely:

- income growth;
- poverty reduction and food security;
- reduced inequality and inequity;
- less vulnerability to shocks;
- improved satisfaction of basic human needs in health and education;
- sustainability in resource use; and

- a satisfactory quality of life.

Besides, there is broad agreement on the predominance of income growth as the main measure for economic development. As expressed by the United Nations (UN) (2015:6) and De Janvry and Sadoulet (2016:30), three Millennium Development Goals (MDGs) are essential in achieving economic development: poverty reduction, meeting basic needs, and striving toward environmental sustainability. Other dimensions of economic development have less consensus support.

Having analysed various elements of economic development, this study adopted a consolidation of the critical and profound elements of economic development. The study therefore adopted income growth, employment generation, poverty reduction, inequality reduction and human welfare as the critical and profound elements of economic development, as suggested by Taylor and Lybbert (2015:66). Taylor and Lybbert (2015:66) confirm that these elements form a central theme of economic development. The elements are interrelated, and understanding their interrelations is an integral part of understanding economic development. The next section therefore discusses the dimensionality of each of these elements of economic development.

3.3 ELEMENTS OF ECONOMIC DEVELOPMENT

This section discusses in depth the elements of economic development.

3.3.1 Nature of income growth as a measure of economic development

The idea of economic development originates from classical economics where an increase in national income represents economic development (see Holcombe, 2009:9). Income is the amount of money or its equivalent received over a period in exchange for labour or services, from the sale of goods or property, or as profit from financial investments (Brooks, 2018:253). It includes royalties and an endowment or any other type of payment that a person or an institution receives on a periodic or regular basis (Van Wyk & Dippenaar, 2017:3). The level and growth of income is the first and most broadly agreed-upon measure of economic development (De Janvry & Sadoulet, 2021:37).

In order to measure the national income, Dynan and Sheiner (2019:4) indicate that GDP has to be used; hence, it is sometimes called ‘gross domestic income’ (GDI). However, Heys *et al*. (2019:2) state that GDP is a common statistic, which many people claim to understand, but

most – including some economics communities – do not fully understand it. Dynan and Sheiner (2019:4) and Kumar and Castro (2020:1) assert that GDP estimates the total value of all goods and services produced in the country less the value of the goods and services required to produce those goods and services. GDP is also the aggregate of the personal consumption expenditures, gross private domestic investment, net exports of goods and services, and government consumption expenditures and gross investment (Dynan & Sheiner, 2019:4). This implies that GDP can be measured by using income and expenditure approaches. Dynan and Sheiner (2019:4) describe the expenditure approach of measuring GDP as the sum of consumption, investment, government spending, and net exports; and income approach, as the sum of all the income earned through production, which is recorded in the income side of the national accounts. In contrast, Heys *et al*. (2019: 2) indicate that GDP measures economic development in three ways: the income, output and expenditure approaches. According to Trinh (2014:26), the **income approach**, as the name suggests measures individuals' incomes paid by firms for the human resources they hire, such as labour wage, capital interest, firm saving, capital depreciation, tax and subsidy. The **output approach** measures the value of the goods and services used to generate these incomes by summing up production value added from industries in the economy. The **expenditure approach** measures the expenditure on goods and services. The expenditure approach therefore measures GDP by using data on personal expenditure, capital investment, government expenditure, and net export of the country.

Although GDP is mostly cited as the measure of economic development, scholars (see Morales-Alonso, Núñez, Yilsy, Juan & Rodríguez-Monroy, 2020:5), Signore and Fazio (2014:314) argue that GDP does not measure all elements of economic development. Morales-Alonso *et al*. (2020:5), Aitken (2019:3), Hulten and Nakamura (2018:3) concur that GDP fails to capture the degree of inequality existing in the country, the wellbeing of citizens and digital country,[1] all of which are critical for achieving a good quality of life for citizens.

The United Nations (UN), the International Monetary Fund (IMF), the World Bank, the OECD, and the Statistical Office of the European Communities are responsible for compiling statistics on economic development variables such as GDP. Table 3.1 indicates income growth rate measured by GDP compiled from the statistics of IMF.

[1] A digital country is the country with sufficient use of information technology to create value for products or services (Hulten & Nakamura, 2018).

Table 3.1: Real GDP growth (annual percentage change) in different parts of the world

Real GDP growth (annual percentage change)	2016	2017	2018	2019	2020
Egypt	4.3	4.1	5.3	5.6	2
Nigeria	-1.6	0.8	1.9	2.2	-3.4
South Africa	0.4	1.4	0.8	0.2	-5.8
Association of South East Asian Nations (ASEAN-5)	5.1	5.4	5.3	4.8	-0.6
Advanced economies	1.7	2.5	2.2	1.7	-6.1
Emerging and developing Asia	6.8	6.7	6.3	5.5	1
Emerging and developing Europe	1.8	4	3.2	2.1	-5.2
Emerging market and developing economies	4.6	4.8	4.5	3.7	-1
Euro area	1.9	2.5	1.9	1.2	-7.5
European Union(EU)	2.2	2.9	2.3	1.7	-7.1
Latin America and the Caribbean	-0.6	1.3	1.1	0.1	-5.2
Major advanced economies (G7)	1.5	2.3	2	1.6	-6.2
Middle East and Central Asia	5	2.3	1.8	1.2	-2.8
Other advanced economies	2.6	3	2.6	1.7	-4.6
Sub-Saharan Africa	1.4	3	3.3	3.1	-1.6
World	3.4	3.9	3.6	2.9	-3

Source: IMF (2020)

The recent statistics show that GDP growth in South Africa is declining drastically compared to other parts of the world. As indicated in Table 3.1, the GDP growth had been decreasing since 2018, with a decrease of 0.8%, 0.2% and -5.8% for the years 2018, 2019 and 2020 respectively. Comparing the South African GDP growth and the average GDP growth rate for developing countries, it is indicated that the average GDP growth rates of developing countries were 4.5%, 3.8 and -1 for the years 2018, 2019 and 2020 respectively, indicating a higher growth rate than the South African GDP. This implies that in South Africa, the contribution of the GDP to the economic development was lower than the contribution of the GDP to economic development in other parts of the world.

The gradual decline of the South African GDP resulted in a decline in income earned by individuals (GDP per capita) in the country as indicated in Figure 3.1.

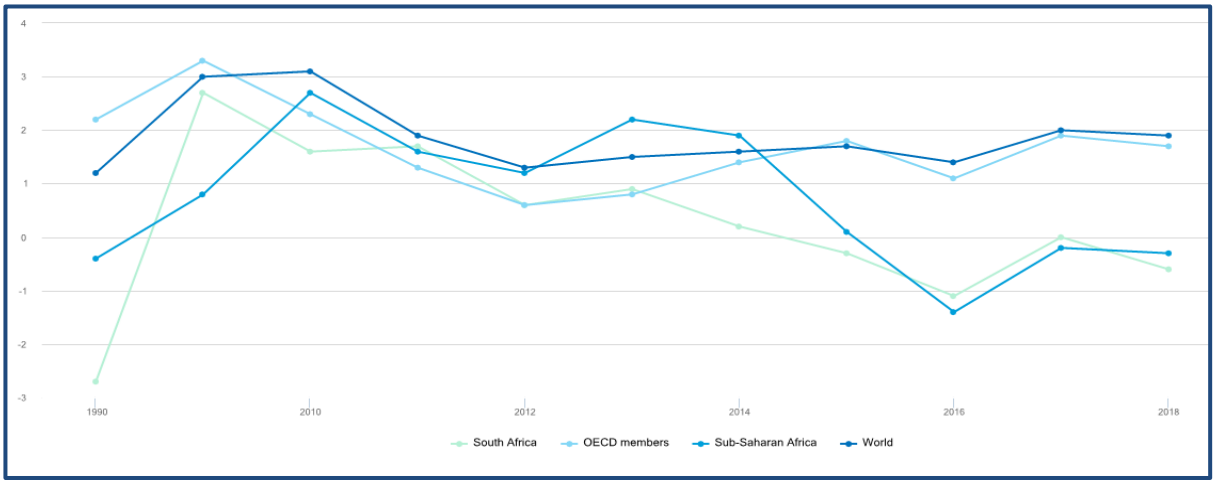

Figure 3.1: GDP per capita growth for South Africa

Source:* *World Bank (2020)

Consistent with the information in Table 3.1, Figure 3.1 indicates that South Africa had a gradual decline of GDP per capita of -1%, -0%, and -0.6% for the years 2016, 2017 and 2018 respectively. This implies that the living standards of South African citizens were incrementally decreasing resulting in an increased level of poverty. According to the OECD (2017b:20), the reasons for the decline are constrained macroeconomic policies, skills shortages and limited access to education, slowness of African economic integration, a lack of proper infrastructure and institutions, low entrepreneurial activities, and a lack of environments conducive to conducting business. Furthermore, Nkurunziza (2016:2) indicates that GDP per capita has a convex relationship with entrepreneurship. He explains that, as incomes increase and basic needs of the citizens are satisfied, an increased number of citizens are involved in opportunity entrepreneurship.

3.3.2 Nature of employment generation as a measure of economic development

Amongst other factors, employment levels are used to measure the economic development of a country (see Karikari-Apau & Abeti, 2019). Despite the high level of economic indicators in South Africa, the level of unemployment keeps escalating, which makes measure of unemployment somewhat unpredictable (Leshoro, 2013:336). Unemployment is one of the crucial variables to consider when assessing the level of economic development of a country (see Malayaranjan & Sahoo, 2019). It has a severe negative influence on the population as it affects society in different dimensions, such as decreases in tax revenue, wastage of productive hours, depression, a lack of self-respect, robbery, and prostitution (Karikari-Apau & Abeti,

2019:2). As a result, Malayaranjan and Sahoo (2019:116) recognise unemployment as a multidimensional phenomenon that affects both economic activities and the social structure of the country.

Research on poverty dynamics indicates, on one hand, that employment events in countries such as Canada, Ecuador, Germany and South Africa trigger the exit of such countries from poverty. These employment events are households changing jobs, family members starting new employment or family members earning more income than before. On the other hand, a lack of employment opportunities decreases the ability of the households to enhance their living standards. The current research consistently revealed that getting jobs and starting businesses are the main objectives for people who want to rise out of poverty in low-income countries (World Bank, 2016:9). In the same vein, Makaringe and Khobai (2018) found that, in South Africa, there is a negative relationship between unemployment and economic development in both the short and long term. This also validates Okun's law (see Okun, 1962), which established a negative linkage between unemployment and economic development. There is, however, no guarantee that improved economic development would necessarily increase the employment rate, as some employers prefer to use capital in the production process over labour (see Leshoro, 2013:337). Some workforces raise insufficient production, as observed by Georgescu and Herman (2019:3) who state that only productive employment can promote economic development. The International Labour Organization (ILO) (2012:3) defines productive employment as employment that yields "sufficient returns to labor to permit workers and their dependents a level of consumption above the poverty line". Productive employment thus links economic development to poverty reduction as such employment provides the means for reducing poverty in the country. Georgescu and Herman (2019:3) comment that productive employment promotes the functioning of cities in the country, creates a link between the country and global markets, enhances cooperation and civic engagement, and is environmentally friendly. Productive employment also provides the poor with income and stimulates learning and skills acquisition resulting in inclusion of the poor in society.

According to World Bank (2016:155), although some forms of employment contribute more to economic development than others, most governments and international organisations have endorsed labour standards seeking to eliminate forced labour, harmful forms of child labour, discrimination, and the oppression of workers. This has resulted in some forms of employment to be unacceptable, so that those are not treated as jobs. Such forms of employment exploit

workers, expose them to dangerous environments, or threaten their physical and mental wellbeing. The negative effects of such employment can be long-lasting.

From a theoretical point of view, there are conflicting ideologies on how to deal with unemployment.

According to the **classical theory** (see Pasara & Garidzirai, 2020), unemployment is a short-term demand and supply of which free market force automatically deals with it and restores increased employment positions in the country (see Pasara & Garidzirai, 2020:3). If the country has high unemployment or stagnant economic growth, the classical economists therefore propound that unemployment will disappear without using any policy. In the case of South Africa, the classical school of thought submits that apartheid policies were the source of unemployment (see Pasara & Garidzirai, 2020), and any other shocks will automatically disappear, and the country will revert to full employment, but instead, unemployment has been rising drastically (Pasara & Garidzirai, 2020:3). This proves that classical theory cannot be applied in the South African context in terms of finding a way to deal with the unemployment situation in the country.

The **Keynesian theory** (see Karikari-Apau & Abeti, 2019:3) argues that unemployment is caused by insufficiencies in the aggregate demand for goods and services in the country over specific periods within the labour market. As a result of this demand, more jobs need to be created to accommodate people who want to work. Governments should therefore use appropriate policies, such as expansionary fiscal or monetary policy, to deal with unemployment. In other words, according to the Keynesian theory, unemployment is a result of misplaced policies, changing of economic structures, and a lack of education that responds to the labour market (Karikari-Apau & Abeti, 2019:3).

In contrast, the **Marxist theory** explains that unemployment is a result of the capitalist system where the means of production are owned by the capitalists who exploit them through alienation, and unemployment can be reduced by replacing capitalism with socialism (Karikari-Apau & Abeti, 2019:3). In this theory, entrepreneurship plays a critical role for increasing production in the country resulting in the creation of employment. However, Abdesselam *et al.* (2017:8) argue that unemployment may attract new firm start-ups and also reduces the opportunity cost of entrepreneurship, resulting in stimulating entrepreneurship in the country. However, such entrepreneurship might be necessity entrepreneurship with minimal or no

contribution to economic development. This clearly indicates that there is no one-size-fits-all way of dealing with unemployment in all countries. The economic structure in a country, resource availability, the social environment and entrepreneurship are some of the factors that government should consider when dealing with the issue of unemployment.

3.3.3 Nature of poverty reduction as a measure of economic development

Globally, poverty creates a gap between the rich and the poor (Gweshengwe & Hassan, 2020:5). The term 'poverty' has no precise definition. Although it is associated with the concept of inequality, they are not identical concepts (Yang & Greaney, 2017:5). Production and distribution processes in a country may experience low labour productivity, which causes poverty. In addition, production and distribution processes of a country may experience a lack of equality in the access of production resources and the distribution of production, which may lead to the sidelining of certain people. This then produces poverty, which is an expression of social inequality. Furthermore, the definition of poverty has many dimensions, such as mental stress, feelings of vulnerability to external events, a sense of helplessness and underachievement (Jencova, Litavcova, Kotulic, Vavrek & Vozarova, 2015:738). As indicated in Table 3.2, scholars agree that poverty is multidimensional, comprises financial, economic, social, political, health, environmental and seasonal dimensions, which interlink with and reinforce each other (see Banerjee, 2016; Chen & Pan, 2019; Clarkea & Erreygers, 2019; Devereux, Sabates-Wheelers & Longhurst, 2012; Gweshengwe & Hassan, 2020; Kus, Nolan & Whelan, 2016; Rai, 2019; Swedish International Development Cooperation Agency [SIDA], 2017; Terraneo, 2017; Yang & Greaney, 2017).

Table 3.2: Dimensions of poverty

Author	Dimension of poverty	Description
Banerjee (2016); Yang and Greaney (2017)	Financial dimension of poverty	Refers to a lack or a low level of income or having an income below a the minimum wage or income–poverty line of a country, a lack of access to loans from legal financial institutions, a lack of savings, and being in debt.
Gweshengwe and Hassan (2020); SIDA (2017)	Economic dimension of poverty	Refers to a lack of resources needed to lead an acceptable life, to have a decent standard of living or to meet basic needs. It could also refer to a lack of employment or having a low-paid, irregular and insecure job, as well as a lack of access to business or entrepreneurial opportunities.
Terraneo (2017); Kus *et al*. (2016)	Material dimension of poverty	This dimension of poverty is linked directly to the living conditions of households or individuals. It denotes material deprivation – accessing low-quality consumer goods.

Author	Dimension of poverty	Description
Gweshengwe and Hassan (2020)	Social dimension of poverty	Refers to a lack of social capital. Social capital refers to norms for social control and networks (relationships) for support and for securing benefits. It could also refer to the social resources on which households depend for their livelihoods objectives.
Rai (2019)	Environmental dimension of poverty	It focuses on places where poor people live, including the inside and outside environments of homes. This includes a lack of infrastructure and a communication system, a lack of clean water and electricity, vulnerability to disasters, remote or isolated residences, and susceptibility to crime and drug abuse.
Devereux *et al.* (2012)	Seasonal dimension of poverty	Poverty has a seasonal dimension (seasonality) manifested in all other poverty dimensions. This indicates how these dimensions interlink. It includes the realities that especially the poor experience poverty repeatedly at certain times of the year, brought about or aggravated by the changing seasons and climatic changes.
Chen and Pan (2019); Clarkea and Erreygers (2019)	Health dimension of poverty	Refers to ill health and a lack of access to health care. It includes other health realities, such as malnutrition, lower life expectancy, vulnerability to diseases, being sick, high levels of stress, and exclusion from healthcare services.

Source: Researcher's own compilation

Despite the remarkable macroeconomic performance of Africa over the last decade (i.e. 2006–2015), the continent has fallen behind in its goal of poverty reduction (African Capacity Building Foundation [ACBF], 2017:7). Similarly, despite the positive trend in South Africa in terms of poverty reduction between 2006 and 2015, the World Bank (2018b:11) noted that South African poverty rates increased between 2011 and 2015. At least 2.5 million more South Africans slipped into poverty between 2011 and 2015, and 40% of the South African population lived below the poverty line in 2015, up from 36.4% in 2011. In absolute terms, this translates to over 3.1 million more South Africans slipping into poverty between 2011 and 2015. However, in their study, Mansi, Hysa, Panait and Voica (2020) recommend that policymakers should target relevant innovative entrepreneurship when developing and implementing policies for poverty alleviation and economic development. The innovation capacities in a country could reduce the poverty levels, and thus these capacities contribute to the economic development.

3.3.4 Nature of inequality reduction as a measure of economic development

The concept of inequality is associated with concepts such as discrimination, unfairness and disparities in the access of goods and services. Inequality usually results in hindering individuals' fair access to their basic rights and opportunities (Nuru-River, 2016:4). The UN

(2015:1) states inequality is "the not being equal especially in status, rights and opportunities". McKay (2002:3) views inequality as different individuals having different degrees of something. In consolidating the dimensions of inequality, Oxfam (2012:7) describes inequality as variations in the living standards across an entire population. To address inequality, policymakers should therefore implement relevant economic, political, social and environmental strategies to ensure that all individuals are treated equally, are offered equal distribution of goods and services and opportunities, and that all are enjoying equal freedoms (Nuru-River, 2016:4).

Inequality is multidimensional, as it comes in different forms such as:

- income inequality (Lecuna, 2019:2269; Nuru-River, 2016:4);
- skills inequality (Damme, 2014:6; Jovicic, 2016:3);
- opportunity inequality (Villar, 2017:46);
- education inequality (Holsinger & Jacob, 2009:xxiii);
- happiness inequality (Graafland & Lous, 2019:1717);
- health inequality (Barsanti *et al*., 2017:1; Nuru-River, 2016:4); and
- a lack of social mobility (Funjika & Gisselquist, 2020:1).

Although inequality seems to have dimensions of poverty, these two concepts differ in some instances. McKay (2002:1) asserts that **inequality** is associated with the variations in living standards across the entire population, whereas **poverty** focuses only on those individuals whose standards of living fall below an appropriate threshold level (such as a poverty line). This threshold may be set in absolute terms (based on an externally determined norm, such as calorie requirements) or in relative terms (based on fraction of the overall average standard of living) (see Dabla-Norris, Kochhar, Suphaphiphat, Ricka & Tsounta, 2015:5)). It is therefore clear that relative poverty is more related to inequality as to be poor reflects prevailing living conditions in the entire population. Nonetheless, the extent of inequality has implications for both dimensions of poverty. Just as living standards and poverty are multidimensional in nature, so there are variations in wellbeing between people (or groups of people) – that is inequality. According to Dabla-Norris, *et al*. (2015:5), it is critically important to understand the dimensions of inequality, as widening inequality has significant implications for economic development.

Looking at various dimensions of inequality, it is evident that a range of academic research shows that growing inequality may have a negative influence on society, such as political instability, social resentment as well as populist and protectionist sentiments (see Mansi *et al*., 2020). Some researchers, such as Aceytuno, Sánchez-López and De Paz-Báñez (2020:1) and Halvarsson *et al. (*2018) however argue that a certain degree of inequality stimulates economic development on one hand. In addition, inequality has wider economic outcomes, acting as a drag on further growth, reducing access to education, and limiting the expansion of demand and consumption (see Kennedy, Smyth, Valadkhani & Chen, 2017:7; Mansi *et al*., 2020:2). Aceytuno, *et al.* (2020:1) claim that entrepreneurship and inequality are linked. The distribution of financial resources within the population therefore promotes inequality in the country, and at the same time, may lead to an increase in entrepreneurial activities. In contrast, Halvarsson *et al.* (2018:278) argue that entrepreneurship is improved in countries with significant inequality. In such countries, certain factors – such as the level of economic development, government policies, foreign direct investment, service sector growth, and increased labour market flexibility – play a significant role in the process. At the same time, entrepreneurship increases inequality by disproportionately influencing income at the bottom and the top end of the income distribution, resulting in U-type relationship (see Mansi *et al*., 2020).

3.3.5 Nature of human welfare as a measure of economic development

Welfare is defined as the level of prosperity or standard of living of individuals or groups of people in the country (see Pittman & Phillips, 2014). Basically, welfare refers to how well people are doing in the country (Costanza, Hart, Posner & Talberth, 2009:9). Beside economic indicators, economic development is also determined by the level of human welfare, which caters for healthy relationships, nutrition levels, knowledge, emotional wellbeing and other dimensions of human happiness (Costanza *et al.*, 2009:9; Pittman & Phillips, 2014:1808). Human welfare can therefore be viewed as the overall condition that emphasises human happiness and contentment, as well as the standards of living in financial or material ways (Edenhofer, Croix, Fosu & Jakob, 2017:2). Health as a dimension of human welfare means a complete state of physical, mental and social wellbeing, including the absence of illnesses. It is unquestionable that reducing illnesses as well as developing and maintaining physical and mental abilities in the citizens is considered an essential part of human welfare, which contributes to economic development (Lustig, 2004:9; Svalastog, Donev, Kristoffersen & Gajović, 2017:435).

In addition, knowledge as one of the dimensions of human welfare also plays a critical role in boosting economic development in both developed and developing countries. Kaur and Singh (2016:205) assert that the country also depends on the level of knowledge possessed by its citizens rather than only upon the physical factors of production. The country therefore depends on knowledge that increases the level of intellectualisation on which the transition of the country from poor to rich is based. Sira, Vavrek, Vozárová and Kotulič (2020:1) concur that, for the country to be successful and competitive, it has to pay attention to creation, transfer and preservation of knowledge. As a result, knowledge is a key element in ensuring the sustainable position of a country in a competitive environment. Kaur and Singh (2016:205) therefore view knowledge as one of the major traits of economic development, as many advanced countries have achieved a great deal of economic and social development by investing in knowledge. Furthermore, Kaur and Singh (2016: 205) claim that knowledge also contributes to entrepreneurship, as the latter is capable of producing, distributing and utilising knowledge, which is useful for economic growth, wealth creation, employment generation and human capital improvement. This in turn contributes to the creativity, innovation and generation of new ideas within the country. Sira *et al*. (2020:2) also emphasise that innovation introduced as a result of knowledge significantly increases the performance of a country as well as the living standards of its citizens. It is therefore recommended that improvement in knowledge through education be considered when deciding on economic policies.

3.4 STAGES OF ECONOMIC DEVELOPMENT AND THEIR DIMENSIONALITY

Stages of economic development are associated with sources of national competitiveness and the wealth or poverty of countries (Paraušić, Domazet & Simeunović, 2017:282). There is a consensus among scholars that these stages are crucial when examining the correlation between entrepreneurship and economic development (Avnimelech *et al*., 2014:248; Doran, McCarthy & O'Connor, 2018:2; Marcotte, 2014:48). The underpinning reason is that, up to a certain stage of economic development, the contribution of entrepreneurship to economic development is minimal. At that stage of economic development, the entrepreneurship or economic development level increases significantly, whereas, at yet another stage, extra improvement in economic development has limited or no contribution to the entrepreneurship level (Avnimelech *et al.*, 2014:248).

There are three main stages of economic development, each with a different set of economic characteristics and challenges, namely a factor-driven stage, an efficiency-driven stage, and an innovation-driven stage (Dima, Begu, Vasilescu & Maassen, 2020). Two criteria are usually used to indicate these stages (Hakeem, Abubakar & Tsoho, 2016:4). The first criterion is the level of GDP per capita at market exchange rates. This criterion is used as a substitution for wages because international comparable data on wages are not available for all countries. A second criterion is used to amend for countries that, based on income, would have moved beyond the factor-driven stage, but extraction of resources is their main economic activity. This criterion uses a share of the total exports to determine the level of economic activities. For instance, according to the World Economic Forum (WEF) Report (Schwab, 2013:37), countries with more than 70% of their exports made up of mineral resources are mostly factor-driven. However, this varies from one resource-based country to another. Hakeem *et al*. (2016:4) argue that the capacity to increase the productivity of any other sector in the country – beyond mineral production – depends on the capacity of the country to improve innovation and entrepreneurship. such these countries invest in innovation, given their high income, and become significantly wealthier than other countries at the technological frontier, they move to the innovation-driven stage. Any countries falling between two of the three stages of economic development are then considered to be 'in transition' (see Schwab, 2013). For such countries, the weights adjust smoothly as they develop, reflecting the smooth transition from one stage of economic development to another (see Hakeem *et al*. 2016).

3.4.1 The factor-driven stage of economic development

As the name implies, at this stage, countries are factor-driven. This is the first stage of economic development, in which the competitive advantage of the country is based on unskilled labour or natural resources, and the country usually produces basic products (Rostami, Khyareh & Mazhari, 2019:36). Countries that are in this stage compete based on their factor endowments and natural resources (Hakeem *et al.*, 2016:4), whereas businesses at this stage compete in terms of price and have limited roles in the value chain (Sahin *et al.*, 2006:7). Similarly, the GEM (2018:20) indicates that the factor-driven stage of economic development is dominated by subsistence agriculture and extraction businesses, with a heavy reliance on (unskilled) labour and natural resources. In contrast, Schwab (2013:8) points out that the factor-driven stage comprises institutions, infrastructure, macroeconomic environment, health and primary education. According to Hakeem *et al.* (2016:4), to maintain competitiveness at this stage of

economic development, the country has primarily well-functioning public and private institutions, well-developed infrastructure, a stable macroeconomic environment, and a healthy workforce that has received at least a basic education. As the country becomes more competitive, productivity increases and wages rise with advancing development, which makes it to transit to the efficiency-driven stage.

Amha, Woldehanna, Tamrat and Gebremedhin (2015:138) assert that countries in the factor-driven stage are characterised by a high rate of unemployment, which forces citizens into self-employment to make a living. This then creates necessity-driven entrepreneurship. In other words, the focus of factor-driven countries is directed towards building an adequate premise for basic requirements such as institutions, infrastructure, health and primary education, and macroeconomic stability that affects the entrepreneurship level of the country. Typically, most less-developed countries fall within the factor-driven stage, and these countries compete in the world market based on factor cost advantages, such as cheap labour or natural resources. The GEM (2014:10) listed countries, such as Angola, Botswana, Malawi, Zambia and Nigeria, as examples of less-developed countries that fall in the factor-driven stage of economic development.

Schwab (2013:8) notes that the institutional environment, as one of the characteristics of the factor-driven stage, comprises a legal and administrative framework within which citizens, businesses and governments interact. According to Aparicio (2017:5), the institutional environment constrains the production of a country as well as investment decisions, the distribution of benefits, and the implementation of economic policies for promoting economic development. It also influences the approach by government towards markets, freedoms and the efficiency of the operations of such country. An institutional environment is also characterised by bureaucracy, excessive regulations, corruption, dishonesty, a lack of transparency and a lack of independence of the judicial system. There are high costs in operating businesses, and there is a decline in economic development processes in factor-driven countries. As a result, Rostami *et al.* (2019:37) assert that an institutional environment is harmful to entrepreneurial activities, and it imposes a burden on future activities. Similarly, Aparicio (2017:5) notes that institutions do not promote economic development. Instead, they condition the instruments that are linked to economic development, such as human capital. Nonetheless, endowment of entrepreneurship capital and its consequence on economic development depends

on institutional environment of each country, in addition to other economic and social determinants.

Besides the institutional environment, infrastructure – as a characteristic of the factor-driven stage of a country – also plays a critical role in assessing the relationship between entrepreneurship and economic development. Rostami *et al.* (2019:37) indicate that an effective and efficient infrastructure is crucial for the effective functioning of the country. It determines the location of the economic activities that promote economic development. It also reduces the influence of distance between regions, integrating the national market and connecting it at low cost to markets in other countries and regions. The effective and efficient infrastructure in a country reduces the expenditures of entrepreneurs, as they do not need to invest in infrastructure themselves. Besides, infrastructure networks significantly contribute to economic development and reduction in poverty. A well-established transport and communication network, for instance, allows poor communities to access economic activities and services, which then allows opportunity entrepreneurship in regions where it does not yet exist. According to Aparicio (2017:138), infrastructure in developing countries is impoverished; hence, it should be designed in such a way that it facilitates entrepreneurship. Aparicio (2017:138) further points out that infrastructure should comprise elements of distribution (entrepreneurs with markets); communication (entrepreneurs with information); and networks (entrepreneurs with other entrepreneurs, government, the education system and civil society). This entrepreneurial infrastructure should be regulated by the institutional environment in the country, which integrates entrepreneurship into the country in order to achieve high outcomes in terms of economic development.

The factor-driven stage of economic development is further characterised by the macroeconomic environment. Ulman (2013:153) describes the macroeconomic environment as reflecting economic indicators, such as the government budget balance, gross national savings, inflation, government debt, and the credit rating of a country. Rostami *et al.* (2019:37) assert that the macroeconomic environment should be stable in order to contribute to the performance of the businesses in the country. This environment is also crucial for the overall competitiveness of the country. However, Schwab (2013:5) argues that the macroeconomic stability alone is insufficient to increase the productivity of a country. Other factors, such as infrastructure and institutions, should also be considered. Costea, Hapenciuc and Bejinaru (2015:69) concur that macroeconomic stability should be integrated with other factors in order to enhance

competitiveness. If a government is making high-interest payments on its debts, for instance, it is unlikely that such government will be able to provide services efficiently. Businesses cannot function efficiently when inflation rates are out of hand. Economic development of a country therefore also depends on the sustainability of the macroeconomic environment. In addition, health, as one of the dimensions of the factor-driven stage of economic development, is also crucial in determining the extent of economic activities at this stage. Schwab (2013:5) postulates that a healthy workforce is important to for the productivity and competitiveness of a country. A sick worker cannot function to his or her maximum potential and is likely to be less productive than healthy workers. Poor health causes significant costs to business, as sick workers are frequently absent from work or operate at low levels of efficiency. Investing in health services is therefore crucial for improving the economic development of a country.

Improvement in basic education also forms part of the dimensions of the factor-driven stage, and has a positive outcome on economic development. Schwab (2013:5) and Costea *et al*. (2015:69) highlight that basic education increases the efficiency of each individual worker in a population, which is the foundation for a sustainable country. In contrast, workers who have received insufficient formal basic education can perform only simple manual tasks and find it difficult to adapt to advanced production processes and techniques. As a result, their contribution to innovation and entrepreneurship is usually insufficient. The absence of basic education is therefore a deterrent to business development, with businesses finding it difficult to improve the value chain by producing sophisticated or value-intensive products with existing human capital and resources. Grant (2017:2) says education is a leading determinant of economic development, employment and earnings.

When analysing whether a factor-driven stage of economic development can promote entrepreneurship, Acs and Naudé (2011:3) found that institutions dominate this stage, and innovation counts for 5% of economic activity. This implies that entrepreneurship plays a minimal role in economic development at the factor-driven stage. This is consistent with the findings of the GEM (2014:13), which indicate that the rate of business discontinuance is the highest in the factor-driven countries, mainly in sub-Saharan African countries. The underlying reasons cited are an unprofitable business, a lack of finance, and personal reasons. Financial issues (unprofitable businesses or problems of obtaining finance) remain the most critical reasons for business discontinuation in most sub-Sahara countries (see Acs & Naudé, 2011).

3.4.2 The efficiency-driven stage of economic development

The efficiency-driven stage is the second stage of economic development. At this stage, countries start to develop more efficient production processes and increase product quality due to an increase in wages (Hakeem *et al.*, 2016:4). Efficient production therefore becomes the main source of competitiveness in countries that are in the efficiency-driven stage. In other words, the production processes are more efficient, the quality of products increase, and countries concentrate on manufacturing (Schwab, 2013:8). According to the GEM report (2014:20), at this stage, countries become more competitive because of industrialisation, further development, and an increased reliance on countries of scale with capital-intensive large organisations. This stage is characterised by improved (and improving) basic economic requirements, such as efficient goods, labour, and financial markets that are directed toward improving the efficiency of the country. Most of the developing countries, such as South Africa, Namibia, Thailand and Poland are in the efficiency-driven stage of economic development (see Hakeem *et al.*, 2016). At this point, competitiveness is driven by higher education and training, efficient goods markets, well-functioning labour markets, sophisticated financial markets, a large domestic or foreign market, and the ability to harness the benefits of existing technologies (Schwab, 2013:8).

Rostami *et al.* (2019:40) argue that higher education and training is crucial for countries that want to improve their value chain, production processes and products. Keser (2015:58) asserts that, due to globalisation of countries, countries are pressurised to have pools of well-educated workers who can perform complex tasks, adapt quickly to the dynamic environment, and meet the needs of the production processes. As a result, Goel and Bhand (2017:2114) highlight that, at the efficiency-driven stage, focus is increasingly placed on measuring secondary and tertiary rates, as well as the quality of education. The efficiency-driven stage also focuses on measuring the extent of staff training to ensure the constant upgrade of workers' skills and competencies. Keser (2015:59) concurs that most individuals with higher education are employed in the private and public sectors of the country. They utilise their education at the workplace resulting in improving productivity in businesses and various institutions of the country. Their education further plays a role in the quality of a diverse range of goods and services production. Rostami *et al.* (2019:40) assert that higher-quality education and a higher level of training are the source of competitiveness. A competitive workforce has a positive correlation with entrepreneurship. When businesses therefore have a highly educated workforce, they can grow fast and work

efficiently, and such businesses have an excellent chance of transforming opportunity into economic success. Moreover, the greater the investment by a country in tertiary education, the higher the rate of new business establishments (see Goel & Bhand,2017). It is therefore clear that higher education stimulates entrepreneurship resulting in improved economic development, as such development provides individuals with a sense of autonomy, independence and self-confidence (see Rostami *et al.*, 2019). However, the COVID-19 pandemic made it especially difficult for citizens in developing countries to get tertiary education, which was offered through online platforms. Most of these citizens did not have resources and means to learn using these platforms (Pokhrel & Chhetri, 2021:133).

Besides higher education and training, Schwab (2013:6) is of the view that efficient goods markets also play a role in improving the competitiveness of countries. Countries with efficient goods markets usually produce quality products and services with a high demand, and such goods are most effectively traded in the country. Rostami *et al.* (2019:40) however argue that this is particularly possible through the intervention of government. Competitiveness is, for instance, deterred by burdensome taxes and by restrictive and discriminatory rules on foreign direct investment (FDI). These rules and taxes limit foreign ownership and international trade. This was evident in the economic crisis when the extent of interdependence of countries globally had a significant influence on goods markets. Protectionist measures were counterproductive as they reduced aggregate economic activity in various countries (see Schwab, 2013). Furthermore, Schwab (2013:6) indicates that customer orientation and sophistication influence the efficiency of goods markets, as customers may be more demanding in some countries than in others. This creates a competitive advantage, as customer orientation and sophistication force businesses to be more customer-oriented, innovative and entrepreneurial; hence, promoting economic development.

Labour market efficiency is also an instrument for improving the country's competitiveness (see Schwab, 2013). Labour market efficiency is the capability of businesses to manage their workforce efficiently by hiring and firing employees (Rostami *et al.*, 2019:41). This is reflected in the labour relationship practices of the business, flexibility in wage determination, hiring and firing practices, and the female participation in labour force (Schwab, 2013:7). It is advisable that businesses evaluate their human resources correctly, as incorrect evaluation of human resources has a negative influence on the competitiveness of a business. The labour markets in a country should be flexible enough to allow workers to move from one economic activity to

another at a low cost. Labour markets should also allow for wage fluctuations without social disruption (Vesal, Nazari, Hosseinzadeh, Shamsoddsini & Nawaser, 2013:84).

Rostami *et al*. (2019:42) found an inverse relationship between entrepreneurship and labour market efficiency. They indicate, "because of capital market imperfections, poor agents choose to work for a wage over self-employment, and wealthy agents become entrepreneurs who monitor workers". They found that start-ups might work better if their employees are able to be moved between jobs. Higher wages and employment security motivate individuals to work for start-up enterprises when the economic development of the country where the enterprise is established improves significantly. Entrepreneurship therefore has a negative relationship with labour market efficiency and competitiveness. When employees can shift easily between jobs, they might prefer established businesses, resulting in start-ups losing a considerable pool of potential workers (see Vesal *et al*., 2013).

During the efficiency-driven stage, the competitiveness of the country is also characterised by financial market development. Rostami *et al*. (2019:42) argue that an efficient financial sector allows for allocation of resources from within the country and resources entering the country from other countries, and for using them efficiently. The efficient financial sector also channels resources investment and entrepreneurial projects with the highest expected rates of return, rather than to the politically connected (see Mutize, Tefera & Nkhalamba, 2020). As a result, the WEF (see Schwab, 2018:42) indicates that financial market development contributes to economic development. Mutize *et al*. (2020:47) highlight that an efficient financial market is a key ingredient for supporting a healthy country. Without efficient financial markets, surplus capital cannot be connected to deficit units that need investment capital (see Costea *et al.*, 2015). Financial markets intermediate borrowers and lenders as well as supporting institutions in the provision of goods and services. Nonetheless, Rostami *et al.* (2019:42) argue that the efficiency of a financial market can only be determined by evaluating the associated risks; hence, risk assessment should be integrated into the financial market development processes. According to Costea *et al.* (2015:72), financial markets affect the level of entrepreneurship in the country and leads to improvement in productivity. Goel and Bhand (2017:2115) claim that financial markets:

- screen prospective entrepreneurial projects and select the projects that promise sustainable future cash flow;
- mobilise resources to finance entrepreneurial projects. Financial resources are mainly sourced from investments, bank loans, other businesses and crowd funding;
- allow investors to diversify the risk associated with uncertain innovative activities; and
- reward innovation and entrepreneurship achievements.

Besides financial markets, the size of domestic or foreign markets also influences the competitiveness of the country. Goel and Bhand (2017:2115) highlight that the size of the market affects productivity and ultimately the country at large, as large markets allow businesses to utilise countries of scale. This lowers costs and increases profits as well as the value of businesses. They further indicate that, because of increased market size, both entrepreneurship and economic development are improved, as entrepreneurs identify entrepreneurial opportunities to create more countries of scale. However, in rare circumstances, the large size of the market may cause negative effects on some businesses. For example, when there is competition between businesses, competing businesses try to take away each other's market share. Schwab (2018:42) argues, "large markets create positive externalities as accumulation of human capital and transmission of knowledge increase the returns to scale embedded in the creation of technology or knowledge".

According to Were (2015:73) and Morady, Kapucu and Yalçinkaya (2017:84), globalisation plays a critical role in expanding both domestic and foreign markets, because it causes domestic markets to become international markets, especially in the case of developing countries. Empirical evidence indicates that, in developing countries, trade openness is positively related to economic development (see Were (2015). Schwab (2018:ix) argues that, while openness is good for economic development, governments should provide support to businesses that lose out to globalisation. However, while openness has been a 'win-win' between countries, it is at times a 'win-lose' within countries, which then increases inequality within countries (see Morady, Kapucu & Yalçinkaya (2017). Endeavouring to address inequality by reversing globalisation might impede sustained economic development (see Schwab, 2018). Policies should therefore be directed at improving the economic conditions of those countries particularly affected by globalisation rather than favouring trade barriers. Globalisation fosters technology in various business processes within countries. Countries should therefore have the

ability to harness the benefits of existing technologies. According to Cirera and Maloney (2017:1), countries adopt existing technologies to promote industrial productivity. Technology also provides information and communication in daily activities and production processes in a country. As a result, technology increases the efficiency and innovation of and in a country, thereby enhancing the economic development of such country. Access to technology in production processes is very important for entrepreneurs because their sunk costs[2] are reduced, and they can focus on their core business activities (see Cirera & Maloney, 2017).

Based on empirical evidence on the dimensionality of the efficiency-driven stage of economic development, Acs and Naudé (2012:5) found that innovation accounts for 10% of economic activity in this stage. They found that there is an S-shaped relationship between entrepreneurship and economic development because, unlike an insufficient contribution of entrepreneurship to economic development at the factor-driven stage, this contribution becomes apparent in the efficiency-driven stage. The key focus is therefore on entrepreneurial activities as entrepreneurs become socially more responsible by contributing to health, education and welfare of the country. This is similar to the GEM report (2018:29), which found that there is dominance of entrepreneurial spirit among efficiency-driven countries. It is at this stage that governments start supporting entrepreneurship and innovation through the creation of venture capital funds for businesses. Despite the visibility of the contribution of entrepreneurship to economic development at the efficiency-driven stage, the GEM (2014:13) indicates a limited sustainability of many start-ups at this stage. It also indicates that entrepreneurial intentions are very low (GEM, 2014:29), and necessity entrepreneurship is mainly motivated by the lack of job opportunities or some other push factors (GEM, 2014:59). Furthermore, there are small improvements in entrepreneurial finance (GEM, 2018:26), and some market factors and regulations constrain entrepreneurship (GEM, 2018:42). Although efficiency-driven countries are known for the abundance of untapped entrepreneurial opportunities, Van Vuuren and Alemayehu (2018:10) argue that these countries are characterised by economic unpredictability, low entrepreneurial culture, a decreasing rate in self-employment, high levels of volatility as well as low growth prospects and low aspirations. This clearly indicates the need for scientific review of economic policies for efficiency-driven countries such as South Africa, taking into consideration that the contribution of entrepreneurship to economic development is skewed. The influence of current macroeconomic policies on the proliferation of

[2] Sunk costs are costs are already incurred expenses, that cannot be recovered. They are the consequence of a previous effort, made in order to obtain a certain goal (Cirera & Maloney, 2017).

entrepreneurship, particularly entrepreneurship that emphasises innovation, should therefore be reviewed (see GEM, 2018).

3.4.3 The innovation-driven stage of economic development

Cernescu, Bitea and Dungan (2018:520) acknowledge an innovation-driven stage as the third stage of economic development. This stage has the ability to produce new and innovative products through sophisticated processes, while innovation is at the heart of economic activities. Zsuzsanna and Herman (2012:269) and Kirikkaleli and Ozun (2019:353) describe innovation as "the implementation of a new or significantly improved product good or service, or process, a new marketing method, or a new organizational method in business practices, workplace organisation or external relations". Advanced developed countries, such as the United Kingdom, Canada, the United States, France and Germany are typically countries that are in the innovation-driven stage (GEM, 2018:20). Stoica, Roman and Rusu (2020:5) highlight that, using most advanced methods becomes the main source of competitiveness at the innovation-driven stage. At this stage, businesses are more knowledge-intensive and invest strongly in advanced skills and technology. When countries move to the innovation-driven stage, wages are higher. They can then sustain such higher wages, resulting in higher levels of the standard of living of their citizens. Schwab (2013:9) agrees, and says that countries in the innovation-driven stage can sustain the resultant wages because businesses can compete by producing new and unique products and services and by using new technologies and utilising most sophisticated production processes. Acs, Szerb and Autio (2017:4) concur that the innovation-driven stage is marked by an increase in knowledge-intensive activities. Knowledge is therefore the source of the key inputs that shift businesses to agents in possession of new knowledge. These agents decide to start a new business based on expected net returns from a new product. Schwab (2013:9) notes that these businesses compete by producing new and unique goods and services through new technologies and utilise most sophisticated production processes or business models. Rostami *et al.* (2019:36) also identify business sophistication and innovation as the dimensions of an innovation-driven stage of economic development.

Business sophistication is defined as the quality of the overall business networks in a country and the quality of operations and strategies of businesses (see Razavi, Abdollahi, Ghasemi & Shafie, 2012:32). Schwab (2013:7) remarks that business sophistication is conducive to higher efficiency in the production of goods and services within the country. This is especially critical for countries at an advanced stage of economic development that have exhausted critical

sources of productivity improvements. Mussina and Bachisse (2018:2) identify two interrelated elements of business sophistication, namely the level of quality operations and strategies held by a particular business, as well as the quality of overall business networks existing in the country. Razavi *et al.* (2012:32) assert that, in their study, it was found that strong business relationships within the business networks resulted from business sophistication, and facilitated the efficient performance of businesses, local suppliers and local producers. These clusters were therefore beneficial to many opportunities for innovation while producing goods or services. From an individual perspective, Mussina and Bachisse (2018:3) explain that business sophistication facilitates cutting-edge business strategies, such as positioning, marketing, branding and creating a unique value as well as production processes that enhance economic development of the country. They further indicate that countries with business sophistication perform activities such as assessing quality and quantity of local suppliers, defining the competitive advantage of their businesses in the international markets and evaluating the position of local businesses in the supply chain. Furthermore, these businesses also display the extent to which domestic companies control the international distribution of their products, assess the level of product process sophistication, and evaluate how successful local businesses are in using marketing to differentiate their products and services. Schwab (2018:35) indicates that, because of these activities, business sophistication contributes to the reduction of barriers to entry for new businesses. Goel and Bhand (2017:2115) also found that, by increasing competition, business sophistication encourages businesses to produce unique products and to be innovative, thereby promoting economic development.

There is also empirical evidence that indicates that business sophistication plays a significant role in promoting economic development. For example, in their study, Bazargan, Ghasemi, Ardebili and Zarei (2017:323) found that 70.68% of changes in business sophistication are interpreted by changes in innovation. The study further found that 64.01% of changes in business sophistication are predictable by changes in 'labour market efficiency'. Furthermore, Bazargan *et al.* found that sophisticated business practices lead to higher efficiency in the manufacturing of goods and service delivery. Evaluating these findings and theoretical underpinnings, Kirikkaleli and Ozun (2019:352) conceptualise that business sophistication and innovation have a bilateral relationship; thus, they influence each other. However, the relationship depends on the macroeconomic stability of the country. According to Kirikkaleli and Ozun (2019:352), business sophistication has a bilateral effect on innovation, especially if the country is in the innovation-driven stage. Rostami *et al*. (2019:46) identify two sources of

innovation: non-technological innovation and technological innovation. Non-technological innovation is inferior, as it is associated with skills, knowledge and the organisational working environment, which arguably is low in terms of its contribution to the competitive of the country. Technological innovation seems to play a critical role in the competitiveness country of a country, as it enhances other dimensions of the innovation-driven stage. These 'other dimensions' consist of institutions, infrastructure, macroeconomic stability and human capital (see Kirikkaleli & Ozun, 2019. Technological innovation therefore improves the living standards of the country compared to non-technological innovation, which lows economic development in a country. These assertions are also portrayed by Schumpeter's endogenous growth theory. As cited by Zhang and Xu (2017:10), this theory explains that creative destruction generated from innovation activities could enhance technological advancement, which has a profound influence on economic development. Schwab (2013:7) highlights that the improvements in productivity that various countries have achieved are attributed to technological innovation breakthroughs. These breakthroughs have resulted in opening a wide range of new possibilities in terms of products and services, and the possibility of generating new values. Following these assertions, Kirikkaleli and Ozun (2019:352) suggest that innovation and technology investments are premises for competitiveness and sustainable economic development.

Rostami *et al.* (2019:46) however argue that less-advanced countries that have moved to the innovation-driven stage do not need to adopt existing technologies or make incremental improvements in their processes, as these approaches are no longer relevant. Instead, businesses in these countries should focus on designing and developing cutting-edge products and processes to maintain a competitive advantage and to move toward higher value-added activities. Costea *et al.* (2015:74) indicate that these approaches are only possible if the environment is conducive to innovation and if there is support from both the public and private sectors. This support comprises investment in research and development (R&D) through high-quality research institutions that can generate the relevant knowledge necessary for the development of new technologies; collaboration between universities and industry; and the protection of intellectual property. Rostami *et al.* (2019:46) argue that there is consensus regarding the positive relationship between entrepreneurship and innovation. When the country is very innovative, entrepreneurial activities will increase.

3.5 SUMMARY

In this chapter, literature was reviewed with a focus on addressing the third research sub-objective, to investigate the stage of economic development that significantly contributes to entrepreneurship in general. Firstly, the chapter reviewed literature on the definitions and relevance of economic development. Literature on elements of economic development and whether or not, these contribute to the level of entrepreneurship in both developed and developing countries was then considered. The chapter indicated that, although economic development is multidimensional; income growth, employment generation, poverty reduction, inequality reduction and human welfare are the critical and profound elements of economic development. These elements drive and shape entrepreneurial activity in any country. A knowledge-based country also contributes to entrepreneurship, as it is capable of producing, distributing and utilising knowledge, which is useful for economic growth, wealth creation, employment generation and human capital improvements. This then contributes to the creativity, innovation and generation of new ideas within the country.

Chapter Three further presented a critical analysis of the stages of economic development, its dimensions, as well as its entrepreneurial characteristics. These stages are the factor-driven, efficiency-driven and innovation-driven stages. In the factor-driven stage, competitive advantage is based on unskilled labour and natural resources, and at this stage, countries usually produce basic products. Entrepreneurship therefore plays a minimal role in economic development. At the efficiency-driven stage, countries start to develop more efficient production processes and increase product quality. There is dominance of an entrepreneurial spirit among efficiency-driven countries. Although entrepreneurial activities are acknowledged at the efficiency-driven stage, their contribution to economic development is also minimal, as they are predominantly necessity-driven. Unlike the factor-driven and efficiency-driven stages, at the innovation-driven stage, new and innovative products are produced through sophisticated processes. Entrepreneurial activities at this stage are opportunity-driven. This is the stage at which entrepreneurship contributes to economic development, and no developing country has reached this stage of economic development yet. Most of the developing countries are therefore in the factor-driven or efficiency-driven stages.

Chapter Four presents a discussion of the relationship between entrepreneurship and economic development. This analysis facilitated the conceptualisation of the framework for optimising the contribution of entrepreneurship to the economic development of South Africa.

CHAPTER FOUR

THE CORRELATION BETWEEN ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT

4.1 CHAPTER OVERVIEW

This chapter presents the essence of the study, as it covers the correlation between entrepreneurship and economic development. The chapter addresses two research objectives of the study: to investigate the type of entrepreneurship that significantly contributes to the economic development, to identify gaps in the existing general frameworks on the correlation between entrepreneurship and economic development. In order to understand this correlation critically, the chapter presents a discussion on:

- the theoretical framework on entrepreneurship and economic development;
- the contribution of entrepreneurship to economic development from both theoretical and empirical perspectives;
- the existing conceptual frameworks on the contribution of entrepreneurship to economic development; and
- the entrepreneurial framework conditions (EFCs) that contribute to economic development and the optimisation of entrepreneurship policy framework.

4.2 THEORETICAL FRAMEWORK ON ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT

According to Mlalazi (2015:19), a theoretical framework for a study is crucial as it underpins the lens from which the researcher can view the world. Adom, Hussain and Agyem (2018:438) concur that a theoretical framework positions and contextualises the theories into the study, which then make the research findings more valid and reliable. Entrepreneurship and economic development, such as other disciplines, are guided by theories. This section reports on the theoretical framework that underpins the correlation between entrepreneurship and economic development.

Since the seminal work of Adam Smith's (1776), *Inquiry into the nature and causes of the Wealth of Nations* (best known by its shortened title, *The Wealth of Nations*), many theories on economic development were developed (Ghura & Li, 2017:4). However, most of these theories ignored entrepreneurship as the engine of economic development (see Dang & Sui Pheng, 2015:12). *The Wealth of Nations* explains that human capital can create productive processes that promote economic development. Smith (1776) argued that the role of government in boosting economic development was insufficient, and that economic development could be improved through free market, private property and competition. However, these instruments of economic development promote freewheeling capitalism, which is criticised for bringing wealth to the rich only, while the poor get poorer.

Ridley (2018:190) criticises *The Wealth of Nations* for failure to recognise entrepreneurship as a source of wealth. Ridley (2018:190) argues that wealth is realised through human capital entrepreneurial ideas of imagination and creativity, and through conversion of intangible wealth to tangible wealth of goods and services that take place as a result of production processes. Ordeñana, Vera, Zambrano and Amaya (2018:4) complemented Ridley's (2018) argument by emphasising that entrepreneurship is the underlying source of wealth in Smith's vision of economic development where entrepreneurial activities are regarded as profit opportunities.

Unlike Smith's argument, Karl Marx (1933) emphasised that capitalists exploit value created by poor people. As a result, private property and free markets are the causes of poverty for many people around the world. Marx (1933) suggested that private property should be completely abolished, and that the government should plan and manage the economy of the country in order to serve the interests of the citizens. He believed that the establishment of socialism would improve economic development. Contrary to what was expected, the socialist philosophy could not provide the solution to poverty and inequality that citizens were experiencing (Nafziger, 2015:15). Langroodi (2018:8) and Tsaliki (2006:595) also argue that the socialist philosophy also overlooked the notion of entrepreneurship and regarded the running of businesses as simply an addition to the provision of capital funds; hence, its failure to address poverty and inequality.

As Smith (1776) and Marx (1867) failed to explain the process of economic development, Rostow's (1960) stages of economic growth model and the Harrod–Domar model (see Harrod, 1960) were developed (see Mbah & Ojo, 2018:14). According to Rostow's (1960) stages of economic growth model, the economic development process passes through five stages through

which all countries must pass: the traditional society, the preconditions for take-off, the take-off, the drive to maturity, and the age of high mass consumption (Todaro & Smith, 2015:120). The take-off is the critical stage through which developing countries have to transit to become developed countries. One of the principal strategies necessary for take-off is mobilisation of domestic and foreign savings in order to generate sufficient investment to stimulate economic development (Mbah & Ojo, 2018:14; Nafziger, 2015:16). Despite the fact that entrepreneurship is not acknowledged in Rostow's (1960) stages of economic growth model, Masocha (2016:9) argues that the take-off stage involves a high incidence of entrepreneurship, as this is where development of education, understanding of science, and the emergence of an entrepreneurial mind-set seem to take place.

Similar to Rostow's (1960) stages of economic growth model, the Harrod–Domar model (see Harrod, 1960) confirms that investment is the instrument for economic development, and that every economy needs capital to generate investment (Elghawi, 2018:16; Todaro & Smith, 2015:120). Although the stages of growth models of Rostow (1960) and Harrod (1960) emphasise the critical role of investments in economic development, this is not the only instrument for economic development and historically, the economic development process is highly nonlinear (see Todaro & Smith, 2015). Economies may therefore miss some stages, or may be stuck in one specific stage or even regress – depending on factors such as managerial capacities and the availability of skilled labour for a range of development projects (Agrawal & Tyagi, 2018:61; Nafziger, 2015:16).

Unlike the growth models, Lewis' two-sector model (see Lewis, 1954) and the model of structural change and patterns of development (Chenery, 1960) describe the economic development process as structural changes by which the reallocation of labour from the agricultural sector to the industrial sector is regarded as the key instrument for economic development. However, due to too many workers coming from the agricultural sector to industrial sector, these workers are underpaid, which may cause stagnation in poverty reduction. Notwithstanding this economic drawback, like the Harrod–Domar model (see Harrod, 1960), the model by Lewis (see Lewis, 1954) considers savings and investment in addition to human capital as the instruments for economic development, but in the context of developing countries (Todaro & Smith, 2015:124).

According to Lewis (1954), assumptions such as those relating to rural surplus labour and the proportional rate of expansion in capital accumulation in the industrial sector are highly

criticised, as they mislead the policymakers (Serefoglu, 2016:175). Many developing countries implemented policies that promote the industrial sector and neglect the agricultural sector causing the prevalence of poverty in developing countries (see Todaro & Smith, 2015). In addition, based on Lewis' model, policymakers shift their focus to human capital development by investing in education and health. Then again, investment in education and health alone does not guarantee economic development (Nafziger, 2015:17).

In contrast to Lewis' (1954) model, around the 1980s, neoclassical counter-revolution models came to the fore. According to neoclassical counter-revolution models (see Skinner, 2011), economic development in developing countries is declining due to too much government intervention and regulation of the economy, resulting in poor resources allocation, government-induced price misrepresentations and corruption (Nafziger, 2015:19; Todaro & Smith, 2015:124). In extending these neoclassical counter-revolution models, Solow's (1956) neoclassical growth model emphasises that economic development can be improved by increasing the quantity and quality of labour (through population growth and education) and improving technology. Technological progress plays a critical role in economic development. The model also emphasises that the economic development of developing countries can be improved by opening new markets, attracting foreign trade, private international investments and foreign aid (Nafziger, 2015:19). The model, however, did not produce the expected results. With inefficient regulatory frameworks, institutions and cultures in developing countries, free markets in these countries fail to enhance economic development (Schiliro, 2018).

Audretsch and Kailbach (2004:950) recognise that the Solow (1956) neoclassical growth model disregarded entrepreneurship capital, which is an emerging factor that spurs economic development. The authors introduced entrepreneurship capital into the model, which assumes a direct link between entrepreneurship and economic development. According to Audretsch and Kailbach, entrepreneurship capital is determined by regional factors such as innovative individuals, social acceptance of entrepreneurship, government strategies that stipulate entrepreneurship, and an ecosystem that promotes the processes and the implementation of ideas through human development and financial resources.

As a result of the incorporation of entrepreneurship capital as a variable that influences economic development, a number of scholars have explored this perspective in developed countries (Berkovitz & DeJong, 2005; Mueller, 2007; Noseleit, 2012; Stephens & Partridge, 2011). Studies that investigated the relationship between entrepreneurship and economic

development from the perspective of developing countries seem to be scarce. Yet, according to Aparicio, Urbano and Gomez (2018:86), relationships between these variables in developed countries may or may not have the same magnitude compared to their relationships between them in developing countries. Furthermore, Aparicio, Urbano and Audretsch (2016:250) as well as Bosma, Sanders and Stam (2018:15) argue that, based on entrepreneurship capital, it is not sufficient only to understand the relationship between entrepreneurship and economic development from the perspective of developed countries. More studies are also needed that investigate the interactions that lead to some regions being more developed than others. The current study therefore investigated the magnitude of the relationship between entrepreneurship and economic development from the perspective of developing countries.

Because neoclassical theories failed to address economic development, a new growth theory emerged in the 1990s (see Todaro & Smith, 2015). This theory argues that knowledge or innovation can be reused at no cost, and it grows unrestricted. Investing in knowledge or innovation could sustain economic development (see Parker, 2018). As a result, the new growth theory promotes the role of government and public policies to invest in human capital and to encourage foreign private investments in knowledge-intensive sectors, such as computer software and telecommunications (Nafziger, 2015:20). The new growth theory was however criticised for ignoring the social and institutional structures of the economy (see Todaro & Smith, 2015). Developing countries therefore have poor infrastructure, low institutional structures and imperfect capital and goods markets, which cause stagnation in economic development (Nafziger, 2015:20). Unlike the suggestion by the new growth theory that only government can sustain knowledge and innovation, Ghura and Li (2017:5) contend that knowledge and innovation could be produced by well-educated entrepreneurs who create and utilise innovation and finally sustain economic development. Szaban and Lubasińska (2018:93) further criticise the neoclassical theories by saying they disregard entrepreneurship as the driver of economic development, and that for them, entrepreneur was simply “the man of business”. Parker (2018:73) argues that entrepreneurship promotes and exploits knowledge spillover through entrepreneurial search and investment activities.

In line with this contention, different studies attempted to develop theoretical models that explain how entrepreneurship can contribute to economic development, and the findings suggested that entrepreneurship should be integrated into economic development models (Liñán & Fernandez-Serrano, 2014:4; Sautet, 2013:388). Early economists, such as Cantillon

(1755), Knight (1921) and Schumpeter (1934; 1939), acknowledged entrepreneurship in their models as the backbone of economic development. Sautet (2013:388) explained, "[r]evisionist economic history has displaced the entrepreneur from his central role as determinant of a country's economic performance and placed greater emphasis on structural macroeconomic conditions."

According to Cantillon (1755), an entrepreneur is a speculator who handles all exchanges and bears risk as a result of buying at certain prices and selling at uncertain ones. Such person is insightful, knowledgeable and willing to take risks. The entrepreneur therefore brings the two sides of the markets together, bearing all the risks involved in the trade process. As a result, entrepreneurs stimulate economic development by allowing production and exchange to occur and market equilibrium to be reached (Parker, 2018:541). Bula (2012:82) comments that Cantillon (1755) regarded an entrepreneur as responsible for all exchange and circulation in the economy, as opposed to salaried workers and landowners who both receive a certain fixed income or rent. Consequently, Kirzner (1973) and Gifford (1998) developed Cantillon's (1755) thoughts into two separate directions. Kirzner (1973) emphasises that successful entrepreneurs simply notice what others have disregarded, and make a profit from their brilliant awareness. Kirzner (1973) did not indicate where this brilliant awareness should come from and/or whether individuals or institutions can nurture it. Only in 1998, Gifford eventually incorporated awareness in a model of limited entrepreneurial attention. He then explains that awareness is created by the high levels of managerial ability of entrepreneurs that allow them to spend much time managing various entrepreneurial projects simultaneously.

Following the theory of Cantillon (1755), Knight (1921) highlights risk and uncertainty as the most important characteristics of entrepreneurship. According to Knight (1921), due to market uncertainty and the necessity to act with incomplete information about the availability of natural resources, technological change and prices, entrepreneurship relates to risk and personal uncertainty. Szaban and Lubasińska (2018:94) define risk as a deviation from what the entrepreneur foresees, and that uncertainty is an unexpected and unpredictable situation, against which one can insure oneself, or which one can avoid altogether. Following the theory of Knight (1921), Joseph Schumpeter (1934; 1939) viewed entrepreneurship as innovation. According to Schumpeter, entrepreneurs develop new technologies or products by "doing new things" or doing things that are already done in a new way (see Parker, 2018:34). Entrepreneurs are therefore called "agents of creative destruction" (see Schumpeter,1942:68) as they destroy the

value of existing markets and create new markets with new products and services; hence, becoming agents of economic development (Ghura & Li 2017:5; Tasnim & Afzal, 2018:5).

Similarly, Say (1828) regarded entrepreneur as a coordinator of factors of production by guiding and rewarding various factors of production, and converting the residual into profits, which makes entrepreneurship to stand at the centre of the economic system of a country. Entrepreneurial characteristics, such as judgement and perseverance, are in short supply in developing countries, which contribute to a decline in the economic development of these countries (Parker, 2018:33). Say (1828) asserted that entrepreneurship was disregarded in the classical economic theory, which only acknowledged labour, capital and land as the means of production in the economy. After discovering that entrepreneurship was the driver of production in the economy, he then integrated entrepreneurship into the theory as the fourth means of production (see Demirdag, 2015:15).

As discussed above, there are various theories of entrepreneurship and economic development. However, the current study mainly focused on those theories that integrate the correlation of entrepreneurship and economic development, such as Cantillon's (1755) theory of entrepreneurship, Say's (1828) theory on law of markets, Knight's (1921) theory expounded in his book *Risk, uncertainty and profit*, and Schumpeter's (1934) theory of economic development. These theories contribute to an understanding of the correlation of entrepreneurship and economic development, which is currently fragmented.

After reviewing the theories that underpin the contribution of entrepreneurship to economic development, it is important to discuss the theoretical assertions and arguments of various scholars on the contribution of entrepreneurship to economic development. This discussion is provided in section 4.3.

4.3 CONTRIBUTION OF ENTREPRENEURSHIP TO ECONOMIC DEVELOPMENT – A THEORETICAL PERSPECTIVE

In this section, the contribution of entrepreneurship to economic development is considered from a theoretical perspective.

The correlation between entrepreneurship and economic development portrays mixed evidences, from the perspectives of both developed and developing countries. Maradana, Pradhan, Dash, Gaurav, Jayakumar and Chatterjee (2017:16) as well as Valliere and Peterson

(2009:4) assert that in European Union (EU) countries, entrepreneurship regulates the level of economic development by enhancing per capita economic growth in some instances. In other instances, it is economic development – in the form of per capita economic growth – that regulates the level of entrepreneurship. There is therefore an interdependence between entrepreneurship and economic development. Naudé (2013:12) concurs that there is a U-shaped relationship between entrepreneurship and economic development. This implies that entrepreneurship in developing countries is less innovative than in their developed counterparts, and tends to be proportionately more 'necessity' motivated. Omoruyi *et al.* (2017:2) support Naudé's (2013) point of view by arguing that there is a unidirectional causality running from entrepreneurship to the economic development of OECD countries. Entrepreneurship therefore promotes economic development in this region over the short term, but the contribution diminishes in the long term.

Surprisingly, Thurik, Stam and Audretsch (2013) argue that some developed countries tend to register lower economic development in comparison to their developing counterparts. This is apparent in OECD countries where a negative correlation between entrepreneurship and economic development in more than half of the OECD countries under study was identified. That is to say, there is a non-linear effect, suggesting that the effect of entrepreneurship on economic development is insignificant in some developed countries. Naudé (2019:1) agrees that the decline of entrepreneurship in developed countries is surprising because scholars – such as Stangler and Spulber (2013:19), Thurik *et al.* (2013:1), Stam and Van Stel (2009:1, and Lafuente and Vaillant (2016:101) – have been predicting an increase in the contribution of entrepreneurship to economic development of these countries; yet, that is not true in some developed countries. Already in 2017, Cowan said the following (in which he was supported by Naudé in 2019):

> These days Americans are less likely to switch jobs, less likely to move around the country, and, on a given day, less likely to go outside the house at all [...] the economy is more ossified, more controlled, and growing at lower rates.

Nonetheless, many scholars – such as Acs, Estrin *et al.* (2018:25), Maradana *et al*. (2017:16), Stam and Van Stel (2009:1), Thurik *et al*. (2013:1) and Van Vuuren and Alemayehu (2018:8)– agree that in European countries, entrepreneurship enhances the level of economic development. These scholars indicate that the contribution of entrepreneurship to economic development is more prominent in innovation-driven economies, such as the United Kingdom,

the United States and Germany, than in efficient-driven economies, such as China, Brazil and South Africa. These mixed evidences clearly indicate that the phenomena regarding the contribution of entrepreneurship to economic development need to be addressed in some of the so-called 'less-developed' countries as well.

Like their developed counterparts, developing economies have no conclusive empirical evidence to justify the contribution of entrepreneurship to economic development (Herrington & Coduras, 2019:3). Several scholars (Dhahri and Omri, 2018:66; Dvouletý *et al*., 2018:1; Eke, Okoye & Evbuomwan, 2018:1346; Nițu *et al*., 2017:16; Van Vuuren & Alemayehu, 2018:1) argue that, in most developing economies, the outcome of entrepreneurship is negative. This is attributed, among others, to ineffective institutions and financial systems, poor infrastructure, a high level of corruption, and unfavourable trade policies. Adusei (2016:203) as well as Valliere and Peterson (2009:20) note that, although a technological frontier exists in some developing countries, economic development is not sufficiently innovative, and replicative entrepreneurship has increased in these economies. Most developing countries, such as South Africa, are located in Africa (see Van Vuuren & Alemayehu, 2018). Despite the view that Africa is the richest continent in the world in terms of minerals and natural resources for which reason entrepreneurship should prosper on the continent; the contribution of entrepreneurship to economic development Africa has been abysmal (see Peterson, 2009). As a result, these economies continue calling on developed economies to embark on strategies to improve their economic development (Omoruyi *et al.*, 2017:1). This has resulted in dependency of developing economies on developed economies. Furthermore, African economies face an increased risk of excessive bureaucracy and political interference by developed economies, which sometimes negate the contribution of entrepreneurship to economic development in developing economies (Valliere & Peterson, 2009:8).

The question of whether entrepreneurship contributes to economic development has been adequately addressed in developed economies (Lafuente & Vaillant, 2016:101; Stam & Van Stel, 2009:1; Stangler & Spulber, 2013:19; Thurik *et al*., 2013:1) but the same cannot be said of developing economies. It is therefore of little relevance to adopt the outcomes of developed economies and apply them to answer the question of whether entrepreneurship contributes to the economic development of developing economies (Adusei, 2016:202; Dvouletý & Orel, 2019:20). Consequently, there is a need to determine this empirically, which was the main reason that prompted the current study.

As one of the developing countries, South Africa is also facing the challenge of having mixed evidence in terms of the correlation between entrepreneurship and economic development. According to the World Bank (2018b:24), there is no agreement in South Africa on the extent to which entrepreneurship flourishes, but generally entrepreneurship is low and its contribution to economic development is declining. The low levels of entrepreneurship are partly due to the historical limitations on entrepreneurial activities during periods of segregation and apartheid. Unlike the World Bank Group Report, the GEM Report (2017:27) indicates that the underlying reasons for low levels of entrepreneurship in South Africa include poor skill base, severe environmental limitations such as poverty, a lack of active markets and poor access to resources. Cassim, Soni and Karodia (2014:39) assert that the 2017 GEM Report is South Africa's only international indicator of the level of entrepreneurship in the economy. This report indicates that South Africa ranks poorly in entrepreneurship and economic development. The GEM Report (2017:24) shows that the South African entrepreneurial rate of 6.9% is less than half the average of the efficiency-driven economies. The average for the efficiency-driven economies is 14%, which is double South Africa's level of entrepreneurship. This correlates with the gradual decline in the economic development of the country. Ayankoya (2016:9) argues that entrepreneurship remains the major solution to the socio-economic issues faced by the country. Van Vuuren and Alemayehu (2018:2) believe that entrepreneurship in South Africa stimulates business activities of the country, which in turn create employment opportunities, spur innovation, facilitate effective and creative ways of utilising resources, expand and extend economic boundaries and, ultimately, improve social welfare and growth. This mixed evidence makes it critical for South African policymakers to pay serious attention to the development and monitoring of a policy environment that enhances entrepreneurship and economic development. It also triggers the need for an empirical study on the phenomena; hence, the current study endeavoured to fill this gap.

4.4 CONTRIBUTION OF ENTREPRENEURSHIP TO ECONOMIC DEVELOPMENT – AN EMPIRICAL PERSPECTIVE

This section evaluates the contradicting empirical results of previous studies on the contribution of entrepreneurship to economic development of both developed and developing countries.

Investigating the relationship between entrepreneurship, institutional economics and economic development, Acs, Estrin, Mickiewics and Szerb (2018) used secondary data from a

representative global survey and institutional sources for 46 countries. They found that countries such as United States and the former Soviet Union – even though they are advanced in terms of technology, entrepreneurship and quality of institutions – play a crucial role for improving their economic development. This study suffered from serious methodological and generalisation limitations, because, it depended solely on secondary data. The researchers used narrow-focused measures of the contribution of entrepreneurship to economic development by ignoring its contribution to developing countries. The researchers also overlooked the dynamism of entrepreneurship and economic development. The need to address these shortcomings was one of the reasons that prompted the current study.

The empirical investigation on country-level efficiency and entrepreneurship by Tasnim and Afzal (2018) used secondary data of 59 countries, from both developed and developing countries. The findings of the study by Tasnim and Afzal indicated that country-level efficiency significantly increased where entrepreneurship was promoted. Furthermore, the study found that factor-driven countries (which are predominantly developing countries) are the most inefficient, while innovative-driven countries (which are predominantly developed countries) are the most efficient ones. Even though Tasnim and Afzal focused on both developed and developing countries, they failed to address the type of entrepreneurship and the economic environment that need to be promoted to improve the efficiency of developing countries. The study also suffered data reliability and validity limitations, as it depended entirely on secondary data whose reputation, accuracy and consistency were difficult to determine.

Karadag's (2016) study on the role of entrepreneurship on economic development in developing economies revealed that there is a positive relationship between entrepreneurship and socio-economic development in both developed and developing countries. However, these countries differ significant in terms of the levels of new venture creation, employment generation, poverty and inequality reduction. The study used literature only to determine its findings. This practice to determine the contribution of entrepreneurship to economic development is too narrow and represents a methodological limitation.

Doran *et al.* (2018) investigated the role of entrepreneurship in stimulating economic development in developed and developing countries, using principle components and regression analysis with statistical data in 55 countries. The results of the study suggested that, while entrepreneurship is crucial for economic development, the effect of different types of entrepreneurship on economic development is not uniform. For instance, necessity-based

entrepreneurship has a negative influence on economic development in developing countries while innovative-based entrepreneurship has positive effects on the economic development of developed countries. Doran *et al*. also indicate that, in their study, entrepreneurial attitudes were significant and positive in explaining economic development of developed countries, but were insignificant in explaining economic development of developing countries. Although the type of entrepreneurship that contributes significantly to economic development was discussed in this study, the economic development stage that innovation-based entrepreneurship can significantly contribute to economic development was not discussed. Additionally, by not using primary data, the study also experienced methodological limitations. The current study addressed this limitation by analysing various types of entrepreneurship and stages of economic development.

The fact that entrepreneurship promotes economic development has no clear evidence in developing countries on the African continent. This prompted Adusei (2016) to investigate whether entrepreneurship significantly contributed to economic development on the African continent or not. Adusei analysed secondary data by utilising descriptive statistics, correlation matrix and regression analysis. The sources of data were World Development Indicators, the World Bank and the IMF. The results showed that, although some other previous studies (see Baumol, Litan & Schramm, 2007; Pahn, Venkataraman & Velamuri, 2008) indicated that replicative entrepreneurship was pervasive in developing countries, Adusei's (2016) study found that entrepreneurship generally drives economic development. Furthermore, the study generated the trend of entrepreneurship performance and its corresponding trend of economic growth rate of the countries under study as indicated in Figures 4.1 and 4.2:

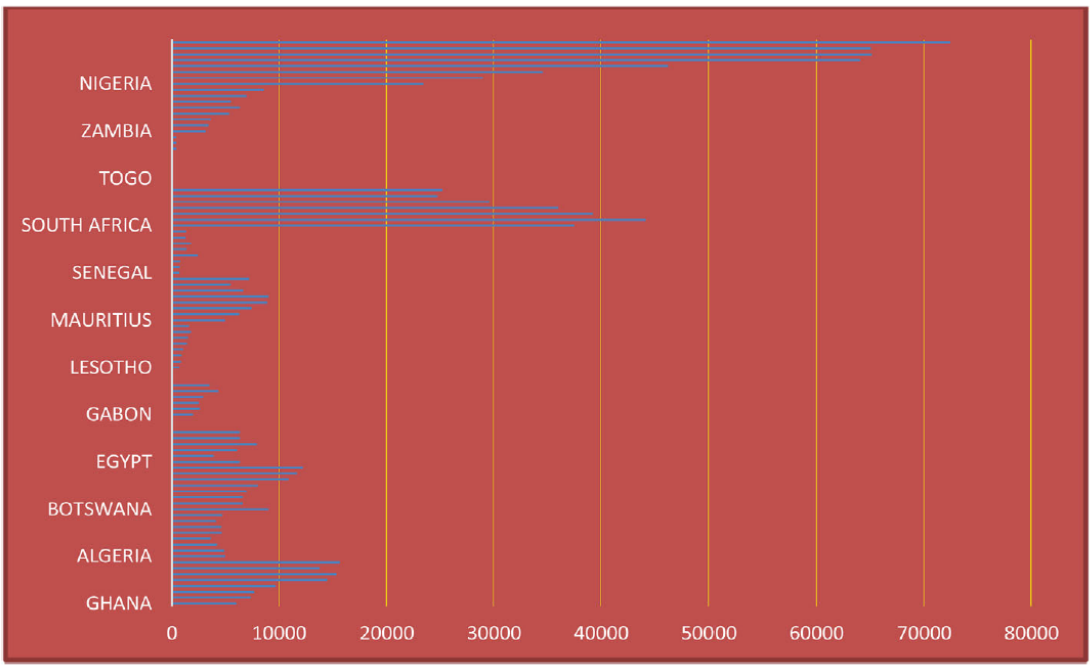

Figure 4 .1: Trend of entrepreneurship performance (2004–2011)

Source: Adusei (2016:207)

Figure 4.1 indicates that there were variations with regard to entrepreneurship performance and its contribution to economic development in developing countries. For instance, South Africa seems to have performed better in entrepreneurial activities at the time compared to other developing countries.

Adusei's (2016) study also suffered a methodological limitation as no primary data were utilised.

Figure 4.2 indicates the fluctuation of economic growth in developing countries:

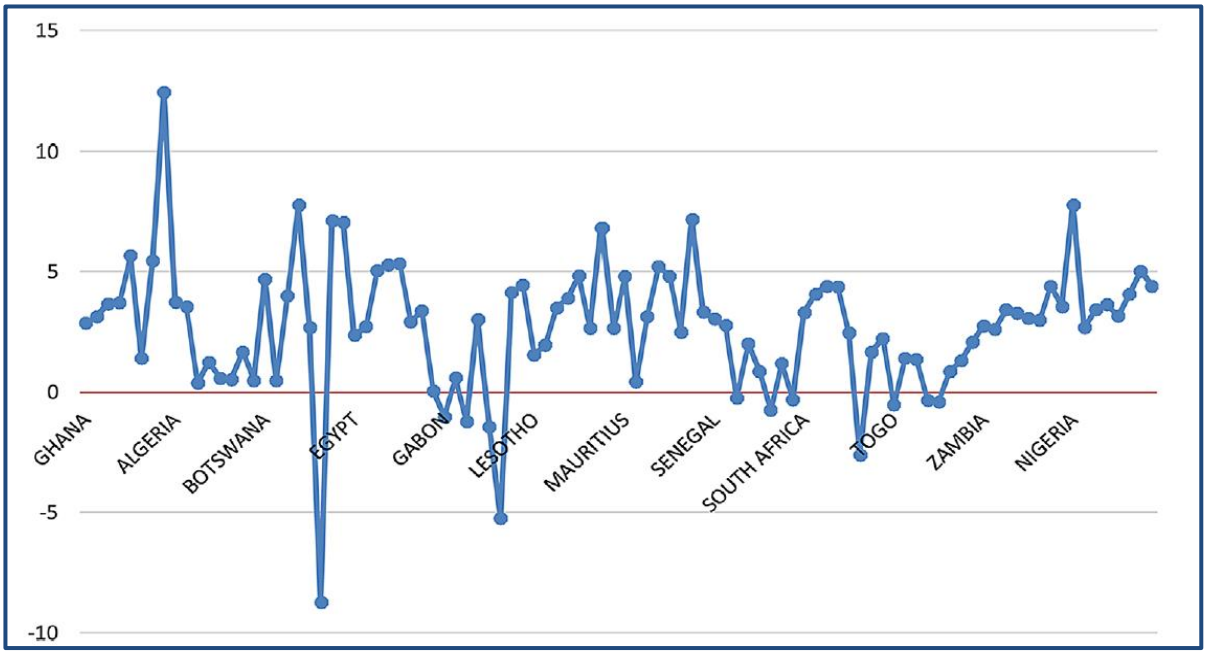

Figure 4.2: Trend of economic growth rate (%) (2004–2011)

Source: Adusei (2016:207)

In contrast, Figures 4.2 indicates a different trend. At the time, the economic development of South Africa seems to have been very low compared to other African countries; yet, it performed better entrepreneurially as indicated in Figure 4.1. This justified the need for a comprehensive stand-alone study on the contribution of entrepreneurship to economic development from a South African perspective. The current study therefore endeavoured to come up with a comprehensive framework that would optimise the contribution of entrepreneurship to economic development in South Africa.

It seems that many of the studies on the relationship between entrepreneurship and economic development had been conducted from an economic perspective. As a result, Ogunlana (2018) investigated the role of entrepreneurship as the driver of economic development, from an entrepreneurship perspective. The study focused on Nigeria, and it utilised primary data. Ogunlana found that entrepreneurship plays a significant role in economic development by generating employment, innovation and increased production, and by diversifying the source of revenue in the country. Ogunlana's (2018) study failed to explain exhaustively the type of entrepreneurship that plays a significant role in economic development. It also failed to explain the stage of economic development at which entrepreneurship contributes significantly to economic development. The current study consequently focused on addressing these shortcomings.

Ogbo and Nwachukwu (2015) researched the role of entrepreneurship in the economic development of Nigeria from an entrepreneurship perspective. The primary data were obtained from 100 questionnaires, which were distributed to participants selected through simple random sampling. The hypotheses of the study were tested at 0.05 level of significance using chi-square tests. Ogbo and Nwachukwu's findings indicated that entrepreneurship continued to play significant roles in economic growth, development and industrialisation in both developed and developing countries, such as Nigeria. Similar to the study by Ogunlana (2018), Ogbo and Nwachukwu's (2015) study ignored aspects of the type of entrepreneurship and the stages of economic development in which entrepreneurship can be effective and efficient.

In order to address the gap of the stage of economic development at which entrepreneurship contributes significantly to economic development, Mizero (2018) investigated the extent to which entrepreneurship could be considered as the engine of economic development by using case studies involving Mauritius and Botswana. Mizero found that, from the take-off stage, entrepreneurship played a more critical role in Mauritius and Botswana by boosting investment rate, government revenues and trade performance than in other developing countries. Like the weaknesses of other studies, Mizero's (2018) study did not take into consideration the type of entrepreneurship that contributes significantly to economic development.

It is therefore evident that shortcomings – such as methodological limitations and the type of entrepreneurship – are apparent in studies on the relationship between entrepreneurship and economic development. Some studies suffered shortcomings, such as stages of economic development in which entrepreneurship can be effective and efficient, and the dynamism of entrepreneurship and economic development. There is also a lack of empirical evidence and scarcity of contextualised South African studies on the phenomena. The current study attempted to address these shortcomings. As the current study aimed to develop a conceptual framework that would address these shortcomings, section 4.5 discusses the existing frameworks and models on the contribution of entrepreneurship to economic development.

4.5 EXISTING FRAMEWORKS ON THE CONTRIBUTION OF ENTREPRENEURSHIP TO ECONOMIC DEVELOPMENT

In order to understand the contribution of entrepreneurship to economic development, various frameworks and models have been developed over the years. However, these frameworks, when utilised in developing countries, such as South Africa, seem to be not effective due to the

economic status and structures of developing countries, as such frameworks are not compatible with the economic structures of these countries. Following below, are some of the conceptual frameworks developed with the aim to determine the contribution of entrepreneurship to economic development:

The framework on entrepreneurship and economic performance developed by Thurik, Wennekers and Uhlaner (2002:164) is depicted in Figure 4.3 below:

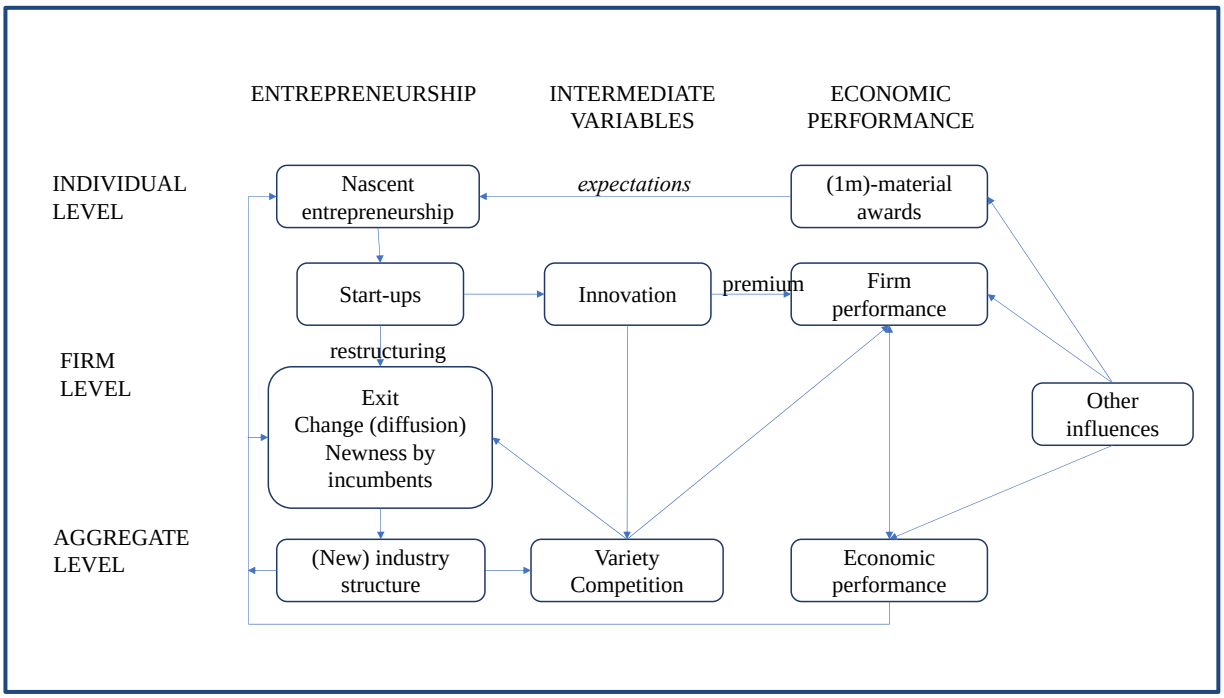

Figure 4.3: Framework on entrepreneurship and economic performance

Source: Thurik et al. (2002:164)

The framework in Figure 4.3 firstly identifies **nascent** entrepreneurship as the first type of entrepreneurship that contributes to economic development. Nascent entrepreneurs are individuals who try to start new businesses. Only a few nascent entrepreneurs succeed in starting a new business. These businesses are sometimes called start-ups, and they affect the level of innovation at firm level of the economy by introducing new products or by finding new ways of producing or delivering an existing good or service. Secondly, the framework also identified the **start-ups** as drivers in restructuring the economy through various adaptive reactions, such as business exits, mergers, re-engineering and innovations by entrepreneurs. These adaptive reactions spread from the firm level to aggregate levels of the sectors, regions

and national economy. As a result, there is a change of industry structure in terms of the number of businesses, firm size distribution, and the variety and competition processes.

The framework further identifies three ways in which entrepreneurship is influenced.

- the increase in start-ups and restructuring of the economy affect the variety and competition processes of businesses resulting in influencing entrepreneurship
- innovation brings higher growth of revenues or higher business profitability, which then influences entrepreneurship; and
- economic development at the aggregate level itself influences entrepreneurship by creating and destroying opportunities.

The framework reveals a two-way arrow between entrepreneurship (firm performance) and economic development (economic performance). It also indicates the relationship between entrepreneurship and the rewards entrepreneurs receive for running their own businesses. These rewards can be both material and immaterial, and can be shared with employees of the business. Rewards could include growth of personal wealth and self-realisation or sense of achievement for their accomplishment. The rewards can also be influenced by other factors, for instance, taxation and inheritance laws, which influence the amount of retained profits that entrepreneurs may secure.

4.6 WEAKNESSES OF THE FRAMEWORK BY THURIK, WENNEKERS AND UHLANER (2002)

According to Pavel and Moldovan (2019:1), economic development is affected by exogenous factors, such as characteristics of consumer preferences, the increase of scientific knowledge, and the invention of new radical technologies. The limitation of Thurik et al.'s framework was that it did not address these exogenous factors; neither did it address the type of entrepreneurship that needs to be promoted in order to contribute to economic development. Moreover, the stages of economic development at which entrepreneurship can be optimised were not addressed in the framework. The framework developed by the current study took these factors into account.

Secondary data from the developed economy were used to develop the framework; yet, the economic conditions, quality of entrepreneurship, legal and tax frameworks of European

economies and those of developing economies differ (Van Vuuren & Alemayehu, 2018:2). When such a framework is applied in developing economies, such as South Africa, there is therefore an effectiveness limitation (Demirdag, 2015:88). In addressing this limitation, the framework for the current study was developed from both primary and secondary data, and the study was conducted within South Africa.

According to the GEM (2018) conceptual framework, the entrepreneurial environment influences socio-economic development, as indicated in Figure 4.4 below:

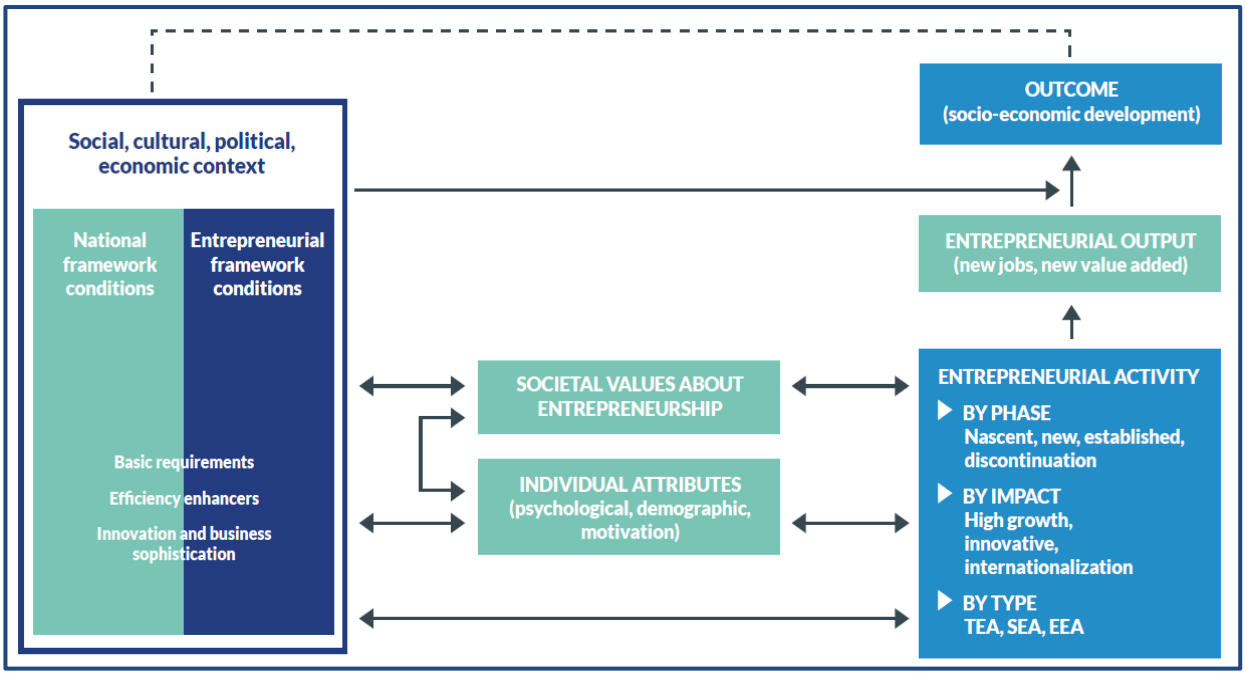

Figure 4.4: The GEM conceptual framework on the relationship of entrepreneurship with its environment

Source: GEM (2018:15)

The above framework recognises that social, cultural, political and economic contexts have a direct influence on entrepreneurship, which then contributes towards social-economic development. According to the GEM (2018:15), these social, cultural, political and economic contexts are represented in the national framework conditions, which include entrepreneurial finance, government policy, government entrepreneurship programmes, entrepreneurship education, research and development (R&D) transfer, commercial and legal infrastructure, physical infrastructure, internal market dynamics and entry regulation, and cultural and social norms.

Furthermore, the conceptual framework also indicates that social, cultural, political and economic contexts have an indirect influence on entrepreneurship through societal values and individual attributes. These societal values include:

- societal beliefs about entrepreneurship as a good career choice;
- whether entrepreneurs have high societal status;
- the extent to which media represents entrepreneurship positively in an economy; and
- whether it is easy to start a business.

The individual attributes include demographic characteristics, such as gender, age and self-perceptions. The attribute of self-perceptions refer to perceived capabilities and opportunities, and fear of failure. Furthermore, individual attributes also consist of motives for starting a business, such as necessity, and opportunity motives for entrepreneurial activities. These entrepreneurial activities encompass multiple phases of the business process, such as nascent, new business, established business, and discontinuation, as well as the potential outcome of job creation, innovation and the internationalisation processes of the business.

The GEM conceptual framework seems to be valid and reliable, as it was developed based on primary data, generated through an Adult Population Survey of at least 2 000 randomly selected adults (18–64 years of age) in each participating economy. The research design was harmonised over all participating countries (see GEM, 2018). In addition, during the data-collection phase, the national teams of participating countries collected expert opinions about components of the external entrepreneurship context through a National Expert Survey (NES) (GEM, 2016:18). However, due to harmonisation of data collected in South Africa with that of other participating countries, the GEM conceptual framework suffers a serious contextual limitation, such that it is not a true reflection of the contribution of entrepreneurship to the economic development of South Africa. In addressing this shortcoming, the framework developed by the current study was contextualised entirely to South Africa.

Toma *et al.* (2014) also developed a theoretical model that links economic development and entrepreneurship as indicated in Figure 4.5:

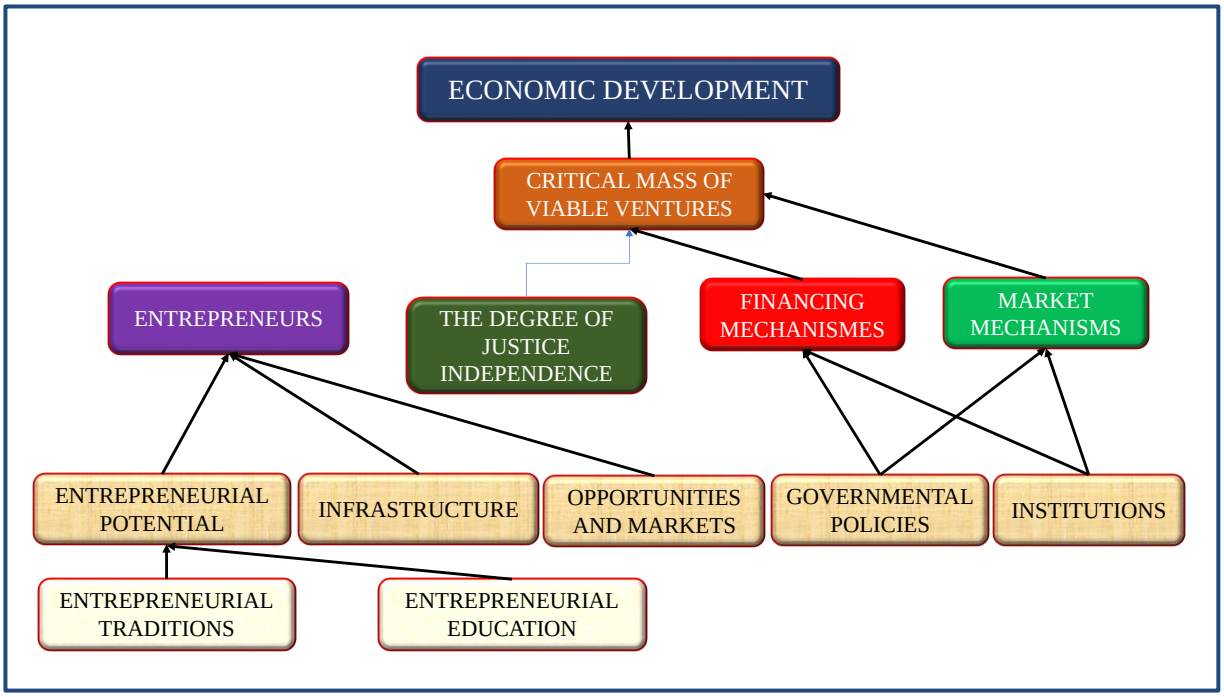

Figure 4.5: A theoretical model of linking economic development and entrepreneurship

Source: Toma et al. (2014)

According to the theoretical model of Toma *et al.* (2014), the emergence of a critical mass of viable ventures may lead to economic development. At the same time, entrepreneurial tradition and education are engines of the entrepreneurial potential. The promotion of entrepreneurial tradition and education is paramount in boosting economic development. The framework further indicated that well-designed and effective institutions, government policies and legal frameworks, play a critical role in stimulating entrepreneurial initiatives. However, there is consensus that entrepreneurs operate in turbulent environments characterised by unclear issues and inadvertent behaviours (Bayraktar, 2016:85; Hunt, McMullen & Sarasvathy, 2018:1; Townsend, Yasir, Majid & Yasir, 2017:1149). The above framework addresses these challenges by suggesting that the presence of an independent and neutral justice system may contribute to entrepreneurship and economic development, as society may obey the regulations and entrepreneurship may be improved; hence, creating a critical mass of viable and healthy ventures may result in enhanced economic development.

Similar to the frameworks discussed earlier, the model depicted in Figure 4.5 did not address the type of entrepreneurship and the stage of economic development required for

entrepreneurship to make a significant contribution to economic development. The framework also suffers a serious methodological limitation, as the methodological approach used comprised only a literature review. In addressing this limitation, both secondary and primary data were utilised in the current study. Additionally, it was pointed out in Toma *et al.'s* (2014) study, that this theoretical model needed to be improved by embarking on future research. The current study therefore also addressed this recommendation.

The GEM report (2017) (also see Pilkova & Kovacicova, 2015:369) indicates that entrepreneurship dynamics are linked to EFCs that support or hinder entrepreneurship. These conditions are closely related to economic development of an individual economy. To understand the correlation between entrepreneurship and economic development critically, section 4.7 reports on the EFCs or combination of EFCs that promote the contribution of entrepreneurship to economic development.

4.7 ENTREPRENEURIAL FRAMEWORK CONDITIONS THAT CONTRIBUTE TO ECONOMIC DEVELOPMENT

Entrepreneurial framework conditions (EFCs) provide the conditions under which entrepreneurship contributes to economic development in a given economy (Omar, Ali & Imhamed, 2020:26). There is consensus among scholars that EFCs affect the contribution of entrepreneurship to economic development (Guerrero, Urbano & Salamzadeh, 2015:28; Omar *et al.*, 2020:26; Salamzadeh, 2015:15; Salamzadeh & Kawamorita Kesim, 2017:35). Recent studies indicate that improvements in the entrepreneurial framework will most likely influence economic development of any economy rather than small, unproductive businesses that do not contribute sufficiently to economic development (Herrington & Coduras, 2019:3; Sheriff, Muffatto & Cooper, 2016:25). These conditions are indicated in Table 4.1:

Table 4.1: Entrepreneurial framework conditions (EFCs)

No.	Entrepreneurial framework conditions (EFCs)	Description
1	**Entrepreneurial finance**	The availability of financial resources – equity and debt – for small and medium enterprises (SMEs) (including grants and subsidies)
2	**Government policy**	The extent to which public policies give support to entrepreneurship. This EFC has two elements: entrepreneurship as a relevant economic issue, and taxes or regulations being either size-neutral or encouraging new and existing SMEs.
3	**Government entrepreneurship programmes**	The presence and quality of programmes directly assisting SMEs at all levels of government (national, regional and municipal)
4	**Entrepreneurship education**	The extent to which training in creating or managing SMEs is incorporated within the education and training system at all levels (primary, secondary and post-school training).
5	**R&D transfer**	The extent to which national research and development will lead to new commercial opportunities is available to SMEs
6	**Commercial and legal infrastructure**	The presence of property rights and commercial, accounting and other legal services and institutions that support or promote SMEs
7	**Physical infrastructure**	Ease of access to physical resources – communication, utilities, transportation, land or space at a price that does not discriminate against SMEs
8	**Internal market dynamics and entry regulation**	Has two components: • market dynamics: the level of change in markets from year to year; and • market openness: the extent to which new firms are free to enter existing markets
9	**Cultural and social norms**	The extent to which social and cultural norms encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income

Source: GEM Report (2010:48) and Herrington and Coduras (2019:8)

Entrepreneurial finance consists of the availability of financial resources, such as equity, debt, grants and subsidies that can be used for new and growing businesses within an economy (Mkwanazi, 2018:53). A lack of entrepreneurial finance is a common challenge in developing economies, including South Africa (Herrington, Kew & Kew, 2015:28); yet, access to finance is crucial for boosting entrepreneurship, which then enhances economic development (Zakaria & Kaushal, 2018:99). The regulatory environment of the economy also has an effect on the contribution of entrepreneurship to economic development. Mkwanazi (2018:54) states that the extent to which government policies, such as taxes or regulations, are either size-neutral or encourage new and growing businesses, has a direct influence on the level of entrepreneurship in an economy. For instance, the long and tiring process of registering for company permits and

licenses can delay the market entry process for the business, which then contributes to the decline of the level of entrepreneurship. Regulations also give power to those that enforce them and open the process for abuse and corruption. Nonetheless, Obaji and Olugu (2014:110) argue that government policies should target regulating entrepreneurship that can boost economic development.

Besides policies, government must also be involved in entrepreneurship programmes. These programmes must involve assisting new and growing businesses at national, regional and municipal levels of government (Mkwanazi, 2018:55). Such programmes may include enterprise development programmes and implementation of policies that protect small businesses from exposure to competition in the early stages of their development. In South Africa, these government programmes have proved to be ineffective in stimulating economic development (Herrington *et al.*, 2015:28). In addition, Schumpeter (1934) and Kirzner (1973) observed that the significance of learning the entrepreneurial process boosts entrepreneurial levels in an economy. Scholars, such as Costea *et al.* (2015:69), Grant (2017:2), Mkwanazi (2018:55), Herrington *et al.* (2015:28), Omoniyi (2013:176) and Schwab (2013:5), agree that entrepreneurial education and training plays a critical role in entrepreneurship and economic development. It supplies skills required to start or grow businesses, enhances the cognitive ability required to manage the complexities in entrepreneurial process, and provides skills necessary for building social networks and industrial relationships. It is therefore crucial that primary, secondary and tertiary entrepreneurship courses are of high quality to equip learners with relevant entrepreneurial skills and competences. Furthermore, R&D transfer also contributes to entrepreneurship and economic development as it facilitates entrepreneurial knowledge spillover within the economy. However, Mkwanazi (2018:55) argues that this entrepreneurial knowledge spillover is only possible if the economy has research institutions of high quality and economy's universities that have the ability to collaborate with industries. Van Zyl, Amadi-Echendu and Bothma (2007:2) concur that, if businesses and universities are able to transfer knowledge obtained from research and development and convert it into opportunities, such businesses or universities contribute to improvement in the economic development.

The contribution of entrepreneurship can further be influenced by the existence of the commercial and legal infrastructure within the economy. Mkwanazi (2018:60) notes that this infrastructure promotes the growth of small, new and growing businesses, such as suppliers,

sub-contractors, consultants and professional services as well as banking services. Herrington and Coduras (2019:7) indicate that South Africa scored a 4.55 mean score in 2017 on this type of infrastructure, with 1 being the lowest performance and 5 being the highest in the National Experts Survey. According to Mkwanazi (2018:60), these scores show that the commercial and legal infrastructures in South Africa are good. However, many new and growing businesses cannot afford the cost associated with it (Obokoh & Goldman, 2016:4). In addition, government should invest in physical infrastructure. This infrastructure should provide businesses with access to resources, such as communication, utilities, transportation, land or space (Herrington *et al.*, 2015:17). Access and availability of such infrastructure promote entrepreneurship and economic development (Hakeem *et al.*, 2016:4; Schwab, 2013:8). Furthermore, businesses within the economy must have access to markets where they sell their products or service or buy their capital goods. Mkwanazi (2018:60) as well as Rostami *et al*. (2019:44) are of the view that the extent to which new businesses are free to enter existing markets, and the extent to which the markets change drastically, have an influence on the contribution of entrepreneurship to economic development. Rostami *et al*. (2019:44) concur that new business entry into the markets provides new products and services that promote innovation in and competitiveness of an economy. A change in market also provides opportunities for new businesses and opportunity exploitation for existing entrepreneurial businesses. Market openness and dynamism drive entrepreneurial opportunities in many ways in an economy, resulting in promoting entrepreneurship.

Apart from market openness and dynamism, entrepreneurship can be promoted or hindered by the social, cultural and political norms of an economy. Herrington *et al*. (2015:16) describe social, cultural and political norms as the extent to which existing social and cultural norms encourage individual actions that lead to new ways of running a business or economic activity which in turn, lead to improvement in citizens' wealth and income. Mkwanazi (2018:65) asserts that a positive cultural disposition towards entrepreneurship is higher among the Indian and Jew populations in South Africa than among other racial groups. This means that Indian and Jewish people have a positive desire to embark on entrepreneurship. However, Çelikkol, Kitapçi and Doven (2019:780) argue that social, cultural and political norms do not only influence behaviour of individuals, but also the economic functioning of society. The supportive social, cultural and political norms encourage entrepreneurial orientations that could influence an individual's cognitive ability and attitudes towards entrepreneurship, resulting in an increased level of economic development (Ndofirepi, Rambe & Dzansi, 2018:7).

All EFCs seem to be critically important for any economy. However, as the economic and social structures of economies differ from one economy to another, it is difficult to apply them in every economy. This applies not only to developed and developing economies; even within developing economies, EFCs cannot be applied equally. This is supported by Herrington and Coduras (2019:7) who indicate a variation in the scores in EFCs among various African countries. This variation seems to be attributed to differences in competitive advantages as well as the economic and social structural make-up of African countries. The argument also applies to South Africa, as not all EFCs might be needed to optimise the contribution of entrepreneurship to economic development in South Africa. While cautioning that one size does not fit all, the empirical part of the current study addressed the dilemma about which EFCs or which combination of EFCs could significantly contribute to boosting entrepreneurship and economic development in South Africa. This triggered the need to determine the EFCs that should be integrated in the entrepreneurship policy framework of a country. Besides, practical strategies for integrating these EFCs are of paramount importance. Section 4.8 therefore reports on a critical examination of practical strategies for optimising the entrepreneurship policy framework.

4.8 OPTIMISATION OF ENTREPRENEURSHIP POLICY FRAMEWORK

An entrepreneurship policy framework can be described as a collection of all policies to achieve objectives related to entrepreneurship in an economy (see Dahlstrand & Stevenson (2010). These objectives cover a range of economic factors – from economic development to poverty reduction – in order to promote entrepreneurial competitiveness (Cassim *et al.*, 2014:33). The United Nations Conference on Trade and Development (UNCTAD) (2012:9) notes that the effectiveness of an entrepreneurship policy framework depends on how its components are integrated, how it is aligned with the overall national development framework, as well as how it is aligned with other national competitiveness and private sector development policy frameworks. Harmonisation with various ministerial strategic processes is therefore crucial to exploit these synergies.

Dahlstrand and Stevenson (2010:6) highlight that an entrepreneurship policy framework (EPF) focuses on creating a supportive environment that fosters entrepreneurship. An EPF comprises, among others, promotion of entrepreneurship, reduction of entry and/or exit barriers and target group measures. Furthermore, an EPF integrates ways to remove administrative and

burdensome regulations to allow entrepreneurship to flourish, improve access to financing and to information, and integrates entrepreneurship into the education system. Naudé (2013:15) concurs that an EPF should be able to improve the quality and allocation of entrepreneurial ability, and reduce the need for necessity entrepreneurship. However, Cassim *et al*. (2014:33) argue that innovation and technology are critical elements for an effective EPF. They also assert that continuous monitoring and assessing the impact of an EPF on economic development is of paramount importance. Many scholars (see Acs *et al.*, 2017:4; Cernescu *et al.*, 2018:520; Kirikkaleli & Ozun, 2019:353; Stoica *et al.*, 2020:5; Zsuzsanna & Herman, 2012:269) accept that, in the new knowledge economy, innovation is key to economic development; hence, it should be integrated into the EPF. Besides technology and innovation, Mirzanti, Simatupang and Larso (2015:330) claim that entrepreneurship infrastructure, such as roads, telephone and electricity, forms an integral part in the success of an entrepreneurship; hence the inclusion of such infrastructure contributes to the effectiveness of the EPF.

According to UNCTAD (2012:6), for the EPF to be effective, it has to integrate elements such as:

- formulation of a national entrepreneurship strategy;
- optimisation of the regulatory environment;
- enhancement of entrepreneurship education and skills development;
- facilitation of technology exchange and innovation;
- improvement of access to finance; and
- promotion of awareness and networking.

Although the adoption of these elements has proved to contribute to economic development, Mirzanti *et al*. (2015:322) argue that adoption of these elements may differ from one economy to another. This is because economies have historical, cultural and institutional peculiarities, which differ considerably from one economy to another. This also explains why some regions take the lead in implementing the elements of EPF while others lag behind. Regardless of this argument, many scholars have accepted that these above-mentioned elements are priority areas to be integrated into the EPF of almost every economy (see Anwana, 2019:63; Anwana & Anwana, 2020:2; Cassim *et al.*, 2014:33; International Council for Small Business [ICSB], 2019:36; UNCTAD, 2017:40).

In South Africa, the EPF seems to have been integrated into the National Development Strategy Plan (see Shava & Maramura, 2017). For example, the National Growth Plan of 2010 aims at shifting South Africa into a higher growth phase (see Anwana, 2019). This plan contains government's strategy to build an inclusive economy that creates decent employment, sustainable welfare, and reduction of poverty. In addition, the Broad-Based Plan Economic Empowerment Act 53 of 2003 (See Shava & Maramura, 2017) aims at promoting economic affirmative action for previously disadvantaged groups. This is based on the knowledge that the apartheid government contributed to the current economic and social inequality. Although this policy was integrated into the EPF, they have failed to recognise where the innovative entrepreneurship is within the economy; consequently failing to address the unique needs of the integration of innovation into the entrepreneurial processes of the economy (Anwana, 2019:63).

In terms of access to finance, the South African government has introduced various initiatives and supporting institutions, such as the Small Enterprise Development Agency (SEDA), the Small Enterprise Finance Agency (SEFA) and industry development corporations. Although government has taken a bold step to promote access to entrepreneurial finance, these initiatives do not seem to be designed to foster South African entrepreneurial development. Businesses differ in size and sectors; hence, they have different needs. As such, they require different business development approaches to cater for these needs. The current EPF has failed to recognise these differences (Anwana, 2019:63). For example, loans and grants are limited to entrepreneurs of selective sectors (see Cassim *et al.*, 2014:33). In some instances, the business must be registered and have an office to qualify for a loans or a grant (Anwana, 2019:63; PWC, 2015:58). Furthermore, in order to promote business development, the South African government published *Guidelines for reducing municipal red tape* in 2013. This policy document provides guidelines on how to reduce paperwork and bureaucratic burdens in the business development process (Department of Trade and Industry [dti], 2013:25). Herrington, Kew and Mwanga (2017:43) note that red tape and bureaucratic burdens – such as perpetual problems in complying with tax, permits and licensing, labour and product markets – are among the critical regulatory factors that slow down the early stages of entrepreneurship in South Africa. The World Bank (2019:5) indicates that South Africa was ranked 82 out of 190 countries on the World Bank Statistics in the 2019 Ease of Doing Business Report (World Bank, 2019:10).

Besides constraints due to a lack of the finance and bureaucratic regulatory environment, awareness and networking can promote or hinder EPF in an economy (Anwana, 2019:72). Networking allows entrepreneurs to tap into a worldwide circulation of ideas, knowledge, talent and capital. The Global Entrepreneurship Network (GEN) (2019:78) indicates that South Africa lacks government support to enhance networking, resulting in a lack of exchange of ideas, skills and resources within the economy. This lack holds back not only entrepreneurship but also economic development.

It is evident therefore that most of the elements of EPF in South Africa have failed resulting in a decline in the economic development of the country. As a result, there is a need for scientific and practical guidelines for optimising the implementation of the EPF in the country. Making the EPF effective is a process that requires continuous monitoring and measuring its influence on economic development. It is crucial therefore that each economy implement elements of EPF that are compatible with their economic and social structures. This gap was addressed by the empirical part of the current study. The guidelines for optimising the implementation of the EPF in South Africa were integrated into the framework that this study sought to develop.

4.9 CHAPTER SUMMARY

In this chapter, literature was reviewed with a focus on addressing two research sub-objectives, namely to determine the type of entrepreneurship that significantly contributes to the economic development in general; and to identify the gaps in the existing general frameworks on the correlation between entrepreneurship and economic development. The chapter reviewed literature on the **theoretical framework for entrepreneurship and economic development.** It indicated that historically, entrepreneurship in economic development theories was ignored, and it is just recently that its integration into economic development theories became visible. The current study mainly focused on those theories that integrate the correlation between entrepreneurship and economic development. These include Cantillon's (1755) theory of entrepreneurship, Jean-Baptiste Say's (1828) theory on law of markets, Knight's (1921) theory on risk, uncertainty and profit*;* and Schumpeters' (1934) theory of economic development. These theories sufficiently contribute to the understanding of the correlation between entrepreneurship and economic development, which is currently fragmented.

The chapter then reviewed literature on the contribution of entrepreneurship to economic development from both a theoretical and an empirical perspective. Literature indicates mixed

evidence in terms of the correlation between entrepreneurship and economic development. In some countries (both developed and developing countries), entrepreneurship correlates positively with economic development, whereas in other countries, there is an inverse correlation. In addition, previous empirical studies on the correlation between entrepreneurship and economic development had methodological limitations. Based on those studies, it is for instance, not clear which type of entrepreneurship contributes to economic development or which stages of economic development promote entrepreneurship. Other shortcomings refer to the dynamism of entrepreneurship and economic development, and the scarcity of contextualised South African studies on the phenomena under study.

The chapter further discussed the existing frameworks on the contribution of entrepreneurship to economic development. Literature indicates that these frameworks, when utilised in developing countries, such as South Africa, seem to be ineffective due to differences in the economic status and structures that exist between developed and developing countries. The chapter also discussed the entrepreneurial framework conditions (EFCs) and the entrepreneurship policy framework (EPF). It was concluded that EFCs and elements of the EPF do not fit in all economies.

Chapter Five discusses in detail the research methodology employed in the study in order to suggest effective solutions to the problem under study.

CHAPTER FIVE

RESEARCH METHODOLOGY

5.1 INTRODUCTION

This chapter presents a discussion of the research methodology used in the study, namely the research paradigm, research approach, research design, population, sample and sampling techniques, data-collection instruments and procedures, data analysis, validity and reliability, credibility and trustworthiness as well as ethical considerations of the study. The discussion highlights the merits and demerits of the stated components and justifies their relevance to the study.

5.2 PURPOSE OF RESEARCH DEFINED

A research methodology is the systematic process of solving the research problem by adopting various steps to investigate the research problem along with the logic behind such steps (Mlalazi, 2015:107). Schram (2003:250) asserts that a research methodology is a theoretical and analytical process of investigating a research problem. The research methodology is important to any research undertakings as it controls the research endeavour, and indicates the approaches to be used for collection of data. It further comprises techniques for analysing the collected data, determines the instruments for deducing the meaning of the collected data, and draws conclusions that contribute to the body of knowledge. Saunders *et al.* (2016:7) concur that a research methodology comprises the procedures, such as the data-collection instruments and data-analysis procedures, applied in the research process. The objectives of the research methodology are therefore to dictate and control the data collection, to organise the data after their collection, and then to interpret the meaning from the collected data (Leedy & Ormrod, 2015:6).

5.3 RESEARCH PARADIGM

A paradigm is a comprehensive belief system, world view or framework that dictates the research process and procedure of the study (Willis, 2007:8). There are various research paradigms, such as positivist, post-positivist, interpretivist-constructivist, critical realism and pragmatism. A **positivist** paradigm follows the objective route in research and postulates that

knowledge is gained by gathering verifiable facts objectively using quantitative means. It assumes that normative statements cannot be confirmed by the senses; therefore, only the scientific statements are the true domain of the scientist (Bryman, 2012). Most quantitative researchers are guided by positivism as they use quantitative tools to make objective findings in their study (Dawadi, Shrestha & Giri, 2021:26).

Post-positivism is another form of positivism that adopts the same procedures but allows more interaction between the researcher and the research respondents than positivism. While objectivity is the main characteristic of positivism, post-positivism is characterised by both objectivity and subjectivity; hence, it adopts both quantitative and qualitative approaches (Taylor & Medina, 2013:3). Both positivism and post-positivism claim that everything is measured and that there is a tendency for inflexibility. These paradigms also tend to ignore unexplained phenomena (see Dawadi *et al.*, 2021). As a result, lateral thinking, which is the process of finding answers by creatively and indirectly looking for ways to resolve a problem, is eliminated (see Taylor & Medina, 2013). Positivism and post-positivism could therefore not be adopted in the current study as the study aimed to suggest solutions to the complex phenomena regarding the significant correlation between entrepreneurship and economic development in South Africa.

Interpretivism is another paradigm that believes in multiple realities. Researchers who are guided by this paradigm, critically focus on the application of the science model to their study and respect the subjective meaning of social action (Bryman, 2012). They comprehend social phenomena and interpret them further. As qualitative researchers use tools – such as interviews, focus groups and participant observation – to understand the situation and explain the results, they follow the interpretivist research paradigm (Dawadi *et al.*, 2021:26). Although interpretivism underpins real-life experiences, interpretivist findings have been criticised for its inability to provide the requisite information that could be useful for making predictions for policy design and implementation in the highly volatile economic and entrepreneurial environment (Awa Uduma & Sylva, 2015:50). Based on the above, the interpretivist approach could not be adopted in the current study.

In contrast, the **constructivist** paradigm is based on the premise that reality is constructed by human interaction. It is guided by the philosophy that active construction of knowledge is the result of the interaction between individuals and the real world. Constructivism criticises the assumption that a single methodology can not create knowledge and that various approaches

need to be applied to create knowledge (see Taylor & Medina, 2013). Similarly, the paradigm of **critical realism** views knowledge from a critical perspective; however, with a major focus on power imbalance in the community (see Creswell & Clark, 2011). This paradigm suggests that scientific research should be carried out with the aim of achieving a unique goal of social change (Taylor & Medina, 2013). In critical realism, "the researcher's role is one of advocate, a change agent, who argues for and leads the way towards a more equitable, fair and sustainable society" (Taylor & Medina, 2013:6). Both constructivism and criticalism are closely associated with pragmatism as it also criticises the assumption that only a single methodology can create knowledge and that various approaches need to be applied to create knowledge (see Awa Uduma & Sylva, 2015). The pragmatist approach does not commit to either positivism or interpretivism (see Creswell, 2007). The pragmatist approach argues that the philosophies of positivism and interpretivism should be ignored, as they view reality from both singular and multiple perspectives. The pragmatist paradigm relates to a system of thought that recognises more than one ultimate principle, and it is oriented towards which procedure works (Creswell & Clark, 2011:41). In other words, pragmatism uses multiple methods, but the use of these methods is guided by research problems. Pragmatism also values both objective and subjective knowledge to meet research objectives. Researchers who adopt a pragmatist position have the freedom to choose the research methods or strategies that best answer the research questions (Creswell, 2007).

The current study resided in the **pragmatic** world view. Its proposition was therefore that the world view arises out of actions, situations and consequences rather than antecedent conditions. Instead of focusing on methods, the current researcher emphasised the research problem and question, and used all approaches available to understand the problem. According to Bloomberg and Volpe (2019:102), there is concern with practical application and workable solutions to research problems. Instead of methods being important, the problem is primary. This then encourages researchers to position the study contextually, and they typically employ both quantitative and qualitative approaches in order to understand the problem. However, the methods should be combined in a creative way to understand the research problem completely.

In the current study, it was assumed that the knowledge that entrepreneurship contributes to economic development is widely known. However, the nature of entrepreneurship that contributes to economic development and the stages of economic development that can promote entrepreneurship in South Africa do not seem to be studied sufficiently. Despite the abundance

of studies that aim at promoting entrepreneurship in order to enhance economic development, the problems of unemployment, poverty and inequality still exist in South Africa. The pragmatic philosophy fitted well in the current study as the study focused on the problem rather than the method.

5.4 RESEARCH APPROACH

There are three approaches in research, namely the qualitative, quantitative and mixed-method approaches.

Du Plooy-Cilliers, Davis and Bezuidenhout (2016:14) indicate that a **qualitative** approach primarily explores the phenomena. This approach is used to gain an understanding of underlying reasons, opinions and motivations. It provides insight into the problem, and is used to uncover trends in thought and opinions, and to dig deeper into the problem. According to Daniel (2016:2), the qualitative research approach is an unstructured, exploratory research method that investigates highly complex phenomena that are difficult to investigate with the quantitative research approach. Qualitative research is used to comprehend human behaviour, experience, attitudes, intentions and motivations broadly, based on observation and interpretation. It aims to establish the way human objects think and feel. It is an investigation in which the researcher focuses mainly on the views of the respondents. De Vaus (2014:6) as well as Leedy and Ormrod (2014:26) concurs that the qualitative research approach provides sufficient data about the real life of individuals and situations.

A qualitative research approach has various benefits for the researcher investigating the problem. The reliance on the collection of non-numerical primary data, such as words and pictures, for instance, makes the qualitative approach appropriate for providing factual and descriptive information (Johnson & Christensen, 2012:29). The researcher easily understands the respondents' expressions and experiences even when they are insufficient or when there is no information about them (Leedy & Ormrod, 2014:141). Furthermore, a qualitative approach views human thought and behaviour in a social context, and covers a wide range of phenomena in order to understand and appreciate these thoroughly. Lichtman (2013:4) asserts that the close relationship between the researcher and the respondents in this approach makes it easy for the participant to contribute to shaping the research.

While there are benefits underlying the qualitative approach, Johnson and Christensen (2012:32) argue that qualitative researchers also view the social world as being dynamic and not static; hence, they limit their findings to the specific group of human objects being studied instead of generalising it (De Vaus, 2014). Creswell (2014:26) argues that it is difficult to prove that there is rigidity in the information that has been collected through the qualitative research approach, as the human mind tends to remember things in the way it wants to remember them. Atkins and Wallace (2012:18) also observed that qualitative researchers write fiction because they have no means of verifying their true statements, as this approach is characterised by feelings and personal reports, which cannot give accurate data when compared to using numerical figures. The use of qualitative information also makes it complex to simplify the findings and observations as, the researchers view phenomena and experiences as having many dimensions. As a result, their explanations are based on the interpretations of the researcher (Leedy & Ormrod, 2014:58).

In contrast, Ahmad *et al*. (2019:2829) define the **quantitative** research approach as one that depends on the methods of natural sciences, which generate numerical data and facts. This approach focuses on investigating cause-and-effect relationships between variables by deploying mathematical, computational and statistical methods. According to Maree (2013:145), the quantitative approach quantifies attitudes, opinions, behaviours and other defined variables, and generalises the results from a larger sample population. This type of research is also known as 'empirical research' as it can be measured accurately and precisely (see Atkins & Wallace (2012). Bryman (2001:20) agrees that the quantitative research approach is an investigation that emphasises numbers and figures in the collection and analysis of data to the extent that it can be seen as being scientific in nature.

The data collected through quantitative research approach can be divided into groups or ranks, or it can be measured in terms of units of measurement. It may also comprise graphs and tables of raw data, which make it easier for data analysis of the results. Daniel (2016:2) indicates that the quantitative research approach benefits the researcher because the use of statistical data as a tool saves time and resources that would have been wasted in describing the results. In the same vein, Connolly (2007:34) argues that in the quantitative research approach, data (numbers, percentages and measurable figures) can be computed by using the Statistical Package for the Social Sciences (SPSS), which saves much energy and resources. The use of scientific approaches for data collection and analysis makes generalisation possible with this type of

approach, as interaction made with one group can be generalised (Cohen, Manion & Morrison, 2011:243). This approach also has the benefit of replicability as it mainly depends on the testing of hypotheses and the researcher following clear guidelines and objectives (Lichtman, 2013:4). Creswell (2009:4) highlights that bias is highly reduced in the data-collection and data-analysis processes, as the researcher is not in direct contact with the respondents. The researcher collects the data either by telephone, via the internet or even by means of a questionnaire. The objectivity of the researcher is therefore not compromised, and this may guarantee respondents' anonymity.

Nonetheless, the quantitative research approach also has weaknesses. For instance, researcher detachment exists in this approach, which means the researcher is an 'observer' or an 'outside looking in', making it extremely difficult to do an in-depth study of the phenomena within its natural settings (Daniel, 2016:10). The researcher may find him- or herself in a situation where he or she neither understands the group or individuals working with him or her nor appreciates them (Johnson & Christensen, 2012:35). Bryman (2001:286) highlights that in the quantitative research approach, the respondents have insufficient opportunity to contribute to the study, as they only respond to standardised questions. This weakness is supported by Lichtman (2006:15) who found that the linear and non-flexible nature of a quantitative approach requires that the researcher adhere to certain procedures. For example, the researcher normally starts by designing the research questions and hypotheses, then conducts a review of literature, collects data, analyses the data, and summarises the result. Kumar (2014:14) asserts that a quantitative approach always leads to limited outcomes and the results cannot always represent the actual occurrence of a phenomena. As a result, Daniel (2016:12) concludes that these procedures make it difficult to investigate very complex problems that require non-linearity and flexibility, as the procedures do not encourage imaginative, critical and/or creative thinking.

The aforementioned literature clearly indicates that using one research approach to investigate the multi-faceted nature of the phenomena may yield unreliable and invalid results. A combination of the two approaches may therefore produce reliable and valid results. Mixed-method inquiry could help researchers gain a comprehensive understanding of the complex problem. This is supported by Fàbregues *et al*. (2020:47) who state that combining the strengths of these two research approaches can generate a whole that is greater than the sum of its parts. That is, the multi-faceted nature of the phenomena can be adequately addressed by mixing qualitative and quantitative research approaches. De Vos *et al*. (2016:435) concur that, by

mixing both quantitative and qualitative research data, the researcher gains in breadth and depth of understanding and corroboration, while offsetting the weaknesses inherent in using each approach by itself.

The current study therefore, adopted a **mixed-method** approach by combining the quantitative and qualitative research approaches. The study therefore deployed the embedded mixed-method approach (Saunders *et al.*, 2016:172), as data were collected using a questionnaire consisting of both closed and open-ended questions. The current study endeavoured to suggest a framework that would assist policymakers in designing policies that would optimise the contribution of entrepreneurship to the economic development of South Africa. By quantifying the qualitative data, the researcher was able to present the findings in quantitative format, which is useful for policymakers. This is consistent with the findings by Rahman (2016:105) who indicates that policymakers want to quantify the findings of the study for them to design policies rationally.

Many studies on the contribution of entrepreneurship to economic development use a quantitative approach, and hardly ever the qualitative approach.These studies suffered a methodological limitation.The findings of these studies deviate from the actual occurrence of a phenomena. In its endeavour to address methodological limitations, and to address a complex phenomenon, the current study adopted a mixed-method approach. This approach also fitted well with the pragmatic philosophy adopted in the current study, which focuses on the problem rather than on the method.

5.5 RESEARCH DESIGN

A research design is a plan on how to conduct a research (Creswell, 2009:35). Nieuwenhuis (2007:34) is of the opinion that a research design resembles a plan or strategy that indicates the proposed underlying philosophical assumptions and specifies the selection of respondents, the data-gathering approaches and analysis process. The research design is selected based on the researcher's philosophy, his or her research skills and research practices, which then influence the manner in which the data are collected. This is supported by Kothari (2004:85) who maintains that the research design is the conceptualisation of how the research should be conducted. This implies that the research design is the blueprint for the collection, measurement and analysis of data. In most cases, a research design allows the researcher to consolidate the

theoretical paradigm, the research approach, and the data-collection methods systematically (Denzin & Lincoln, 2011:39).

The current study adopted the mixed-method design by combining both quantitative and qualitative data sets. Schoonenboom and Johnson (2017:110) assert that the reason for mixed-method design, of consolidating qualitative and quantitative research components, is to improve the findings of the study, which then strengthens the contribution of the study to the body of knowledge. The rationale for choosing a mixed-method design is that a single data set is not always sufficient to address the research problem (Saunders *et al.*, 2016:172). There was therefore a need to have both qualitative and quantitative data to answer the research questions for the study; hence, improving the contribution by study to the body of knowledge. In the current study, quantitative data predominantly explained the extent of the relationship between entrepreneurship and economic development from a South African context. The qualitative data set predominantly explained the views of participants on the EPF, which could contribute to the economic development of South Africa. Both quantitative and qualitative data sets were used to design a robust framework for optimising the contribution of entrepreneurship to the economic development of South Africa.

The consolidation of the quantitative and qualitative data sets helped to provide contextual background and to understand the research problem better, which in turn allowed meanings and findings to be elaborated, enhanced, clarified, confirmed and illustrated. It also allowed the qualitative data set to explain the relationship between entrepreneurship and economic development emerging from the quantitative data set. The researcher believes that the findings of the study might have been affected by the method used; thus, the use of a single data set could not ascertain the nature of the effect between entrepreneurship and economic development from a South African context accurately. To cancel out this 'method defect', both quantitative and qualitative data set were used to lead to greater confidence in the conclusions of the study (see Saunders *et al.*, 2016:173).

5.6 POPULATION

The term 'population' refers to the entire group of people, events or things of interest that the researcher wishes to investigate and from which he or she wishes to make inferences, based on sample statistics (Sekaran & Bougie, 2012:262). The population for the current study comprised experts in the fields of entrepreneurship and economics. Developing a clear understanding of

the experts was therefore critically important in the study. The term 'expert' originated from the Latin word e*xpertus*, which means to try or to experience (Eyal, 2013:869). Grundmann (2017:26) adds that experts are located in professions and in science. They possess technical skills, such as manual and intellectual skills, and they are impartial, which makes their advice trustworthy. Hardos (2018:272) concurs that experts are individuals who possess a significant amount of correct information, know much about their field, and have the ability to generate new knowledge in their field of speciality. As a result, Grundmann (2017:45) suggests that scientific and professional knowledge is the standard of reference for experts. However, experts are not only known for the skills and experience they possess; they are also top performers in their field of speciality. For the purpose of this study, experts were therefore regarded as individuals with relevant knowledge, skills and experience gained from both the work environment and the learning institutions. These individuals could perform in their fields of speciality by generating new knowledge, and they also had the required relevant qualifications. In contrast, individuals with the relevant knowledge, skills and experience, but which had been obtained solely from the work environment, were not necessarily seen as experts. For the current study, they also needed to have the relevant qualifications in their fields of expertise in order for them to be recognised as experts.

The current study regarded the chief executive officer (CEO) and directors of companies listed on the Johannesburg Stock Exchange (JSE) as experts who therefore formed part of the population and sample of the study. The underlying motive was that, according to the Institute of Directors in Southern Africa (IoDSA) (2009:39), one of the requirements for a company to be listed on the JSE is that its CEO or director must have academic qualifications, technical expertise and relevant industry knowledge. This individual must also have integrity and courage to bring judgement to bear on the business of the company. In cases where the director lacks experience, detailed induction and formal mentoring and support programmes should be implemented (see IoDSA, 2009). The director should therefore have expertise in entrepreneurship before the company is listed on JSE. This is in line with the study conducted by Kemp and Viviers (2018:10), which found that most directors and CEOs of listed companies had seven years' experience running businesses and at least one tertiary qualification in entrepreneurship or related fields. Such individuals therefore met the inclusion criteria for the study by Kemp and Viviers because they had expertise in entrepreneurship. They could therefore make meaningful contributions to the body of knowledge in terms of the correlation between entrepreneurship and economic development in South Africa. According to the JSE

(2019) report, there were 358 listed companies at the time, and these companies formed part of the sampling frame of the current study.

As the current study focused on investigating the correlation between entrepreneurship and economic development, the researcher found it paramount to utilise experts in economics as part of the population and sample of the study. The researcher believed that, by combining experts in both entrepreneurship and economics, the validity and reliability of the study would be enhanced, taking into account the focus of the study. The study considered economists with doctoral degrees in Economics as part of the population of the study. Their probability of contributing scientific knowledge for developing a framework on the correlation between entrepreneurship and economic development was higher than in the case of those without doctoral degrees. Newlyn (2015:113) asserts that individuals with doctoral degrees are regarded as experts in their specific field of knowledge, as they had undergone specialised training to gain that status. According to Stock and Siegfried (2014:2), the primary sector of employment for economists with doctoral degrees is academia. As a result, academics with doctoral degrees in Economics who were employed by public universities at the time met the inclusive criteria for participants in the current study.

As Gauteng was identified to be used as the cluster for the current study, all the Economics experts employed by public universities in Gauteng formed part of the population for the current study. Table 5.1 indicates the names of public universities in Gauteng, and the number of Economics experts employed by each university:

Table 5.1: Number of Economics experts in Gauteng public universities

Name of the university	**Number of Economics experts**
Tshwane University of Technology	14
University of Johannesburg	20
University of South Africa	17
University of Pretoria	23
University of Witwatersrand	31
Vaal University of Technology	6
Total	**111**

Source: Data retrieved from the databases of Gauteng public universities (2021)

5.7 SAMPLE AND SAMPLING TECHNIQUES

A sample is a subset of a population comprising some members selected from the population (Sekaran & Bougie, 2012:262). By studying the sample, the researcher should be able to draw conclusions that are generalisable to the population of interest. According to De Vos *et al*. (2016:223), one can only generalise the findings of the study when one can assume that what one observed in the sample of subjects would also be observed in any other group of subjects from the population. Cluster sampling was adopted to determine the sample of the study, as recommended by Saunders *et al*. (2016). According to Leedy and Ormrod (2015:162), where a population of interest is spread over a large geographical area, where it is not feasible for the study to cover the entire area, the researcher can subdivide the area into smaller areas, or *clusters*. These clusters should be as similar to one another as possible. Saunders *et al*. (2016:293) concur that cluster sampling can overcome problems associated with a geographically dispersed population or where it is expensive and time-consuming to conduct a study in a dispersed population. The fact that JSE-listed companies and experts in economics are spread over the entire South Africa makes it impossible and impractical to conduct the study on the entire South Africa. Cluster sampling therefore fitted the current study well. These clusters were arranged according to provinces. The information on the JSE-listed companies and the compiled list of Economics experts in Gauteng were readily available to the researcher as indicated in Table 5.2, which summarises the profile of the population and the sample of the current study.

Table 5.2: The profile of population and the sample of the study

Target population categories	Population size	Sample size	Percentage of the total population	Sampling approach
Entrepreneurship experts	358	239	(358/469*100) = 76**%**	Cluster sampling
Economics experts	111	111	(111/469*100) = 24**%**	Census
Total	**469**	**350**	**100%**	

Source: Data retrieved from the databases of the JSE (2019) and Gauteng universities (2021)

Of 358 listed companies (JSE, 2019), 239 companies had offices in Gauteng at the time, and were therefore included in the cluster for the current study. As the list of Economics experts was of a manageable size, all experts in this category (111) were included as respondents of the study (census). According to Saunders *et al.* (2016:274), a census approach involves a

collection of data from every possible member of the population. Saunders *et al.* (2016:247) contend that it is possible to collect data from the entire population if it is of a manageable size.

5.8 PILOT STUDY

A pilot study was conducted before the full-scale data-collection exercise. A pilot study is the "dress rehearsal" for the main study (De Vos *et al.,* 2016:73). Therefore, it is a 'mini-version' of the main study. A pilot study is mainly used for evaluating the feasibility of the study and for testing the measuring instrument (De Vos *et al.*, 2016:73). Piloting the questionnaire assists in identifying weaknesses in the questionnaire, for instance, the sequence of questions, unclear instructions given to respondents, and the use of incorrect scales and question format (Gray, 2013:373). In a pilot study, the researcher tests a small number of respondents of the actual population from which the sample was drawn. However, the pilot study respondents do not form part of the actual sample (Du Plooy-Cilliers *et al.,* 2016:257). Table 5.3 indicates the calculation of the size of the pilot study sample:

Table 5.3: Calculation of the size of pilot study sample

Types of respondents	Percentage of the total population	Calculation of the size of pilot study sample
Entrepreneurship experts	76%	(0.76*10) =7
Economics experts	24%	(0.24*10) =3
TOTAL	**100%**	**10**

Source: Researcher's own compilation (2019)

As the respondents consisted of both entrepreneurship and economics experts, Table 5.3 indicates that a sample of ten respondents, of which seven respondents were etrepreneurship experts and three respondents were economics experts, were requested to participate in the pilot study. The number of respondents for each category of the population was proportionally determined to enhance the validity of their representation in the pilot study. Saunders *et al.* (2016:394) recommend that a minimum of ten respondents is sufficient to test the understanding of respondents in answering the questions in the questionnaire and to determine whether the respondents can follow all instructions correctly. In order to ensure a representative sample for the pilot study, the percentages of each category of the population were used to calculate the number of respondents for the pilot study. The results of the pilot study did not show any

weaknesses in relation to the design of the questionnaire, and the questions were not ambiguous. The pilot study was completed in five days.

The main data-collection exercise took five months. Due to COVID-19 protocols, electronic collection of data was employed. An electronic link of the questionnaire was emailed by the researcher and the research assistant to 350 identified respondents. Of these, 273 questionnaires were successfully completed, which represented a 78% response rate. The study yielded Cronbach's alpha values ranging from 0.469 to 0.978 for the entrepreneurship and economic development variables of the study respectively. This means that all the data collected were considered reliable. The researcher used the telephone numbers and email addresses supplied by participants to follow up on outstanding responses.

5.9 DATA-COLLECTION INSTRUMENTS AND PROCEDURES

Various instruments, such as face-to-face interviews, telephonic interviews and questionnaires, can be used for collecting data in a study (Maree, 2013:55). In the current study, a questionnaire was used as data-collection instrument for primary data. According to Gray (2013:352), a questionnaire is a research instrument through which the respondents are asked to answer the same set of questions in a predetermined order. A questionnaire has been proved to be appropriate where the researcher requires an analytical approach exploring relationships between variables. Based on this information, a validated structured questionnaire was used in the current study for the collection of data, as a properly constructed questionnaire may yield a high measurement of reliability and validity (Mouton, 2005:123). Besides, Creswell (2013:85) and Gray (2013:352) reaffirm that the popularity of a questionnaire as an instrument for data collection is based on some of its inherent advantages, namely that questionnaires can be sent to a large number of respondents at a relatively low cost, and questionnaires might have a high response rate. A questionnaire fitted well in this study because questionnaires were sent to a large number of experts in the fields of Entrepreneurship and Economics in order to understand the phenomena in question. In order to cater for both quantitative and qualitative aspects of the study, an embedded questionnaire – which comprising closed-ended questions that catered for the quantitative part of the study and open-ended questions that addressed the qualitative part of the study was used.

5.10 DATA ANALYSIS

Data analysis is the process of systematically searching and arranging data and information accumulated by the researcher so that he or she can obtain the findings or results of the study (Remler & Van Ryzin, 2011). It is a dynamic and creative process that helps the researcher to gain an in-depth understanding of the phenomenon under study, by refining data and interpreting it rationally (Masuku, 2011). Cooper and Schindler (2009:93) concur that data analysis is the process of summarising and reducing the accumulated data to a manageable size, looking for patterns, as well as applying statistical techniques. The current study used the mixed-method research, which involved combining quantitative and qualitative research techniques, methods, approaches or concepts in a single study (Onwuegbuzie & Combs, 2011:2). Its data-analysis process also followed the same pattern. The study adopted mixed analysis, which involved the use of both quantitative and qualitative analytical techniques within the same framework. This choice was based on the mixed-method paradigms (pragmatism) which the current study adopted to meet the rationale of triangulation, complementarity, development, initiation and expansion of the phenomena under study, as recommended by Saunders *et al.* (2016). According to Onwuegbuzie and Combs (2011:8), mixed analysis involve the analysis of one or both data types concurrently with or without chronological order, or sequentially in which quantitative analysis phase precedes the qualitative phase or vice versa. Onwuegbuzie and Combs (2011:2) asserts that mixed analysis can be conducted by analysing the quantitative data first, followed by the findings from the quantitative analysis phase to inform the subsequent phase or phases (Onwuegbuzie & Combs, 2011:2). In the current study, sequential mixed analysis was adopted by analysing quantitative data first, then analysing qualitative data, after which the results of these two types of data analysis were triangulated. The researcher decided to start with quantitative data analysis as previous studies on the phenomena were predominantly quantitative. Following this route, the current researcher was able to validate existing studies first and then to venture into unknown territory.

The quantitative data analysis of the current study involved descriptive, factor analysis, as well as correlational and inferential statistics. Bless and Higson-Smith (2013:264) describe descriptive statistics as procedures for condensing information about a set of measures. Ferreira (2012:196) concurs that descriptive statistics is a process of statistical analysis of numerical data, discrete or continuous, that provides an analysis on the centring, spread and normality of

data of the study. By using descriptive statistics, the researcher was able to understand the distribution of the data to determine the extent to which the data were a true reflection of the target population (Wegner, 2007). This was achieved by examining the mean, standard deviation (SD), skewness and kurtosis coefficients. The correlational and inferential statistics (multivariate analyses) were used to understand the correlation between and among the variables (entrepreneurship and economic development dimensions) of the study, as suggested by Ferreira (2012). Schober and Boer (2018:1763) describe correlation analysis as a measure of an association between variables. In correlated data, the change in the size of one variable is related to a change in the size of another variable, and this correlation can be positive or negative. The data were skewed for some of the variables of the study; hence, non-parametric Spearman's rho correlation analysis was conducted in order to determine whether there was a significant correlation between entrepreneurship dimensions and economic development dimensions, as recommended by Ferreira (2012). This statistical analysis helped the researcher to gain an in-depth understanding of the significant correlation between entrepreneurship and economic development in South Africa.

While correlational analysis measures the correlation between variables, inferential statistics draw inferences or conclusions on the variables described by descriptive statistics. These inferences are subject to a predefined limit or error or confidence interval (Sutanapong & Louangrath, 2015:22). Inferential (or multivariate) analysis was conducted to identify statistically significant relationships among the variables of the study, and to determine if there were significant differences among the demographic variables. The inferential (multivariate) statistics adopted in the study comprised approaches such as the statistic Wilks' lambda, the Mann–Whitney test, the Kruskal–Wallis H test and multivariate analysis of covariance (MANCOVA). Entrepreneurship and economic development dimensions of the study had more than two sub-dimensions. As a result, the statistic Wilks' lambda as part of MANCOVA was used to determine whether the entrepreneurship dimensions could predict economic development dimensions (Kanyama, 2011:7). In addition, the Mann–Whitney test was conducted to determine whether the entrepreneurship and economic dimensions of the study demonstrated a difference according to age and gender. As the Mann–Whitney test is only applicable for variables of two categories, the Kruskal–Wallis H test (non-parametric test) was performed for demographic variables with more than two categories (see Babaheidari & De Geer, 2017:28).

The phenomenon under study, i.e. the correlation between entrepreneurship and economic development was complex; therefore, validation of the results from the multivariate analysis tests was required. MANCOVA was therefore conducted on the independent variables (entrepreneurship) and the dependent variables (economic development) of the study. MANCOVA allowed the researcher to examine more than one dependent variable statistically at once, or the simultaneous effects of the independent variables on more than one dependent variable (Pope, 2010:47). The researcher was therefore able to identify the entrepreneurship and economic development dimensions that were significant to be included in the framework (for optimising the contribution of entrepreneurship to economic development) as developed by the current study.

The systematic and rigorous preparation and analysis of qualitative data is usually time-consuming and labour-intensive (Zamawe, 2015:13). To lessen this burden, the qualitative data of the study were coded and analysed using the NVivo10 software package (i.e. computer-assisted qualitative data-analysis software or CAQDAS). Thematic analysis was conducted to analyse the qualitative data. Thematic analysis is the process of identifying patterns or themes within qualitative data (Maguire & Delahunt, 2017:3352). Clarke and Braun (2013) concur that the focus of thematic analysis is to identify themes and patterns in the data that are crucial for addressing the research problem. This implies that thematic analysis is more than only summarising the data; it also provides data interpretation and makes sense out of it. The researcher adopted thematic analysis, as it is a flexible approach, which is not tied to a specific epistemological or theoretical perspective (Clarke & Braun, 2013). This makes this analysis fit within the pragmatism philosophical view, which the current study adopted.

The thematic analysis was conducted to reduce, organise and give meaning to the data collected in a way that communicated the most crucial information pertaining to the optimisation of the EPF and its implementation in South Africa. The researcher conducted thematic analysis by following the six steps suggested by Braun and Clarke (2006:12) and Maguire and Delahunt (2017:3352):

- familiarising oneself with entire body of data before going further by making useful notes and writing down the early impressions;
- organising data in a meaningful and systematic way by using open coding where codes are modified and developed through the coding process;

- examining the codes and choosing those that are clearly fitted together into a theme that addresses elements for optimising the EPF and its implementation in South Africa;
- reviewing, modifying and developing the preliminary themes by gathering data that are relevant to each theme;
- conducting a final refinement of the identified themes by explaining the essence of what each of them is about, and their interaction and relation to the main theme; and
- embarking on writing up the final research report by presenting the qualitative data in a meaningful format.

5.11 VALIDITY OF THE STUDY

The validity of a study explains how well the collected data cover the actual area of investigation (Taherdoost, 2016:29). According to Gray (2013:375), validity of the study means that the study should measure what it is intended to measure. Taherdoost (2016:29) identifies four main types of validity, namely face validity, content validity, construct validity and criterion validity. **Face validity** evaluates the general appearance of the measuring instrument in terms of feasibility, readability, consistency of style and formatting, and the clarity of the language used. **Content validity** is clarified by Taherdoost (2016:29) as "the degree to which items in an instrument reflect the content universe to which the instrument will be generalized". **Construct validity** is described by Gray (2013:375) as the manner in which a concept, idea or behaviour is translated or transformed into a functioning and operating reality, the operationalisation. Gray (2013:375) defines **criterion validity** as the degree to which a measure is related to an outcome. It indicates how well one measure predicts an outcome for another measure. A questionnaire has this type of validity if it is relevant for predicting performance or behaviour in another condition (past, present or future) (Taherdoost, 2016).

To ensure the validity of the current study, a comprehensive review of key literature was conducted. This assisted the researcher to determine the correlation between entrepreneurship and economic development, and key concepts of this correlation were integrated into the instrument. The questionnaire was subjected to assessment and evaluation by the research supervisor. In addition, the questionnaire was piloted in order to validate the questions and to ensure that it measured what it was intended to measure. Furthermore, the researcher made use

of a statistician to test the results of the pilot study for consistency before the questionnaire was sent out to participants for self-administration.

5.12 RELIABILITY OF THE STUDY

Sürücü and Maslakçı (2020:2694) explain reliability as the degree to which measurements can be repeated when different people conduct the measurement on different occasions, under different situations, supposedly with alternative instruments, which measure the same construct or skill. Taherdoost (2016:33) describes reliability as "the extent to which a measurement of a phenomenon provides stable and consistent result". For example, a scale or test is said to be reliable if repeat measurements made by it under constant conditions will give the same result. In addition, a scale is said to have high internal consistency reliability if the items of a scale "hang together" and "measure the same construct" (Taherdoost, 2016:33). Gray (2013:375) pinpoints reliability as an indication of the consistency of the results between two or more studies that measure the same variables. Cooper and Schindler (2009:374) indicate that the Cronbach's alpha can be used to test for reliability. Cronbach's alpha measures the extent to which the instrument items reflect the same underlying constructs (Cooper & Schindler, 2009:374). Taherdoost (2016:33) explains that Cronbach's alpha coefficient is the most commonly used measure of internal consistency reliability in quantitative studies. No absolute rules exist for internal consistencies. However, most scholars agree on a minimum internal consistency coefficient of .0.70 (see Cooper and Schindler, 2009; Ghazali, 2016; Taherdoost, 2016).

Taherdoost (2016:33) indicates that validity and reliability complement each other; thus, although reliability is relevant for a study, it is not adequate unless combined with validity. In other words, for a test to be reliable, it also needs to be valid. However, there is a relationship between validity and reliability. Ghazali (2016:150) states that a measuring instrument can be reliable but not valid; however, it cannot be valid if it is not also reliable. This implies that, if a measuring instrument is valid, it must be reliable. In general, checking for validity of a measuring instrument is more difficult than checking for reliability because validity is measuring data related to knowledge whereas reliability only concerns the consistency of scores (see Taherdoost, 2016). The questionnaire for this study was tested for reliability using Cronbach's alpha test before using it in the main part of the study. The study yielded Cronbach's

alpha values ranging from 0,469 to 0.978 for the variables entrepreneurship and economic development in the current study.

5.13 CREDIBILITY AND TRUSTWORTHINESS

Trustworthiness is a concept associated with a qualitative study. It is defined as the degree of confidence in data and interpretation, as well as the approaches used to ensure the quality of a study (Elo *et al.*, 2014:6). Amankwaa (2016:121) asserts that the study that is perceived as having low or with no value is also perceived as being worthless, unreliable, or invalid. Such study is said to lack trustworthiness. This means findings are not worth noting or paying attention to, because they are unreliable; hence, trustworthiness in qualitative studies is paramount. Korstjens and Moser (2018:120) indicate that several definitions and criteria of trustworthiness exist, but the best-known criteria are credibility, transferability, dependability and confirmability.

Credibility is the confidence the researcher has in the truth of the research findings. The criterion of credibility refers to the research findings representing plausible information drawn from the participants' original data and being a correct interpretation of the participants' original views. Credibility links the findings of the study with reality in order to demonstrate the truth of such findings (Kennedy-Clark, 2012:5). To ensure credibility in the current study, the researcher identified those characteristics and elements of the responses that were most relevant to determine the significant correlation between entrepreneurship and economic development in South Africa, and then focused on their details. The researcher also focused on data triangulation, as empirical data was collected both quantitatively and qualitatively and the results were triangulated. This provided insight into the consistency of the quantitative and qualitative results of the study. Data triangulation was conducted in the study by collecting data from both entrepreneurship and economic development experts and comparing their responses. Furthermore, credibility was ensured by using member checking, i.e. feedback regarding the interpretations and conclusions drawn from the responses was provided to the participants for their confirmation. Korstjens and Moser (2018:120) argue that confirmation of data by the respondents strengthens the data, especially because the researcher and the participants look at the data with different eyes.

Transferability in qualitative research is synonymous with generalisability, or external validity, in quantitative research (see Amankwaa, 2016). Transferability is established by

providing the evidence that the findings of the study could be applicable to other contexts, situations, times and populations (Elo *et al.*, 2014:6). In the current study, transferability was ensured by carefully selecting the respondents of the study. As the research endeavoured to understand the correlation between entrepreneurship and economic development, experts in the fields of Entrepreneurship and Economics were identified for obtaining the best transferability of research findings. The researcher enhanced transferability by providing a thorough description of the research context and the assumptions that were central to the study. Amankwaa (2016:122) notes that, by describing a phenomenon in sufficient detail one could begin to evaluate the extent to which the conclusions drawn were transferable to other times, settings, situations and people.

According to Korstjens and Moser (2018:120), the idea of **dependability** focuses on the need for the researcher to consider the ever-changing context within which the study was undertaken. The researcher is responsible for describing the changes that occur in the setting and how these changes are affected by the way the researcher approached the study. In this study, dependability was ensured by transparently describing the research steps taken from the start of the research study through to the development and reporting of the findings. Records of the research path were kept throughout the study. Dependability was also ensured by constantly interacting with the research supervisor who could evaluate the accuracy and evaluate whether or not the findings, interpretations and conclusions were supported by the data. This is in agreement with Lincoln and Guba (1985) who indicate that dependability can be established by conducting an inquiry audit where a researcher who is not involved in the research process examines both the process and the product of the study.

Qualitative study assumes that each researcher has a different perspective to the study (see Saunders *et al.*, 2016). It is therefore critical that others confirm the study results. **Confirmability** refers to the extent to which the results can be confirmed or corroborated by others (Korstjens & Moser, 2018:120). Kennedy-Clark (2012:5) concurs that confirmability ensures that the findings of the study are the result of the ideas and experiences of the participants rather than the characteristics and preferences of the researcher. To ensure confirmability of the current study, the researcher documented the procedures for checking and rechecking the data throughout the study, as recommended by Korstjens and Moser (2018). The researcher also conducted an active search for and described the contradiction between the findings of the current study and prior studies on similar phenomena. Thereafter, the researcher

examined the data-collection and analysis procedures critically and came to conclusions about the potential for bias or distortion.

5.14 ETHICAL CONSIDERATIONS

Because the current study involved human beings, the researcher obtained permission from the Unisa Research Ethics Review Committee (URERC) to conduct the study prior to commencement of the research process (see Creswell, 2013:116). The ethical clearance certificate issued to the researcher from Unisa, was used for permission to collect data from academics, in their individual capacity, from other universities such as TUT, UJ, UP, Wits and VUT, who were identified as participants of the current study.

General agreement about what is proper and improper in a study was in place, and throughout the research process, the researcher adhered to the general ethics guidelines (see Bless & Higson-Smith, 2013:31; Van Zyl, 2013:137) and to the ethical guidelines provided by URERC.

The researcher explained to the respondents that participation was voluntary, and that they could withdraw from the study at any time without any penalties. Before distributing the questionnaires, the researcher obtained verbal informed consent from the respondents (Creswell, 2013:28). The researcher also ensured that participants were not exposed to any undue physical or psychological harm by striving to be honest and respectful towards all respondents (Gray, 2013:72).

The researcher and the participants had a clear understanding in respect of the confidentiality of the results of the study. All the information and responses obtained during the study have been kept private and anonymous in order to protect the identities of the participants, and will be kept for a period of five years after which it will be permanently destroyed (see Maree, 2013:124).

5.15 CHAPTER SUMMARY

The methodology adopted by the study was discussed in this chapter under various sub-headings, which included the research paradigm that directed the focus of the study. The paradigm followed was the pragmatic world view whose strengths and justification for the choice of the paradigm were discussed. Various research approaches, such as qualitative, quantitative and mixed methods, were considered and their features and deficiencies explained.

The research design chosen was the embedded mixed-method design, which combined the quantitative and qualitative data sets. The rationale for choosing this design was explained.

The chapter also discussed the population, sample and sampling procedures followed. The sampling procedures were clearly defined, and the sampling techniques deployed were explained qualifying their choice for the study. Furthermore, the pilot study information and the rationale for piloting the data-collection instrument were discussed. Various data-collection instruments, which included face-to-face interviews, telephonic interviews and questionnaires, were identified and the justification for selecting a questionnaire as a data-collection instrument was provided. The data analysis, validity, reliability and ethical considerations of the study were also considered in the chapter.

Chapter Six focuses on the presentation and analysis of data.

CHAPTER SIX

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

6.1 INTRODUCTION

Chapter Six provides the data presentation, analysis and discussion of the findings of the study. The chapter is structured as follows: section 6.2 focuses on the demographic descriptive analysis. The validity of the measuring instrument is discussed in section 6.3. Section 6.4 provides the results of the analysis of the nature of entrepreneurship that contributes significantly to the economic development of South Africa. The analysis of the stage of economic development that significantly promotes entrepreneurship in South Africa is provided in section 6.5. Section 6.6 discusses the extent to which entrepreneurship contributes significantly to economic development of South Africa. Section 6.7 presents the results of the analysis of the entrepreneurial framework conditions (EFCs) that contribute to the economic development of South Africa. The descriptive analysis and descriptive statistical analysis of the study are provided in sections 6.8 and 6.9 respectively. Section 6.10 presents the correlation statistics related to the study. The inferential (multivariate) statistics of the study are presented in section 6.11. Presentation and discussion of qualitative research findings follow in section 6.12, section 6.13 presents the triangulation and integration of quantitative and qualitative results, and section 6.14 summarises the findings of the study.

The first part of the chapter summarises the quantitative data of the study, which was the first step in the sequential mixed analysis. The demographic descriptive analysis and the distribution frequency in terms of respondents' opinions regarding the correlation of entrepreneurship to economic development are presented. The chapter also presents the validity of the measuring instrument to ascertain its fitness for the study. In order to determine the distribution of the data, descriptive statistics that indicate the mean, SD, skewness and kurtosis coefficients are presented in this chapter. Spearman's rho correlation analysis, which assisted the researcher to understand whether there is a significant correlation between entrepreneurship dimensions and economic development dimensions, is also presented.

The first part presents the inferential (multivariate) analysis, which indicates the statistically significant relationships among the variables of the study. The inferential analysis comprised:

- the Mann–Whitney test, which was used to assess whether the entrepreneurship and economic development dimensions of the study demonstrated a significant difference according to age and gender;
- the Kruskal–Wallis H test, which was used to determine whether the entrepreneurship and economic development dimensions of the study demonstrated a significant difference in academic education and the sector within which the company or institution fell. The test also demonstrated whether there was a significant difference in academic, professional or working experience; and
- the statistic Wilks' lambda, which was used to determine the significant effect of independent variables on dependent variables.

The second part of the chapter summarises the qualitative data analysis, which comprised the second approach in the sequential mixed analysis. The qualitative data analysis indicated the views of participants regarding strategies for optimising the entrepreneurship policy framework (EPF) and its implementation in South Africa. The results of this section corroborated the quantitative findings that addressed the sixth secondary objective: to develop a framework for optimising the significant contribution of entrepreneurship to the economic development of South Africa. The NVivo application software was employed to analyse the qualitative data of the study, using thematic analysis to ensure that meaningful information was drawn from the qualitative data collected. Where applicable, the literature review and quantitative findings were used to substantiate the empirical qualitative findings of this study.

6.2 PRESENTATION AND DISCUSSION OF QUANTITATIVE FINDINGS

This section presents the quantitative data and the results of the quantitative analyses. The chapter consisted of the response rate of the study, the demographic descriptive analysis, validity of the measuring instrument, the descriptive statistical analysis, correlation statistical analysis and inferential statistical analysis.

6.2.1 Response rate

The study used the experts in Entrepreneurship and Economics from which to collect data for the study. The CEOs and directors of companies listed on the JSE were regarded as experts in Entrepreneurship and Economics. They therefore formed part of the population and sample of the study. According to the JSE (2019) Report, there were 358 listed companies at the time and

these companies formed part of the sampling frame. In addition, academics with doctoral degrees in Economics who were employed in public universities in Gauteng also formed part of the population and sample of the study. The researcher found information regarding academics with doctoral degrees in Economics in the databases of universities, which was readily available. These universities are Tshwane University of Technology (TUT), University of Johannesburg (UJ), University of South Africa (UNISA), University of Pretoria (UP), University of Witwatersrand (WITS) and Vaal University of Technology (VUT).

The population, sample sizes, number of respondents and response rates are shown in Table 6.1.

Table 6.1: Population, sample sizes, number of respondents and response rate of the study

Target population categories	Population size	Sample size	Number of respondents	Response rate
Entrepreneurship experts	358	239	205	85%
Economics experts	111	111	68	61%
Total	**469**	**350**	**273**	**78%**

Source: Researcher's own compilation

Table 6.1 indicates the population, sample sizes, number of respondents and response rate of the study. The researcher used all 111 Economics experts as part of the respondents in the study as the size was manageable (census). Out of 358 entrepreneurship experts, the researcher used 239 Entrepreneurship experts working in JSE-registered companies in Gauteng (cluster sampling). Table 6.1 shows that out of 350 questionnaires, 273 (78%) were retrieved. The sample size of 350 respondents and the overall response rate of 78% were adequate for the study, and allowed the researcher to make deductions on the significant correlation between entrepreneurship and economic development in South Africa. It also allowed the researcher to develop a framework for optimising the contribution of entrepreneurship to the economic development of South Africa.

6.2.2 Demographic descriptive analysis

The sub-sections below discuss the demographic descriptive analysis of the study.

6.2.2.1 Biographical data of respondents

The researcher firstly gathered the biographical data of the respondents, namely age, gender, educational level and sector in which the respondent was working. The demographic information was used to get insight into the characteristics of the respondents. The examination of academic and professional qualifications of participants assisted in ascertaining the ability of the respondents to provide relevant information on the phenomena under study.

6.2.2.2 Distribution of respondents according to age group

Table 6.2 presents the distribution of respondents according to their age group.

Table 6.2: Distribution of respondents according to the age group (N =273)

Please indicate your age group		
	Frequency	**Percentage (%)**
30–40 years	92	33.6
41–50 years	175	63.9
Above 50 years	6	2.5
Total	**273**	**100**

Source: Researcher's own compilation

The largest age group of respondents were those between 41 and 50 years old (63.9%), while respondents aged above 50 years formed the smallest age group (2.5%). The respondents between 41 and 50 years fell within the age group for the working population in South Africa. This implies that the framework of the study was developed mainly based on the perceptions of the participating entrepreneurship and economic development experts; thus, improving the validity of the framework.

6.2.2.3 Gender composition of the respondents

The gender composition of the respondents is presented in Table 6.3.

Table 6.3: Gender composition of the respondents (N =273)

Please indicate your gender		
	Frequency	**Percentage %**
Male	159	58.0
Female	114	42.0
Total	**273**	**100**

Source: Researcher's own compilation

Results in Table 6.3 show that males dominated in terms of participation rate in this study (58%) while females formed 42%. Acquiring information from both genders was relevant for this study to gain the perceptions from both genders for developing the framework for optimisation of the contribution of entrepreneurship to the economic development of South Africa.

6.2.2.4 Educational qualifications of the respondents

Table 6.4 presents the educational qualifications of the respondents.

Table 6.4: Educational qualifications of the respondents (N = 273)

Please indicate your highest level of academic education		
	Frequency	**Percentage %**
Doctoral degree	99	36.1
Master's degree	97	35.4
Honours degree	69	25.2
Bachelor's degree	6	2.2
Diploma	1	.8
No formal education	1	.7
Total	**273**	**100**

Source: Researcher's own compilation

As shown in Table 6.4, the majority of the respondents had acquired doctoral degrees (36.1%) and only 0.7% of the total number of the respondents had no formal education. This suggests that the respondents had the relevant knowledge and skills regarding entrepreneurship and economic development.

6.2.2.5 University affiliation of the respondents (N =52)

Table 6.5 indicates the university affiliations of the participating academics.

Table 6.5: The university affiliations of the respondents

If you are an academic, please indicate the university that you are currently affiliated to		
	Frequency	**Percentage %**
Tshwane University of Technology (TUT)	8	15.4
University of Johannesburg (UJ)	8	15.4
University of South Africa (UNISA)	8	15.4
University of Pretoria (UP)	12	23.1
University of Witwatersrand (Wits)	15	28.8
Vaal University of Technology (VUT)	1	1.9
Total	**52**	**100**

Source: Researcher's own compilation

Table 6.5 indicates that the majority of the respondents were affiliated with Wits (28.8%), while fewer respondents were affiliated with VUT (1.9%). TUT, UJ and Unisa had 15.4% affiliation each, whereas UP had 23.1% affiliation.

6.2.2.6 Departmental distribution of participating academics

The departments where the participating academics worked at the time are shown in Table 6.6.

Table 6.6: Departmental distribution of participating academics (N =62)

If you are an academic, please indicate your department		
	Frequency	**Percentage %**
Economics	46	74.2
Finance	3	4.8
Management	4	6.5
Information Technology	2	3.2
Humanities	5	8.1
Health Sciences	2	3.2
Total	**62**	**100**

Source: Researcher's own compilation

It is shown in Table 6.6 that the majority of participating academics were working in the department of Economics (74.2%). This suggests that most of the respondents could be expected to be knowledgeable in terms of economic development, and that their contributions to the framework for the optimisation of the contribution of entrepreneurship to the economic development of South Africa had to be significantly meaningful.

6.2.2.7 Sectoral distribution of participating companies and institutions

Table 6.7 presents the sectors within which the participating companies and institutions fell.

Table 6.7: Sectoral distribution of participating companies and institutions (N =219)

Please indicate the sector in which your company or institution falls		
	Frequency	**Percentage %**
Academic	59	26.9
Construction	44	20.1
Manufacturing	55	25.1
Mining services	20	9.1
Agriculture	19	8.7
Wholesale and retail	22	10.0
Total	**219**	**100**

Source: Researcher's own compilation

As shown in Table 6.7, there was a variation in the distribution between the academic (26.9%), construction (20.1%) and manufacturing sectors (25.1). The combination of academic and entrepreneurial sectors was adequate in terms of understanding the relationship between entrepreneurship and economic development. This shows that the study framework was developed based on the adequate consolidation of entrepreneurial and economic development knowledge.

6.2.2.8 Distribution of participating academics

Table 6.8 shows the titles of respondents drawn from the departments of Economics at the universities participating in the study.

Table 6.8: Distribution of titles of participating academics (N =60)

If you are an academic, please indicate your current title		
	Frequency	**Percentage %**
Associate professor	16	26.7
Doctor	44	73.3
Total	**60**	**100**

Source: Researcher's own compilation

As indicated in Table 6.8, participating academic respondents were either professors (26.7%) or had a doctorate (73.3%) in Economics. This shows that participating academics could be expected to have expertise and specialised knowledge in economic development; hence, the validity of their contributions.

6.2.2.9 Position distribution of participating academics

Table 6.9 presents the positions of respondents drawn from the departments of Economics of the universities participating in this study.

Table 6.9: Position distribution of participating academics (N =60)

If you are an academic, please indicate your current position		
	Frequency	**Percentage %**
Senior lecturer	45	75.0
Lecturer	4	6.7
Senior researcher	10	16.7
Researcher	1	1.6
Total	**60**	**100**

Source: Researcher's own compilation

Table 6.9 gives information about the positions held by participating academics, namely senior lecturer (75%), lecturer (6.7%), senior researcher (16.7%), and researcher (1.6%) in Economics. This shows that participating academics could be expected to have practical knowledge of and be well versed in the trends of economic development.

6.2.2.10 Position distribution of participating entrepreneurial companies

The position distribution of respondents drawn from entrepreneurial companies is indicated in Table 6.10.

Table 6.10: Position distribution of participating entrepreneurial companies (N =206)

If you are working in the industry, please indicate your current position		
	Frequency	**Percentage %**
Chief executive officer (CEO)	115	55.8
Director	81	39.3
Manager	10	4.9
Total	**206**	**100**

Source: Researcher's own compilation

According to Table 6.10, entrepreneurial respondents held the positions of CEO (55.8%), director (39.3%) and manager (4.9%). This shows that entrepreneurial respondents could be expected to have practical knowledge of and expertise in entrepreneurship, and that they should have been able to make meaningful contributions.

6.2.2.11 Experience of respondents (academic, professional or working experience)

Table 6.11 indicates years of experience for the respondents referring to academic, professional and working experience.

Table 6.11: Experience of respondents (academic, professional or working experience) (N = 271)

Please indicate your experience (academic, professional or working experience)		
	Frequency	**Percentage %**
Academic (1–5 years)	1	.4
Academic (6–10 years)	7	2.6
Academic (more than 10 years)	38	14.0
Industry (1–5 years)	10	3.7
Industry (6–10 years)	100	36.9
Industry (more than 10 years)	100	36.9
Both academic and industry (6–10 years)	7	2.6
Both academic and industry (more than 10 years)	4	1.5
Both academic and professional (6–10 years)	3	1.1
Both academic and professional (more than 10 years)	1	.4
Total	**271**	**100.0**

Source: Researcher's own compilation

Table 6.11 showed that the majority of respondents had industrial (entrepreneurship) experience ranging from 6 to 10 years and more (36.9%), while 14% of the respondents had more than 10 years' academic experience in Economics. This combination of industrial (entrepreneurship) and academic (economic development) experiences explains that the framework developed by the current study was based on valid opinions and views of the participating experts in entrepreneurship and economic development.

6.3 VALIDITY OF THE MEASURING INSTRUMENT

The validity of the items that measured the types of entrepreneurship, stages of economic development and components of economic development was constructed by means of factor analysis.

6.3.1 Factor analysis results

Factor analysis is an approach used to summarise data in order to understand the relationship between and patterns of the research constructs. It classifies variables into limited sets of clusters according to shared variance (Sekaran & Bougie, 2012:161). The highest common variance is extracted from all given variables and classified into a common score; hence, the goal of factor analysis is to ascertain the fundamental structure among variables of the study.Eighteen constructs were extracted by using the principal axis factoring method.On processing data – using IBM SPSS version 27 – the variables were initially reduced from 157 to 45 by removing the non-loadings defined as items with loadings of < 0.30. Table 6.12 indicates the extracted 18 constructs that represent all the variables of the study:

Table 6.12: Description of the main constructs of the study

Factor numbers	Description of main constructs of the study
	Types of entrepreneurship
1	Opportunity entrepreneurship
2	Necessity entrepreneurship
	Stages of economic development
3	Factor-driven stage of economic development
4	Efficiency-driven stage of economic development
5	Innovation-driven stage of economic development
	Economic development indicators
6	Income growth
7	Employment generation
8	Inequality
9	Poverty
10	Human welfare
	Entrepreneurial framework conditions (EFCs)
11	Financial support
12	Government policies
13	Government programmes
14	Education and training
15	Research and development (R&D) transfer
16	Commercial and professional infrastructure
17	Market flexibility
18	Access to physical infrastructure and cultural norms

Source: Researcher's own compilation

6.3.2 Sample adequacy and goodness of fit

Table 6.13 presents the results of the Kaiser–Meyer–Olkin (KMO) test and Bartlett's test of the study.

Table 6.13: KMO and Bartlett's test

Construct	KMO value	Chi-square (χ^2)	Df.	Sig.
Opportunity entrepreneurship & necessity entrepreneurship	.771	1097.060	91	.000
Factor-driven stage of economic development	.697	322.144	36	.000
Efficiency-driven stage of economic development	.740	389.731	45	.000
Innovation-driven stage of economic development	.681	358.578	28	.000
Income growth	.748	740.787	45	.000
Inequality	.895	1220.039	28	.000
Poverty	.798	844.404	21	.000
Human welfare	.799	498.804	15	.000
Financial support	.931	6488.732	66	.000
Government policies	.887	5200.711	66	.000
Government programmes	.864	4815.869	45	.000
Education and training	.707	762.688	15	.000
Research and development transfer	.833	2094.285	28	.000
Commercial and professional infrastructure	.904	1784.463	21	.000
Market flexibility	.819	1111.073	15	.000
Access to physical infrastructure	.811	4909.216	231	.000

Source: Researcher's own compilation

Hadi, Abdullaha and Sentosa (2016:216) indicate that there are two main issues to take into consideration when ascertaining whether a particular set of data is appropriate for factor analysis or not: sample size and the strength of the relationship between variables (Pallant, 2013). The Kaiser–Meyer–Olkin (KMO) test is a measure of how suited the data is for factor analysis. The test measures sampling adequacy for each variable in the model (Hair, Black, Babin, Anderson & Tatham, 1998), while the strength of the relationship among variables is determined by Bartlett's test of sphericity (Bartlett, 1954).

According to Hadi *et al.* (2016:216), the lower the proportion, the more suited the data are for factor analysis. KMO returns values of between 0 and 1. Values of less than 0.6 indicate that the sampling is not adequate and that remedial action should be taken. KMO values between

0.6 and 1 indicate that the sampling is adequate whereas values close to zero mean that there are large partial correlations compared to the sum of correlations. In other words, there are widespread correlations, which comprise a big problem for factor analysis. The current study obtained a KMO value of more than 0.6 in all constructs, which indicates that the sampling was adequate. The goodness of fit test or Bartlett's test was used to ascertain whether the sample data represented the data the researcher expected to find in the actual population. As indicated in Table 6.13, the data collected yielded a chi-squared distribution ($\chi^2 > 0$) and a p-value of 0.000 for an $\alpha = 0.05$ level of significance. This is a highly significant difference, which indicates that the sample data presented the data the research expected to find in the actual population.

6.3.3 Exploratory factor analysis

Table 6.14 shows the cumulative variance explained for by the factors.

Table 6.14: The cumulative variance explained for by the factors

Opportunity entrepreneurship & Necessity entrepreneurship				
		Initial eigenvalues		
Component	**Factor description**	**Total**	**% of variance**	**Cumulative%**
1	Profit motive (interest)	3.880	27.712	27.712
2	Demand for products or services	1.977	14.125	41.837
3	Entrepreneurial opportunity	1.481	10.581	52.418
4	Skills	1.212	8.657	61.075
Factor-driven stage of economic development				
1	Infrastructure	2.479	27.547	27.547
2	Extraction	1.425	15.835	43.382
3	Stability	1.012	11.247	54.629
Efficiency-driven stage of economic development				
1	Efficiency	2.787	27.866	27.866
2	Industrialisation	1.442	14.418	42.285
Innovation-driven stage of economic development				
1	Research & development	2.391	29.882	29.882
2	Knowledge	1.547	19.344	49.226
3	Quality	1.006	12.575	61.800
Income growth				
1	Tax revenue	3.337	33.370	33.370
2	Income	1.637	16.369	49.739
3	Cost	1.126	11.261	61.000
Inequality				
1	Inequality	4.815	60.191	60.191

Opportunity entrepreneurship & Necessity entrepreneurship				
		Initial eigenvalues		
Component	Factor description	Total	% of variance	Cumulative%
Poverty				
1	Deprivation	3.389	48.415	48.415
2	Standard of living	1.438	20.549	68.964
Human welfare				
1	Wellbeing	3.026	50.433	50.433
2	Improvement	1.057	17.612	68.045
Financial support				
1	Financial support	10.464	87.199	87.199
Government policies				
1	Debt	8.556	71.300	71.300
2	Funding	1.292	10.767	82.067
Government programmes				
1	Government programmes	7.742	77.423	77.423
	Education and training			
1	Primary education	3.241	54.016	54.016
2	Tertiary education	1.221	20.348	74.364
Research and development transfer				
1	Technology	5.189	64.864	64.864
2	Systems	1.161	14.515	79.379
	Commercial and professional infrastructure			
1	Commercial and professional infrastructure	5.144	73.492	73.492
Market flexibility				
1	Change	3.485	58.090	58.090
2	Cost of new markets	1.080	18.000	76.091
Access to physical infrastructure				
1	National culture	6.040	27.455	27.455
2	Cost affordability	3.895	17.705	45.160
3	Career	2.402	10.920	56.081
4	Social security	1.381	6.278	62.359
5	Management of small business	1.183	5.379	67.738
6	Information	1.052	4.780	72.518

Source: Researcher's own compilation

Table 6.14 shows the loading factors of items indicating the extent to which an individual item loads onto a factor. All the factors have eigenvalues greater than 1. Regarding opportunity and necessity entrepreneurship, Table 6.14 indicates that 61.075% cumulative variance was attributed to four factors, namely *profit motive* (interest), *demand for products or services, entrepreneurial opportunity, and skills.* This implies that these four factors were recognised as the main factors significantly promoting opportunity and necessity entrepreneurship. Regarding the factor-driven stage of economic development, Table 6.14 indicates that 54.629% cumulative variance was attributed to three economic indicators, namely *infrastructure, extraction, and stability*. This implies that these three economic indicators were recognised as significantly contributing to entrepreneurship at this stage of economic development. In terms of the efficiency-driven stage of economic development, Table 6.14 indicates that 42.285% cumulative variance was attributed to two economic indicators, namely *efficiency and industrialisation*. This implies that, at this stage of economic development, only efficiency and industrialisation contribute significantly to entrepreneurship. Regarding the innovation-driven stage of economic development, Table 6.14 indicates that 61.800% cumulative variance was attributed to three economic indicators, namely *research and development (R&D), knowledge, and quality*. This implies that these three economic indicators were recognised as contributing significantly to entrepreneurship at this stage.

Regarding income growth, Table 6.14 shows that 61% cumulative variance was attributed to three factors, namely *tax revenue, income, and cost*, implying that these elements of income growth were recognised as contributing significantly to entrepreneurship. Furthermore, Table 6.14 indicates that 60.191%, 87.199%, 77.423% and 73.492% cumulative variances were attributed to *inequality, financial support and government programmes, commercial and professional infrastructure* respectively. This demonstrates that these factors were also recognised as contributing significantly to entrepreneurship. Table 6.14 further shows that 68.964% cumulative variance of poverty was attributed to deprivation and standard of living; 68.045% cumulative variance of human welfare was attributed to wellbeing and improvement; on government policies, 82.067% cumulative variance was attributed to debt and funding. In terms of education and training, 74.364% cumulative variance was attributed to primary and tertiary education. This demonstrates that the factors human welfare, government policies and education and training were recognised as contributing significantly to entrepreneurship.

Table 6.14 also indicates:

- 79.379% cumulative variance for R&D transfer, which is attributed to technology and systems;
- 76.091% cumulative variance for market flexibility, which is attributed to change and cost of new markets; and
- 72.518% cumulative variance for access to physical infrastructure, which is attributed to six factors, namely national culture, cost affordability, career, social security, management of small business, and information.

These factors underpinning R&D transfer, market flexibility and access to physical infrastructure, contribute significantly to entrepreneurship.

6.3.4 Cronbach's alpha test for reliability

Cronbach's alpha was developed by Lee Cronbach in 1951 to provide measurement for the internal consistency of a study. Internal consistency describes the extent to which all the items in a study measure the same concept or construct, and therefore it is associated with the inter-relatedness of the items within the study (Bryman & Bell, 2011:159). Cronbach's alpha value ranges from 0.00 to 1.00. The value of 0.00 implies that no variance is consistent, and 1.00 implies that all variance is consistent. A value of 0.90 implies that 90% of the data is reliable. In the social sciences, the generally accepted Cronbach's alpha value is 0.70 and above (Nunnally & Bernstein, 1994). However, other scholars accepted a Cronbach's alpha value slightly lower than 0.70 (see Mitonga-Monga, 2015:135). For instance, a study conducted by Victor and Cullen (1988:101) indicated acceptable Cronbach's alpha values for the five dimensions of caring (0.80), law and code (0.79), rules (0.79), instrument (0.71), and independence (0.60). As indicated in Table 6.15, the Cronbach's alpha values for items for types of entrepreneurship, stages of economic development, economic development indicators and EFCs ranged from 0.6 to 0.9. This means all the data were considered reliable.

Table 6.15: Cronbach's alpha values for the constructs of the study

Construct or sub-construct	Number of items	Alpha value
Interests	4	0.642
Demand	4	0.674
Skill	3	0.674
OPPORTUNITY	**11**	**0.742**
NECESSITY ENTREPRENEURSHIP	**3**	**0.798**
Infrastructure	3	0.571
Extraction	2	0.469
Stability	2	0.635
FACTOR-DRIVEN	**8**	**0.605**
Efficiency	6	0.645
Industrialisation	4	0.62
EFFICIENCY-DRIVEN	**10**	**0.705**
R&D	3	0.745
Quality	3	0.532
INNOVATION-DRIVEN	6	0.652
Tax revenue	5	0.737
Income	3	0.679
Cost	2	0.74
INCOME GROWTH	**10**	**0.767**
INEQUALITY	**8**	**0.904**
Deprivation	4	0.868
Standard of living	3	0.63
POVERTY	**7**	**0.764**
Wellbeing	4	0.789
Improvement	2	0.659
HUMAN WELFARE	**6**	**0.796**
FINANCIAL SUPPORT	**12**	**0.986**
Debt	9	0.965
Funding	3	0.93
GOVERNMENT POLICIES	**12**	**0.963**
GOVERNMENT PROGRAMMES	**10**	**0.967**
Incubators	4	0.834
Primary and high school education	2	0.771
EDUCATION & TRAINING	6	0.81
Technology	5	0.906
Systems	2	0.935

Construct or sub-construct	Number of items	Alpha value
COMMERCIAL AND PROFESSIONAL INFRASTRUCTURE	**7**	**0.937**
MARKET FLEXIBILITY	**4**	**0.939**
National culture	4	0.978
Cost affordability	6	0.909
Career	4	0.683
Social security	2	0.962
Manage small business	3	0.812
ACCESS TO PHYSICAL INFRASTRUCTURE	**19**	**0.864**

Source: Researcher's own compilation

As indicated in Table 6.15, the Cronbach's alpha values ranging from 0.469 to 0.986, serve as evidence that the data-collection instrument used to collect data was reliable and valid. Table 6.15 further indicates that the items loaded had a loading of ≥ 0.30 for each factor component, which is proof that the instrument measured what it was supposed to measure.

6.4 NATURE OF ENTREPRENEURSHIP CONTRIBUTING TO ECONOMIC DEVELOPMENT

The objective of this section is to present respondents' perceptions on the nature of entrepreneurship that contributes significantly to the economic development of South Africa. The mean and SD values are also presented. A mean value of 3 or more suggests that the respondents tended to agree with the statement provided. Conversely, a mean value of less than 3 suggests that the majority of the respondents disagreed with the statements provided. The Strongly Disagree and Disagree (1 and 2) values were combined, and Strongly Agree and Agree (4 and 5) values were also combined. These response options were separated in the questionnaire in order to deduce the manner in which the respondents reacted to the stimuli on the response options.

The SDs are also presented to indicate the variability of dispersion of the responses from the mean values. An SD of 1 or more is considered high, and indicates that the respondents differ regarding the statement provided. On the other hand, an SD of less than 1 is considered low, and indicates that the respondents differed less regarding the statement provided. The bigger the SD, the bigger the differences in respondents' perceptions, and the smaller the SD, the smaller the differences in respondents' perceptions.

This section provides answers to the research question, "What is the type of entrepreneurship that contributes significantly to the economic development of South Africa?"

6.4.1 Opportunity entrepreneurship

Information on the percentages and descriptive analyses of the findings on whether opportunity entrepreneurship contributes significantly to the economic development of South Africa is shown in Table 6.16.

Table 6.16: Contribution of opportunity entrepreneurship to South African economic development (N=273)

Opportunity entrepreneurship	1 to 2	3	4 to 5		
In order for entrepreneurship to meaningfully contribute to the economic development of South Africa, businesses should only be created when:	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
There is an entrepreneurial opportunity.	0.4%	0.4%	98.9%	4.3	.492
There is a profit motive.	2.2%	0%	97.8%	4.3	.639
There is a demand for products.	0.7%	0%	99.3%	4.29	.502
There is a demand for services.	0.7%	0.4%	98.9%	4.38	.537
There is a discovery of a better production method by the entrepreneur.	0.7%	0.4%	98.9%	4.25	.489
There is increased entrepreneurial skills of the entrepreneur.	0.7%	0.7%	98.5%	4.27	.505
There is increased entrepreneurial abilities of the entrepreneur.	1.1%	0.7%	98.2%	4.19	.485
There is availability of capital.	11.7%	26%	62.63%	3.56	.930
An individual voluntarily leaves his or her paid job to start a business.	3%	1.8%	95.2%	4.09	.565
An individual develops an interest to establish a new venture because he received training in running a business.	2.6%	1.1%	96.3%	4.15	.569
An individual develops an interest to establish a new venture because he got business exposure.	2.2%	2.2%	95.6%	4.15	.574

Source: Researcher's own compilation

The results in Table 6.16 show that the majority of the respondents (more than 90%) agreed that most determinants of opportunity entrepreneurship contribute significantly to economic development in South Africa. The determinants entrepreneurial opportunities (98.9%), demand for products or services (99.3%), better production methods (98.9%), and entrepreneurial skills and ability (98.5%) contribute more to South African economic development than the other

determinants. The contribution of the availability of capital was less (62.63%) compared to the rest of the determinants. This suggests that the availability of capital in the absence of entrepreneurial opportunity, demand for products or services, good production methods, and entrepreneurial skills and ability, causes opportunity entrepreneurship to contribute inadequately to economic development in South Africa. It is therefore crucial that opportunity entrepreneurship determinants have to complement each other in order to contribute to the economic development of South Africa.

The SDs for all the statements were less than 1 per statement. This is low, suggesting that the respondents differed less on the statements provided. This is supported by the mean values, which were more than 3, indicating that most respondents agreed with the statements. This implies that most determinants of opportunity entrepreneurship contribute significantly to South African economic development, namely entrepreneurial opportunities, demand for products or services, better production methods, and entrepreneurial skills and ability.

6.4.2 Necessity entrepreneurship

Table 6.17 indicates the percentages and descriptive analyses of respondents' perceptions on whether necessity entrepreneurship contributes significantly to the economic development of South Africa.

Table 6.17: Contribution of opportunity entrepreneurship to South African economic development (N =273)

Necessity entrepreneurship	1 to 2	3	4 to 5		
In order for entrepreneurship to meaningfully contribute to the economic development of South Africa, businesses should only be created when:	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
An individual has no other income options.	5.8%	6.6%	87.5%	4.00	.728
An individual wants to meet basic needs such as food, shelter and clothing.	2.6%	1.1%	96.3%	4.44	.651
An individual starts the business as a survival strategy.	2.9%	0.7%	96.4%	4.43	.661

Source: Researcher's own compilation

The results shown in Table 6.17 indicate that the majority of respondents agreed that the determinants of necessity entrepreneurship – basic needs (96.3%) and business survival strategy (96.4%) – contribute significantly more to South African economic development than the

absence of income options (87.5%). All statements had a mean value of more than 3, suggesting that most of the respondents agreed with the statements provided. The SDs of all the statements provided were less than 1 per statement, which is considered to be low, suggesting that the respondents differed less on the statements provided. This is supported by the mean values of more than 3 suggesting that most respondents agreed with the statements. Nonetheless, the agreed statements on the absence of other income options (87.5%) were less compared to basic needs and business survival strategy. This suggests that necessity entrepreneurship prompted by starting a business due to the absence of other income options is less likely to contribute to South African economic development. Necessity entrepreneurship prompted by basic needs satisfaction and business survival strategy is more likely to contribute to South African economic development.

These findings are supported by Williams and Youssef (2014:41), Cross and Morales (2007:5) and Cai (2015:54) who maintain that even those who began as necessity-driven entrepreneurs, joining due to constrained opportunities in the formal economy, tend to develop a long-term commitment to their informal sector businesses. For instance, street vendors are conventionally represented as necessity-driven entrepreneurs. The above-mentioned studies revealed that most of them do so out of choice. They voluntarily operate in the informal economy to avoid the costs, time and effort of formal registration. They also operate in the informal economy because it offers potential benefits not found in the formal economy, such as flexible hours, job training, and entry to the labour force, opportunity for economic independence, better wages and avoidance of taxes as well as inefficient government regulations. These studies therefore depict necessity entrepreneurship as either universally necessity- or opportunity-driven.

In conclusion, these results suggest that there should be a combination of some of the opportunity and necessity entrepreneurship determinants for entrepreneurship to contribute significantly to economic development in South Africa. These determinants are entrepreneurial opportunities, demand for products or services, better production methods, entrepreneurial skills and ability, satisfaction of basic needs, and business survival strategy. Directing much effort to promoting both opportunity and necessity entrepreneurship is recommended, as most of the entrepreneurial determinants revealed by the study were associated with both opportunity and necessity entrepreneurship.

6.5 STAGE OF ECONOMIC DEVELOPMENT SIGNIFICANTLY PROMOTING ENTREPRENEURSHIP

The objective of this section is to present findings on the stage of economic development that significantly promotes entrepreneurship in South Africa. The findings relate to the third objective, namely to investigate the stage of economic development that significantly contributes to entrepreneurship in South Africa.

6.5.1 Factor-driven stage of economic development

The percentages and descriptive analyses of respondents' perceptions on factor-driven economic indicators that contribute to entrepreneurship in South Africa, are shown in Table 6.18.

Table 6.18: Factor-driven economic indicators promoting entrepreneurship in South Africa (N =273)

Factor-driven economic indicators	**1 to 2**	**3**	**4 to 5**		
Please indicate to what extent you agree or disagree with the statements in the table below. The following economic development indicators can promote entrepreneurship in South Africa:	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
Subsistence agriculture	0.4%	1.5%	98.1%	4.25	.487
Extraction businesses	0%	2.2%	97.8%	4.35	.522
Heavy reliance on unskilled labour	4.8%	12.1%	83.1%	4.00	.745
Abundance of natural resources	0%	0.4%	99.6%	4.34	.484
Sufficient infrastructure	0.7%	1.8%	97.5%	4.31	.545
Improved public health	1.1%	1.5%	97.4%	4.26	.536
Quality primary education	0%	4%	95.9%	4.15	.457
Improved regulations	0%	3.7%	96.3%	4.19	.478
Improved macroeconomic stability	0%	1.5%	98.5%	4.20	.438

Source: Researcher's own compilation

The results in Table 6.18 show that the majority of the respondents (more than 90%) agreed that most factor-driven economic indicators promote entrepreneurship in South Africa. Economic indicators, such as subsistence agriculture (98.1%), abundance of natural resources (99.6%), and improved macroeconomic stability (98.5%) contribute more to the entrepreneurship in South Africa compared to the rest of the factor-driven economic indicators.

The mean values for all statements are more than 3, which suggests that, of the participating economic and entrepreneurship experts, the majority agreed with the statements provided. This is supported by the SDs of less than 1 for all statements, suggesting that the participating experts differed less on the statements provided. Similarly, the mean value on each statement is more than 3, suggesting that most respondents agreed with the statements. Nonetheless, agreement in terms of the contribution of heavy reliance on unskilled labour is far less (83.1%) compared to the rest of the factor-driven economic indicators. This suggests that unskilled labour decreases the promotion of entrepreneurship at factor-driven stage. These findings are supported by Amha *et al*. (2015:138) who assert that countries in the factor-driven stage are characterised by a high rate of unemployment due to lack of skills, which forces citizens into self-employment to make a living; necessity-driven entrepreneurship therefore dominates the factor-driven stage.

6.5.2 Efficiency-driven stage of economic development

Table 6.19 indicates the percentages and descriptive analysis of respondents' perceptions on the efficiency-driven economic indicators that promote entrepreneurship in South Africa.

Table 6.19: Efficiency-driven economic indicators promoting entrepreneurship in South Africa (N =273)

Efficiency-driven economic indicators	**1 to 2**	**3**	**4 to 5**		
Please indicate to what extent you agree or disagree with the statements in the table below. The following economic development indicators can promote entrepreneurship in South Africa:	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
Industrialisation.	0%	0.4%	99.6%	4.28	.457
Economies of scale	0%	0.4%	99.6%	4.30	.467
Capital-intensive businesses	0.4%	1.8%	97.8%	4.25	.495
Quality higher education and training	0%	1.1%	98.9%	4.19	.423
Improved financial markets	0%	2.6%	97.4%	4.22	.475
Labour market efficiency	0%	2.2%	97.8%	4.25	.480
Goods market efficiency	0%	0%	100%	4.26	.439
Services market efficiency	0%	1.1%	98.9%	4.26	.464
The economy's technological readiness	0%	0.7%	99.2%	4.22	.430
Large market size	0%	0%	100%	4.23	.424

Source: Researcher's own compilation

As shown in Table 6.19, the majority of the respondents (more than 90%) agreed that most efficiency-driven economic indicators promote entrepreneurship in South Africa. Economic indicators such as large market (100%), technological readiness of the economy (99.2%), economies of scale (99.6%) and industrialisation (99.6%) contribute more to the promotion of entrepreneurship in South Africa compared to the rest of the efficiency-driven economic indicators. The mean values for all statements are more than 3, which suggests that most of the participating economic and entrepreneurship experts agreed with the statements provided. This is supported by the SDs of less than 1 for all statements, suggesting that the participating experts differed less on the statements provided. These findings are consistent with the findings by Goel and Bhand (2017:2115), which revealed that the size of the market affects productivity and ultimately the country at large, as large markets allow businesses to utilise economies of scale. This then lowers costs and increases profits as well as the value of businesses. They further indicate that, because of increased market size, both entrepreneurship and economic development are improved, as entrepreneurs identify entrepreneurial opportunities to create additional economies of scale. This is supported by Rostami *et al.* (2019:43) who assert that countries adopt existing technologies to promote industrial productivity. This leverages information and communication technologies in the daily activities and production processes of the countries. As a result, technology increases efficiency and innovation a country, thereby enhancing the economic development in said country. Access to technology in production processes is crucial for entrepreneurs whose their sunk costs are reduced, and they can focus on their core business activities. Expanding the goods and services markets, promoting industrialisation, technology, and economies of scale could promote entrepreneurship in South Africa.

The agreed statements on the labour market efficiency were lower (97.8%) compared to most of the efficiency-driven economic indicators. This suggests that labour market efficiency might not promote entrepreneurship in some situations in the South African context. These findings agree with those by Rostami *et al.* (2019:42) who found an inverse relationship between entrepreneurship and labour market efficiency. They say, “because of capital market imperfections, poor agents choose to work for a wage over self-employment, and wealthy agents become entrepreneurs who monitor workers” (Rostami *et al.*, 2019:42). The authors found that start-ups might work better if their employees are able to be moved between jobs. Higher wages and employment security motivate individuals to work for start-ups when the economic development of the country in which the start-up is established, improves

significantly. Entrepreneurship therefore has a negative relationship with labour market efficiency and competitiveness when employees can shift easily between jobs, as they might prefer established businesses, resulting in start-ups losing a considerable pool of potential workers.

6.5.3 Innovation-driven stage of economic development

Table 6.20 shows the percentages and descriptive analyses of respondents' perceptions on the innovation-driven economic indicators that promote entrepreneurship in South Africa.

Table 6.20: Innovation-driven economic indicators promoting entrepreneurship in South Africa (N =273)

Innovation-driven economic indicators	1 to 2	3	4 to 5		
Please indicate to what extent you agree or disagree with the statements in the table below. The following economic development indicators can promote entrepreneurship in South Africa:	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
Knowledge intensive	0%	0.7%	99.3%	4.21	.425
Expanded businesses	0%	1.1%	98.9%	4.23	.447
Quality business networks	0.4%	0%	99.7%	4.31	.487
Quality individual business' operations	0%	0%	100%	4.24	.427
Quality business strategies	0%	0.4%	99.6%	4.22	.424
Sufficient investment in Research and Development (R&D)	2.2%	15%	82.8%	3.95	.613
High-quality scientific research institutions	1.5%	11%	87.5%	4.04	.608
Protection of intellectual property rights	1.1%	17.9%	80.9%	3.96	.620

Source: Researcher's own compilation

According to Table 6.20, the majority of the respondents (more than 90%) agreed that most innovation-driven economic indicators promote entrepreneurship in South Africa. The economic indicators quality individual business operations (100%), knowledge-intensive (99.3%), quality business networks (99.7%) and quality business strategies (99.6%) contribute more to the promotion of entrepreneurship in South Africa compared to the rest of the innovation-driven economic indicators. The mean values for all the statements are more than 3, which suggests that most economic and entrepreneurship experts agreed with the statements provided. This is supported by the SDs of less than 1 for all statements, suggesting that the participating experts differed less on the statements provided.

Scholars, such as Cernescu *et al.* (2018:520), Costea *et al.* (2015:74), Rostami *et al.* (2019:46) and Kirikkaleli and Ozun (2019:352) acknowledge investment in research and development and in high-quality scientific research institutions as the core instruments for increasing innovation in a country. Nonetheless, the current study did not really support this acknowledgement, as some respondents seemed to disagree with this acknowledgement. This is indicated by the low percentages in investment in research and development (82.8%) and in high-quality scientific research institutions (87.5%). These findings demonstrate that some of the participating economic and entrepreneurship experts perceived the need for transformation in African research methodologies. Some Western research methodologies seem to be ineffective in solving African economic problems. These findings are supported by Owusu-Ansah and Gubela (2013:1) who indicate that African researchers need to move towards developing and using African research methodologies of studying African reality. They should refrain from depending on the research pathways mapped out by Western methodologies within which many African researchers have been trained. Mkabela (2005:180) concurs that African researchers should adopt an Afrocentric paradigm, as it positions African research from an African viewpoint and creates Africa's own intellectual perspective. Such paradigm will focus on Africa as the centre for the study of African economic problems, and it will interpret research data from an African perspective.

6.6 EXTENT OF ENTREPRENEURSHIP CONTRIBUTING TO ECONOMIC DEVELOPMENT

The objective of this section is to present respondents' perceptions on the extent to which entrepreneurship contributes significantly to the various elements of economic development of South Africa. The findings relate to the fourth objective, which aimed at investigating the extent to which entrepreneurship contributes significantly to the economic development in South Africa.

6.6.1 Income growth

The information on the percentages and descriptive analyses of respondents' perceptions on the extent to which entrepreneurship contributes significantly to the income growth in South Africa, is provided in Table 6.21.

Table 6.21: Extent of entrepreneurship contributing to income growth (N =273)

Extent of entrepreneurship contributing to income growth	1 to 2	3	4 to 5		
Please indicate to what extent you agree or disagree with the statements in the table below. In South Africa, entrepreneurship:	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
Increases citizens' individual income	0.4%	0%	99.6%	4.30	.483
Increases goods produced in the economy	0.4%	0.7%	98.9%	4.27	.483
Increases services produced in the economy	0.4%	0.7%	98.9%	4.30	.496
Reduces the cost of producing goods in the economy	1.8%	1.8%	96.3%	4.26	.583
Reduces the cost of services in the economy	1.8%	1.5%	96.7%	4.27	.580
Increases domestic investments	0%	0.7%	99.3%	4.37	.498
Increases exports	0.4%	1.5%	98.2%	4.31	.515
Decreases imports	1.1%	1.8%	97.1%	4.32	.568
Increases government consumption	1.9%	3.3%	94.8%	4.21	.602
Increases tax revenue	0.4%	0.7%	98.9%	4.26	.504

Source: Researcher's own compilation

The results in Table 6.21 show that the majority of the respondents (more than 90%) agreed that entrepreneurship contributes to income growth in South Africa. Entrepreneurship contributes more to income growth indicators, such as individual income (99.6), goods and services (98.9%), domestic investments (99.3%), exports (98.2%) and tax revenue (98.9%) than to the other named factors. Nonetheless, the contribution of entrepreneurship to cost reduction (96.3), government consumption (94.8%) and a decrease in imports (97.1%) is low compared to other income growth indicators. The mean values for all the statements are more than 3, which suggests that most of the participating economic and entrepreneurship experts agreed with the statements provided. This is supported by the SDs of less than 1 for all statements, suggesting that these experts differed less on the statements provided.

These findings are supported by the GDP dataset of the IMF (2020), which indicates that income growth in South Africa is declining drastically compared to other parts of the world. Income growth has been decreasing since 2018 by 0.8%, 0.2% and -5.8% for the years 2018, 2019, 2020 respectively. Comparing income growth in South Africa and the average income growth rate for developing countries, the study indicated that average income growth rates for developing countries were 4.5%, 3.8 and -1 for the years 2018, 2019 and 2020 respectively,

indicating a higher growth rate than that of South Africa. This implies that, in South Africa, the contribution of income to entrepreneurship is low, compared to its contribution to entrepreneurship in other parts of the world.

6.6.2 Employment generation

The results in Table 6.22 indicate the percentages and descriptive analysis of respondents' perceptions on the extent to which entrepreneurship contributes significantly to employment generation of South Africa.

Table 6.22: Extent of entrepreneurship contributing to employment generation (N =273)

Extent of entrepreneurship contributing to employment generation	1 to 2	3	4 to 5		
Please indicate to what extent you agree or disagree with the statements in the table below. In South Africa, entrepreneurship:	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
Creates wage employment that sufficiently improves the standard of living of the worker.	0.7%	0.7%	98.1%	4.39	.545
Creates self-employment that sufficiently improves the standard of living of the worker.	0.4%	0.4%	99.2%	4.45	.527

Source: Researcher's own compilation

The results in Table 6.22 show that most of the respondents (more than 90%) agreed that entrepreneurship contributes to employment generation in South Africa by creating wage employment (98.1%) and self-employment (99.2%). The mean values for both statements are more than 3, which suggests that most of the participating economic and entrepreneurship experts agreed with the statements provided. This is supported by the SDs of less than 1 for both statements, suggesting that the participating experts differed less on the statements provided.

These findings contradict those of Leshoro (2013:336), Karikari-Apau and Abeti (2019:2) and Malayaranjan and Sahoo (2019:116) who indicate that South Africa is experiencing a high unemployment rate. Interestingly, the findings of the current study were supported by Abdesselam *et al.* (2017:8) who indicate that unemployment may attract new-firm start-ups and also reduces the opportunity cost of entrepreneurship, resulting in stimulating entrepreneurship in the country. However, such entrepreneurship might be necessity entrepreneurship. In support

of these findings, the current study found that necessity entrepreneurship has potential to contribute to economic development of South Africa.

6.6.3 Inequality

Table 6.23 presents the percentages and descriptive analyses of respondents' perceptions on the extent to which entrepreneurship contributes significantly to the reduction of inequality in South Africa.

Table 6.23: Extent of entrepreneurship contributing to reduction of inequality (N =273)

Extent of entrepreneurship contributing to reduction of inequality	1 to 2	3	4 to 5		
Please indicate to what extent you agree or disagree with the statements in the table below. In South Africa, entrepreneurship:	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
Reduces income inequality.	1.1%	0.7%	98.2%	4.37	.555
Reduces skills' inequality.	1.1%	1.5%	97.4%	4.37	.573
Reduces opportunities' inequality.	1.1%	0.7%	98.1%	4.29	.537
Reduces happiness' inequality.	1.5%	1.1%	97.4%	4.31	.571
Reduces health inequality.	1.5%	1.8%	96.7%	4.34	.592
Reduces education inequality.	1.8%	1.8%	96.4%	4.25	.580
Reduces welfare inequality.	1.8%	1.8%	96.4%	4.32	.603
Reduces social mobility inequality.	1.5%	1.5%	97.1%	4.26	.559

Source: Researcher's own compilation

According to Table 6.23, most of the respondents (more than 90%) agreed that entrepreneurship contributes to the reduction of inequality in South Africa. It reduces more income inequality (98.2%) and inequality of opportunities (98.1%) than other named factors. Nonetheless, there was less reduction of inequality in terms of skills (97.4%), happiness (97.4%), health (96.7%), education (96.4%), welfare (96.4%) and social mobility (97.1%), compared to inequality in terms of income and opportunities. The mean values for all the statements are more than 3, which suggests that most of the participating economic and entrepreneurship experts agreed with the statements provided. This is supported by the SDs of less than 1 for all statements, suggesting that these experts differed less on the statements provided. These findings demonstrate that inequality in South Africa takes different forms and that there are variations

in addressing them; hence, policies for reducing inequalities need to incorporate other forms of inequality.

Comparing these findings with previous studies, some researchers found that a certain degree of inequality stimulates economic development. Inequality, however, also has wider economic impacts, such as acting as a drag on further growth, reducing access to education, and limiting the expansion of demand and consumption (Kennedy *et al.*, 2017:7; Mansi *et al.*, 2020:2). In the same vein, Aceytuno *et al.* (2020:1) indicate that entrepreneurship and inequality are linked. The distribution of financial resources among the population promotes inequality in the country, and at the same time, may lead to an increase in entrepreneurial activities. Halvarsson *et al.* (2018:278) concur that entrepreneurship is improved in countries with significant inequality. In such countries, factors such as level of economic development, government policies, foreign direct investment (FDI), service sector growth, and increased labour market flexibility play a significant role in the process. At the same time, entrepreneurship increases inequality by disproportionately affecting income at the bottom and at the top end of the income distribution, resulting in U-type relationship.

6.6.4 Poverty

The percentages and descriptive analysis of respondents' perceptions on the extent to which entrepreneurship contributes significantly to the reduction of poverty in South Africa, are indicated in Table 6.24.

Table 6.24: Extent of entrepreneurship contributing to reduction of poverty (N =273)

Extent of entrepreneurship contributing to reduction of poverty	**1 to 2**	**3**	**4 to 5**		
Please indicate to what extent you agree or disagree with the statements in the table below. **In South Africa, entrepreneurship:**	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
Reduces deprivation of food in South Africa.	0.7%	0.7%	98.5%	4.72	.512
Reduces deprivation of clothes in South Africa.	1.5%	0.4%	98.1%	4.70	.552
Reduces deprivation of shelter in South Africa.	0.7%	1.1%	98.2%	4.71	.521
Improves environment.	0.7%	1.5%	97.8%	4.49	.570
Increase political participation.	15%	30.4%	54.6%	3.42	.921

Extent of entrepreneurship contributing to reduction of poverty	1 to 2	3	4 to 5		
Please indicate to what extent you agree or disagree with the statements in the table below. **In South Africa, entrepreneurship:**	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
Increases community participation.	1.5%	2.6%	95.9%	4.28	.586
Improves the average standard of living for citizens.	1.5%	0%	98.6%	4.46	.581

Source: Researcher's own compilation

Table 6.24 shows that most of the respondents (more than 90%) agreed that entrepreneurship contributes to the reduction of poverty in South Africa. Entrepreneurship reduces poverty more in terms of deprivation of food (98.5%), clothes (98.1%) and shelter (98.2%) than other factors. Less reduction on political participation (54.6%), improvement of the environment (97.8%) and community participation (95.9%) than the other factors. This is supported by the SDs of less than 1 for all statements, suggesting that the participating experts differed less on the statements provided. The mean values for all statements are more than 3, which suggests that most of these economic and entrepreneurship experts agreed with the statements provided.

These findings demonstrate that South African policies on poverty require improvement. Despite the positive trend in poverty reduction between 2006 and 2015 in South Africa, the World Bank (2018b:11) noted that poverty rates in the country increased between 2011 and 2015. At least 2.5 million South Africans slipped into poverty between 2011 and 2015, and 40% of the South African population lived below the poverty line in 2015, up from 36.4% in 2011. In absolute terms, this translates to over 3.1 million South Africans slipping into poverty between 2011 and 2015. However, the study of Mansi *et al.* (2020) found that policymakers should target relevant innovative entrepreneurship when developing and implementing policies for poverty alleviation and economic development. As such, the innovation capacities in the country make the poverty level reduced, and thus contribute to the economic development.

6.6.5 Human welfare

The percentages and descriptive analyses of respondents' perceptions on the extent to which entrepreneurship contributes significantly to human welfare in South Africa, are indicated in Table 6.25.

Table 6.25: Extent to which entrepreneurship contributes to human welfare (N =273)

Extent to which entrepreneurship contributes to human welfare	1 to 2	3	4 to 5		
Please indicate to what extent you agree or disagree with the statements in the table below. **In South Africa, entrepreneurship:**	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
Improves nutrition.	0.7%	0.4%	98.9%	4.46	.548
Improves good health of citizens.	0.7%	0.7%	98.6%	4.35	.536
Improves knowledge of citizens	0.7%	0.4%	98.9%	4.35	.528
Contributes to decent living standards of citizens	0.4%	0%	99.6%	4.32	.491
Contributes to citizens' happiness.	0.4%	0.4%	99.3%	4.32	.496
Contributes to the emotional wellbeing of citizens.	0.4%	1.1%	98.3%	4.22	.465

Source: Researcher's own compilation

As shown in Table 6.25, most of the respondents (more than 90%) agreed that entrepreneurship contributes to human welfare in South Africa. This is supported by the SDs of less than 1 for all statements, suggesting that the participating experts differed less on the statements provided. This is also supported by the mean values, which are more than 3, indicating that most respondents agreed with the statements. These results demonstrate that entrepreneurship plays a critical role in South Africa by improving nutrition, health, knowledge of citizens as well as contributing to living standards, happiness and emotional wellbeing.

6.7 ENTREPRENEURIAL FRAMEWORK CONDITIONS CONTRIBUTING TO ECONOMIC DEVELOPMENT IN SOUTH AFRICA

The objective of this section is to present respondents' perceptions on the EFCs that contribute to the economic development of South Africa. This section partially addresses the sixth objective, namely developing a framework for optimising the significant correlation between entrepreneurship and economic development from a South African perspective.

6.7.1 EFC$_1$: Financial support

The results in Table 6.26 reflect the percentages and descriptive analyses of respondents' perceptions on whether entrepreneurial financial support contributes to economic development in South Africa.

Table 6.26: Contribution of entrepreneurial financial support to economic development in South Africa (N =273)

Contribution of entrepreneurial financial support	1 to 2	3	4 to 5		
Please indicate to what extent you agree or disagree with the statements in the table below. **In South Africa:**	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
There is sufficient equity funding available for new firms.	45.5%	13.6%	41%	3.01	.996
There is sufficient equity funding available for growing firms.	56.8%	9.5%	39.5%	2.93	1.030
There is sufficient debt funding available for new firms.	51%	9.5%	39.5%	2.85	1.056
There is sufficient debt funding available for growing firms.	49.5%	9.5%	41.1%	2.85	1.078
There are sufficient government subsidies available for new firms.	51.7%	9.2%	39.2%	2.82	1.070
There are sufficient government subsidies available for growing firms.	52.4%	7.7%	39.9%	2.82	1.051
There is sufficient funding available from private individuals (other than founders) for new firms.	53.1%	9.9%	37%	2.78	1.084
There is sufficient funding available from private individuals (other than founders) for growing firms.	52.4%	10.6%	37%	2.78	1.071
There is sufficient venture capitalist funding available for new firms.	52.4%	10.3%	37.3%	2.78	1.113
There is sufficient venture capitalist funding available for growing firms.	52%	9.9%	38.1%	2.79	1.062
There is sufficient funding available through initial public offerings (IPOs) for new firms.	57.9%	19.8%	22.3%	2.42	1.092
There is sufficient funding available through initial public offerings (IPOs) for growing firms.	57.1%	19.4%	23.5%	2.44	1.090

Source: Researcher's own compilation

According to Table 6.26, almost half of the participating entrepreneurship and economic development experts disagreed that there was sufficient debt funding available for both new (51%) and growing firms (49.5%) at the time. They further disagreed that there was sufficient funding for both new (53.1%) and growing firms (52.4%), and that government subsidies for both new (51.7%) and growing firms (52.4%) were insufficient to support entrepreneurship in South Africa. The mean values for all statements are less than 3, which suggests that most of the participating economic and entrepreneurship experts disagreed with the statements provided. However, this is supported by the SD of almost 1 for all statements, suggesting that these experts differed more on the statements provided. It is therefore critical that the South African government should consider offering effective financial support to entrepreneurship. This is consistent with the findings by Herrington *et al.* (2015:28) and Zakaria and Kaushal (2018:99) who indicate that a lack of entrepreneurial finance is a common challenge in developing economies, including South Africa; yet, access to finance is crucial for boosting entrepreneurship, which then enhances economic development.

6.7.2 EFC_2: Government policies

The percentages and descriptive analyses of respondents' perceptions on whether government entrepreneurial policies contribute to economic development in South Africa are reflected in Table 6.27.

Table 6.27: Contribution of entrepreneurial government policies to the economic development of South Africa (N =273)

Contribution of entrepreneurial government policies	1 to 2	3	4 to 5		
Please indicate to what extent you agree or disagree with the statements in the table below. **In South Africa:**	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
Government policies (e.g., public procurement) consistently favor new firms.	50.9%	17.9%	31.1%	2.77	.962
The support for new firms is a high priority for policy at the local government level.	58.2%	11.4%	30.4%	2.68	.983
The support for growing firms is a high priority for policy at the local government level.	59%	9.2%	31.9%	2.71	.985
New firms can get most of the required permits fast enough.	90.1%	2.9%	6.9%	1.59	.875
The amount of taxes is not a burden for new firms.	91.9%	0.7%	7.4%	1.58	.850

Contribution of entrepreneurial government policies	1 to 2	3	4 to 5		
Please indicate to what extent you agree or disagree with the statements in the table below. **In South Africa:**	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
The amount of taxes is not a burden for growing firms.	91.9%	0.7%	7.3%	1.61	.859
Government regulations are applied to new firms in a consistent way.	70%	13.6%	16.5%	2.38	.887
Government regulations are applied to growing firms in a consistent way.	70.7%	12.5%	16.9%	2.40	.890
Government policies aimed at supporting new firms are effective.	74%	8.4%	17.6%	2.37	.899
Government policies aimed at supporting growing firms are effective.	73.3%	9.2%	17.6%	2.37	.894
A wide range of government assistance for new firms can be obtained through contact with a single agency.	82.1%	5.5%	12.5%	2.05	.900
A wide range of government assistance for growing firms can be obtained through contact with a single agency.	82%	5.5%	12.5%	2.05	.936

Source: Researcher's own compilation

Table 6.27 shows that almost 70% of the participating entrepreneurship and economic development experts disagreed that government policies contribute significantly to entrepreneurship in South Africa. They indicate that government policies do not prioritise the support of new (50.9%) and growing firms (59%). Entrepreneurship is also hindered by a delay in the processing of business permits (90.1%) and tax requirements (91.9%). Furthermore, these regulations are not applied consistently (70.7%), and in most cases, entrepreneurs do not know where to get government assistance (82.1%). The mean values for all statements are less than 3, which suggests that most of the entrepreneurship and economic development experts disagreed with the statements provided. This is supported by the SDs of almost 1 for all statements, suggesting that these experts differed more on the statements provided.

These findings are in agreement with the findings by Mkwanazi (2018:54) who indicates that the extent to which government policies, such as taxes or regulations, are either size-neutral or encourage new and growing businesses, have a direct influence on the level of entrepreneurship in an economy. For instance, the long and tiring process of registering for company permits and licences, could delay the market entry process for the business, which then contributes to a decline in the level of entrepreneurship in an economy. Entrepreneurial government regulations

that take into account adequate support of firms, processing of business permits, the tax requirements of a business, and procedures for government assistance, should therefore be incorporated into the framework that optimises the contribution of entrepreneurship to the economic development of South Africa.

6.7.3 EFC$_3$: Government programmes

Table 6.28 presents the percentages and descriptive analyses of respondents' perceptions on whether government programmes contribute to the economic development of South Africa.

Table 6.28: Contribution of government programmes to the economic development of South Africa (N =273)

Contribution of government programmes	**1 to 2**	**3**	**4 to 5**		
Please indicate to what extent you agree or disagree with the statements in the table below. **In South Africa:**	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
There are adequate government programmes for new businesses.	62.6%	16.5%	20.8%	2.56	.902
There are adequate government programmes for growing businesses.	63%	15.8%	21.2%	2.55	.903
People working for government agencies are competent in supporting new firms.	75.8%	8.1%	16.1%	2.29	.896
People working for government agencies are competent in supporting growing firms.	76.6%	7.7%	15.7%	2.26	.940
Almost anyone who needs help from government programmes for a new business can find what he or she needs.	82.1%	5.5%	12.5%	2.01	.959
Almost anyone who needs help from government programmes for a growing business can find what he or she needs.	82.1%	6.2%	11.7%	1.99	.941
Government programmes aimed at supporting new firms are effective.	75.1%	9.9%	15.1%	2.34	.820
Government programmes aimed at supporting growing firms are effective.	75.1%	10.3%	14.7%	2.32	.833
Business incubators have led to the creation of many businesses.	52.4%	23.4%	24.2%	2.68	.923
Business incubators have led to the growth of many businesses.	53.5%	22%	24.5%	2.67	.959

Source: Researcher's own compilation

According to Table 6.28, more than 70% of the participating entrepreneurship and economic development experts disagreed that government programmes contribute significantly to entrepreneurship in South Africa. They indicated that, at the time, government programmes were inadequate to support new (62.6%) and growing businesses (63%), and that people working for government agencies were incompetent (76.6%). Entrepreneurs also struggled to get assistance from government programmes (82.1%), and the programmes were ineffective (75.1%). Furthermore, it was felt that business incubators from government programmes have failed to lead the creation (52.4%) and growth of businesses (53.5%). The mean values for most statements are less than 3, which suggests that most of the participating economic and entrepreneurship experts disagreed with the statements provided. This is supported by the SDs of almost 1 for most of the statements, suggesting that these experts differed more on the statements provided. These findings are consistent with the findings by Herrington *et al.* (2015:28) who indicate that, government programmes in South Africa have proved to be ineffective in stimulating economic development. Mkwanazi (2018:55) concurs that these programmes should include enterprise development programmes and implementation of policies that protect small businesses from exposure to competition in the early stages of their development. Effective government programmes should therefore be incorporated into the framework that optimise the contribution of entrepreneurship to the economic development of South Africa, which the current study endeavoured to develop.

6.7.4 EFC$_4$: Education and training

The percentages and descriptive analyses of respondents' perceptions on the contribution of education and training to the economic development of South Africa are shown in Table 6.29.

Table 6.29: Contribution of education and training to the economic development of South Africa (N =273)

Contribution of education and training	1 to 2	3	4 to 5		
Please indicate to what extent you agree or disagree with the statements in the table below. **In South Africa:**	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
Teaching in primary education provides adequate attention to entrepreneurship.	29.8%	31.3%	39%	3.06	.965
Teaching in secondary education provides adequate attention to entrepreneurship.	5.1%	16.1%	78.8%	3.86	.719
Colleges have enough courses on entrepreneurship.	2.6%	0.4%	97.1%	4.23	.620
Universities have enough courses on entrepreneurship.	2.6%	0.7%	96.7%	4.59	.659
The level of business management education is truly world-class.	4%	1.8%	94.1%	4.25	.683
The education systems provide good preparation for self-employment.	4%	1.5%	94.5%	4.11	.646

Source: Researcher's own compilation

According to Table 6.29, more than 70% of the participating entrepreneurship and economic experts agreed that, at the time, education and training were significantly contributing to entrepreneurship in South Africa. Most of the participating experts agreed that South African colleges (97.1%) and universities (96.7%) had enough courses on entrepreneurship. They further agreed that, at the time, the level of South African business management education was competitive (94.1%), and that it prepared learners for self-employment (94.5%). Nonetheless, 29.8% of the respondents indicated that primary education did not provide adequate entrepreneurship training. The mean values for most statements are more than 3, which suggests that most of the participating economic and entrepreneurship experts agreed with the statements provided. This is supported by the SDs of less than 1 for most of the statements, suggesting that these experts differed less on the statements provided.

These findings are consistent with the results of studies conducted by scholars such as Costea *et al.* (2015:69), Grant (2017:2), Herrington *et al*. (2015:28), Mkwanazi (2018:55), Schwab (2013:5) and Omoniyi (2013:176) who assert that entrepreneurial education and training play a critical role in entrepreneurship and economic development. It supplies skills required to start or grow businesses, enhances the cognitive ability required to manage the complexities in the

entrepreneurial process, and provide skills necessary for building social networks and industrial relationships. It is therefore crucial that primary, secondary and tertiary entrepreneurship courses should be of high quality to equip learners with relevant entrepreneurial skills and competences.

6.7.5 EFC_5: Research and development transfer

The percentages and descriptive analyses of respondents' perceptions on the contribution of R&D transfer to the economic development of South Africa are indicated in Table 6.30.

Table 6.30: Contribution of research and development transfer to the economic development of South Africa (N =273)

Contribution of research and development transfer	1 to 2	3	4 to 5		
Please indicate to what extent you agree or disagree with the statements in the table below. In South Africa:	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
There are well-developed systems in place for transferring new findings from universities to firms.	34.8%	43.6%	21.6%	2.85	.802
There are well-developed systems in place for transferring new findings from public research centers to firms.	44.7%	34.1%	21.3%	2.74	.827
New firms have just as much access to new research and technology as large established firms.	76.9%	12.5%	10.7%	2.17	.883
New firms can afford the latest technology.	91.9%	3.3%	4.7%	1.48	.806
Growing firms can afford the latest technology.	90.5%	4.8%	4.7%	1.69	.800
There are adequate government subsidies for new firms to acquire new technology.	78.8%	13.9%	7.4%	2.20	.707
There are adequate government subsidies for growing firms to acquire new technology.	79.1%	12.5%	8.4%	2.22	.703
There is good support available for scientists to have their ideas commercialised through growing firms.	76.6%	13.6%	9.9%	2.29	.737

Source: Researcher's own compilation

As shown in Table 6.30, more than 70% of the participating entrepreneurship and economic development experts disagreed that R&D transfer contributes to economic development. Most of these experts believed that, at the time, South Africa had ineffective systems for transferring new findings from universities (34.8%) and public research centres (44.7%) to the firms. It was

also felt that South African firms were struggling to access new research and technology (76.9%), and that they could not afford the latest technology compared to their large counterparts (90.5%). Although government introduced subsidies for start-up and growing firms to acquire appropriate technologies, these subsidies have proved to be inadequate for both new (78.8%) and growing firms (79.1%). Furthermore, there seemed to be a lack of support for scientists to have their ideas commercialised through growing firms (76.6%). The mean values for most statements are less than 3, which suggests that most of the participating entrepreneurship and economic development experts disagreed with the statements provided. This is supported by the SDs of almost 1 for most of the statements, suggesting that these experts differed more on the statements provided.

According to Mkwanazi (2018:55), entrepreneurial knowledge spill-over is only possible if the economy has research institutions of high quality and universities that have the ability to collaborate with industries. Van Zyl *et al.* (2007:2) concur that, if businesses and universities can transfer knowledge obtained from research and development and convert it into opportunities, such businesses or universities would contribute to the improvement of economic development. The quality of South African research institutions therefore has to be improved to promote effective R&D transfer.

6.7.6 EFC_6: Commercial and professional infrastructure

Table 6.31 indicates the percentages and descriptive analyses of respondents' perceptions on the contribution of commercial and professional infrastructure to the economic development of South Africa.

Table 6.31: Contribution of commercial and professional infrastructure to the economic development of South Africa (N =273)

Contribution of commercial and professional infrastructure	1 to 2	3	4 to 5		
Please indicate to what extent you agree or disagree with the statements in the table below. **In South Africa:**	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
There are enough stakeholders to support firms.	62.3%	22%	15.8%	2.52	.777
New firms can afford the cost of using stakeholders.	88.6%	4.4%	6.9%	2.00	.743
Growing firms can afford the cost of using stakeholders.	83.2%	8.8%	8%	2.17	.713
It is easy for firms to get good stakeholders.	89%	1.8%	9.1%	1.95	.825
It is easy for firms to get good, professional legal services.	89.7%	1.5%	8.8%	1.73	.907
It is easy for firms to get good, professional accounting services.	90.1%	0.7%	9.2%	1.68	.899
It is easy for firms to get good banking services (checking accounts, foreign exchange transactions, letters of credit and the like).	87.5%	2.9%	9.5%	1.56	.961

Source: Researcher's own compilation

As indicated in Table 6.31, more than 80% of respondents disagreed with the statement that commercial and professional infrastructure contributed to the economic development of South Africa at the time. Most of these respondents believed that there were insufficient stakeholders to support South African firms (62.3%) and that neither new (88.6%) nor growing firms (83.2%) could afford the cost of using stakeholders. Most of the respondents also believed that it was not easy for South African firms to get professional legal (89.7%), accounting (90.1%) and banking services (87.5%). The mean values for most statements are less than 3, which suggests that most of the participating entrepreneurship and economic development experts disagreed with the statements provided. This is supported by the SDs of almost 1 for most of the statements, suggesting that these experts differed more on the statements provided. The findings are in agreement with those by Herrington and Coduras (2019:7) who indicate that, in 2017, South Africa scored a 4.55 mean on professional infrastructure, with 1 being the lowest performance and 5 being the highest in the National Experts Survey. Mkwanazi (2018:60) argues that these scores in terms of the commercial and legal infrastructure in South Africa are quite good. However, many new and growing businesses cannot afford the cost associated with it. Government should therefore invest in physical infrastructure that provides businesses with

access to resources such as communication, utilities, transportation, land or space (Herrington *et al.*, 2015:17).

6.7.7 EFC_7: Market flexibility

The percentages and descriptive analyses of respondents' perceptions on the contribution of market flexibility to the economic development of South Africa are indicated in Table 6.32.

Table 6.32: Contribution of market flexibility to the economic development of South Africa (N =273)

Contribution of market flexibility	1 to 2	3	4 to 5		
Please indicate to what extent you agree or disagree with the statements in the table below. **In South Africa:**	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
The markets for consumer goods change dramatically year to year.	1.5%	9.2%	89.4%	4.01	.525
The markets for services change dramatically year to year.	1.5%	5.9%	92.7%	4.08	.532
The markets for business-to-business goods change dramatically year to year.	0.7%	5.9%	93.4%	4.11	.513
The markets for business-to-business services change dramatically year to year.	0.7%	4%	95.3%	4.11	.472
It is often too costly for firms to enter new markets.	7%	1.8%	91.3%	4.29	.866
Firms can enter markets without being unfairly blocked by established firms.	41.4%	41.8%	16.8%	2.70	.834

Source: Researcher's own compilation

Table 6.32 indicates that more than 80% of the participating entrepreneurship and economic development experts agreed that, at the time, the South African market was flexible which had a positive influence on the economic development of the country. Most of these experts believed that markets for consumer goods (89.4%), consumer services (92.7%), business-to-business goods (93.4%) and business-to-business services (95.3%) change drastically every year. Nonetheless, it is too costly for South African firms to enter new markets (91.3%). Interestingly, most of these participating experts disagreed that many new firms were unfairly blocked by established firms (41.4%). The mean values for most statements are more than 3, which suggests that most of the participating entrepreneurship and economic development

experts agreed with the statements provided. This is supported by the SDs of less than 1 for most of the statements, suggesting that these experts differed less on the statements provided.

These results are in agreement with those of Mkwanazi (2018:60) and Rostami *et al*. (2019:44) which indicated that the extent to which new businesses are free to enter existing markets, and the extent to which the markets change drastically, have an influence on the contribution of entrepreneurship to economic development. Rostami *et al*. (2019:44) found that new business entry into the markets provides new products and services that promote innovation in and competitiveness of an economy. Change in the market also provides opportunities for new businesses and opportunity exploitation for existing entrepreneurial businesses. Market openness and dynamism therefore drive entrepreneurial opportunities in many ways in an economy, resulting in promoting entrepreneurship.

6.7.8 EFC$_8$: Access to physical infrastructure and cultural norms

Table 6.33 depicts information on the percentages and descriptive analyses of respondents' perceptions on the contribution of physical infrastructure and cultural norms to the economic development of South Africa.

Table 6.33: Contribution of physical infrastructure and cultural norms to economic development of South Africa (N =273)

Constibution of physical infrastructure and cultural norms	**1 to 2**	**3**	**4 to 5**		
Please indicate to what extent you agree or disagree with the statements in the table below. **In South Africa:**	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
The physical infrastructure (roads, utilities, communications, waste disposal) provides good support for firms.	1.5%	2.2%	96.4%	4.06	.437
It is not too expensive for firms to get good access to communications (phone, internet).	76.9%	8.8%	14.3%	2.34	.765
Firms pay about the same as large establishments for utilities (gas, water, electricity, sewer).	52.4%	29.3%	18.3%	2.62	.836
Firms can afford the cost of basic utilities (gas, water, electricity, sewer).	86.1%	3.3%	10.6%	2.12	.800
Firms can get good access to utilities (gas, water, electricity, sewer) in about a month.	88.6%	1.5%	10.3%	1.58	.990

Constibution of physical infrastructure and cultural norms	1 to 2	3	4 to 5		
Please indicate to what extent you agree or disagree with the statements in the table below. **In South Africa:**	**Disagree**	**Neutral**	**Agree**	**Mean**	**SD**
The social security and welfare systems provide appropriate encouragement for citizens to take the initiative and be self-sufficient.	43.6%	27.5%	28.9%	2.85	.909
Firms can afford the cost of basic utilities (gas, water, electricity, sewer).	86.8%	3.3%	9.9%	2.17	.728
Firms can get good access to utilities (gas, water, electricity, sewer) in about a month.	89%	1.1%	9.9%	1.62	.947
The social security and welfare systems provide appropriate encouragement for citizens to take the initiative and be self-sufficient.	43%	31.3%	25.8%	2.82	.876
The national culture is highly supportive of individual success achieved through own personal efforts.	32.2%	25.3%	42.5%	3.11	.921
National culture encourages entrepreneurial risk taking.	35.2%	21.2%	43.6%	3.06	.953
National culture encourages creativity.	35.2%	20.9%	44%	3.08	.976
National culture encourages innovativeness.	33.7%	21.6%	44.7%	3.12	.996
People prefer to work for well-established organisations rather than new firms.	2.2%	0.7%	97.1%	4.55	.646
People see lots of good opportunities for the creation of new firms.	1.5%	1.1%	97.5%	4.10	.444
It is easy to get the information required to assess business opportunities.	49.8%	8.8%	41.4%	2.83	1.133
Citizens know how to manage a small business.	5.1%	1.1%	93.8%	3.95	.547
Citizens have the ability to organise the resources required for a new business.	5.1%	0.7%	94.1%	3.98	.591
The creation of new ventures is considered an appropriate way to become rich.	1.1%	1.5%	97.4%	4.13	.459
Most people consider becoming an entrepreneur a desirable career.	2.2%	0.7%	97.1%	4.24	.575
Starting a new business is a socially acceptable career option for women.	0.7%	0.7%	98.5%	4.39	.565
Women have the same level of knowledge and skills as men to start new businesses.	1.1%	1.1%	97.8%	4.58	.595

Source: Researcher's own compilation

According to Table 6.33, physical infrastructure, such as roads, utilities, communications and waste disposal, were providing good support for South African firms at the time (96.4%). The participating entrepreneurship and economic development experts agree that, at the time of this

study, South African entrepreneurs were getting access to communications, such as phones and the internet (76.9%). However, most of them could not afford the cost of basic utilities, such as gas, water, electricity and sewage removal (86.1%). Some of the participating experts were of the view that small firms do not pay the same as large establishments for these utilities (52.4%). Unlike small firms, most large businesses in South Africa have private back-up for utilities. This was also noted by Obokoh and Goldman (2016:4) who found that small firms in developing countries, such as South Africa, pay more for utilities, because they experience utility failure, such as water and power outages. This imposes considerable costs on the small firms arising from idle workers, spoiled materials, lost output, damaged equipment and costs of providing own electricity. The overall effect is an increase in cost and a reduction in the competitiveness of a firm. Table 6.33 further indicates that the national culture, such as social security and welfare systems (43%), does not seem to promote entrepreneurship adequately in South Africa. Some of the participating entrepreneurship and economic development experts believed that, at the time, these systems were not providing appropriate encouragement for citizens to take entrepreneurial initiative and be self-sufficient (43%). The national culture also did not provide supportive individual entrepreneurial success achieved through own personal efforts (32.2%). The South African culture also does not adequately encourage entrepreneurial risk taking (32.5%), creativity (35.2%) and innovativeness (35.2%), which would lead to success for the owners of small entrepreneurial enterprises. Individuals therefore prefer to work for well-established organisations rather than creating new firms (97.1%), despite being able to see many entrepreneurial opportunities (97.5%).

Furthermore, Table 6.33 indicates that, although some South Africans seem to have entrepreneurial management skills for small firms (93.8%) and are able to organise the resources required for a new business (94.1%), they are struggling to get the information required to access business opportunities (49.8%). Nevertheless, many South Africans consider the creation of new ventures as an appropriate way to become rich (97.4%), and they choose entrepreneurship as their desirable career (97.1%). It is evident that starting a new business in South Africa is a socially acceptable career option for women (98.5%) and that women have the same level of knowledge and skills as men to start new businesses (97.8%). These findings are in agreement with findings by Bhandari (2012:141, as cited by Ndofirepi *et al.*, 2018:7) who indicates that the effect of gender on the entrepreneurial intention shows no significant differences between men and women; hence, there is gender neutrality regarding entrepreneurial intention.

6.8 SUMMARY OF DESCRIPTIVE ANALYSIS OF THE STUDY

In summary, the current study found descriptive statistics indicate that directing much effort to promoting both opportunity and necessity entrepreneurship is crucial for entrepreneurship to contribute significantly to economic development of the country. These statistics also indicate that promotions of various economic indicators that fall within the factor-, efficiency- and innovation-driven stages of economic development, would improve the contribution of entrepreneurship to the economic development in South Africa. These economic indicators include subsistence agriculture, natural resources, macroeconomic stability, goods and services market, industrialisation, technology, economies of scale and transformation of African research methodologies.

Descriptive statistics also showed that the contribution of income growth to economic development is low. In addition, inequality in South Africa takes different forms, and there are variations in addressing it. Policies to reduce inequalities therefore need to incorporate other forms of inequality. Improving policies on income growth and inequality reduction is therefore crucial for entrepreneurship to contribute significantly to the economic development of South Africa. The South African government is putting effort into reducing poverty. However, little effort has yet been made to promote political participation, environment and community participation. The results reveal that entrepreneurship in South Africa promotes human welfare of individuals by improving their nutrition, health, knowledge and by contributing to their living standards, happiness and emotional wellbeing.

Furthermore, entrepreneurial financial support and government regulations remain a serious challenge to most South African firms. This triggers the need for government to consider offering effective financial support and regulations. Government programmes are also inadequate to support new and growing businesses. As a result, entrepreneurs struggle to get assistance from government programmes. In many instances, business incubators from government programmes have failed to lead the creation and growth of businesses. Effective government programmes should therefore be incorporated into the framework that optimises the contribution of entrepreneurship to the economic development of South Africa, which the current study endeavoured to develop.

The results further revealed that most of the South African colleges and universities have incorporated entrepreneurship into their qualifications. However, there are ineffective systems

for transferring new findings from universities and public research centres to the firms, and primary education does not provide adequate entrepreneurship training. The quality of South African research institutions therefore has to be improved to promote effective R&D transfer, and entrepreneurship should be incorporated into primary education. There are also insufficient stakeholders to support South African firms, and such firms cannot afford the cost of using stakeholders and access to the market. In addition, it is not easy for South African firms to get professional legal, accounting and banking services. Most small firms cannot afford the cost of basic utilities, such as gas, water, electricity and sewerage removal.

The South African culture also does not adequately encourage entrepreneurial risk taking, creativity and innovativeness among the citizens. Although some South Africans seem to have entrepreneurial management skills for small firms, they are struggling to get the information required to access business opportunities. Directing policies towards addressing these challenges could therefore significantly improve the contribution by entrepreneurship to economic development.

6.9 SUMMARY OF DESCRIPTIVE STATISTIC ANALYSIS

Descriptive statistics is a process of statistical analysis of numerical data, discrete or continuous, that provides an analysis on the centring, spread and normality of the research data (Ferreira, 2012:196). Wegner (2007) notes that descriptive statistics are used to understand the distribution of the data to determine the extent to which the data are a true reflection of the target population. In order to determine the distribution of the data of the current study, descriptive statistics were calculated by examining the mean, SD, skewness and kurtosis coefficients.

According to Cohen *et al*. (2011), the mean is the sum of scores divided by the number of scores across the distribution. The mean is used to determine the score averages that are attained in various dimensions of the instruments (Cohen *et al.*, 2011). Treiman (2014) describes SD as the positive square root of variance that computes the average of the deviations of each score from the mean. The SD measures the average distance of all of the scores in the distribution from the mean or central point of the distribution.

Kline (2010) and Peral (2016) indicate that skewness and kurtosis refer to the degree to which data are normally distributed in relation to the mean. When both skewness and kurtosis are zero

(a situation that researchers are very unlikely to reach) the pattern of responses is considered a normal distribution. A general guideline for skewness is that, if the number is greater than +1 or lower than -1, it is an indication of a substantially skewed distribution. The general guideline for kurtosis is that, if the number is greater than +1, the distribution is too peaked. Likewise, a kurtosis of less than -1 indicates a distribution that is too flat. Distributions exhibiting skewness and/or kurtosis that exceed these guidelines are considered non-normal (Hair, Hult, Ringle & Sarstedt, 2017). Howell (2008) indicates that skewness and kurtosis values ranging between the normality range of -1 and +1 are recommended for conducting parametric tests.

The mean, SD, skewness and kurtosis for all entrepreneurship and economic development dimensions were determined in this study as indicated in Table 6.34:

Table 6.34: Descriptive statistical analysis of the study

	N	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
Opportunity entrepreneurship	273	1.91	4.91	4.1762	.30888	-2.475	16.051
Necessity entrepreneurship	273	1.67	5.00	4.2906	.57470	-1.999	6.093
Financial support	273	1.00	4.58	2.7732	.99487	.183	-1.601
Government policies	273	1.00	4.58	2.2134	.76645	1.133	.529
Government programmes	273	1.10	4.40	2.3659	.79731	1.143	.205
Education & training	273	1.17	5.00	4.0166	.51848	-1.711	7.091
Research and development	273	1.00	4.38	2.2055	.63074	1.313	1.593
Commercial and professional infrastructure	273	1.00	4.43	1.9435	.71309	1.978	3.295
Market flexibility	273	2.00	5.00	4.0788	.47087	-.363	3.487
Access to physical infrastructure	273	1.89	4.47	3.1507	.41980	.746	1.095
Income growth	273	3.00	5.00	4.2857	.30289	-.369	2.378
Employment generation	273	2.00	5.00	4.4212	.49280	-.352	.671
Inequality	273	2.00	5.00	4.3109	.44234	-1.229	5.194
Poverty	273	2.00	5.00	4.3982	.41056	-1.817	7.207
Human welfare	273	2.00	5.00	4.3352	.36027	-.683	5.623
Valid N (listwise)	273						

Source: Researcher's own compilation

As indicated in Table 6.34, the highest mean was recorded for:

- opportunity entrepreneurship (M=4.1762; SD=.30888);
- necessity entrepreneurship (M=4.2906; SD=.57470);
- education and training (M=4.0166; SD=.51848);
- market flexibility (M=4.0788; SD=.47087);
- access to physical infrastructure (M=3.1507; SD=.41980);
- income growth (M=4.2857; SD=.30289);
- employment generation (M=4.4212; SD=.49280);
- inequality (M=4.3109; SD=.44234);
- poverty (M=4.3982; SD=.41056); and
- human welfare (4.3352; SD=.36027).

This suggests that these dimensions have a strong influence on entrepreneurship to contribute to the economic development in South Africa. However, a low mean was recorded for:

- financial support (M=2.7732; SD=.99487);
- government policies (M=2.2134; SD=.76645);
- government programmes (M=2.3659; SD=.79731);
- research and development (M=2.2055; SD=.63074); and
- commercial and professional infrastructure (M=1.9435; SD=.71309).

These figures suggest that the dimensions have a low influence on the contribution of entrepreneurship to economic development in South Africa. Furthermore, none of the SDs of the entrepreneurship and economic development dimensions were higher than the mean values, implying that data of these dimensions were not widely dispensed during the sample period.

The values of skewness for the dimensions range between -.363 and 1.978 suggesting that data are both positively and negatively skewed. Similarly, the values of kurtosis ranged between -1.601 and 16.051, suggesting possible evidence of deviation from normality. The skewness and kurtosis coefficients confirm non-normality of the sample distribution, by showing both positive and negative skewed distribution with a relatively flat distribution across dimensions; therefore, non-parametric tests were run to validate these results.

6.10 CORRELATIONS STATISTICS

Correlation analysis is a measure of an association between variables. In correlated data, the change in the size of one variable is related to a change in the size of another variable, and this correlation can be positive or negative (Schober & Boer, 2018:1763). There are various correlation statistics. However, Alsaqr (2021:1) indicates that for non-normally distributed data, for ordinal data, or for data with relevant outliers, a Spearman's rank correlation can be used as a measure of a monotonic association. The data for the current study are non-normally distributed continuous data with outliers; hence, Spearman's rank correlation was adopted.

Spearman's rho correlation analysis was conducted in order to determine whether there is significant correlation between entrepreneurship dimensions and economic development dimensions. This aimed to address the primary research objective of the study statistically, namely to examine the significant correlation between entrepreneurship and the economic development of South Africa. Table 6.35 indicates Spearman's rho correlation analysis for the variables of the study.

Table 6.35: Spearman's rho correlation analysis for the variables of the study

Spearman's rho correlation analysis for the variables of the study		Income growth	Employment generation	Inequality	Poverty	Human welfare
Opportunity	Correlation coefficient	.203**	0.043	.148*	.120*	.245**
	Sig. (2-tailed)	0.001	0.480	0.014	0.047	0.000
	N	273	273	273	273	273
Necessity entrepreneurship	Correlation coefficient	.256**	0.117	.125*	.219**	0.107
	Sig. (2-tailed)	0.000	0.053	0.039	0.000	0.078
	N	273	273	273	273	273
Financial support	Correlation coefficient	0.039	-0.072	0.089	0.028	-0.024
	Sig. (2-tailed)	0.525	0.235	0.144	0.649	0.693
	N	273	273	273	273	273
Government policies	Correlation coefficient	0.023	-0.055	0.014	0.055	-0.046

Spearman's rho correlation analysis for the variables of the study		Income growth	Employment generation	Inequality	Poverty	Human welfare
	Sig. (2-tailed)	0.704	0.365	0.820	0.369	0.451
	N	273	273	273	273	273
Government programmes	Correlation coefficient	-0.003	-0.033	0.061	0.051	-0.059
	Sig. (2-tailed)	0.963	0.587	0.315	0.397	0.334
	N	273	273	273	273	273
Education & training	Correlation coefficient	.149*	0.118	.125*	.385**	.124*
	Sig. (2-tailed)	0.014	0.051	0.040	0.000	0.041
	N	273	273	273	273	273
Research and development	Correlation coefficient	-0.069	0.016	-0.006	0.087	-0.025
	Sig. (2-tailed)	0.254	0.791	0.921	0.153	0.682
	N	273	273	273	273	273
Commercial and professional infrastructure	Correlation coefficient	-0.030	-0.026	0.001	0.086	-0.107
	Sig. (2-tailed)	0.626	0.666	0.993	0.159	0.079
	N	273	273	273	273	273
Market flexibility	Correlation coefficient	.129*	.165**	0.016	.253**	.125*
	Sig. (2-tailed)	0.033	0.006	0.788	0.000	0.039
	N	273	273	273	273	273
Access to physical infrastructure	Correlation coefficient	0.083	0.089	0.091	.158**	0.101
	Sig. (2-tailed)	0.170	0.144	0.132	0.009	0.097
	N	273	273	273	273	273

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Researcher's own compilation

Table 6.35 shows that there is no correlation between opportunity entrepreneurship and the three economic development elements (income growth, *rho*=0.203; employment generation, *rho*=0.043; poverty, *rho*=0.120). Weak correlation is observed between opportunity entrepreneurship and human welfare (*rho*=0.245). Table 6.35 also indicates that necessity entrepreneurship does not correlate with all elements of economic development (income growth, *rho*=0.256; inequality, *rho*=0.125; poverty, *rho*=0.219; employment generation, *rho*=0.117; and human welfare, *rho*=0.107). Table 6.34 also indicates that there is no correlation between financial support and all five elements of economic development (income growth, *rho*=0.039; employment generation, *rho*=-0.072; inequality, *rho*=0.089; poverty, *rho*=0.028; and human welfare, *rho*=-0.024). Similarly, government policies do not correlate with all five elements of economic development (income growth, *rho*=0.023; employment generation, *rho*=-0.055; inequality, *rho*=0.014; poverty, *rho*=0.055; and human welfare, *rho*=-0.046). Government programmes also do not correlate with the five elements of economic development (income growth, *rho*=-0.003; employment generation, *rho*=-0.033; inequality, *rho*=0.061; poverty, *rho*=0.051; and human welfare, *rho*=-0.059).

Furthermore, Table 6.35 shows that there is no correlation between education and training and four elements of economic development (income growth, *rho*= 0.149; employment generation, *rho*=-0.118; inequality, *rho*=0.125; and human welfare, *rho*= 0.124). However, a weak correlation is indicated between education and training and poverty (*rho*=0.385). Research and development do not correlate with any of the five elements of economic development (income growth, *rho*=-0.069; employment generation, *rho*=-0.016; inequality, *rho*=-0.006; poverty, *rho*=0.087; and human welfare, *rho*= -0.025). Commercial and professional infrastructure also does not correlate with any of the five elements of economic development (income growth, *rho*= -0.030; employment generation, *rho*=-0.026; inequality, *rho*=0.001; poverty, *rho*=0.086; and human welfare, *rho*= -0.107). Unlike commercial and professional infrastructure, market flexibility has no correlation with four elements of economic development (income growth, *rho*= 0.129; employment generation, *rho*=-0.165; inequality, *rho*= 0.016; and human welfare, *rho*= 0.125) but it has weak correlation with poverty, *rho*= 0.253. Like most entrepreneurship framework conditions, access to physical infrastructure has no correlation with all five elements of economic development (income growth, *rho*= 0.083; employment generation, *rho*= 0.089; inequality, *rho*= 0.091; poverty, *rho*= 0.158; and human welfare, *rho*= 0.101).

To summarise, Spearman's rho correlation analysis indicates that, although there is variability regarding the correlation between entrepreneurship elements and economic development elements, most of entrepreneurship elements do not correlate with economic development elements. The correlation coefficients range from ±0 to less than ±0.8 indicating no correlation or weak correlation among variables. A weak correlation is indicated between opportunity entrepreneurship and human welfare, and between market flexibility and poverty. This implies that despite that, most entrepreneurship elements do not contribute significantly to economic development. However, opportunity entrepreneurship and market flexibility minimally contribute to economic development. These findings seem to be close to the findings by Shane (2009:142), which indicate that start-up entrepreneurship is not innovative. It creates very few jobs, which result in low economic development. Dvouletý *et al.* (2018:9) also indicate that there is a need to explain the negative and unproductive correlation that exists between entrepreneurship and the economic development in developing countries in order to identify adequate sources for policy improvement. Furthermore, these findings are supported by Okoye *et al.* (2016:52) who indicate that, even if informal economic activities in developing countries were to be recorded, their contribution to GDP growth rate would be minimal. This argument is supported by Knox *et al.* (2019:24) who argue that, despite the significance of informal economic activities, these activities are deemed necessity-driven without a potential to contribute to economic development.

6.11 INFERENTIAL (MULTIVARIATE) STATISTICS

According to Hair, Black, Babin and Anderson (2010), inferential (multivariate) statistics consist of approaches that assist the researcher to study samples and then make generalisations about the populations from which the samples had been drawn. In the current study, multivariate analysis was conducted to identify statistically significant relationships among the variables of the study. This focused on addressing the primary objective of the study: to examine the correlation between entrepreneurship and economic development of South Africa. This was done by examining the degree of variation between the entrepreneurship and economic development dimensions, as well as by determining whether there were differences among the demographic variables. The entrepreneurship and economic development dimensions of the study had more than two variables. As a result, the statistic Wilks' lambda was also used to determine significant differences among these variables. The statistic Wilks'

lambda is the most common and traditional test appropriate to be used in instances where more than two groups are formed by the independent variables (Kanyama, 2011:7).

The inferential analysis of the study entailed the following steps:

- conducting the Mann–Whitney test to assess whether the entrepreneurship and economic dimensions of the study demonstrated a significant difference according to age and gender;
- conducting the Kruskal–Wallis H test to determine whether the entrepreneurship and economic development dimensions of the study demonstrated a significant difference according to academic education, sector within which the company or institution falls, academic, professional or working experience;
- conducting the statistic Wilks' lambda to determine the significant effect of independent variables on dependent variables; and
- summarising the results for the Mann–Whitney and Kruskal–Wallis H tests and the statistic Wilks' lambda.

6.11.1 Mann–Whitney test statistics according to age group

The results in Table 6.36 present multivariate test on age group to assess whether the entrepreneurship and economic dimensions of the study demonstrated a significant difference according to age.

Table 6.36: Mann–Whitney test statistics according to age (N =273)

Grouping variable: 1.2 Please indicate your age group							
Ranks	**Age group**	**N**	**Mean rank**	**Sum of ranks**	**Mann–Whitney U**	**Z**	**Asymp. sig. (2-tailed)**
Opportunity	30–40 years	92	142.12	13075.00	7855.000	-.769	.442
	40+ years	181	134.40	24326.00			
	Total	273					
Necessity entrepreneurship	30–40 years	92	113.89	10477.50	6199.500	-3.578	.000
	40+ years	181	148.75	26923.50			
	Total	273					
Financial support	30–40 years	92	151.40	13929.00	7001.000	-2.156	.031
	40+ years	181	129.68	23472.00			
	Total	273					
Government policies	30–40 years	92	151.60	13947.00	6983.000	-2.184	.029
	40+ years	181	129.58	23454.00			
	Total	273					
Government programmes	30–40 years	92	149.61	13764.00	7166.000	-1.898	.058
	40+ years	181	130.59	23637.00			

Grouping variable: 1.2 Please indicate your age group							
Ranks	**Age group**	**N**	**Mean rank**	**Sum of ranks**	**Mann–Whitney U**	**Z**	**Asymp. sig. (2-tailed)**
	Total	273					
Education & training	30–40 years	92	117.43	10803.50	6525.500	-2.945	.003
	40+ years	181	146.95	26597.50			
	Total	273					
Research and development	30–40 years	92	145.03	13343.00	7587.000	-1.204	.229
	40+ years	181	132.92	24058.00			
	Total	273					
Commercial and professional infrastructure	30–40 years	92	137.45	12645.00	8285.000	-.067	.947
	40+ years	181	136.77	24756.00			
	Total	273					
Market flexibility	30–40 years	92	123.97	11405.50	7127.500	-2.336	.019
	40+ years	181	143.62	25995.50			
	Total	273					
Access to physical infrastructure	30–40 years	92	142.84	13141.00	7789.000	-.872	.383
	40+ years	181	134.03	24260.00			
	Total	273					
Income growth	30–40 years	92	136.15	12526.00	8248.000	-.127	.899
	40+ years	181	137.43	24875.00			

Grouping variable: 1.2 Please indicate your age group							
Ranks	**Age group**	**N**	**Mean rank**	**Sum of ranks**	**Mann–Whitney U**	**Z**	**Asymp. sig. (2-tailed)**
	Total	273					
Employment generation	30–40 years	92	123.44	11356.50	7078.500	-2.194	.028
	40+ years	181	143.89	26044.50			
	Total	273					
Inequality	30–40 years	92	136.80	12585.50	8307.500	-.030	.976
	40+ years	181	137.10	24815.50			
	Total	273					
Poverty	30–40 years	92	111.40	10248.50	5970.500	-3.850	.000
	40+ years	181	150.01	27152.50			
	Total	273					
Human welfare	30–40 years	92	136.78	12583.50	8305.500	-.034	.973
	40+ years	181	137.11	24817.50			
	Total	273					

Source: Researcher's own compilation

The Mann–Whitney test results in terms of age difference are indicated in Table 6.36. This test was conducted to determine whether the entrepreneurship and economic dimensions of the study demonstrated a difference according to age. A significant difference ($p = \leq .05$) and the z-value

> 1.95 (critical value) were observed on necessity entrepreneurship, financial support, government policies, government programmes, education and training, market flexibility, employment generation, and poverty. Considering the mean ranks, necessity entrepreneurship (M=148.75), education and training (M=146.95), market flexibility (M=143.62), employment generation (M=143.89) and poverty (M=150.01) amongst the 40+ year group were higher than amongst the < 40 year group. The results imply that entrepreneurship and economics experts aged 40+ years had a strong perception that necessity entrepreneurship, education and training, market flexibility, employment generation and poverty, have a strong influence on entrepreneurship to contribute significantly to economic development in South Africa.

Considering the p-values (> 0.05), no significant differences could be detected between age groups in terms of opportunity entrepreneurship, government programmes, research and development, commercial and professional infrastructure, access to physical infrastructure, income growth, inequality, and human welfare. As a result, it was concluded that the entrepreneurship and economic dimensions (necessity entrepreneurship, education and training, market flexibility, employment generation, and poverty) have a strong influence on entrepreneurship to contribute significantly to economic development in South Africa.

6.11.2 Mann–Whitney test statistics according to gender group

The results of multivariate test according to gender group are indicated in Table 6.37. This test assessed whether the entrepreneurship and economic dimensions of the study demonstrate a significant difference according to gender.

Table 6.37: Mann–Whitney test statistics according to gender (N =273)

Grouping variable: 1.1 Please indicate your gender							
Rank	**Gender**	**N**	**Mean rank**	**Sum of ranks**	**Mann–Whitney U**	**Z**	**Asymp. sig. (2-tailed)**
Opportunity	Male	159	129.39	20572.50	7852.500	-1.895	.058
	Female	114	147.62	16828.50			
	Total	273					
Necessity entrepreneurship	Male	159	134.30	21353.50	8633.500	-.693	.489
	Female	114	140.77	16047.50			
	Total	273					
Financial support	Male	159	146.02	23216.50	7629.500	-2.236	.025
	Female	114	124.43	14184.50			
	Total	273					
Government policies	Male	159	141.21	22452.50	8393.500	-1.044	.297
	Female	114	131.13	14948.50			
	Total	273					
Government programmes	Male	159	145.23	23091.50	7754.500	-2.052	.040
	Female	114	125.52	14309.50			
	Total	273					
Education & training	Male	159	136.21	21657.00	8937.000	-.198	.843
	Female	114	138.11	15744.00			
	Total	273					

Grouping variable: 1.1 Please indicate your gender							
Rank	**Gender**	**N**	**Mean rank**	**Sum of ranks**	**Mann–Whitney U**	**Z**	**Asymp. sig. (2-tailed)**
Research and development	Male	159	148.91	23676.00	7170.000	-2.956	.003
	Female	114	120.39	13725.00			
	Total	273					
Commercial and professional infrastructure	Male	159	144.28	22940.00	7906.000	-1.813	.070
	Female	114	126.85	14461.00			
	Total	273					
Market flexibility	Male	159	131.41	20894.00	8174.000	-1.661	.097
	Female	114	144.80	16507.00			
	Total	273					
Access to physical infrastructure	Male	159	138.24	21980.50	8865.500	-.307	.759
	Female	114	135.27	15420.50			
	Total	273					
Income growth	Male	159	140.86	22397.50	8448.500	-.962	.336
	Female	114	131.61	15003.50			
	Total	273					
Employment generation	Male	159	131.54	20914.50	8194.500	-1.464	.143
	Female	114	144.62	16486.50			
	Total	273					
Inequality	Male	159	140.67	22366.50	8479.500	-.916	.359

Grouping variable: 1.1 Please indicate your gender							
Rank	**Gender**	**N**	**Mean rank**	**Sum of ranks**	**Mann–Whitney U**	**Z**	**Asymp. sig. (2-tailed)**
	Female	114	131.88	15034.50			
	Total	273					
Poverty	Male	159	134.31	21354.50	8634.500	-.671	.502
	Female	114	140.76	16046.50			
	Total	273					
Human welfare	Male	159	135.07	21476.50	8756.500	-.484	.628
	Female	114	139.69	15924.50			
	Total	273					

Source: Researcher's own compilation

Table 6.37 indicates the Mann–Whitney test results in terms of gender difference. The Mann–Whitney test was conducted to determine whether the entrepreneurship and economic development dimensions of the study demonstrated a significant difference according to gender. A significant difference ($p = \leq .05$) and z-value (> 1.95) (critical value) were observed on financial support, government programmes, opportunity entrepreneurship, commercial professional and infrastructure, market flexibility, and research and development. In contrast, no significant differences could be detected between gender groups in terms of necessity entrepreneurship, government policies, education and training, access to physical infrastructure, income growth, employment generation, inequality, poverty, and human welfare.

Considering the mean ranks, financial support (M=146.02), government policies (M=141.21), government programmes (M=145.23), research and development (M=148.91), commercial professional infrastructure (M=144.28), access to physical infrastructure (M=138.24), income growth (M=140.86), and inequality (M=140.67) were higher for male participants than for female participants. This implies that participating males had a stronger perception than female participants that these entrepreneurship and economic development dimensions (financial support, government policies, government programmes, research and development, commercial professional infrastructure, access to physical infrastructure, income growth and inequality) have a strong influence in terms of entrepreneurship to contribute significantly to economic development in South Africa.

6.11.3 Kruskal–Wallis H test statistics according to education group

As the Mann–Whitney test is only applicable for variables of two categories, the Kruskal–Wallis H test (non-parametric test) was performed for demographic variables with more than two categories. Table 6.38 indicates the results of the non-parametric test according to education group regarding whether the entrepreneurship and economic dimensions of the study demonstrated a significant difference according to level of academic education.

Table 6.38: Kruskal–Wallis H test statistics according to education group (N =265)

Grouping variable: 1.3 Please indicate your highest level of academic education						
	Highest level of academic education	**N**	**Mean rank**	**Kruskal–Wallis H(x^2)**	**df**	**Asymp. sig.**
Opportunity	Doctoral degree	99	153.20	11.907	3	.008
	Master's degree	97	130.05			
	Honours degree	69	115.89			
	Total	265				
Necessity entrepreneurship	Doctoral degree	99	135.46	2.965	3	.397
	Master's degree	97	127.98			
	Honours degree	69	148.37			
	Total	265				
Financial support	Doctoral degree	99	134.02	5.195	3	.158
	Master's degree	97	136.48			
	Honours degree	69	132.00			
	Total	265				
Government policies	Doctoral degree	99	134.37	2.667	3	.446
	Master's degree	97	141.91			
	Honours degree	69	127.04			
	Total	265				
Government programmes	Doctoral degree	99	135.98	2.244	3	.523
	Master's degree	97	138.52			
	Honours degree	69	129.01			
	Total	265				
Education & training	Doctoral degree	99	148.36	6.047	3	.109

Grouping variable: 1.3 Please indicate your highest level of academic education						
	Highest level of academic education	**N**	**Mean rank**	**Kruskal–Wallis H(x^2)**	**df**	**Asymp. sig.**
	Master's degree	97	129.23			
	Honours degree	69	132.26			
	Total	265				
Research and development	Doctoral degree	99	143.10	2.239	3	.524
	Master's degree	97	135.08			
	Honours degree	69	125.80			
	Total	265				
Commercial and professional infrastructure	Doctoral degree	99	138.72	1.011	3	.799
	Master's degree	97	138.30			
	Honours degree	69	128.06			
	Total	265				
Market flexibility	Doctoral degree	99	143.72	4.123	3	.248
	Master's degree	97	127.56			
	Honours degree	69	134.41			
	Total	265				
Access to physical infrastructure	Doctoral degree	99	130.54	1.784	3	.618
	Master's degree	97	138.08			
	Honours degree	69	137.87			
	Total	265				
Income growth	Doctoral degree	99	141.68	1.572	3	.666
	Master's degree	97	129.18			
	Honours degree	69	135.94			

Grouping variable: 1.3 Please indicate your highest level of academic education						
	Highest level of academic education	**N**	**Mean rank**	**Kruskal–Wallis H(x^2)**	**df**	**Asymp. sig.**
	Total	265				
Employment generation	Doctoral degree	99	155.01	11.056	3	.011
	Master's degree	97	126.92			
	Honours degree	69	121.75			
	Total	265				
Inequality	Doctoral degree	99	140.75	1.823	3	.610
	Master's degree	97	130.94			
	Honours degree	69	138.96			
	Total	265				
Poverty	Doctoral degree	99	146.99	15.119	3	.002
	Master's degree	97	113.51			
	Honours degree	69	146.50			
	Total	265				
Human welfare	Doctoral degree	99	148.41	9.129	3	.028
	Master's degree	97	125.82			
	Honours degree	69	127.07			
	Total	265				

Source: Researcher's own compilation

Table 6.38 indicates the results of the Kruskal–Wallis H test in terms of academic education. The Kruskal–Wallis H test was conducted to determine whether the entrepreneurship and economic development dimensions of the study demonstrated a significant difference according to academic education at the significance level of $p \leq .05$. The results revealed:

- $X^2 = 11.907$, $p = .008$ between opportunity entrepreneurship and academic education group;
- $x^2 = 11.056$, $p = .011$ between employment generation and academic education group;
- $x^2 = 15.119$, $p=.002$ between poverty and academic education group; and
- $x^2 = 9.129$, $p = .028$ between human welfare and academic education group.

Considering the mean rank, it was found that participating entrepreneurship and economic development experts with doctoral degrees had a strong perception that opportunity entrepreneurship (M=153.20), employment generation (M=155.01), poverty (M=146.99) and human welfare (M=148.41) have a strong influence on entrepreneurship to contribute significantly to the economic development of South Africa.

6.11.4 Kruskal–Wallis H test statistics according to sectoral group

The multivariate test results according to sector are shown in Table 6.39. This test assessed whether the entrepreneurship and economic dimensions of the study demonstrated a significant difference according to the sector in which the company or institution fell.

Table 6.39: Kruskal–Wallis H test statistics according to sectoral group N=219

Grouping variable: 1.6 Please indicate the sector within which your company or institution falls						
Rank	**Sector or institution**	**N**	**Mean rank**	**Kruskal–Wallis H (x^2)**	**df**	**Asymp. sig.**
Opportunity	Academic	59	108.05	2.129	5	.831
	Construction	44	101.67			
	Manufacturing	55	108.67			
	Mining services	20	119.13			
	Agriculture	19	119.84			
	Wholesale and retail	22	118.41			
	Total	219				
Necessity entrepreneurship	Academic	59	98.18	10.605	5	.060
	Construction	44	125.30			
	Manufacturing	55	118.57			
	Mining services	20	123.95			
	Agriculture	19	93.71			
	Wholesale and retail	22	91.07			
	Total	219				
Financial support	Academic	59	116.14	2.417	5	.789
	Construction	44	105.18			
	Manufacturing	55	107.42			
	Mining services	20	115.45			
	Agriculture	19	119.13			
	Wholesale and retail	22	96.80			
	Total	219				

Grouping variable: 1.6 Please indicate the sector within which your company or institution falls						
Rank	**Sector or institution**	**N**	**Mean rank**	**Kruskal–Wallis H (x^2)**	**df**	**Asymp. sig.**
Government policies	Academic	59	109.83	5.262	5	.385
	Construction	44	105.63			
	Manufacturing	55	108.49			
	Mining services	20	111.25			
	Agriculture	19	139.13			
	Wholesale and retail	22	96.68			
	Total	219				
Government programmes	Academic	59	113.23	2.513	5	.774
	Construction	44	105.94			
	Manufacturing	55	107.78			
	Mining services	20	109.68			
	Agriculture	19	127.87			
	Wholesale and retail	22	99.86			
	Total	219				
Education & training	Academic	59	107.43	2.313	5	.804
	Construction	44	103.22			
	Manufacturing	55	119.95			
	Mining services	20	103.15			
	Agriculture	19	113.82			
	Wholesale and retail	22	108.52			
	Total	219				
Research and development	Academic	59	117.74	3.706	5	.593
	Construction	44	110.76			

Grouping variable: 1.6 Please indicate the sector within which your company or institution falls						
Rank	**Sector or institution**	**N**	**Mean rank**	**Kruskal–Wallis H (x^2)**	**df**	**Asymp. sig.**
	Manufacturing	55	105.05			
	Mining services	20	92.15			
	Agriculture	19	122.61			
	Wholesale and retail	22	105.43			
	Total	219				
Commercial and professional infrastructure	Academic	59	120.35	4.703	5	.453
	Construction	44	101.85			
	Manufacturing	55	102.77			
	Mining services	20	102.08			
	Agriculture	19	126.58			
	Wholesale and retail	22	109.50			
	Total	219				
Market flexibility	Academic	59	108.24	2.752	5	.738
	Construction	44	109.41			
	Manufacturing	55	107.46			
	Mining services	20	128.68			
	Agriculture	19	109.55			
	Wholesale and retail	22	105.66			
	Total	219				
Access to physical infrastructure	Academic	59	106.69	2.362	5	.797
	Construction	44	100.09			
	Manufacturing	55	115.98			
	Mining services	20	120.13			

Grouping variable: 1.6 Please indicate the sector within which your company or institution falls						
Rank	**Sector or institution**	**N**	**Mean rank**	**Kruskal–Wallis H (x^2)**	**df**	**Asymp. sig.**
	Agriculture	19	114.95			
	Wholesale and retail	22	110.27			
	Total	219				
Income growth	Academic	59	103.96	5.647	5	.342
	Construction	44	109.72			
	Manufacturing	55	120.85			
	Mining services	20	119.85			
	Agriculture	19	114.08			
	Wholesale and retail	22	87.18			
	Total	219				
Employment generation	Academic	59	123.14	13.543	5	.019
	Construction	44	97.50			
	Manufacturing	55	97.64			
	Mining services	20	129.70			
	Agriculture	19	92.34			
	Wholesale and retail	22	128.00			
	Total	219				
Inequality	Academic	59	112.78	2.647	5	.754
	Construction	44	105.61			
	Manufacturing	55	118.52			
	Mining services	20	110.63			
	Agriculture	19	97.11			
	Wholesale and retail	22	100.59			

Grouping variable: 1.6 Please indicate the sector within which your company or institution falls						
Rank	**Sector or institution**	**N**	**Mean rank**	**Kruskal–Wallis H (x^2)**	**df**	**Asymp. sig.**
	Total	219				
Poverty	Academic	59	96.35	4.878	5	.431
	Construction	44	114.19			
	Manufacturing	55	110.99			
	Mining services	20	125.63			
	Agriculture	19	121.50			
	Wholesale and retail	22	111.61			
	Total	219				
Human welfare	Academic	59	106.49	1.274	5	.938
	Construction	44	106.18			
	Manufacturing	55	108.69			
	Mining services	20	115.55			
	Agriculture	19	120.16			
	Wholesale and retail	22	116.50			
	Total	219				

Source: Researcher's own compilation

Table 6.39 indicates the results of the Kruskal–Wallis H test in terms of sectors in which the participants were working at the time. The Kruskal–Wallis H test was conducted to determine whether the entrepreneurship and economic development dimensions of the study indicated a significant difference according to sector at the significance level of $p \leq .05$. The results revealed $x^2=13.543$, $p =.019$ between employment generation and sectoral group, and $x^2 = 10.605$, $p = .060$ between necessity entrepreneurship and sectoral group.

Considering the mean rank, it was found that those entrepreneurship and economic development experts working in the mining sector (129.70), followed by wholesale and retail (128.00) and academia (123.14), had strong perceptions that employment generation influences entrepreneurship to contribute significantly to economic development of South Africa. In contrast, participating entrepreneurship and economic development experts working in construction (125.30), followed by the mining sector (123.95) and manufacturing (118.57), had strong perceptions that necessity entrepreneurship has an influence on entrepreneurship to contribute significantly to the economic development of South Africa.

6.11.5 Kruskal–Wallis H test statistics according to experience group

The results of the multivariate analysis indicated in Table 6.40 represent the opinions according to experience. This test assessed whether the entrepreneurship and economic dimensions of the study indicated a significant difference according to academic, professional or working experience.

Table 6.40: Kruskal–Wallis H test statistics according to experience group (N =271)

Grouping variable: 1.10 Please indicate your experience (academic, professional or working experience)						
Rank	**Level of experience**	**N**	**Mean rank**	**Kruskal–Wallis H**	**df**	**Asymp. Sig.**
Opportunity	Academic (1–5 years)	1	28.00	5.763	9	.763
	Academic (6–10 years)	7	156.64			
	Academic (more than 10 years)	38	142.07			
	Industry (1–5 years)	10	139.50			
	Industry (6–10 years)	100	134.34			
	Industry (more than 10 years)	100	136.60			
	Both academic and industry (6–10 years)	7	124.29			
	Both academic and industry (more than 10 years)	4	134.88			
	Both academic and professional (6–10 years)	3	143.33			
	Both academic and professional (more than 10 years)	1	4.50			
	Total	271				
Necessity entrepreneurship	Academic (1–5 years)	1	198.00	11.573	9	.238
	Academic (6–10 years)	7	112.86			
	Academic (more than 10 years)	38	118.92			
	Industry (1–5 years)	10	124.60			
	Industry (6–10 years)	100	142.58			
	Industry (more than 10 years)	100	143.19			
	Both academic and industry (6–10 years)	7	89.00			
	Both academic and industry (more than 10 years)	4	153.75			

Grouping variable: 1.10 Please indicate your experience (academic, professional or working experience)						
Rank	**Level of experience**	**N**	**Mean rank**	**Kruskal–Wallis H**	**df**	**Asymp. Sig.**
	Both academic and professional (6–10 years)	3	89.17			
	Both academic and professional (more than 10 years)	1	21.00			
	Total	271				
Financial support	Academic (1–5 years)	1	71.00	10.873	9	.285
	Academic (6–10 years)	7	154.43			
	Academic (more than 10 years)	38	138.36			
	Industry (1–5 years)	10	157.90			
	Industry (6–10 years)	100	123.40			
	Industry (more than 10 years)	100	139.72			
	Both academic and industry (6–10 years)	7	204.00			
	Both academic and industry (more than 10 years)	4	116.88			
	Both academic and professional (6–10 years)	3	169.33			
	Both academic and professional (more than 10 years)	1	153.00			
	Total	271				
Government policies	Academic (1–5 years)	1	150.00	17.002	9	.049
	Academic (6–10 years)	7	156.64			
	Academic (more than 10 years)	38	118.91			
	Industry (1–5 years)	10	183.60			
	Industry (6–10 years)	100	120.58			
	Industry (more than 10 years)	100	144.93			
	Both academic and industry (6–10 years)	7	194.50			

Grouping variable: 1.10 Please indicate your experience (academic, professional or working experience)						
Rank	**Level of experience**	**N**	**Mean rank**	**Kruskal–Wallis H**	**df**	**Asymp. Sig.**
	Both academic and industry (more than 10 years)	4	187.38			
	Both academic and professional (6–10 years)	3	148.00			
	Both academic and professional (more than 10 years)	1	150.00			
	Total	271				
Government programmes	Academic (1–5 years)	1	224.50	11.814	9	.224
	Academic (6–10 years)	7	152.86			
	Academic (more than 10 years)	38	126.12			
	Industry (1–5 years)	10	176.50			
	Industry (6–10 years)	100	122.47			
	Industry (more than 10 years)	100	142.36			
	Both academic and industry (6–10 years)	7	170.50			
	Both academic and industry (more than 10 years)	4	167.88			
	Both academic and professional (6–10 years)	3	181.17			
	Both academic and professional (more than 10 years)	1	113.00			
	Total	271				
Education & training	Academic (1–5 years)	1	249.50	10.546	9	.308
	Academic (6–10 years)	7	94.86			
	Academic (more than 10 years)	38	139.39			
	Industry (1–5 years)	10	125.60			
	Industry (6–10 years)	100	131.43			

Grouping variable: 1.10 Please indicate your experience (academic, professional or working experience)						
Rank	**Level of experience**	**N**	**Mean rank**	**Kruskal–Wallis H**	**df**	**Asymp. Sig.**
	Industry (more than 10 years)	100	144.63			
	Both academic and industry (6–10 years)	7	135.50			
	Both academic and industry (more than 10 years)	4	84.25			
	Both academic and professional (6–10 years)	3	162.00			
	Both academic and professional (more than 10 years)	1	13.00			
	Total	271				
Research and development	Academic (1–5 years)	1	29.00	24.796	9	.003
	Academic (6–10 years)	7	149.21			
	Academic (more than 10 years)	38	133.33			
	Industry (1–5 years)	10	205.60			
	Industry (6–10 years)	100	126.69			
	Industry (more than 10 years)	100	129.60			
	Both academic and industry (6–10 years)	7	191.21			
	Both academic and industry (more than 10 years)	4	176.75			
	Both academic and professional (6–10 years)	3	245.50			
	Both academic and professional (more than 10 years)	1	249.00			
	Total	271				
Commercial and professional infrastructure	Academic (1–5 years)	1	86.50	16.990	9	.049
	Academic (6–10 years)	7	201.36			
	Academic (more than 10 years)	38	137.68			

Grouping variable: 1.10 Please indicate your experience (academic, professional or working experience)						
Rank	**Level of experience**	**N**	**Mean rank**	**Kruskal–Wallis H**	**df**	**Asymp. Sig.**
	Industry (1–5 years)	10	173.65			
	Industry (6–10 years)	100	120.62			
	Industry (more than 10 years)	100	137.54			
	Both academic and industry (6–10 years)	7	158.07			
	Both academic and industry (more than 10 years)	4	147.25			
	Both academic and professional (6–10 years)	3	219.67			
	Both academic and professional (more than 10 years)	1	221.00			
	Total	271				
Market flexibility	Academic (1–5 years)	1	220.00	8.049	9	.529
	Academic (6–10 years)	7	93.86			
	Academic (more than 10 years)	38	134.42			
	Industry (1–5 years)	10	127.85			
	Industry (6–10 years)	100	142.40			
	Industry (more than 10 years)	100	133.15			
	Both academic and industry (6–10 years)	7	143.07			
	Both academic and industry (more than 10 years)	4	100.75			
	Both academic and professional (6–10 years)	3	169.17			
	Both academic and professional (more than 10 years)	1	125.50			
	Total	271				
	Academic (1–5 years)	1	173.00	19.492	9	.021

Grouping variable: 1.10 Please indicate your experience (academic, professional or working experience)						
Rank	**Level of experience**	**N**	**Mean rank**	**Kruskal–Wallis H**	**df**	**Asymp. Sig.**
Access to physical infrastructure	Academic (6–10 years)	7	199.86			
	Academic (more than 10 years)	38	108.00			
	Industry (1–5 years)	10	170.15			
	Industry (6–10 years)	100	135.15			
	Industry (more than 10 years)	100	134.65			
	Both academic and industry (6–10 years)	7	199.64			
	Both academic and industry (more than 10 years)	4	127.38			
	Both academic and professional (6–10 years)	3	187.33			
	Both academic and professional (more than 10 years)	1	30.00			
	Total	271				
Income growth	Academic (1–5 years)	1	211.00	9.985	9	.352
	Academic (6–10 years)	7	166.43			
	Academic (more than 10 years)	38	117.38			
	Industry (1–5 years)	10	156.55			
	Industry (6–10 years)	100	137.63			
	Industry (more than 10 years)	100	137.07			
	Both academic and industry (6–10 years)	7	174.43			
	Both academic and industry (more than 10 years)	4	124.88			
	Both academic and professional (6–10 years)	3	63.17			
	Both academic and professional (more than 10 years)	1	74.50			

Grouping variable: 1.10 Please indicate your experience (academic, professional or working experience)						
Rank	**Level of experience**	**N**	**Mean rank**	**Kruskal–Wallis H**	**df**	**Asymp. Sig.**
	Total	271				
Employment generation	Academic (1–5 years)	1	223.00	12.264	9	.199
	Academic (6–10 years)	7	128.86			
	Academic (more than 10 years)	38	152.25			
	Industry (1–5 years)	10	146.40			
	Industry (6–10 years)	100	143.99			
	Industry (more than 10 years)	100	118.68			
	Both academic and industry (6–10 years)	7	135.86			
	Both academic and industry (more than 10 years)	4	148.50			
	Both academic and professional (6–10 years)	3	149.00			
	Both academic and professional (more than 10 years)	1	223.00			
	Total	271				
Inequality	Academic (1–5 years)	1	207.00	9.584	9	.385
	Academic (6–10 years)	7	160.36			
	Academic (more than 10 years)	38	140.82			
	Industry (1–5 years)	10	141.65			
	Industry (6–10 years)	100	134.60			
	Industry (more than 10 years)	100	136.88			
	Both academic and industry (6–10 years)	7	120.14			
	Both academic and industry (more than 10 years)	4	56.75			
	Both academic and professional (6–10 years)	3	94.83			

Grouping variable: 1.10 Please indicate your experience (academic, professional or working experience)						
Rank	**Level of experience**	**N**	**Mean rank**	**Kruskal–Wallis H**	**df**	**Asymp. Sig.**
	Both academic and professional (more than 10 years)	1	258.50			
	Total	271				
Poverty	Academic (1–5 years)	1	173.00	16.350	9	.060
	Academic (6–10 years)	7	52.57			
	Academic (more than 10 years)	38	130.86			
	Industry (1–5 years)	10	133.20			
	Industry (6–10 years)	100	137.50			
	Industry (more than 10 years)	100	144.84			
	Both academic and industry (6–10 years)	7	114.86			
	Both academic and industry (more than 10 years)	4	66.63			
	Both academic and professional (6–10 years)	3	147.00			
	Both academic and professional (more than 10 years)	1	266.00			
	Total	271				
Human welfare	Academic (1–5 years)	1	145.50	8.899	9	.447
	Academic (6–10 years)	7	128.21			
	Academic (more than 10 years)	38	127.11			
	Industry (1–5 years)	10	170.55			
	Industry (6–10 years)	100	133.26			
	Industry (more than 10 years)	100	136.03			
	Both academic and industry (6–10 years)	7	183.64			

Grouping variable: 1.10 Please indicate your experience (academic, professional or working experience)						
Rank	**Level of experience**	**N**	**Mean rank**	**Kruskal–Wallis H**	**df**	**Asymp. Sig.**
	Both academic and industry (more than 10 years)	4	129.88			
	Both academic and professional (6–10 years)	3	94.33			
	Both academic and professional (more than 10 years)	1	260.50			
	Total	271				

Source: Researcher's own compilation

The statistics presented in Table 6.40 represent the results of the Kruskal–Wallis H test in terms of academic, professional and working experience. The Kruskal–Wallis H test was conducted to determine whether the entrepreneurship and economic development dimensions of the study demonstrated a significant difference in terms of academic, professional and working experience at the significance level of $p \leq .05$. The results revealed:

- $x^2 = 17.002$, $p = .049$ between government policies and experience (academic, professional and working experience);
- $x^2 = 24.796$, $p = .003$ between research and development, and experience (academic, professional and working experience);
- $x^2 = 16.990$, $p = .049$ between commercial and professional infrastructure, and experience (academic, professional and working experience); and
- $x^2 = 19.492$, $p = .021$ between access to physical infrastructure, and experience (academic, professional and working experience).

Considering the mean ranks, academics (1–5years experience) and both academics and professionals (more than 10 years' experience) had the highest scores on education and training (M=249), and research and development (M=249). This implies that most participating entrepreneurship and economic development experts with academic, professional and working experience agreed that government policies, research and development, commercial and professional infrastructure, and access to infrastructure had a strong influence on entrepreneurship to contribute significantly to economic development of South Africa. However, most academics with 1–5 years' academic experience, and academics and professionals with more than 10 years' experience, perceived that education and training, and research and development had a strong influence on entrepreneurship to contribute significantly to economic development in South Africa.

6.11.6 General linear model (multivariate test) of independent variables

Table 6.41 indicates the results of multivariate test for independent variables of the study to determine the significant effect of independent variables on dependent variables.

Table 6.41: General linear model (multivariate test) of independent variables

Variable labels for independent variables:

I1_Opportunity	Opportunity
I2_NEentre	Necessity entrepreneurship
I3_FS	Financial support
I4_GP	Government policies
I5_GPr	Government programmes
I6_EAT	Education & training
I7_RanD	Research and development
I8_CAPI	Commercial and professional infrastructure
I9_MF	Market flexibility
I10_API	Access to physical infrastructure

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial eta-squared
Intercept	Pillai's trace	.420	37.331[b]	5.000	258.000	.000	.420
	Wilks' lambda	.580	37.331[b]	5.000	258.000	.000	.420
	Hotelling's trace	.723	37.331[b]	5.000	258.000	.000	.420
	Roy's largest root	.723	37.331[b]	5.000	258.000	.000	.420
I1_Opportunity	Pillai's trace	.044	2.356[b]	5.000	258.000	.041	.044
	Wilks' lambda	.956	2.356[b]	5.000	258.000	.041	.044
	Hotelling's trace	.046	2.356[b]	5.000	258.000	.041	.044
	Roy's largest root	.046	2.356[b]	5.000	258.000	.041	.044

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial eta-squared
I2_NEentre	Pillai's trace	.160	9.803[b]	5.000	258.000	.000	.160
	Wilks' lambda	.840	9.803[b]	5.000	258.000	.000	.160
	Hotelling's trace	.190	9.803[b]	5.000	258.000	.000	.160
	Roy's largest root	.190	9.803[b]	5.000	258.000	.000	.160
I3_FS	Pillai's trace	.008	.415[b]	5.000	258.000	.838	.008
	Wilks' lambda	.992	.415[b]	5.000	258.000	.838	.008
	Hotelling's trace	.008	.415[b]	5.000	258.000	.838	.008
	Roy's largest root	.008	.415[b]	5.000	258.000	.838	.008
I4_GP	Pillai's trace	.031	1.626[b]	5.000	258.000	.153	.031
	Wilks' lambda	.969	1.626[b]	5.000	258.000	.153	.031
	Hotelling's trace	.032	1.626[b]	5.000	258.000	.153	.031
	Roy's largest root	.032	1.626[b]	5.000	258.000	.153	.031
I5_GPr	Pillai's trace	.035	1.871[b]	5.000	258.000	.100	.035
	Wilks' lambda	.965	1.871[b]	5.000	258.000	.100	.035
	Hotelling's trace	.036	1.871[b]	5.000	258.000	.100	.035
	Roy's largest root	.036	1.871[b]	5.000	258.000	.100	.035
I6_EAT	Pillai's trace	.148	8.956[b]	5.000	258.000	.000	.148
	Wilks' lambda	.852	8.956[b]	5.000	258.000	.000	.148
	Hotelling's trace	.174	8.956[b]	5.000	258.000	.000	.148
	Roy's largest root	.174	8.956[b]	5.000	258.000	.000	.148
I7_RanD	Pillai's trace	.007	.357[b]	5.000	258.000	.878	.007
	Wilks' lambda	.993	.357[b]	5.000	258.000	.878	.007
	Hotelling's trace	.007	.357[b]	5.000	258.000	.878	.007
	Roy's largest root	.007	.357[b]	5.000	258.000	.878	.007

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial eta-squared
I8_CAPI	Pillai's trace	.015	.775[b]	5.000	258.000	.569	.015
	Wilks' lambda	.985	.775[b]	5.000	258.000	.569	.015
	Hotelling's trace	.015	.775[b]	5.000	258.000	.569	.015
	Roy's largest root	.015	.775[b]	5.000	258.000	.569	.015
I9_MF	Pillai's trace	.013	.693[b]	5.000	258.000	.629	.013
	Wilks' lambda	.987	.693[b]	5.000	258.000	.629	.013
	Hotelling's trace	.013	.693[b]	5.000	258.000	.629	.013
	Roy's largest root	.013	.693[b]	5.000	258.000	.629	.013
I10_API	Pillai's trace	.037	1.980[b]	5.000	258.000	.082	.037
	Wilks' lambda	.963	1.980[b]	5.000	258.000	.082	.037
	Hotelling's trace	.038	1.980[b]	5.000	258.000	.082	.037
	Roy's largest root	.038	1.980[b]	5.000	258.000	.082	.037

a. Design: Intercept + I1_OPPORTUNITY + I2_NEentre + I3_FS + I4_GP + I5_GPr + I6_EAT + I7_RanD + I8_CAPI + I9_MF + I10_API

Source: Researcher's own compilation

According to Table 6.41, there are four multivariate tests, namely Pillai's trace, Wilks' lambda, Hotelling's trace, and Roy's largest root. The most prominent of these tests is Wilks' lambda, which is an inverse criterion where smaller values provide more evidence of treatment effects (Stevens, 2002). Table 6.40 indicates a significance level of .000 (intercept) implying that the overall mean of all entrepreneurship and economic development dimensions (I1_Opportunity + I2_NEentre + I3_FS + I4_GP + I5_GPr + I6_EAT + I7_RanD + I8_CAPI + I9_MF + I10_API) differ from zero.

Table 6.41 also shows that significance value of the multivariate main effect of opportunity entrepreneurship (independent variable) is .041 which is subsequently translated into an F-value of 2.356 and evaluated at hypothesis (between groups) and error (within groups) degrees of freedom of 5 and 258 respectively. The F-value is statistically significant (p-value 0.000=< 0.05), indicating that opportunity entrepreneurship is the significant predictor of some of the economic development dimensions (income growth, employment generation, inequality, poverty, and human welfare). The partial eta-squared value of .044 indicates that the main effect accounts for only about 4.4% of the total variance. Other independent variables (necessity entrepreneurship, and education and training are also statistically significant to the five economic development dimensions ($p \leq .05$)). These results indicate that the effect of opportunity entrepreneurship, necessity entrepreneurship and education and training on economic development is higher compared to other independent variables. The results also imply that the economic development dimensions are the significant predictors of these independent variables (opportunity entrepreneurship, necessity entrepreneurship, and education and training).

6.11.7 Multivariate analysis of covariance (MANCOVA)

MANCOVA was performed on both entrepreneurship and economic development dimensions of the study to identify dimensions to be included in the framework for optimising the contribution of entrepreneurship to economic development of South Africa. This analysis aims at addressing the sixth secondary objective of the study, namely to develop a framework for optimising the significant contribution of entrepreneurship to the economic development of South Africa.

Table 6.42: MANCOVA for entrepreneurship and economic development dimensions (independent variables)

Tests of between-subjects effects

Independent variables	Dependent variable	Type III sum of squares	df	Mean square	F	Sig.	Partial eta-squared
Corrected model	Income growth	5.355[a]	10	.535	7.158	.000	.215
	Employment generation	6.726[b]	10	.673	2.970	.001	.102
	Inequality	15.450[c]	10	1.545	10.717	.000	.290
	Poverty	16.124[d]	10	1.612	14.212	.000	.352
	Human welfare	4.877[e]	10	.488	4.200	.000	.138
Intercept	Income growth	8.801	1	8.801	117.645	.000	.310
	Employment generation	9.957	1	9.957	43.970	.000	.144
	Inequality	5.231	1	5.231	36.284	.000	.122
	Poverty	6.559	1	6.559	57.817	.000	.181
	Human welfare	8.506	1	8.506	73.238	.000	.218
I1 OPPORTUNITY	Income growth	.225	1	.225	3.003	.084	.011
	Employment generation	.052	1	.052	.231	.631	.001
	Inequality	.111	1	.111	.773	.380	.003
	Poverty	.369	1	.369	3.255	.072	.012
	Human welfare	.237	1	.237	2.039	.154	.008
I2 NEentre	Income growth	1.553	1	1.553	20.766	.000	.073
	Employment generation	1.143	1	1.143	5.049	.025	.019
	Inequality	3.529	1	3.529	24.478	.000	.085
	Poverty	2.805	1	2.805	24.726	.000	.086
	Human welfare	.801	1	.801	6.896	.009	.026
I3 FS	Income growth	.012	1	.012	.158	.692	.001

Independent variables	Dependent variable	Type III sum of squares	df	Mean square	F	Sig.	Partial eta-squared
	Employment generation	.004	1	.004	.019	.890	.000
	Inequality	.234	1	.234	1.622	.204	.006
	Poverty	.002	1	.002	.021	.886	.000
	Human welfare	.032	1	.032	.273	.602	.001
I4 GP	Income growth	.245	1	.245	3.275	.071	.012
	Employment generation	.013	1	.013	.056	.812	.000
	Inequality	.432	1	.432	2.998	.085	.011
	Poverty	.001	1	.001	.008	.927	.000
	Human welfare	.001	1	.001	.004	.947	.000
I5 GPr	Income growth	.149	1	.149	1.987	.160	.008
	Employment generation	.120	1	.120	.528	.468	.002
	Inequality	.720	1	.720	4.992	.026	.019
	Poverty	.000	1	.000	.004	.951	.000
	Human welfare	.042	1	.042	.363	.547	.001
I6 EAT	Income growth	.206	1	.206	2.758	.098	.010
	Employment generation	.956	1	.956	4.220	.041	.016
	Inequality	1.360	1	1.360	9.433	.002	.035
	Poverty	4.601	1	4.601	40.556	.000	.134
	Human welfare	.202	1	.202	1.743	.188	.007
I7 RanD	Income growth	.076	1	.076	1.021	.313	.004
	Employment generation	.001	1	.001	.005	.941	.000
	Inequality	.078	1	.078	.544	.461	.002
	Poverty	.008	1	.008	.071	.790	.000
	Human welfare	.011	1	.011	.096	.757	.000

Independent variables	Dependent variable	Type III sum of squares	df	Mean square	F	Sig.	Partial eta-squared
I8 CAPI	Income growth	.008	1	.008	.105	.746	.000
	Employment generation	.000	1	.000	.001	.976	.000
	Inequality	.356	1	.356	2.471	.117	.009
	Poverty	.005	1	.005	.047	.829	.000
	Human welfare	.197	1	.197	1.694	.194	.006
I9 MF	Income growth	.013	1	.013	.173	.678	.001
	Employment generation	.346	1	.346	1.529	.217	.006
	Inequality	.165	1	.165	1.141	.286	.004
	Poverty	.026	1	.026	.232	.630	.001
	Human welfare	.033	1	.033	.280	.597	.001
I10 API	Income growth	.172	1	.172	2.300	.131	.009
	Employment generation	.446	1	.446	1.969	.162	.007
	Inequality	.698	1	.698	4.841	.029	.018
	Poverty	.398	1	.398	3.508	.062	.013
	Human welfare	.587	1	.587	5.054	.025	.019
Error	Income growth	19.599	262	.075			
	Employment generation	59.331	262	.226			
	Inequality	37.772	262	.144			
	Poverty	29.724	262	.113			
	Human welfare	30.427	262	.116			
Total	Income growth	5039.240	273				
	Employment generation	5402.500	273				
	Inequality	5126.609	273				
	Poverty	5326.855	273				

Independent variables	Dependent variable	Type III sum of squares	df	Mean square	F	Sig.	Partial eta-squared
	Human welfare	5165.972	273				
Corrected total	Income growth	24.954	272				
	Employment generation	66.057	272				
	Inequality	53.222	272				
	Poverty	45.848	272				
	Human welfare	35.305	272				

a. R-squared = .215 (adjusted R-squared = .185)

b. R-squared = .102 (adjusted R-squared = .068)

c. R-squared = .290 (adjusted R-squared = .263)

d. R-squared = .352 (adjusted R-squared = .327)

e. R-squared = .138 (adjusted R-squared = .105)

Source: Researcher's own compilation

Table 6.42 indicates the MANCOVA of the following entrepreneurship and economic development dimensions:

Opportunity entrepreneurship

According to Table 6.42, there is no significant relationship between opportunity entrepreneurship and the economic development dimensions (income growth, employment generation, inequality, poverty and human welfare) (p-value=> 0.05). This is consistent with the findings indicated in Table 6.43, which reveal that income growth, employment generation, inequality, poverty, and human welfare are not predictors of opportunity entrepreneurship (p-value=> 0.05). This implies that the contribution of opportunity entrepreneurship to the economic development of South Africa is significantly minimal. This may have been caused by a high level of unemployment resulting in most individuals embarking on entrepreneurship out of necessity. Cross and Morales (2007:5) argue that, although external pressures, such as economic restructuring and unemployment, force individuals to be involved in necessity entrepreneurship, most of them do so voluntarily. As a result, they become established entrepreneurs who are involved in identifying the opportunity before expanding their entrepreneurial undertakings to new markets. Opportunity entrepreneurship therefore had to be incorporated into the framework that the current study endeavoured to develop.

Necessity entrepreneurship

The results of statistical analysis presented in Table 6.42 indicate a significant relationship between necessity entrepreneurship and all economic development dimensions (income growth, employment generation, inequality, poverty, and human welfare) (p-value=< 0.05). This is consistent with the findings indicated in Table 6.43, which reveal that necessity entrepreneurship is the predictor of income growth, employment generation, inequality reduction, poverty reduction, and human welfare (p-value=< 0.05). This implies that necessity entrepreneurship contributes significantly to economic development of South Africa. Necessity entrepreneurship therefore had to be incorporated into the framework that the current study endeavoured to develop.

Financial support

Table 6.42 indicates that there is no significant relationship between financial support and the economic development dimensions (income growth, employment generation, inequality,

poverty, and human welfare) (p-value=> 0.05). This is consistent with the findings indicated in Table 6.43, which reveal that financial support is not a predictor of income growth, employment generation, inequality, poverty, and human welfare (p-value=> 0.05). This implies that financial support directed at the promotion of entrepreneurship does not contribute significantly to South African economic development. This clearly demonstrates that the contribution of entrepreneurship to economic development in South Africa might not be optimised by promoting financial support due to a lack of financial management skills among the South African entrepreneurs (Kirsten, 2018:1). Entrepreneurial finance training is therefore crucial for financial support to contribute significantly to the correlation between entrepreneurship and economic development. Financial support was therefore not a crucial element to be incorporated into the framework this study was trying to develop. Financial support directed at entrepreneurs with adequate entrepreneurial financial skills is nevertheless, crucial; hence, its inclusion into the framework of the study.

Government policies

According to Table 6.42, there is no significant relationship between government policies and the economic development dimensions (income growth, employment generation, inequality, poverty, and human welfare) (p-value=> 0.05). This is consistent with the findings indicated in Table 6.43, which reveal that government policies are not a predictor of income growth, employment generation, inequality, poverty, and human welfare (p-value=> 0.05). This implies that there is a critical need to change existing government policies pertaining to entrepreneurship and economic development. Current government policies constrain entrepreneurship. Bhorat, Asmal, Lilenstein and Van der Zee (2018:55) assert that government policies may deter individuals and small businesses from expanding beyond the informal sector. Current government policies could therefore not be incorporated into the framework envisaged by this study. Entrepreneurial government policies would however play a critical role in the optimisation of the contribution of entrepreneurship to the economic development of South Africa; therefore, its inclusion into the framework was paramount.

Government programmes

Table 6.42 shows that, although government policies may improve economic development dimensions, these policies nevertheless contribute significantly to inequality reduction only (p-value=< 0.05). This is depicted in Table 6.43, which shows that government programmes are

the predictors of inequality reduction in South Africa (p-value=< 0.05). This is in support of a study by Pabón, Leibbrandt, Ranchhod and Savage (2020:114), which found that the Reconstruction and Development Programme (RDP) of South Africa has reduced inequality, and has given the state a strong role in redressing social, political and economic inequality. It was therefore critical for government programmes to be included in the framework compiled for this study.

Education and training

As indicated in Table 6.42, education and training have a significant relationship with employment generation, inequality, and poverty reduction (p-value=< 0.05). No significant relationship was however identified between education and training, and two economic dimensions (income growth and human welfare) as the p-value is > 0.05. This is supported by information in Table 6.43, which indicates that education and training are the predictors of employment generation, poverty alleviation and inequality reduction as their p-value is < 0.05. This implies that, although education and training contribute to economic development in many instances, in some instances its contribution remains minimal. This is consistent with the study of Bhorat, Cassim and Tseng (2014:2), which found that there has been an improvement in employment as a result of education and training in South Africa. However, such improvement has been reserved for individuals with high levels of education. They further assert that the South African labour market comprises a large portion of less-educated, new entrants with minimal levels of skills and work experience. This has resulted in a classic skills mismatch where the returns to households and individuals are based on human capital attributes. Education and training nevertheless had to be incorporated into the framework that was developed because the results reveal that, in most cases, it contributes to the significant correlation between entrepreneurship and economic development of South Africa.

Research and development

According to Table 6.42, research and development does not significantly correlate with all the economic development dimensions, as the p-value is > 0.05. This is supported by information in Table 6.43, which indicates that research and development is not a predictor of all the economic development dimensions (income growth, employment generation, poverty, inequality, and human welfare), as their p-value is > 0.05. This implies that the contribution of research and development to economic development of South Africa is significantly minimal.

This supports the finding by Nicolaides (2014:11) who asserts that, while research and development is crucial for economic development, their contribution to South African economic development is statistically insignificant and is characterised by weak synergy between academic and industry. Promoting current R&D practices can therefore not optimise the significant contribution of entrepreneurship to the economic development of South Africa; hence, it was not incorporated into the framework.

Commercial and professional infrastructure

The statistics in Table 6.42 indicate that commercial and professional infrastructure is not significantly correlated with all the economic development dimensions, as the p-value is > 0.05. This is supported by information in Table 6.43, which indicates that commercial and professional infrastructure is not a predictor of all the economic development dimensions (income growth, employment generation, poverty, inequality, and human welfare), as their p-value is > 0.05. This implies that the contribution of commercial and professional infrastructure to the economic development of South Africa is significantly minimal; its inclusion in the framework that was developed was therefore irrelevant.

Market flexibility

Table 6.42 indicates that market flexibility is not significantly correlated with all the economic development dimensions, as the p-value is > 0.05. This is supported by information in Table 6.43, which indicates that market flexibility is not a predictor of all the economic development dimensions (income growth, employment generation, poverty, inequality, and human welfare), as their p-value is > 0.05. The contribution of market flexibility to the economic development of South Africa is therefore significantly minimal.

Access to physical infrastructure

According to Table 6.42, although access to physical infrastructure contributes to all economic development dimensions statistically, it only contributes significantly to inequality reduction and human welfare (p-value=< 0.05). No significant correlation was observed for income growth, employment generation, and poverty reduction. This implies that access to physical infrastructure may significantly improve economic development of South Africa if it is directed mainly at the reduction of inequality, and the promotion of human welfare. Access to physical

infrastructure was therefore incorporated in the framework that the current study endeavoured to develop.

Table: 6.43: MANCOVA for entrepreneurship and economic development dimensions

Parameter estimates

Dependent variable	Parameter	B	Std. error	t	Sig.	95% confidence interval		Partial eta-squared
						Lower bound	Upper bound	
Income growth	Intercept	2.776	.256	10.846	.000	2.272	3.280	.310
	I1 Opportunity	.107	.062	1.733	.084	-.015	.228	.011
	I2 NEentre	.160	.035	4.557	.000	.091	.230	.073
	I3 FS	.010	.026	.397	.692	-.040	.060	.001
	I4 GP	.095	.053	1.810	.071	-.008	.199	.012
	I5 GPr	-.068	.048	-1.410	.160	-.162	.027	.008
	I6 EAT	.066	.040	1.661	.098	-.012	.144	.010
	I7 RanD	-.049	.048	-1.011	.313	-.143	.046	.004
	I8 CAPI	-.014	.042	-.324	.746	-.097	.069	.000
	I9 MF	-.016	.039	-.415	.678	-.093	.060	.001
	I10 API	.074	.049	1.516	.131	-.022	.169	.009
Employment generation	Intercept	2.953	.445	6.631	.000	2.076	3.830	.144
	I1 Opportunity	-.051	.107	-.481	.631	-.262	.159	.001
	I2 NEentre	.138	.061	2.247	.025	.017	.258	.019
	I3 FS	-.006	.044	-.139	.890	-.094	.081	.000
	I4 GP	-.022	.092	-.238	.812	-.202	.159	.000
	I5 GPr	-.061	.083	-.727	.468	-.225	.104	.002
	I6 EAT	.142	.069	2.054	.041	.006	.277	.016
	I7 RanD	.006	.084	.074	.941	-.159	.171	.000
	I8 CAPI	.002	.073	.030	.976	-.142	.147	.000

Dependent variable	Parameter	B	Std. error	t	Sig.	95% confidence interval		Partial eta-squared
						Lower bound	Upper bound	
	I9 MF	.084	.068	1.237	.217	-.050	.217	.006
	I10 API	.119	.085	1.403	.162	-.048	.285	.007
Inequality	Intercept	2.140	.355	6.024	.000	1.441	2.840	.122
	I1 Opportunity	.075	.085	.879	.380	-.093	.243	.003
	I2 NEentre	.242	.049	4.948	.000	.146	.338	.085
	I3 FS	.045	.035	1.274	.204	-.025	.115	.006
	I4 GP	-.127	.073	-1.732	.085	-.271	.017	.011
	I5 GPr	.149	.066	2.234	.026	.018	.279	.019
	I6 EAT	.169	.055	3.071	.002	.061	.277	.035
	I7 RanD	-.049	.067	-.738	.461	-.181	.082	.002
	I8 CAPI	-.092	.059	-1.572	.117	-.207	.023	.009
	I9 MF	-.058	.054	-1.068	.286	-.164	.049	.004
	I10 API	.149	.068	2.200	.029	.016	.281	.018
Poverty	Intercept	2.397	.315	7.604	.000	1.776	3.017	.181
	I1 Opportunity	-.137	.076	-1.804	.072	-.286	.012	.012
	I2 NEentre	.216	.043	4.973	.000	.130	.301	.086
	I3 FS	-.005	.031	-.143	.886	-.066	.057	.000
	I4 GP	.006	.065	.092	.927	-.122	.134	.000
	I5 GPr	.004	.059	.061	.951	-.113	.120	.000
	I6 EAT	.311	.049	6.368	.000	.215	.407	.134
	I7 RanD	-.016	.059	-.267	.790	-.132	.101	.000
	I8 CAPI	-.011	.052	-.216	.829	-.113	.091	.000
	I9 MF	.023	.048	.482	.630	-.071	.117	.001

Dependent variable	Parameter	B	Std. error	t	Sig.	95% confidence interval		Partial eta-squared
						Lower bound	Upper bound	
	I10 API	.112	.060	1.873	.062	-.006	.230	.013
Human welfare	Intercept	2.729	.319	8.558	.000	2.101	3.357	.218
	I1 Opportunity	.109	.077	1.428	.154	-.041	.260	.008
	I2 NEentre	.115	.044	2.626	.009	.029	.202	.026
	I3 FS	.017	.032	.522	.602	-.046	.079	.001
	I4 GP	-.004	.066	-.066	.947	-.134	.125	.000
	I5 GPr	-.036	.060	-.603	.547	-.153	.082	.001
	I6 EAT	.065	.049	1.320	.188	-.032	.162	.007
	I7 RanD	.019	.060	.309	.757	-.100	.137	.000
	I8 CAPI	-.068	.053	-1.302	.194	-.172	.035	.006
	I9 MF	.026	.048	.530	.597	-.070	.121	.001
	I10 API	.136	.061	2.248	.025	.017	.256	.019

Source: Researcher's own compilation

6.11.8 Summary of inferential statistics (multivariate analysis)

A summary of the inferential statistics (multivariate analysis) of the study is provided in Table 6.44. This summary assists in gaining an insight into which variables influence the contribution of entrepreneurship to economic development significantly and vice versa.

Table 6.44: Summary of the inferential statistics (multivariate analysis)

Test	Interpretation of the Results	Variables Where a Significant Difference Was Observed
Mann–Whitney test statistics	In view of the mean rank, the entrepreneurship and economic development experts aged 40+ had a strong perception that necessity entrepreneurship, education and training, market flexibility, employment generation, and poverty alleviation have a strong influence in terms of entrepreneurship to contribute significantly to economic development in South Africa.	Necessity entrepreneurship, education and training, market flexibility, employment generation and poverty alleviation
Mann–Whitney test statistics[a]	Taking the mean rank into consideration, male participants had a strong perception that the entrepreneurship and economic dimensions (financial support, government policies, government programmes, research and development, commercial professional infrastructure, access to physical infrastructure, income growth, and inequality) have a strong influence in terms of entrepreneurship to contribute significantly to economic development in South Africa.	Financial support, government policies, government programmes, research and development, commercial professional infrastructure, access to physical infrastructure, income growth, and inequality
Kruskal–Wallis H (x^2)	Considering the mean rank, it was found that those entrepreneurship and economic development experts with doctoral degrees had strong perception that opportunity entrepreneurship, employment generation, poverty, and human welfare have an influence in terms of entrepreneurship to contribute significantly to economic development of South Africa.	Opportunity entrepreneurship, employment generation, poverty, and human welfare
Kruskal–Wallis H (x^2)	Taking the mean rank into consideration, it was found that those entrepreneurship and economic development experts working in mining sector had strong perception that employment generation has an influence in terms of entrepreneurship to contribute significantly to economic development of South Africa. In contrast, entrepreneurship and economic development experts working in construction (125.30), followed by mining sector (123.95) and manufacturing (118.57), had strong perceptions that necessity entrepreneurship has an influence in terms of entrepreneurship to contribute significantly to economic development of South Africa.	Employment generation, and necessity entrepreneurship
Kruskal–Wallis H (x^2)	Most entrepreneurship and economic development experts with academic, professional and working experience agreed that government policies, research and development, commercial and professional infrastructure, and access to infrastructure have a strong influence in terms of entrepreneurship to contribute significantly to the economic development of South Africa. However, most academics with 1–5 years' academic experience, and academics and professionals with more than 10 years' experience, perceived that education and training, and research and development have a strong	Government policies, research and development, commercial and professional infrastructure, access to infrastructure, education and training, and research and development

Test	Interpretation of the Results	Variables Where a Significant Difference Was Observed
	influence in terms of entrepreneurship to contribute significantly to the economic development in South Africa.	
Wilks' lambda	These results indicate that the effect of opportunity entrepreneurship, necessity entrepreneurship, and education and training on economic development is higher compared to other independent variables.	Opportunity entrepreneurship, necessity entrepreneurship and education and training

Source: Researcher's own compilation

These results in Table 6.44 indicate that significant differences were observed in both entrepreneurship types (opportunity and necessity entrepreneurship) as well as in economic development indicators (income growth, employment, poverty, inequality, and human welfare), EFCs comprising education and training, market flexibility, financial support, government policies, government programmes, research and development, commercial professional infrastructure, and access to physical infrastructure.

These findings seem to be similar to the findings by previous studies on the relationship between entrepreneurship and economic development from the perspective of developing countries (see Karadag, 2016; Doran *et al.*, 2018). The results reveal that almost all the variables identified in literature seem to be crucial for entrepreneurship to contribute to economic development. This created a need for an optimal multivariate statistical analysis that reduces errors. Pope (2010:47) recommends that, in a situation where multivariate statistical analysis does not yield optimal results, MANCOVA is appropriate. According to Pope, the advantage of using MANCOVA is that it allows the researcher to examine more than one dependent variable statistically at once, or the simultaneous effects of the independent variables on more than one dependent variable. It is also useful when a researcher is comparing group differences. Tabachnick and Fidell (2007:85) assert that multiple comparisons are made in MANCOVA, which reduce type 1 error rates. Pope (2010) also indicates that MANCOVA assumes multivariate normality, homogeneity of the dispersion of variance and covariance matrices, and linearity, which results in a better fit. MANCOVA was therefore applied in this study as indicated in Table 6.42 and Table 6.43 to validate the findings of the multivariate tests applied.

6.11.9 Elements of entrepreneurship and economic development included in the framework

In summary, MANCOVA results revealed that some entrepreneurship and economic development variables (opportunity and necessity entrepreneurship, government policies, government programmes, education and training, and access to physical infrastructure) statistically influence the significant contribution of entrepreneurship to the economic development of South Africa. Their inclusion in the framework that was developed was therefore crucial and relevant. These results are in agreement with findings by Cross and Morales (2007:5) and Williams and Youssef (2014:41) who argue that both opportunity and necessity entrepreneurship contribute to economic development. The results are further in agreement with other existing studies (Kennedy *et al*., 2017:7; Malayaranjan & Sahoo,

2019:116; Mansi *et al*., 2020; Nkurunziza, 2016:2; Svalastog *et al.,* 2017:435), which found that the above-mentioned economic development indicators are crucial for entrepreneurship to contribute to economic development. The results also concur with findings by Herrington and Coduras (2019:8), Mkwanazi (2018:53), Omar *et al.* (2020:26) and Sheriff *et al.* (2016:25), who all indicate that the above-mentioned entrepreneurial dimensions are the cornerstone for entrepreneurship to contribute significantly to economic development.

6.12 PRESENTATION AND DISCUSSION OF QUALITATIVE RESEARCH FINDINGS

Section 6.12.1 presents the qualitative findings of the study.

6.12.1 Introduction

In this section, the researcher discusses the qualitative findings by using thematic content analysis of the open-ended questions. The section reflects an overview of the views of participants regarding strategies for optimising the EPF and its implementation in South Africa. It also addresses the sixth secondary objective: to develop a framework for optimising the significant contribution of entrepreneurship to the economic development of South Africa. The reviewed literature indicated that most of the elements of the EPF in South Africa have failed, resulting in a decline in the economic development of the country (Anwana, 2019:78; GEN, 2019). As a result, there was a need for scientific and practical guidelines for optimising the implementation of the EPF in the country. This gap was filled by the empirical qualitative part of the study, and the guidelines were integrated into the framework, developed during this study.

Following the analysed literature on optimisation of the EPF, the focus for qualitative study was on five overarching themes, namely regulatory environment, entrepreneurship education and skills development, technology and innovation, access to finance, and the South African socio-cultural environment. Firstly, the participants were asked to provide their opinions on the overview of South African entrepreneurial policies and the strategies to improve these. Thereafter, they were asked to provide their views on the five overarching themes.

6.12.2 Overview of the South African entrepreneurship policy framework

The study enquired whether the participants were aware of the status of the South African EPF. It was necessary to establish their awareness for them to provide a solution for optimising implementation of the EPF. It emerged from the data gathered that the participants were aware of entrepreneurial policies but there was a lack of adequate support from government. Please note that all direct quotations below are reproduced verbatim and unedited.

- **RS2:** *Entrepreneurs are aware of policies that support their operations. The policies encourage people to start their own businesses with the hope that government will assist them.*
- **RS14:** *Policies about entrepreneurship are good but there is no support coming from government agencies.*

These findings concur with the quantitative findings of the study, which revealed that government subsidies for both new (51.7%) and growing firms (52.4%) were seen as insufficient to support entrepreneurship in South Africa.

Although government provides resources, the challenge is that there is corrupt management of the resources.

- **RS1**: *Corruption is destroying entrepreneurs in South Africa. Policies published are not working and they benefit people at the top of the food chain and government officials.*
- **RS18**: *Policies for entrepreneurship are being exploited by government officials. The funds available are being channelled to people they know. This corruption should end. There is no consistency with the application of policies in our country.*
- **RS992**: *Government has made available the financial resources for small/growing firms but the challenge is corruption.*

Participants also echoed that, at the time, the written policies were good. However, they believed that policies were not being implemented as required or they were not implemented at all. This might be due to a lack of capable individuals.

- **RS17**: *Policies are there but we haven't seen them being implemented. Policies for new firms are good but South Africa is not implementing them and the entrepreneurs complain about it.*

- **RS6***: Entrepreneurship policies are like a white elephant, Government is not implementing any of those policies in a rightful manner and that makes them redundant. Entrepreneurship policies are there but lack capable individuals or institutions who are good with implementation.*

These findings are consistent with the quantitative findings, which indicated that government policies do not prioritise the support of new (50.9%) and growing firms (59%). Entrepreneurship is also hindered by a delay in the processing of business permits (90.1%) and tax requirements (91.9%).

Other participants pointed out that there was corruption in implementing these policies, where government officials benefitted from the policy implementation process or only wanted entrepreneurs related to them to benefit.

- **RS1**: *Corruption is destroying entrepreneurs in South Africa. Published policies are not working and they only benefit people at the top of the food chain and government officials.*

These findings are supported by quantitative findings, which revealed that government regulations were not being applied consistently (70.7%), and in most cases, entrepreneurs did not know where to get government assistance (82.1%).

In contrast, very few participants indicated that the policies were good and that they supported entrepreneurship. Their views were based on the fact that policies published by the South African government are meant to support entrepreneurs to contribute to economic development goals in the country.

- **RS15:** *We have seen a lot of individuals starting their own businesses and this has positively changed the unemployment situation in the country. As a result, this has improved the standard of living of some citizens*.

Some participants believed that entrepreneurship is contributing to economic development. One participant provided a supporting view by saying:

- **RS22:** *Entrepreneurs are making a positive impact on the economy of the nation. They are reducing poverty amongst blacks communities through job creation.*

In summary, participants' views of South African policies revealed four major themes, namely support, implementation, corruption, and positive impact. Most of the participants viewed the South African EPF as lagging behind because of a lack of government support, corrupt management of resources, and poorly implemented policies due to the detrimental impact of corruption. Although EPF has a positive influence, this influence cannot outweigh the negative impact of EPF. Practical guidelines for optimising the implementation of the South African EPF were therefore paramount to contributing to the economic development of the country.

6.12.3 Strategies for improving the South African entrepreneurship policy framework

This section focuses on the presentation of data on the strategies for improving the South African EPF. The quantitative data revealed that, at the time, there is insufficient debt funding available for both new (51%) and growing firms (49.5%). This prompted the qualitative study to ask question about strategies to deal with this challenge. Many participants echoed that policies should encourage entrepreneurship by providing funding and continuous support to entrepreneurs. This support might come in the form of the 'incubators' programme through which entrepreneurs can be trained in business management skills.

- **RS6:** *Apply the policies and monitor the entrepreneurs. Support entrepreneurs through government agents and business incubators.*
- **RS3:** *Allow access to economic participation by not allowing citizens access to entrepreneurship skills but make means to capital funding*.
- **RS12:** *By funding the entrepreneurs in their businesses ventures and enroll them into business incubators programmes*.
- **RS210**: *Business incubators should work with entrepreneurs and train them on management skills for their businesses.*

The quantitative study also revealed that, although some South Africans seem to have entrepreneurial management skills for small firms (93.8%) and that they are able to organise the resources required for a new business (94.1%), they are however struggling to get the information required to access business opportunities (49.8%). To deal with this challenge, the qualitative study indicated strong support for 'skills programmes' where it appears that participants' separate skills programmes and support programmes. Entrepreneurs should therefore also implement practical skills programmes for the EPF to stimulate entrepreneurship

in the country. The practical component should also be integrated in entrepreneurship modules at colleges and universities.

- **RS571:** *At colleges and universities, modules that cover entrepreneurship skills can add a practical session on the course. This practical session can be funded by the government, by doing so we can improve entrepreneurship skills.*

Some participants pointed out that, at the time, there was a need for educational programmes aimed at equipping entrepreneurs with knowledge about policies. In addition, there seemed to be a strong feeling that development of entrepreneurial skills should start at an early stage and continue to be taught at university level, and that practical teaching should be encouraged at the advanced levels of education.

- **RS1:** *A lot of entrepreneurs are unaware of the policies and the government may conduct awareness workshops to educate the community about entrepreneurship policies and how it can improve their standard of living.*
- **RS17:** *Conduct workshops to educate entrepreneurs on the policies and discuss the contents so that people understand what is covered.*

Participants also seemed to share the sentiments that policy implementation in what some participants called ‘proper’ implementation would set entrepreneurship in the right direction. The implementation process should include correct application of policies, adherence to policy strategies and plans, monitoring the implementation of policies, as well as providing sufficient support to ensure success of the implementation process.

- **RS5:** *Apply correctly the policies and ensure that entrepreneurs adhere to the strategies and plans as outlined in the policy documents.*
- **RS6:** *Apply the policies and monitor the entrepreneurs. Support entrepreneurs through government agents and business incubators.*

A few participants commented that many entrepreneurs were unaware of relevant policies, and government could conduct awareness workshops to educate the community about entrepreneurship policies and how such knowledge could improve their standard of living. Government could also encourage people to start businesses by provide them with the funding.

- **RS1:** *A lot of entrepreneurs are unaware of the policies and the government may conduct awareness workshops to educate the community about entrepreneurship policies and how they can improve their standard of living.*
- **RS2:** *Advertise to the public about the entrepreneurhip policies and how it benefits the individuals in improving their lifestyle. Government can encourage people to start businesses by providing funding.*

Strategies to improve South African policies to stimulate entrepreneurship therefore centre on four major themes, namely financial and support programmes, skills programmes, policy implementation, and overall improvement of life. These findings reveal that the EPF could be improved by providing adequate funding and continuous support. This continuous support could include practical entrepreneurship skills and support programmes. Educational programmes aimed at equipping entrepreneurs with knowledge about the policies, 'proper' implementation, and awareness workshops, are also crucial for enhancing the EPF to stimulate entrepreneurship in South Africa.

6.12.4 Strategies for improving the South African regulatory environment to stimulate entrepreneurship

This section presents findings regarding the strategies for improving the South African regulatory environment to stimulate entrepreneurship. The South African government published *Guidelines for reducing municipal red tape* (see dti, 2013). This policy document provides guidelines on reducing bureaucratic burdens in the entrepreneurship process (dti, 2013:25). Heerington *et al*. (2017:43) note that red tape and bureaucratic burdens are among the critical regulatory factors that impede the early stage of entrepreneurship in South Africa. These include perpetual burdens in complying with tax, permits and licensing, labour and product markets. In order to deal with this challenge, the majority of the participants echoed that regulations should ensure that doing business is affordable or free for small businesses.

- **RS6:** *Allow free duties when exporting and importing goods for small firms*
- **RS7:** *Allow free market economy for entrepreneurs.*
- **RS8:** *Allow small firms to apply for permits at affordable prices. Taxes are a burden to any business, and small firms are more affected because their returns are low, hence, reduction on tax brackets will be good for entrepreneurs.*

Some participants seemed to believe that regulations should provide continuous support to small businesses through incubation programmes.

- **RS5:** *Allow entrepreneurs to start businesses without being penalised for not having licenses for a period of 6 months. Thereafter, provide mentorship programmes on business management through government business incubators and these centers should process the business licenses.*
- **RS15:** *Business incubators should encourage entrepreneurs to follow proper channels of operations. They should give advice on environmental protection and regulations.*

Some participants believed that too much red tape make it difficult for small businesses to operate. They suggest that such excess red tape be removed or eased.

- **RS1:** *A Small Business Administration study found that environmental regulations disproportionately affect small businesses. Firms with fewer than 50 employees pay nearly 75% more per year per employee to comply with environmental compliance standards than larger companies. As a result, environmental compliance is consistently rated as one of the most problematic legal requirements for small businesses. In SA, the government needs to revise these regulations so that it promotes entrepreneurship. Small businesses end up not complaining with these regulations in SA because of the cost associated with the regulations.*
- **RS2:** *Abolishing some of the red tapes in local business and the nation within the borders.*

The themes of high fees and taxes, continuous support and red tape, are therefore crucial to improve the South African regulatory environment in order to stimulate entrepreneurship. Participants indicated that the South African regulatory environment can be improved by easing regulations, so that doing business is affordable. This can be done by allowing free custom duties when small businesses are exporting and importing goods. Entrepreneurs should also be granted free access to market economy. The continuous support can be provided by allowing entrepreneurs to start businesses without being penalised for not having licences, providing mentorship programmes on business management as well as embarking on incubation programmes. Government also needs to remove red tape in the regulatory environment that hamper entrepreneurship by reducing costs associated with environmental regulations and abolish some of the red tape both in local and national businesses.

6.12.5 South African strategies for improving entrepreneurship education and skills development

With regard to the strategies for improving entrepreneurship education and skills development, many participants shared their opinions regarding both primary and secondary schools starting to teach entrepreneurship. They suggested that learners should start doing business at an early stage in their education. They further argued that limited knowledge about entrepreneurship is being imparted currently in both primary and secondary schools. There is also only an inadequate curriculum in terms of entrepreneurship in schools, as most of these curriculums do not cover the practical component of entrepreneurship.

- **RS12:** *At schools, teach learners about entrepreneurship so that when they can't find jobs, they can use the knowledge to start businesses.*
- **RS13:** *At schools, limited knowledge is taught about entrepreneurship. We need to ensure that a full curriculum of entrepreneurship is done at schools. This will help learners to start their businesses.*
- **RS14:** *At schools, the curriculum should teach basic entrepreneurship skills. These skills will enable individuals to think of starting their own businesses by applying what they learnt during school years.*

This concurs with the quantitative findings, which show that 29.8% of the participants argued that primary education does not provide adequate entrepreneurship training. Participants went further to emphasise that entrepreneurship should form part of training at both universities and colleges. They also emphasised that the modules should have a practical component where learners can be funded to start businesses.

- **RS15:** *At university, the entrepreneurship modules have to introduce a one year business formation and operation, then finance them on their businesses. This will enable growth in entrepreneurship and job creation.*
- **RS16:** *At university, students should be given grants to start businesses. At the same time, the modules should include practical projects.*

A few participants believed that entrepreneurship education and skills development can be enhanced by creating an incubator programmes in communities, which would assist community members to develop entrepreneurial skills.

- **RS18:** *Business incubators across the communities need to be established. These centres will train individuals to start businesses.*
- **RS19:** *Business incubators can assist develop entrepreneurship skills among communities.*
- **RS20:** *Business incubators can improve entrepreneurship skills and individuals should attend.*

This clearly demonstrates that entrepreneurship education offered in primary and secondary schools does not adequately prepare learners to become entrepreneurs. Furthermore, the entrepreneurship education offered in colleges and universities remains a contentious issue (see Mkwanazi, 2018; Schwab, 2013). However, the findings clearly assert that introducing the practical components of entrepreneurship modules at all levels of education could stimulate entrepreneurship in South Africa meaningfully.

Entrepreneurship education and skills development can therefore be improved by implementing adequate curriculums in terms of entrepreneurship education with the practical component being incorporated at all levels of education. This would allow learners to gain relevant entrepreneurship skills that would assist them to start their businesses successfully. Government should consider implementing funding or grants schemes for those who have completed their entrepreneurship education and have acquired sufficient practical entrepreneurship skills ready to start their businesses. Government should also implement incubator programmes for communities, where community members could be trained in terms of practical entrepreneurship skills that would allow them to start successful businesses.

6.12.6 Strategies for improving technology and innovation in South Africa

Regarding strategies for improving technology and innovation, participants agreed that there should be easy or free access to technology infrastructure and the internet. They believed that access to technology infrastructure could create an enabling environment for beginner entrepreneurs to start their businesses successfully.

- **RS7:** *By improved infrastructure.*
- **RS8:** *By improving the infrastructure and ensuring that internet is made available at very low costs.*

- **RS12:** *Currently most traders are techno savvy. Most individuals have a phone from which they can access information. The cost of data is however, the challenge*.
- **RS13:** *Cut the internet service cost for small entrepreneurs, this will enable them to improve their business.*

Participants also thought that there should be education regarding the use of technology and that creativity should be promoted and supported.

- **RS4:** *At universities, the government should support and fund the IT [Information Technology] departments and promote innovation and creativity. A lot of students have great ideas but face financial problems to work on their projects.*
- **RS18:** *Encourage individuals to be creative and innovative. The government has to make available funding for these projects.*
- **RS19:** *Enhance the science teaching within schools and support the students who are innovative in this subject*.

Funding of R&D programmes also emerged as an issue. Government should be encouraged to sufficiently fund research and development and establish mentorship programmes.

- **RS770**: *Establish funding specifically for technology development and support firms to come up with their own plans/ideas of technology.*
- **RS890**: *Through mentorship programmes at schools and universities.*
- **RS751**: *By investing more in research and development so that home grown technology is developed.*

In summary, technology and innovation can be improved by providing sufficient access to technology infrastructure at an affordable cost. Improvement on technology infrastructure is also paramount in order to allow efficient and effective access. Government should provide sufficient support by funding innovation and creativity among the entrepreneurs. This innovation and creativity should also be part of the education in schools and universities. Government should also implement an incentive scheme where individuals who generate innovative and creative business ideas can be awarded with incentives to encourage entrepreneurship. Enough funds should also be allocated to research and development to improve existing technology and innovation.

6.12.7 Strategies for improving access to finance for entrepreneurship

This section presents findings regarding the strategies for improving entrepreneurs' access to finance in order to stimulate entrepreneurship in South Africa. The majority of participants suggested that financial institutions and government should corroborate in an effort to reduce interest rates on loans for the benefit of entrepreneurs. One participant said:

> **RS12:** *As mentioned earlier, banks and the government need to work together and reduce bank service charges and interest rates.*

In addition, many participants emphasised that business incubators should grant business loans to entrepreneurs, as they know the challenges that entrepreneurs face. Another participant had this to say:

> **RS6:** *Allow business incubators to grant business loans as they know better the challenges that entrepreneurs face.*

This clearly demonstrates that the issue of funding of entrepreneurs remains critical for sustainable entrepreneurship in South Africa. However, the funding is channelled to individuals who have not acquired sufficient entrepreneurial skills. Participants therefore considered that business incubators might be the right entities to facilitate the channelling of funding to entrepreneurs with relevant entrepreneurial skills. This study assumed that business incubators would be in a position to assess the level of entrepreneurial skills of an individual before providing him or her with the funding, as they have advanced practical entrepreneurial skills and expertise. These findings are consistent with the quantitative findings, which reveal that financial support is not a predictor of income growth, employment generation, inequality, poverty, and human welfare in South Africa (p-value=> 0.05). This implies that financial support directed at the promotion of entrepreneurship does not contribute significantly to South African economic development. The contribution of entrepreneurship to the economic development in South Africa may therefore not be optimised by promoting financial support due to a lack of financial management skills among South African entrepreneurs (Kirsten, 2018:1). Considering both quantitative and qualitative findings, providing entrepreneurial financial training, and allowing business incubators to manage the funding process of entrepreneurs may therefore optimise entrepreneurship in the country.

Participants also indicated that there is a need to make the funding application processes easier by not requiring aspects that are not attainable by new entrepreneurs. This assertion is supported by Mkwanazi (2018:54) who indicates that the long and tiring process of registering for company permits and licences can delay the market entry process for entrepreneurs, which then contributes to a decline in the level of entrepreneurship.

RS2: *A wide range of government assistance for new firms are difficult to be accessed and cannot be obtained through contact with a single agency, especially those that offer finance. If this changes, then more entrepreneurs can have funding for their business.*

Some participants suggested that there should be continuous advertising of available financial services offered by government. These participants did not state how continuous advertising should be done in order to stimulate entrepreneurship in South Africa. However, the International Finance Corporation study (IFC) (2006:6) revealed that a national directory of business financiers which is regularly updated, published and widely disseminated in order to inform entrepreneurs of services available in the market could stimulate entrepreneurship in South Africa. This would ensure that entrepreneurs have access to information at all times.

Below are some of the responses regarding continuous advertising of financial services:

RS3: *Advertise through different media and ensure that entrepreneurs are given the opportunity to bring their applications.*

RS4: *Advertising to small firms to know where to go for finance as most of the entrepreneurs are unaware of the government agencies that give finance.*

A few participants were of the view that lowering interest rates on loans, easing funding processes, and advertising financial services might not stimulate entrepreneurship in South Africa sufficiently. They asserted that, in addition to these strategies, establishing and making microfinance institutions easily accessible in remote areas could strength the stimulation of entrepreneurship in the country. They further emphasised that government should establish these microfinance outlets in communities, and offer training and mentorship on microfinance to these communities. One participant responded by saying:

- **RS1036**: *Micro finance companies can be used to fund small firms. The government should establish these micro finance outlets at communities and also offer training and mentorship.*

In summary, entrepreneurs' access to finance can be improved by lowering interest rates on loans. This should be a combined effort between government and financial institutions. Reducing the requirements for the funding application process is also crucial to stimulate entrepreneurship in South Africa. These strategies would suffice only if awareness is created within the entrepreneurship communities. Continuous advertising of available financial services in the national directory, which is widely disseminated to the entrepreneurs, as well as in the national media, could also improve stimulation of entrepreneurship. Government and financial institutions should establish and make microfinance institutions easily accessible in remote areas. This will promote entrepreneurship in the economically most abandoned areas of the country.

6.12.8 Strategies for improving the socio-cultural environment

With regard to the strategies for improving the socio-cultural environment, many participants emphasised the theme of 'support'. They indicated that black people do not support each other adequately. They considered that changing the mind-set of black people and creating an environment where black entrepreneurs support each other, would be the best strategy for stimulating entrepreneurship in South Africa. This support could be in the form of buying locally made products from businesses owned by black people.

- **RS1**: *Black people do not want to see other people succeeding in life and business. If we change the thinking and support each other's businesses then we can improve the economy.*
- **RS2**: *Our culture is changing and have realised that most people are now into business ventures. This needs to be encouraged and support these small firms by buying their products. Black people have started commercial farming on a small scale.*

Other participants indicated that other races, for example, Indian people, support each other more than black people do; others following the same pattern, would promote entrepreneurship in the country.

- **RS3:** *Black people need to support other black people in business just like what Indians do. If we do this then the rate of growth for entrepreneurs will increase and this will positively impact on economic development (GDP).*

These findings are in support of the findings by Mkwanazi (2018:65). He asserts that a positive cultural disposition towards entrepreneurship is higher among Indian and Jewish people in South Africa than among other racial groups. He further indicated that Indian and Jewish people have a positive desire to embark on entrepreneurship. Celikkol *et al.* (2019:780) are of the view that creating entrepreneurial social and cultural norms would influence individuals' behaviour to embark on entrepreneurship. The supportive social and cultural norms therefore encourage entrepreneurial orientations that could influence an individual's cognitive ability and attitudes towards entrepreneurship (Ndofirepi *et al.,* 2018:7). In the same vein, black people need to develop a cultural disposition towards entrepreneurship and entrepreneurial social and cultural norms where supporting other black-owned business should be the main strategy for stimulating entrepreneurship in the country.

In support of the view of supporting black-owned businesses, other participants argued that black people's mind-sets should be improved through entrepreneurship education from thinking of becoming employees to becoming employers. They indicated that the most common perception among black people is that one must get education and look for a job. The mind-set that one should acquire is however that one should acquire knowledge so that one might get a better-paying job. This mind-set limits most black individuals' entrepreneurial thinking and they do not think outside the box.

- **RS4**: *Black peoples' culture is to attend school then look for a job. We do not think of starting our own businesses.*
- **RS5 :** *Our culture does not support entrepreneurship, it encourages people to learn and get a better paying.*
- **RS6:** *Our culture think that when you sale artifacts you are not respected in society. We need to change this mind and encourage investment in such businesses because you can be able to improve your living standards.*

Some participants argued that there is a need to encourage entrepreneurship at every level and opportunity available. They indicated that there should be consultative processes (*lekgotlas* and *indaba)* the continued support and entrepreneurship teaching, and parents should encourage their children to develop an entrepreneurial mind-set. Furthermore, preferences should be given to locally produced products.

- **RS7**: *More* lekgotlas (indabas) *need to be held in different communities to encourage start ups.*
- **RS8**: *Parents need to teach their children about advantages of being an entrepreneur.*
- **RS9**: *Socio-cultural environment in South Africa has a negative view about entrepreneurship and they think that running businesses is for whites not black people. This negative perception needs to be looked at and teach our people that businesses can be operated by anyone irregardless [sic] of race.*
- **RS10**: *Support local produced products and this will encourage everyone to start their own small businesses.*

While it is important to open businesses by everyone – including black people – the majority of the participants indicated that, when provided with the opportunity to serve, black people should offer and deliver quality products. This can be linked to the mind-set that black people are not entrepreneurial and that they usually produce poor quality products. This supports suggestions raised in previous findings, which sought to understand ways to improve entrepreneurship, particularly among black people who are the majority and poor. The participants suggested that entrepreneurs should learn to deliver so that they can pave the way for other entrepreneurs. Entrepreneurs should work together to increase business opportunities among themselves.

> **RS10:** *Entrepreneurs should learn to deliver so that they pave the way for other entrepreneurs. Working together will also increase business opportunities for entrepreneurs.*

There was a strong sentiment among participants that entrepreneurs should work together and this might increase the number businesses. However, it is not clear how entrepreneurs should work together. It seems this working together may be improved by sharing entrepreneurial ideas, creating communities and networks of entrepreneurs, and sharing resources among entrepreneurs.

There was also a contradicting sentiment that the culture was supportive of entrepreneurship because of high unemployment rate.

> **RS11:** *Our culture is now supportive of entrepreneurhip because of the high unemployment rate. Therefore, people are now forming their own businesses.*

This seems to suggest that people are being 'pushed' into entrepreneurship, as they are not able to find jobs. This raises the question whether becoming an entrepreneur should happen due to a push or a pull factor. From a Kirznerian viewpoint of entrepreneurship (see Kirzner, 1973), although individuals who embark on necessity or 'push' entrepreneurship start their businesses out of necessity, they may also exhibit the quality of alertness and look out for any opportunity that allows them to satisfy basic needs. This way, they may act proactively in search of opportunities. Following these observations, it can be argued that there are different types of necessity or 'push' entrepreneurship. Some are driven by economic survival motives while others are driven by intrinsic goals, such as independence, personal freedom or flexibility in balancing their business and domestic lives (Adu-Gyamfi *et al.,* 2018:10). This demonstrates that, in some situations, entrepreneurial activities associated with opportunity or 'pull' entrepreneurship may be identified within the necessity or 'push' entrepreneurship.

Although individuals are 'pushed' into business to satisfy basic needs or as a survival strategy in terms of 'push' entrepreneurship. quantitative findings of the current study reveal that the determinants of 'push' entrepreneurship, such as basic needs (96.3%) and business survival strategy (96.4%), contribute significantly to South African economic development. Becoming an entrepreneur may be the result of either a push or a pull factor, and both may contribute to economic development of the country.

Conclusively, in order to stimulate entrepreneurship in South Africa, the socio-cultural environment can be improved by creating an environment of support and instilling positive desires in black individuals to embark on entrepreneurship**.** Black people's mind-sets should be improved through entrepreneurship education where from thinking of becoming employees to becoming employers. There should be *lekgotlas* (i.e. consultative processes), continued support and entrepreneurship teaching, and parents should encourage their children to develop an entrepreneurial mind-set. In addition, preferences should be given to locally produced products. Furthermore, black entrepreneurs should learn to deliver quality products and work together to increase business opportunities for themselves. This working together may be improved by sharing entrepreneurial ideas, creating communities and networks of entrepreneurs, and sharing resources among entrepreneurs. The socio-cultural environment should also encourage both 'push' and 'pull' entrepreneurship as both of them stimulate entrepreneurial activities that improve economic development in South Africa.

6.12.9 Summary of qualitative findings

The qualitative results reveal that, at the time, the South African entrepreneurship policy framework (EPF) was lagging behind because of a lack of government support, corrupt management of resources, and poorly implemented policies. The majority of participants indicated that the strategies to improve this framework so that entrepreneurship may be stimulated, centred on four major themes, namely financial and support programmes, skills programmes, policy implementation, and overall improvement of life. The regulatory environment in South Africa also stifles the stimulation of entrepreneurship. Some participants were of the view that government should ease regulations, and that it should provide continuous support, mentorship and incubation programmes to entrepreneurs. Some participants emphasised that government should also remove red tape that hampers entrepreneurship. Other participants asserted that implementing adequate curriculums in terms of entrepreneurship education, which incorporate a practical component and implementing funding or grant schemes, might also improve the South African EPF.

Furthermore, the qualitative results reveal that improved technology and innovation could also enhance the South African EPF. In order to improve technology and innovation, participants were of the view that government should provide sufficient access to technology infrastructure at an affordable cost, and sufficient support by funding innovation and creativity. Some participants emphasised that government should also implement an incentive scheme and allocate enough funds for research and development. Entrepreneurs' access to finance is also crucial to improve the South African EPF. Most participants were of the opinion that government and financial institutions should lower interest rates on loans to allow entrepreneurs securing loans. The participants also suggested that there should be continuous advertising of available financial services in the national directory, which is widely disseminated to the entrepreneurs, as well as in the national media. Government and financial institutions should also establish and make microfinance institutions easily accessible in remote areas.

The qualitative results further emphasise that the socio-cultural environment also stimulates entrepreneurship. As a result, some participants indicated that government should instil a positive desire in black individuals to embark on entrepreneurship through entrepreneurship education. There should be *lekgotlas*, entrepreneurship teaching and encouragement of children to develop an entrepreneurial mind-set. The majority of the participants also emphasised that communities must develop a mind-set of preferring to buy locally made products. Furthermore,

black entrepreneurs should learn to deliver quality products and work together to increase business opportunities for themselves. The qualitative results further suggested that both opportunity and necessity entrepreneurship should be encouraged as both stimulate entrepreneurial activities that could improve the South African EPF.

6.13 TRIANGULATION AND INTEGRATION OF QUANTITATIVE AND QUALITATIVE RESULTS

According to Schoonenboom and Johnson (2017:115), a mixed-method study should have at least one point of integration at which quantitative and qualitative components are brought together. Similarly, the results of both quantitative and qualitative data of the current study had points at which they integrated. Table 6.45 indicates the triangulation and integration of the quantitative and qualitative results. It also presents the constructs to be integrated into the framework, and how these constructs are explained by both quantitative and qualitative results of the study.

Table 6.45: Triangulation and integration of quantitative and qualitative results of the study

Constructs	Quantitative Results	Qualitative Results	Inclusion in the Framework
Opportunity entrepreneurship	Table 6.42 indicates that there is no significant relationship between opportunity entrepreneurship and the economic development dimensions (income growth, employment generation, inequality, poverty and human welfare; the p-value is > 0.05). This is consistent with the findings indicated in Table 6.43, which reveal that income growth, employment generation, inequality, poverty and human welfare are not the predictor of opportunity entrepreneurship (p-value=> 0.05). This implies that the contribution of opportunity entrepreneurship to economic development of South Africa is significantly minimal. This may have been caused by high level of unemployment resulting in most individuals embarking on entrepreneurship because of necessity. Cross and Morales (2007:5) argue that although external pressures such as economic restructuring and unemployment force individuals to be involved in necessity entrepreneurship, most of them do so voluntarily. As a result, they become established entrepreneurs involved in identifying the opportunity before expanding their entrepreneurial undertakings to new markets. Therefore, opportunity entrepreneurship should be incorporated into the framework that the current study is endeavouring to develop.	Qualitative results indicate that people are being 'pushed' into entrepreneurship, as they are not able to find jobs. This raises the question of whether becoming an entrepreneur should happen as a result of a push or a pull factor. From a Kirznerian viewpoint of entrepreneurship (see Kirzner, 1973), although individuals who embark on necessity or 'push' entrepreneurship start their businesses out of necessity, they may also exhibit the quality of alertness and look out for any opportunity that allows them to satisfy basic needs. This way, they may act proactively in search of opportunities. Based on these observations, it can be argued that there are different types of necessity or 'push' entrepreneurship. Some are driven by economic survival motives while others are driven by intrinsic goals, such as independence, personal freedom or flexibility in balancing their business and domestic lives (Adu-Gyamfi *et al.*, 2018:10). This demonstrates that in some situations, entrepreneurial activities associated with opportunity or 'pull' entrepreneurship may be identified within the necessity or 'push' entrepreneurship. Although individuals in 'push' entrepreneurship are 'pushed' into the business to satisfy basic needs or as a survival strategy, the quantitative findings of the current study reveal that the determinants of 'push' entrepreneurship, such as basic needs (96.3%) and a business survival strategy (96.4%), contribute significantly to South African economic development. Becoming an entrepreneur may therefore be regarded as either a push or a pull factor and both may contribute to economic development of the country.	Opportunity entrepreneurship to be integrated into the framework as supported by both quantitative and qualitative results.
Necessity entrepreneurship	Table 6.42 indicates a significant relationship between necessity entrepreneurship and all economic development dimensions (income growth, employment generation, inequality, poverty, and human welfare) (p-value=< 0.05).	The qualitative results reveal that people are being 'pushed' into entrepreneurship, as they are not able to find jobs. This raises the question of whether becoming an entrepreneur should happen as a result of a 'push' or a 'pull' factor. From	Necessity entrepreneurship to be integrated into the framework as supported

Constructs	Quantitative Results	Qualitative Results	Inclusion in the Framework
	This is consistent with the findings indicated in Table 6.43, which reveal that necessity entrepreneurship is an predictor of income growth, employment generation, inequality reduction, poverty reduction, and human welfare (p-value=< 0.05). This implies that necessity entrepreneurship contributes significantly to economic development of South Africa. Necessity entrepreneurship therefore had to be incorporated into the framework that the current study endeavoured to develop.	a Kirznerian viewpoint of entrepreneurship (see Kirzner, 1973), although individuals who embark on necessity or 'push' entrepreneurship start their businesses out of necessity, they may also exhibit the quality of alertness and look out for any opportunity that allows them to satisfy basic needs. This way, they may act proactively in search of opportunities. Based on these observations, it can be argued that there are different types of necessity or 'push' entrepreneurship. Some are driven by economic survival motives while others are driven by intrinsic goals, such as independence, personal freedom or flexibility in balancing their business and domestic lives (Adu-Gyamfi *et al.*, 2018:10). This demonstrates that, in some situations, entrepreneurial activities associated with opportunity or 'pull' entrepreneurship may be identified within the necessity or 'push' entrepreneurship. Although individuals in 'push' entrepreneurship are 'pushed' into the business to satisfy basic needs or as a survival strategy, the quantitative findings of the current study reveal that the determinants of 'push' entrepreneurship, such as basic needs (96.3%) and a business survival strategy (96.4%), contribute significantly to South African economic development. Becoming an entrepreneur may therefore be regarded as either a push or a pull factor and both may contribute to economic development of the country.	by both quantitative and qualitative results.
Financial support	Table 6.42 indicates that there is no significant relationship between financial support and the economic development dimensions (income growth, employment generation, inequality, poverty, and human welfare (p-value is > 0.05). This is consistent with the findings indicated in Table 6.43, which reveal that financial support is not a predictor of income growth, employment generation, inequality, poverty, and human welfare (p-value=> 0.05). This implies that financial support directed at the promotion of entrepreneurship does not contribute	It is indicated by the qualitative results that entrepreneurs' access to finance can be improved by lowering interest rates on loans. This should be a combined effort between government and financial institutions. Reducing the requirements for the funding application process is also crucial to stimulate entrepreneurship in South Africa. These strategies would only suffice if awareness is created within the entrepreneurship communities. Continuous advertising of available financial services in the national directory, which is widely disseminated to the entrepreneurs, as well as in the	Financial support to be integrated into the framework as supported by both quantitative and qualitative results. Training in financial management should however precede the funding of entrepreneurship.

Constructs	Quantitative Results	Qualitative Results	Inclusion in the Framework
	significantly to South African economic development. This clearly demonstrates that the contribution of entrepreneurship to economic development in South Africa might not be optimised by promoting financial support due to a lack of financial management skills among South African entrepreneurs (Kirsten, 2018:1). Entrepreneurial finance training is therefore crucial for financial support to contribute significantly to the correlation between entrepreneurship and economic development. Financial support was therefore not a crucial element to be incorporated into the framework, except when it is preceded by entrepreneurial finance training. Financial support directed at entrepreneurs with entrepreneurial finance skills therefore had to be incorporated into the framework.	national media, could also improve the stimulation of entrepreneurship. Government and financial institutions should establish and make microfinance institutions easily accessible in remote areas. This will promote entrepreneurship in the economically most abandoned areas of the country.	
Government policies	Table 6.42 indicates that there is no significant relationship between government policies and the economic development dimensions (income growth, employment generation, inequality, poverty, and human welfare; the p-value is > 0.05). This is consistent with the findings indicated in Table 6.43, which reveal that government policies is not a predictor of income growth, employment generation, inequality, poverty and human welfare (p-value=> 0.05). This implies that there is a critical need to change existing government policies pertaining to entrepreneurship and economic development. The current government policies constrain entrepreneurship. Bhorat *et al.* (2018:55) argue that government policies may deter individuals and small businesses from expanding beyond the informal sector. It was therefore considered not to incorporate current government policies into the newly developed framework. Entrepreneurial government policies would however play a critical role in terms of the optimisation of the contribution of entrepreneurship to the economic	**South African policies** According to the qualitative results, the strategies to improve South African policies to stimulate entrepreneurship centres on four major themes, namely financial and support programmes, skills programmes, policy implementation, and overall improvement of life. The findings reveal that the EPF can be improved by providing adequate funding and continuous support. This continuous support may include practical entrepreneurship skills and support programmes. Educational programmes aimed at equipping entrepreneurs with knowledge about the policies as well as 'proper' implementation and awareness workshops, are also crucial for enhancing the EPF to stimulate entrepreneurship in South Africa. **Regulatory environment** The themes of high fees and taxes, continuous support and red tape are crucial in an effort to improve the South African regulatory environment in order to stimulate entrepreneurship. The participants indicated that the South African regulatory environment can be improved by easing	Government policies to be integrated into the framework as supported by both quantitative and qualitative results.

Constructs	Quantitative Results	Qualitative Results	Inclusion in the Framework
	development of South Africa. Its inclusion into the framework was therefore paramount.	regulations, so that doing business is affordable. This can be done by allowing no custom duties when small businesses are exporting and importing goods. Entrepreneurs should also be granted free access to market economy. The continuous support can be provided by allowing entrepreneurs to start businesses without being penalised for not having licences, providing mentorship programmes on business management as well as embarking on incubation programmes. Government also need to remove red tape in the regulatory environment, which hampers entrepreneurship, reduce costs associated with environmental regulations, and abolish some of the red tape both in terms of local and national businesses.	
Government programmes	Table 6.42 shows that, although government policies may improve economic development dimensions, they contribute significantly to inequality reduction only (p-value=< 0.05). This is supported by information reflected in Table 6.43, which shows that government programmes are the predictor of inequality reduction in South Africa (p-value=< 0.05). This is in agreement with the study by Pabón *et al*. (2020:114). This latter study revealed that the Reconstruction and Development Programme (RDP) of South Africa had reduced inequality, and had given the state a strong role in redressing social, political and economic inequality. It was therefore critical for government programmes to be included in the framework.	Some participants believed that entrepreneurship education and skills development can be enhanced by creating incubator programmes in communities that would assist community members to develop entrepreneurial skills.	Government programmes to be integrated into the framework as supported by both quantitative and qualitative results.
Education and training	Table 6.42 indicates that education and training have a significant relationship with employment generation, inequality, and poverty reduction (p-value<0.05). No significant relationship was identified between education and training and two economic dimensions (income growth and human welfare) (p-value>0.05). This is supported by information in Table 6.43, which indicates that education and training is the predictor of employment generation and the reduction of poverty and inequality as	Entrepreneurship education and skills development can be improved by implementing adequate curriculums in terms of entrepreneurship education. The practical component should be incorporated into the entrepreneurship curriculums at all levels of education. This will allow learners to gain relevant entrepreneurship skills that would assist them to start their businesses successfully. Government should consider implementing funding or grant schemes for those who have completed their entrepreneurship education and who have	Education and training to be integrated into the framework as supported by both quantitative and qualitative results.

Constructs	Quantitative Results	Qualitative Results	Inclusion in the Framework
	their p-value is < 0.05. This implies that, although education and training contribute to economic development in many instances, in some instances its contribution remains minimal. This is consistent with the study by Bhorat *et al*. (2014:2), which indicated that there has been improvement in employment as a result of education and training in South Africa; however, such improvement has been reserved for individuals with higher levels of education. They further assert that the South African labour market consists of a large portion of less-educated, new entrants with minimal levels of skills and work experience. This has resulted in a classic skills mismatch where the returns to households and individuals are based on human capital attributes. Nonetheless, education and training had to be incorporated into this framework as the results reveal that, in most cases, education and training contribute to a significant correlation between entrepreneurship and economic development of South Africa.	acquired sufficient practical entrepreneurship skills ready to start their businesses. Government should further implement incubator programmes for communities, where community members can be trained in practical entrepreneurship skills that will allow them to start successful businesses.	
Research and development	Table 6.42 indicates that research and development is not significantly correlated with all the economic development dimensions, as the p-value is > 0.05. This is supported by information in Table 6.43, which indicates that research and development is not a predictor of all the economic development dimensions (income growth, employment generation, poverty, inequality, and human welfare) as their p-value is > 0.05. This implies that the contribution of research and development to economic development of South Africa is significantly minimal. This is supported by Nicolaides (2014:11) who asserts that, while research and development are crucial for economic development, their contribution to South African economic development is statistically insufficient, characterised by weak synergy between academic sector and industry. Promoting current R&D practices can therefore not optimise the significant contribution of	The qualitative results indicate that technology and innovation can be improved by providing sufficient access to technology infrastructure at an affordable cost. Improvement of technology infrastructure is also paramount to allow efficient and effective access. Government should provide sufficient support by funding innovation and creativity among entrepreneurs. This innovation and creativity should be part of education in schools and at universities. Government should also implement an incentive scheme where individuals who generate innovative and creative business ideas, can be rewarded with incentives to encourage entrepreneurship. Enough funds should be allocated to research and development to improve existing technology and innovation.	Research and development to be integrated into the framework as supported by both quantitative and qualitative results.

Constructs	Quantitative Results	Qualitative Results	Inclusion in the Framework
	entrepreneurship to economic development of South Africa; hence, it was not incorporated into the framework developed during this study.		
Commercial and professional infrastructure	Table 6.42 indicates that commercial and professional infrastructure is not significantly correlated with all the economic development dimensions, as the p- value > 0.05. This is supported by information in Table 6.43, which indicates that commercial and professional infrastructure is not a predictor of all the economic development dimensions (income growth, employment generation, poverty, inequality, and human welfare) as their p-value is > 0.05. This implies that the contribution of commercial and professional infrastructure to economic development of South Africa is significantly minimal.	**N/A**	Commercial and professional infrastructure to be integrated into the framework as supported by the quantitative results. These quantitative results should be integrated into the framework of the study.
Market flexibility	Table 6.42 indicates that market flexibility is not significantly correlated with all the economic development dimensions, as the p-value is > 0.05. This is supported by information in Table 6.43, which indicates that market flexibility is not a predictor of all the economic development dimensions (income growth, employment generation, poverty, inequality, and human welfare) as their p-value is > 0.05. The contribution of market flexibility to economic development of South Africa is therefore significantly minimal.	**N/A**	Market flexibility to be integrated into the framework as supported by the quantitative results.
Access to physical infrastructure	Table 6.42 indicates that, although access to physical infrastructure contributes to all economic development dimensions, statistically, it only contributes significantly to reduction of inequality and human welfare (p-value=< 0.05). No significant correlation was observed on income growth, employment generation, and the reduction of poverty. This implies that access to physical infrastructure may significantly improve economic development of South Africa if it is mainly directed at reduction of inequality and promotion of human welfare. Access to		Access to physical infrastructure to be integrated into the framework as supported by the quantitative results.

Constructs	Quantitative Results	Qualitative Results	Inclusion in the Framework
	physical infrastructure therefore had to be incorporated into the framework developed during the current study.		
Technology and innovation	**N/A**	Technology and innovation can be improved by providing sufficient access to technology infrastructure at an affordable cost. Improvement of technology infrastructure is also paramount to allow efficient and effective access. Government should provide sufficient support by funding innovation and creativity among the entrepreneurs. This innovation and creativity should be part of education in schools and at universities. Government should also implement an incentive scheme where individuals who generate innovative and creative business ideas, can be rewarded with incentives to encourage entrepreneurship. Enough funds should be allocated to research and development to improve existing technology and innovation.	Technology and innovation to be integrated into the framework as supported by the qualitative results.
The socio-cultural environment	**N/A**	To stimulate entrepreneurship in South Africa, the socio-cultural environment should be improved by creating an environment of support and by instilling positive a desire in black individuals to embark on entrepreneurship**.** Black people's mind-set can be improved through entrepreneurship education where their mind-set is changed from thinking of becoming an employee to thinking of becoming an employer. There should be the *lekgotlas*, continued support, entrepreneurship teaching, and parents should encourage their children to develop an entrepreneurial mind-set. In addition, preference should be given to locally produced products. Furthermore, black entrepreneurs should learn to deliver quality products and work together to increase business opportunities for themselves. This working together may be promoted by sharing entrepreneurial ideas, creating communities and networks of entrepreneurs, and sharing resources among the entrepreneurs. The socio-cultural environment should also encourage both 'push' and 'pull' entrepreneurship as both of these stimulate entrepreneurial	The socio-cultural environment to be integrated into the framework as supported by the qualitative results.

Constructs	Quantitative Results	Qualitative Results	Inclusion in the Framework
		activities that could improve economic development in South Africa.	
The factor-driven stage of economic development	The results in Table 6.13 show that the majority of participants (more than 90%) agreed that most factor-driven economic indicators promote entrepreneurship in South Africa. Economic indicators, such as subsistence agriculture (98.1%), abundance of natural resources (99.6%), and improved macroeconomic stability (98.5%) contribute more to the promotion of entrepreneurship in South Africa compared to the rest of the factor-driven economic indicators. The statements regarding the contribution of heavy reliance on unskilled labour is far less (83.1%) compared to the rest of the factor-driven economic indicators. This demonstrates that unskilled labour decreases the promotion of entrepreneurship at factor-driven stage.	**N/A**	The factor-driven stage of economic development to be integrated into the framework as supported by the quantitative results.
An efficiency-driven stage of economic development	The results in Table 6.14 show that the majority of respondents (more than 90%) agreed that most efficiency-driven economic indicators promote entrepreneurship in South Africa. Economic indicators, such as large markets (100%), technological readiness of the economy (99.2%), economies of scale (99.6%), and industrialisation (99.6%) contribute more to the promotion of entrepreneurship in South Africa compared to the rest of the efficiency-driven economic indicators.	**N/A**	An efficiency-driven stage of economic development to be integrated into the framework as supported by the quantitative results.
The innovation-driven stage of economic development	The results in Table 6.15 show that the majority of respondents (more than 90%) agreed that most innovation-driven economic indicators promote entrepreneurship in South Africa. Economic indicators, such as quality individual business operations (100%), knowledge-intensive (99.3%) and quality business networks (99.7%), and quality business strategies (99.6%) contribute more to the promotion of entrepreneurship in	**N/A**	An innovation-driven stage of economic development to be integrated into the framework as supported by the quantitative results.

Constructs	Quantitative Results	Qualitative Results	Inclusion in the Framework
	South Africa compared to the rest of the innovation-driven economic indicators.		
Income growth	Table 6.42 indicates that income growth has a strong influence in terms of entrepreneurship to contribute significantly to the economic development in South Africa; hence, it had to be included in the framework developed for the study.	**N/A**	Income growth to be integrated into the framework as it is supported by the quantitative results.
Employment generation	The statistics in Table 6.42 indicate that employment generation has a strong influence in terms of entrepreneurship to contribute significantly to the economic development in South Africa; hence, its inclusion in the framework developed during the study.	**N/A**	Employment generation to be integrated into the framework as supported by the quantitative results.
Inequality	Table 6.42 indicates that inequality has a strong influence in terms of entrepreneurship to contribute significantly to the economic development in South Africa. As a result, it had to be integrated into the framework developed for the study.	**N/A**	Inequality to be integrated into the framework as it is supported by the quantitative results.
Poverty	Table 6.34 shows that there is a strong, positive correlation between entrepreneurship and poverty. These statistics imply that high value on entrepreneurship is associated with a high value on poverty reduction; hence, its inclusion in the framework developed for the study	**N/A**	Poverty to be integrated into the framework as supported by the quantitative results.
Human welfare	As indicated in Table 6.34, there is a strong, positive correlation between entrepreneurship and poverty. These statistics imply that high value on entrepreneurship is associated with high value on human welfare. Human welfare therefore had to be included in the framework developed for the study.	**N/A**	Human welfare to be integrated into the framework as supported by the quantitative results.

Source: Researcher's own compilation

Table 6.44 indicates that both opportunity and necessity entrepreneurship are supported by both quantitative and qualitative results; hence, their inclusion in the framework developed for the current study. Although financial support is crucial for entrepreneurship to contribute to economic development, the quantitative and qualitative results showed that its inclusion into the framework should be combined with training in financial management. Both quantitative and qualitative results support the inclusion of government policies, government programmes, education and training as well as research and development in the framework. Table 6.44 also indicates constructs, such as technology and innovation and the socio-cultural environment, which are supported by qualitative results for their inclusion in the framework. Other constructs, namely stages of economic development, income growth, employment generation, inequality, poverty, and human welfare are only supported by quantitative results; hence, their inclusion into the framework.

6.14 CHAPTER SUMMARY

The results of the study show various entrepreneurship and economic development constructs covered in the study. The findings revealed that the contribution of opportunity entrepreneurship to the economic development of South Africa is significantly minimal. This might have been caused by a high level of unemployment resulting in most individuals embarking on entrepreneurship because of the necessity drive. People are therefore being 'pushed' into entrepreneurship, as they are not able to find jobs.

Although financial support could improve entrepreneurship to contribute to economic development, the results show that this can only be possible if financial training precedes financial support. Regarding government policies, the quantitative results suggest that there is a critical need to change the existing government policies pertaining to entrepreneurship and economic development, as current government policies are constraining entrepreneurship.

According to qualitative results, the strategies to improve government policies in order to stimulate entrepreneurship centres on four major themes, namely financial and support programmes, skills programmes, policy implementation, and overall improvement of life. Beside government policies, the South African regulatory environment also constrains entrepreneurship. In addressing this challenge, the qualitative results suggest strategies, namely easing regulations, allowing entrepreneurs to start businesses without being penalised for not having licences, providing mentorship and incubation programmes, and removing red tape in

the regulatory environment, as these hamper entrepreneurship. In addition, the South African socio-cultural environment also hinders entrepreneurship. According to the qualitative results, this can be addressed by creating an environment of support and instilling a positive desire in black individuals to embark on entrepreneurship. Preference should be given to locally produced products, and black entrepreneurs should learn to deliver quality products and work together to increase business opportunities for themselves.

The results also explain education and training. The quantitative results indicate that, although education and training contribute to economic development in many instances, in some instances, its contribution remains minimal. In order to improve the contribution of education and training to economic development, the qualitative results suggest that educational institutions should implement adequate practical curriculums in terms of entrepreneurship education. Government should also implement funding or grant schemes for learners who have completed their entrepreneurship education, so that they can start new businesses. By doing so, they will contribute to the economic development of the country.

The contribution of research and development to the economic development of South Africa is also significantly minimal. The results of the study indicate that enough funds should be allocated to research and development to improve existing technology and innovation. Apart from research and development, technology and innovation form the heart of entrepreneurship. Entrepreneurs should therefore have sufficient access to technology infrastructure at an affordable cost. Government should provide sufficient support by improving technology infrastructure and funding innovation and creativity among entrepreneurs.

The results also indicate that stages of economic development play a crucial role in terms of entrepreneurship to contribute significantly to economic development. The study found that when the country is very innovative, entrepreneurial activities increase. It is therefore envisaged that the contribution of entrepreneurship to the economic development of South Africa may be significant if South Africa transitions from an efficiency-driven stage to an innovation-driven stage. Elements of economic development, such as income, employment, poverty, inequality, and human welfare were found to be predictors of the contribution of entrepreneurship to economic development. For instance, a strong, positive correlation between income growth and entrepreneurship was identified, implying that high growth in income is associated with a high evaluation of entrepreneurship. The study also found that employment generation has a strong influence in terms of entrepreneurship to contribute to economic development in South Africa.

Creating jobs therefore optimises the contribution of entrepreneurship to economic development in South Africa. In the same vein, the quantitative findings of the study reveal that the reduction of poverty and inequality has a strong influence in terms of entrepreneurship to contribute to the economic development of the country. This implies that reducing poverty and inequality may stimulate entrepreneurship. The results also indicate that human welfare has a strong influence in terms of entrepreneurship to contribute to the economic development in South Africa.

Chapter Seven presents the summary, conclusion and recommendations of the study.

CHAPTER SEVEN

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Chapter Seven presents the summary, conclusion and recommendations of the study.

7.1 CHAPTER OVERVIEW

Chapter Seven provides a summary of the consolidated quantitative and qualitative findings of the study. The chapter is structured as follows: section 7.2 reconsiders the research objectives. A summary of quantitative and qualitative findings is provided in section 7.3. Sections 7.4 to 7.10 present a summary and conclusions of both theoretical and empirical findings based on the research objectives. Sections 7.11 and 7.12 provide the conclusion and recommendations of the study respectively. Limitations of the study and areas for future research and the chapter summary are presented in sections 7.13–7.15 respectively.

7.2 RESEARCH OBJECTIVES RECONSIDERED

The primary objective for undertaking this study was to examine the correlation between entrepreneurship and the economic development of South Africa.

The following secondary objectives were formulated to support the primary objective and guide the study:

- to investigate the type of entrepreneurship that contributes significantly to economic development in general;
- to determine the type of entrepreneurship that contributes significantly to the economic development of South Africa;
- to investigate the stage of economic development that contributes significantly to entrepreneurship in general;
- to determine the stage of economic development that significantly promotes entrepreneurship in South Africa;
- to identify gaps in the existing general frameworks on the correlation between entrepreneurship and economic development; and

- to develop a framework for optimising the significant contribution of entrepreneurship to the economic development of South Africa.

7.3 THEORETICAL SUMMARY OF THE THESIS

The first chapter provided an introduction to the thesis and the background to the problem that necessitated the study. The chapter also provided the purpose, research objectives and questions of the study. The problem statement, significance of the study, an overview of the research methodology, delimitations and limitations of the study, assumptions, and the key terms of the study were also discussed in this chapter.

The second chapter presented the significance of the concept of entrepreneurship, and focused on the schools of thought for defining entrepreneurship and the types of entrepreneurship. The type of entrepreneurship that contributes significantly to the economic development was highlighted.

The third chapter discussed the relevance and definitions of economic development, as well as the elements of economic development that contribute to entrepreneurship in general. This chapter also presents the results of the critical analysis of the stages of economic development in general, its dimensions as well as entrepreneurial characteristics at each stage.

The fourth chapter presented a review of existing literature regarding the correlation between entrepreneurship and economic development, from both theoretical and empirical perspectives. The chapter also presented an evaluation of the existing frameworks and models in terms of the contribution of entrepreneurship to economic development. Furthermore, the chapter highlighted entrepreneurial framework conditions (EFCs) and the entrepreneurship policy framework (EPF) that optimise economic development.

The fifth chapter outlined the research methodology adopted in the study, focusing on the research paradigm, research approach, research design, population, sample and sampling techniques. Also discussed were data-collection and data-analysis procedures and ethical considerations of the study.

The sixth chapter provided an analysis of the primary and secondary data, and presented the results of the study. The chapter provided empirical findings on demographic variables, Cronbach's alpha test for reliability of the measuring instrument (i.e. the questionnaire) as well

as descriptive, correlation and inferential statistics of the study. Furthermore, it presented the analysis of quantitative data, a thematic analysis of qualitative data as well as the triangulation of qualitative and quantitative findings. Chapter Six also discussed the empirical findings of the study regarding the correlation between entrepreneurship and economic development of South Africa in relation to literature reviewed. It also provided information on the type of entrepreneurship that contributes to economic development in South Africa, and the stage of economic development that significantly promotes entrepreneurship in South Africa.

The seventh chapter provides a summary of the research findings, conclusions, limitations, contribution of the study, recommendations and areas for further study. The chapter also presents a framework for optimising the contribution of entrepreneurship to the economic development of South Africa, which is the main contribution of the study.

7.4 OBJECTIVE 1: TO INVESTIGATE THE TYPE OF ENTREPRENEURSHIP THAT CONTRIBUTES SIGNIFICANTLY TO ECONOMIC DEVELOPMENT IN GENERAL

The literature review revealed that there are mainly two types of entrepreneurship, namely opportunity and necessity entrepreneurship. Opportunity entrepreneurship is the creation of a business after an entrepreneurial opportunity, such as a demand for products and services, production methods, entrepreneurial abilities and availability of capital, has been identified. Opportunity entrepreneurship has the potential to contribute significantly to economic development in both developed and developing economies. The motivation to start a business has consequences for the manner in which a business is managed. For example, business aspiration, the market strategy viability, and business performance are likely to be high when an entrepreneur pursues opportunity entrepreneurship.

The current study found that necessity entrepreneurship occurs when an individual starts a business because he or she has no other income options. Such an individual starts this type of entrepreneurship because of ‘push’ motives. In most cases, necessity entrepreneurship is used as a way to compensate for a lack of other sources of employment and is often linked to informal activities, unemployment, an economic recession, and poverty. Although necessity entrepreneurship seems to make no or a minimal contribution to economic development, it contributes significantly to the economic development of most of the developing countries. Most individuals in these countries choose to embark on necessity entrepreneurship because of

their adverse economic conditions. However, as their businesses grow, they change the type of entrepreneurship from necessity to opportunity entrepreneurship.

The current study therefore concluded that both opportunity and necessity entrepreneurship contribute significantly to economic development in both developed and developing countries. However, necessity entrepreneurship contributes more to economic development in developing countries than in developed countries. This is because of high poverty and unemployment rates in developing countries, which force most individuals to start their businesses out of necessity. When these businesses grow, individuals change from the type of entrepreneurship they practice; thus, from necessity to opportunity entrepreneurship where they expand their businesses by exploiting business opportunities identified.

7.5 OBJECTIVE 2: TO DETERMINE THE TYPE OF ENTREPRENEURSHIP THAT CONTRIBUTES SIGNIFICANTLY TO THE ECONOMIC DEVELOPMENT OF SOUTH AFRICA

Based on the empirical findings of the quantitative part of the study and supported by the qualitative findings, it was clear that most determinants of opportunity entrepreneurship contribute significantly to South African economic development. The determinants, such as entrepreneurial opportunities, demand for products or services, better production methods, entrepreneurial skills and ability, contribute significantly to South African economic development.

The descriptive statistics of the study recorded the highest mean for opportunity entrepreneurship, implying that opportunity entrepreneurship has a strong influence in terms of entrepreneurship to contribute to the economic development in South Africa. In support of the findings of the descriptive statistics, the correlation statistics show that there is a strong, positive correlation between opportunity entrepreneurship and four economic development dimensions (income growth, inequality, poverty, and human welfare). These statistics imply that the high value placed on opportunity entrepreneurship is associated with a high value placed on income growth, inequality, and poverty reduction as well as human welfare.

The quantitative part of the study also found that the determinants of necessity entrepreneurship, such as basic needs and business survival strategy, contribute significantly to the economic development of South Africa. The correlation statistics also imply that the high

value placed on necessity entrepreneurship is associated with the high value placed on income growth, inequality, and poverty reduction, implying that necessity entrepreneurship also contributes significantly to income growth, inequality, and poverty reduction in South Africa.

The qualitative part of the study revealed that in South Africa, most people are being 'pushed' into entrepreneurship, as they are not able to find jobs. This raises the question of whether becoming an entrepreneur should happen as a result of a push or a pull factor. From a Kirznerian viewpoint of entrepreneurship (see Kirzner, 1973), although individuals who embark on necessity or 'push' entrepreneurship start their businesses out of necessity, they may also exhibit the quality of alertness and look out for any opportunity that allows them to satisfy basic needs. This way, they may act proactively in search of opportunities. Based on these observations and the findings of the study, it is evident that there are different types of necessity or 'push' entrepreneurship in South Africa. Some are driven by economic survival motives while others are driven by intrinsic goals, such as independence, personal freedom or flexibility in balancing their business and domestic lives. This demonstrates that in some situations, entrepreneurial activities associated with opportunity or 'pull' entrepreneurship may be identified within the necessity or 'push' entrepreneurship.

Although in 'push' entrepreneurship, individuals are 'pushed' into the business to satisfy basic needs or as a survival strategy, the quantitative findings showed that the determinants of 'push' entrepreneurship such as basic needs and business survival strategy contribute significantly to South African economic development. In South Africa, becoming an entrepreneur may therefore be the result of either a push or a pull factor, and both may contribute to the economic development of the country.

In conclusion, these empirical results indicate that there should be a combination of some of the opportunity and necessity entrepreneurship determinants of entrepreneurship to contribute significantly to South African economic development. These determinants are entrepreneurial opportunities, demand for products or services, better production methods, entrepreneurial skills and ability, satisfaction of basic needs, and business survival strategy.

7.6 OBJECTIVE 3: TO INVESTIGATE THE STAGE OF ECONOMIC DEVELOPMENT THAT CONTRIBUTES SIGNIFICANTLY TO ENTREPRENEURSHIP

The literature review revealed three main stages of economic development, each with a different set of economic characteristics and challenges. These stages are the factor-driven stage, the efficiency-driven stage and the innovation-driven stage.

7.6.1 Factor-driven stage of economic development

As the name implies, at the factor-driven stage, countries are factor-driven. It is the first stage of economic development, in which the competitive advantage of a country is based on unskilled labour or natural resources, and the country produces mostly basic products. Countries in this stage compete based on their factor endowments and natural resources, whereas businesses in this stage compete in terms of price and have limited roles in the value chain. This study found that the factor-driven stage of economic development is dominated by subsistence agriculture and extraction businesses, with a heavy reliance on (unskilled) labour and natural resources.

The study also found that institutions dominate the factor-driven stage, and innovation counts for only 5% of economic activity. This implies that entrepreneurship plays a minimal role in economic development at this stage. The rate of business discontinuance is highest in factor-driven countries, mainly in sub-Saharan African countries. The study found that the underlying reasons include an unprofitable business, lack of finance and personal reasons.

7.6.2 Efficiency-driven stage of economic development

Literature revealed that the efficiency-driven stage is the second stage of economic development. At this stage, countries start to develop more efficient production processes and increase product quality due to an increase in wages. Efficient production therefore becomes the main source of competitiveness in countries that are in the efficiency-driven stage. Countries become more competitive at the efficiency-driven stage because of industrialisation, further development, and an increased reliance on economy of scale, with large capital-intensive organisations. This stage is characterised by improved (and improving) basic economic requirements, such as efficient goods, labour and financial markets that are directed toward improving the efficiency of the country. Most developing countries, such as South

Africa, Namibia, Thailand and Poland, are in the efficiency-driven stage of economic development. At this point, competitiveness is driven by higher education and training, efficient goods markets, well-functioning labour markets, sophisticated financial markets, a large domestic or foreign market, and the ability to harness the benefits of existing technologies.

The current study found that innovation accounts for 10% of economic activity in this stage. There is also an S-shaped relationship between entrepreneurship and economic development because, unlike the insufficient contribution of entrepreneurship to economic development at the factor-driven stage, this contribution starts to be apparent in the efficiency-driven stage. The key focus is therefore on entrepreneurial activities where entrepreneurs start to become more socially responsible by contributing to health, education, and the welfare of the country. This implies that there is dominance of entrepreneurial spirit among efficiency-driven countries. It is at this stage that governments start supporting entrepreneurship and innovation through the creation of venture capital funds for businesses. However, there is limited sustainability of many start-ups at this stage. Entrepreneurial intentions are also very low, and there is dominance of necessity entrepreneurship. Furthermore, the study revealed that there are small improvements in entrepreneurial finance, and some market factors and regulations constrain entrepreneurship. This clearly indicates the need for a scientific review of economic policies for efficiency-driven countries such as South Africa, taking into consideration that contribution of entrepreneurship to economic development is skewed.

7.6.3 Innovation-driven stage of economic development

The innovation-driven stage is the third stage of economic development. It was revealed that, at this stage, entrepreneurs have the ability to produce new innovative products through sophisticated processes. Advanced developed countries, such as the United Kingdom, Canada, the United States, France and Germany, are typically countries that fall in the innovation-driven stage. Advanced methods are the main source of competitiveness in these countries. Businesses are mainly knowledge-intensive, and invest strongly in advanced skills and technology. The current study found that, when countries move to the innovation-driven stage, wages increase. The countries are able to sustain the higher wages, resulting in the higher levels of standard of living for their citizens. These countries are able to sustain the resultant wages because businesses produce new and unique products and services and use unique processes and models. The study further found that the innovation-driven stage is distinguished by an increase in knowledge-intensive activities. Knowledge is therefore the source of the key inputs that shifts

businesses to gain new knowledge. Businesses compete by producing new and unique goods and services through new technologies and the utilisation of sophisticated production processes and business models. Business sophistication and innovation are therefore dimensions of an innovation-driven stage of economic development. The study also found that, when the country is very innovative, entrepreneurial activities increase. It is therefore envisaged that the contribution of entrepreneurship to the economic development of South Africa may be significant once South Africa transitions from the efficiency-driven stage to the innovation-driven stage.

In summary, there are three stages of economic development, namely the factor-driven, efficiency-driven and innovation-driven stages. In the factor-driven stage, competitive advantage is based on unskilled labour and natural resources, and countries at this stage usually produce basic products. Entrepreneurship consequently plays a minimal role in economic development. At the efficiency-driven stage, countries start to develop more efficient production processes and increase product quality. There is dominance of an entrepreneurial spirit among efficiency-driven countries. Although entrepreneurial activities are acknowledged at the efficiency-driven stage, their contribution to economic development is minimal, as they are predominantly necessity-driven. Unlike the factor-driven and efficiency-driven stages, at the innovation-driven stage, new innovative products are produced through sophisticated processes. Entrepreneurial activities at this stage are opportunity-driven. This is the stage at which entrepreneurship contributes to economic development. No developing country has reached this stage of economic development yet. Most developing countries are therefore in the factor-driven or efficiency-driven stages.

7.7 OBJECTIVE 4: TO DETERMINE THE STAGE OF ECONOMIC DEVELOPMENT THAT SIGNIFICANTLY PROMOTES ENTREPRENEURSHIP IN SOUTH AFRICA

The quantitative part of the study revealed that most factor-driven economic indicators promote entrepreneurship in South Africa. These economic indicators are subsistence agriculture, abundant natural resources and improved macroeconomic stability. The quantitative part of the study also found that most efficiency-driven economic indicators promote entrepreneurship in South Africa. These indicators are a large market, technological readiness of the economy, economies of scale, and industrialisation. This demonstrates that the size of the market affects

productivity and ultimately the country at large, as large markets allow businesses to utilise economies of scale. This then lowers costs and increases profits as well as the value of businesses. The findings indicate that, because of increased market size, both entrepreneurship and economic development are improved, as entrepreneurs identify entrepreneurial opportunities to create more economies of scale. In addition, technology increases the efficiency and innovation in a country thereby enhancing the economic development of the country. Access to technology in production processes is crucial for entrepreneurs because their sunk costs are reduced, and they can focus on their core business activities. To summarise, expanding goods and the services market, promoting industrialisation, technology and economies of scale promote entrepreneurship in South Africa.

Regarding the innovation-driven stage, the study found that some innovation-driven economic indicators promote entrepreneurship in South Africa. These economic indicators are quality individual business operations, knowledge-intensive and quality business networks, and quality business strategies. Surprisingly, the quantitative part of the study did not really support investment in research and development as the economic indicators that could promote entrepreneurship in South Africa. These findings demonstrate that there should be transformation in African research methodologies. Some of the Western research methodologies seem to be ineffective in solving African economic problems. African researchers need to move towards developing and using African research methodologies for studying the African reality. They should refrain from holding onto the research pathways mapped out by Western methodologies within which many African researchers had been trained. The study suggests that African researchers should adopt Afrocentric paradigms as this would position African research from an African viewpoint and create Africa's own intellectual perspective. Afrocentric paradigms therefore focus on Africa as the centre for the study of African economic problems and interprets research data from an African perspective.

Based on the critical analysis of both empirical and theoretical findings, South Africa fell within the efficiency-driven stage of economic development at the time of this research. This stage does not support the bilateral and significant contribution of entrepreneurship to economic development adequately. This then triggers the need for South Africa to transition from the efficiency-driven to the innovation-driven stage to improve the significant contribution of entrepreneurship to the economic development of the country.

7.8 OBJECTIVE 5: TO IDENTIFY GAPS IN THE EXISTING GENERAL FRAMEWORKS ON THE CORRELATION BETWEEN ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT

The literature review was used to determine the gaps in the general frameworks on the correlation between entrepreneurship and economic development. Firstly, findings revealed that the framework on entrepreneurship and economic performance, which was developed by Thurik *et al.* (2002:164) has a number of gaps. These gaps include the limitation of not addressing exogenous factors, such as characteristics of consumer preferences, the increase of scientific knowledge, and the invention of new radical technologies. The framework also does not address the type of entrepreneurship that needs to be promoted in order to contribute to economic development. The stages of economic development at which entrepreneurship can be optimised are also not addressed in Thurik *et al.'s* framework. Secondary data from developed economies only were used to develop this framework.

In addressing these gaps, the framework developed by the current study incorporated research and development, innovation, types of entrepreneurship, and stages of economic development. The framework for the current study was developed from both primary and secondary data, and the study was conducted within the South African context.

A critical analysis was also conducted of the GEM conceptual framework on the relationship of entrepreneurship with its environment (GEM, 2018). This framework recognises that social, cultural, political and economic contexts have a direct influence on entrepreneurship, which then contributes towards social-economic development. The GEM conceptual framework was developed based on a primary source of data. However, due to the harmonisation of data collected in South Africa with that of other participating countries, the GEM conceptual framework suffers a serious contextual limitation. It is therefore not a true reflection of the contribution of entrepreneurship to the economic development of South Africa. In addressing this shortcoming, the framework developed by the current study was entirely contextualised in South Africa.

Literature also provided a critical analysis by Toma *et al.* (2014) of a theoretical model that links economic development and entrepreneurship. Similar to the frameworks discussed above, this model does not address the type of entrepreneurship and the stage of economic development required to be promoted for entrepreneurship to make a significant contribution

to economic development. The framework also suffers a serious methodological limitation, as the methodological approach used was solely a literature review. In addressing this limitation, both empirical and theoretical data were utilised in the current study. Additionally, it was pointed out in Toma *et al.*'s (2014) study, that the theoretical model needs to be improved by embarking on future research. The current study therefore addressed this recommendation.

7.9 CONTRIBUTION OF THE STUDY TO THE BODY OF KNOWLEDGE

The study contributed to the body of knowledge by developing a framework for optimising the contribution of entrepreneurship to the economic development of South Africa. This framework is enshrined in research objective six.

7.9.1 OBJECTIVE 6: To develop a framework for optimising the significant contribution of entrepreneurship to the economic development of South Africa

In view of the problem proposed in Chapter One, it is well documented that entrepreneurship is the backbone of economic development through its critical role in poverty reduction, employment creation, wealth distribution, and innovation (Acs, Szerb *et al.*, 2018:25; Adusei, 2016:202; Lafuente & Vaillant, 2016:99; Naudé, 2013:5; 2018:8; Omoruyi *et al.*, 2017:2; Sautet, 2013:390; Stam & Van Stel, 2009:4). Van Vuuren and Alemayehu (2018:1) observe that entrepreneurship differs extensively in the factor-driven, efficiency-driven and innovation-driven stages of economic development. It is unclear which stage of economic development would contribute significantly to entrepreneurship in South Africa. It is also unclear which type of entrepreneurship would promote economic development in South Africa.

There are contradicting findings regarding the contribution of entrepreneurship to the economic development of South Africa. For instance, Ayankoya (2016:4) and Lekhanya (2016:5) argue that entrepreneurship is contributing significantly to the economic development of South Africa. Contrary to these views, the OECD (2017b:7), Luiz and Mariotti (2011:45) and GEM (2016:180) indicate that entrepreneurship has a minimal contribution to the economic development of South Africa, which is manifested in the increased level of unemployment, poverty, and inequality that the country is currently facing. Consequently, there was a need for a study to investigate the type of entrepreneurship that contributes significantly to the economic development of South Africa, and the stage of economic development that contributes significantly to the promotion of entrepreneurship in the country.

In addition, Hessels and Naudé (2017:2) argue that the nexus between entrepreneurship and economic development is fragmented and not based on a unifying theoretical approach. This triggered the need for a framework for optimising the contribution of entrepreneurship to economic development of South Africa. This framework has been developed during the current study. The framework incorporates the significant relationship between entrepreneurship and economic development within a South African context, the type of entrepreneurship that can contribute most significantly to the economic development of South Africa, and the stage of economic development to be promoted in order for entrepreneurship to contribute significantly to the economic development of the country. The framework also indicates the EFCs and elements of the EPF that could facilitate the significant contribution of entrepreneurship to the economic development of South Africa. This framework is a synthesis of the quantitative and qualitative interpretation of the results as well as data gained from the existing literature.

The framework that was developed seeks to provide entrepreneurial practices that are relevant to South Africa in terms of the contribution of entrepreneurship to economic development. Bedevilled by the economic and social challenges of poverty, unemployment, and inequality, South Africa needs a framework to minimise these challenges. The framework is envisaged to be a useful instrument for policymakers, entrepreneurs and any other relevant stakeholders. Figure 7.1 presents the framework that charts the process of optimising the contribution of entrepreneurship to the economic development of South Africa.

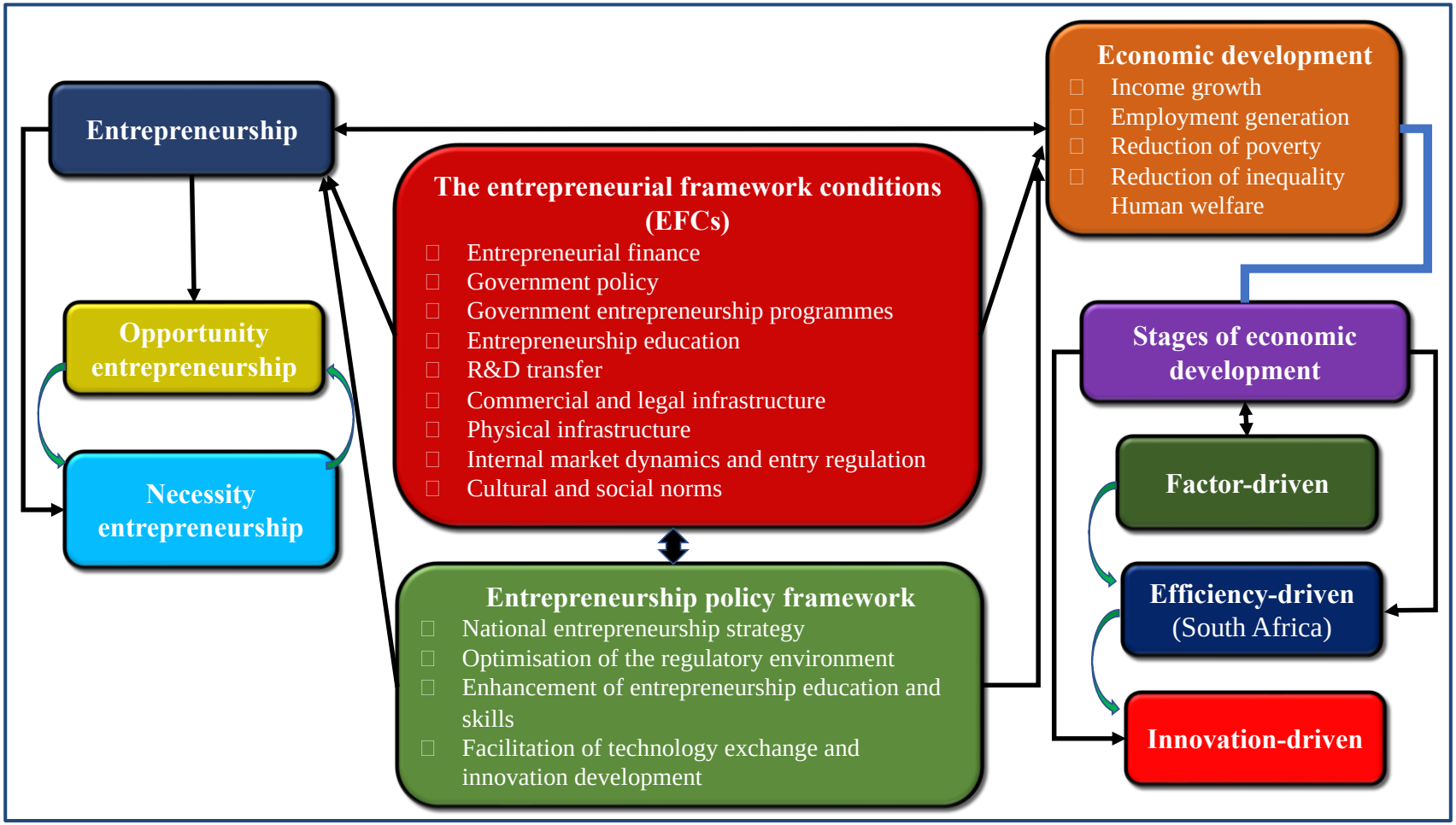

Figure 7.1: Framework for optimising the contribution of entrepreneurship to the economic development of South Africa

Source: Researcher's own compilation

The framework in Figure 7.1 portrays the process of optimising the contribution of entrepreneurship to South African economic development. The framework indicates each of the constructs, their associate elements, and the correlation amongst themselves. It also indicates the EFCs and elements of the EPF that facilitate this contribution.

7.10 ELEMENTS OF THE FRAMEWORK FOR OPTIMISING THE CONTRIBUTION OF ENTREPRENEURSHIP

The framework that was developed during the current study has various elements. Section 7.10.1 explains these elements.

7.10.1 Entrepreneurship

Entrepreneurship is perceived as the process of identifying business opportunities; mobilising resources and skills to utilise the identified business opportunities; taking risks, which involves taking actions that might have unpleasant or undesirable results; and then supplying goods and services to the society, which improves the economic progress of the country. On the one hand, both opportunity and necessity entrepreneurship are critical for South Africa to improve economic development. On the other hand, economic development elements, such as income growth, employment generation, reduction of poverty and of inequality, and human welfare are critical for entrepreneurship to flourish in South Africa. This demonstrates a mutual determinant relationship between economic development and entrepreneurship.

This determinant relationship is supported by previous studies. For instance, Toma *et al*. (2014:439) assert that economic development does not operate in isolation. Entrepreneurship is central to the functioning of market economies, resulting in economic development. Entrepreneurship attracts and grows businesses, creates employment, provides citizens with goods and services, and pays taxes through which economic development is expanded. Abdesselam *et al.* (2017:3), Halvarsson *et al.* (2018:278), Kaur and Singh (2016:205) concur that economic development also contributes to the level of entrepreneurship in the country. Economic development elements, such as income growth, employment generation, inequality alleviation, innovation, and human welfare, drive and shape entrepreneurial activity in the country.

The framework acknowledges two types of entrepreneurship as follows:

7.10.1.1 Opportunity entrepreneurship

Opportunity entrepreneurship triggers the creation of a business when there is an entrepreneurial opportunity. Factors that promote opportunity entrepreneurship are the profit motive, an increased demand for products and services provided by start-ups, discovery of better production methods by the entrepreneur, increased entrepreneurial skills and abilities of the entrepreneur, and the availability of capital. Sometimes, the demand for products and services offered by start-ups might result in high opportunity entrepreneurship. Entrepreneurs might sometimes identify a better production method than the methods used by their competitors. In such a situation, opportunity entrepreneurship is likely to flourish. Opportunity entrepreneurship is also acknowledged where entrepreneurial abilities of the entrepreneur improve or increase. This may also be noticed when capital becomes available or cheap. This results in an increase in opportunities for business creation. This type of entrepreneurship has been proved empirically by the study to have potential to contribute to the economic development of South Africa.

7.10.1.2 Necessity entrepreneurship

In this study, necessity entrepreneurship is perceived as the process whereby an individual starts a business because he or she has no other income options. Individuals seeking to meet their basic needs find necessity entrepreneurship attractive, as entrepreneurial opportunities reaching more ambitious goals are difficult to identify and pursue. Many previous studies found that necessity entrepreneurship could not contribute to economic development. Mrozewski and Kratzer (2017:1130), for instance, assert that necessity entrepreneurship is characterised by a negligible extent of innovation and has no significant relationship or even a negative relationship with innovation, when the aggregated national level is taken into consideration. This tendency is a result of the fact that necessity entrepreneurship practised by unemployed individuals tends to reflect less human capital and entrepreneurial talent. Necessity entrepreneurship is therefore usually classified as self-employment rather than as growth entrepreneurship. It therefore does not contribute significantly to economic development. Anokhin and Wincent (2012:28) support the observation that, in developing countries, having various entrepreneurial activities does not necessarily boost economic development because such activities are highly linked to necessity entrepreneurship. According to Adu-Gyamfi *et al*. (2018:9), this observation is consistent with a Schumpeterian viewpoint, that creativity or innovativeness is low in necessity entrepreneurship because it does not lead to the destruction

of existing resources to bring out a new product or process of production, resulting in slow growth of the business.

The current study found a positive relationship between necessity entrepreneurship and economic development in South Africa. Necessity entrepreneurship also contributes significantly to economic development of South Africa. Although economic restructuring and unemployment force individuals to become involved in necessity entrepreneurship, the current study found that most of them do so voluntarily. Even those individuals who began as necessity-driven entrepreneurs, joining due to limited opportunities in the formal economy, tend to develop a long-term commitment to their informal businesses. They seem to operate voluntarily in the informal economy to avoid the costs, time and effort of formal registration for businesses. They also operate in the informal economy because it offers potential benefits not found in the formal economy, including flexible hours, job training, and entry into the labour force, opportunity for economic independence, better wages and avoidance of taxes and inefficient government regulations. The study therefore concluded that informal entrepreneurship is universally driven either by necessity or by opportunity.

7.10.2 Economic development

The current study found that economic development refers to an increase in the capacities of the country that expands economic stakeholders' capabilities. These stakeholders are individuals, government institutions, communities, firms and industries. Economic development takes place when countries with low living standards become countries with high living standards resulting in an improvement of the overall health, wellbeing and academic level of the general population of the country. It also generates social qualitative and structural changes of the country and increases national product. The study found that entrepreneurship plays a critical role in improving the economic development of South Africa. There is a mutual determinant relationship between economic development and entrepreneurship. This implies that well-implemented policies of entrepreneurship have the potential to improve economic development of the country and vice versa.

The framework indicates that there are five elements of economic development that play an influential role in South Africa, namely income growth, employment generation, reduction of poverty, reduction of inequality, and human welfare.

7.10.2.1 Income growth

Income is viewed as the amount of money or its equivalent received over a period in exchange for labour or services, from the sale of goods or property, or as profit from financial investments (see Brooks, 2018:253). Income includes royalties, an endowment or any other type of payment that a person or an institution receives on a periodic or regular basis (see Van Wyk & Dippenaar, 2017:3). The literature reviewed indicated that the level and growth of income is the first and most broadly agreed upon measure of economic development (De Janvry & Sadoulet, 2021:37).

It has been revealed in the current study that South Africa has had a gradual decline of income over the last three years. This implies that the living standards of South African citizens are incrementally decreasing resulting in an increased level of poverty. According to the OECD (2017b:20), the reasons for the decline are constraining macroeconomic policies, skills shortages and limited access to education, slowness of African economic integration, a lack of proper infrastructure and institutions, low entrepreneurial activities, and a lack of an environment conducive to business. Furthermore, Nkurunziza (2016:2) indicates that income has a convex relationship with entrepreneurship. He argues that, as incomes increase and basic needs of the citizens are satisfied, an increasing number of citizens become involved in entrepreneurship. Quantitative findings of the study also showed a strong, positive correlation between income growth and entrepreneurship (both opportunity and necessity entrepreneurship). These findings imply that high growth in income is associated with a high value of entrepreneurship.

7.10.2.2 Employment generation

Employment levels, amongst other factors, are used to measure the economic development of a country. Despite the high level of economic indicators in South Africa, reviewed literature indicates that the level of unemployment keeps on escalating, which makes its performance measure somewhat unpredictable (Leshoro, 2013:336). Unemployment is one of the crucial variables to consider when assessing the level of economic development for a country. It has a severe negative impact on the population as it affects the society in different dimensions, which are decreases in tax revenue, wastage of productive hours, depression, a lack of self-respect, robbery, and prostitution (Karikari-Apau & Abeti, 2019:2). Therefore, unemployment is a multidimensional phenomenon that affects both economic activities and social structure of a country.

The current study found that employment generation has a strong influence in terms of entrepreneurship to contribute to economic development in South Africa. This means that, if South Africa experiences a high employment rate, the country is likely to be involved in entrepreneurship, which ultimately results in improved economic development. Creating jobs can therefore optimise the contribution of entrepreneurship to economic development in South Africa.

7.10.2.3 Poverty reduction

Poverty is seen as a lack of equality in terms of the access of production resources and the distribution of production, which may lead to the sidelining of certain people (see Gweshengwe & Hassan, 2020:5). The definition of poverty has many dimensions, such as mental stress, a feeling of vulnerability to external events, and a sense of helplessness and underachievement. Many scholars agree that poverty is multidimensional, consisting of financial, economic, social, political, health, environmental and seasonal dimensions, which interlink with and reinforce each other (Banerjee, 2016; Chen & Pan, 2019; Clarkea & Erreygers, 2020; Devereux *et al*., 2012; Gweshengwe & Hassan, 2020; Kus *et al*., 2016; Rai, 2019; Swedish International Development Cooperation Agency [SIDA], 2017; Terraneo, 2017; Yang & Greaney, 2017).

Mansi *et al.* (2020) note that policymakers should target relevant innovative entrepreneurship when developing and implementing policies for poverty alleviation and economic development. The innovation capacities in a country reduce the poverty level, and thus contribute to economic development. In the same vein, the quantitative findings of the current study demonstrate that the reduction of poverty has a strong influence in terms of entrepreneurship to contribute to economic development in South Africa.

7.10.2.4 Inequality reduction

The concept of inequality is associated with perceptions such as discrimination, unfairness and disparity in the access of goods and services resulting in hindering individuals' fair access to their basic rights and opportunities (Nuru-River, 2016:4). On the same note, the United Nations (UN) (2015:1) describes inequality as a lack of equality in status, rights and opportunities.

Inequality has wide economic impacts, acting as a drag on further growth, reducing access to education, and limiting the expansion of demand and consumption (Kennedy *et al.*, 2017:7; Mansi *et al.*, 2020:2). Aceytuno *et al.* (2020:1) claim that entrepreneurship and inequality are

linked. The distribution of financial resources within the population promotes inequality in the economy, and at the same time, may lead to an increase in entrepreneurial activities. In contrast, Halvarsson *et al.* (2018:278) argue that entrepreneurship is improved in economies with significant inequality. In such economies, factors, such as level of economic development, government policies, FDI, service sector growth and increased labour market flexibility, play a significant role in the process of entrepreneurship. At the same time, entrepreneurship increases inequality by disproportionately affecting income at the bottom and the top end of the income distribution, resulting in U-type relationship. Despite that, inequality may have a positive influence on entrepreneurship. The findings of the current study indicate that, in South Africa, inequality reduces the contribution of entrepreneurship to the economic development of the country. Reducing inequality may therefore stimulate entrepreneurship in the country.

7.10.2.5 Human welfare

Welfare is taken to be the level of prosperity or standard of living of individuals or groups of people in the country (see Pittman & Phillips, 2014). Welfare refers to how well people are doing in the country (Costanza *et al.*, 2009:9). Beside economic indicators, economic development is also determined by the level of human welfare, which caters for healthy relationships, nutrition levels, knowledge, emotional wellbeing and other dimensions of human happiness (Costanza *et al.*, 2009:9; Pittman & Phillips, 2014:1808).

People who are healthy can work harder and learn better in school, and where people live longer, they will be incentivised to invest more in education (Costanza *et al.*, 2009:9). Better health therefore contributes significantly to economic development. Laishram (2020:1) asserts that investments in improving nutrition should be considered a long-term economic investment because improving nutrition boosts human capital and productivity within the economy. Nutritional interventions can improve linear growth, and lead to improved human capital and productivity. Nutritional interventions therefore are the engine of economic development (Lustig, 2004:9).

The concept of knowledge as an element of human welfare also plays a critical role in optimising the contribution of entrepreneurship to economic development. Kaur and Singh (2016:205) assert that both knowledge and physical factors of production are crucial for economic development of a country. Furthermore, a knowledge-based country also contributes to entrepreneurship, as it is capable of producing, distributing, and utilising knowledge, which

is useful for economic growth, wealth creation, employment generation and human capital improvements. This contributes to creativity, innovation, and generation of new ideas within the country. These assertions are supported by the quantitative findings of the current study, which indicate that human welfare has a strong influence in terms of entrepreneurship to contribute to economic development in South Africa.

7.10.3 Stages of economic development

Stages of economic development are associated with sources of national competitiveness and the wealth or poverty of countries. These stages are crucial when examining the correlation between entrepreneurship and economic development (Doran *et al.*, 2018:2). At certain stages of economic development, the entrepreneurship or economic development level increases significantly, while at other stages, extra improvement in economic development has limited or no contribution to the entrepreneurship level. These stages are the factor-driven stage, the efficiency-driven stage, and the innovation-driven stage.

In the factor-driven stage, competitive advantage is based on unskilled labour and natural resources, and countries at this stage usually produce basic products. Entrepreneurship consequently plays a minimal role in economic development. At the efficiency-driven stage, countries start to develop more efficient production processes and increase product quality. In efficiency-driven countries, an entrepreneurial spirit dominates. Although entrepreneurial activities are acknowledged during the efficiency-driven stage, their contribution to economic development is minimal. Unlike factor-driven and efficiency-driven stages, at the innovation-driven stage, new and innovative products are produced through sophisticated processes. This is the stage at which entrepreneurship contributes to economic development, and no developing country has reached this stage of economic development yet. Most developing countries, such as South Africa, are in the factor-driven or efficiency-driven stage.

The current study revealed that the contribution of entrepreneurship to economic development could be improved by transitioning South Africa from the efficiency-driven stage to the innovation-driven stage. The quantitative findings indicate that economic indicators of the innovation-driven stage, such as quality individual business operations, knowledge-intensive and quality business networks, and quality business strategies, contribute significantly to the promotion of entrepreneurship in South Africa. The qualitative findings support the quantitative findings by providing strategies for transitioning South Africa from the efficiency-driven to the

innovation-driven stage. These findings indicate that the South African government should provide sufficient support by funding innovation and creativity among entrepreneurs. Such innovation and creativity should also be part of the education in schools and at universities or colleges. Government should also implement an incentive scheme where individuals who generate innovative and creative business ideas, can be awarded with incentives to encourage entrepreneurship. Enough funds should also be allocated to research and development to improve existing technology and innovation.

7.10.4 The entrepreneurial framework conditions

Entrepreneurial framework conditions (EFCs) are perceived as the conditions under which entrepreneurship contributes to economic development in a given economy (Omar, Ali & Imhamed, 2020). EFCs therefore have an influence on the contribution of entrepreneurship to economic development. The literature review for the current study indicated that improvements in the entrepreneurial framework are more likely to influence the economic development of any economy rather than small, unproductive businesses that do not contribute sufficiently to economic development. The EFCs are described in sections 7.10.4.1–7.10.4.

7.10.4.1 Entrepreneurial finance

Entrepreneurial finance refers to the availability of financial resources (equity, debt, grants and subsidies) for small, medium and micro-enterprises (SMMEs) that can be used for new and growing businesses within an economy (Mkwanazi, 2018:53). A lack of entrepreneurial finance is a common challenge in developing economies, including South Africa (Herrington *et al*, 2015:28). Yet, access to finance is crucial for boosting entrepreneurship, which then enhances economic development (Zakaria & Kaushal, 2018:99).

Both quantitative and qualitative findings of the current study reveal that the available finance is not entrepreneurial; hence, it does not optimise the contribution of entrepreneurship to economic development of South Africa. Government is providing finance to individuals who do not have entrepreneurial skills, which then results in the failure of their businesses despite the presence of finance at their disposal. Qualitative findings suggest that business incubators might be the right individuals to facilitate the channelling of financial resources to entrepreneurs with relevant entrepreneurial skills. These findings assume that the business incubators would be in a position to assess the level of entrepreneurial skills of the individuals before providing them with the finances, as they have advanced practical entrepreneurial skills and expertise.

Providing entrepreneurial financial training and allowing business incubators to manage the channelling of financial resources may therefore optimise the contribution of entrepreneurship to the economic development of South Africa.

7.10.4.2 Government policy

Government policy specify the extent to which public policies give support to entrepreneurship. This EFC has two elements:

- entrepreneurship as a relevant economic issue; and
- taxes or regulations are either size-neutral or encourage new and existing SMMEs.

Mkwanazi (2018:54) states that the extent to which government policies, such as taxes or regulations, are either size-neutral or encourage new and growing businesses, has a direct influence on the level of entrepreneurship in an economy. For instance, the long and tiring process of registering for company permits and licences could delay the market entry process for the business, which then contributes to a decline of in the level of entrepreneurship. Regulations also give power to those that enforce them and open the process for abuse and corruption. Obaji and Olugu (2014:110) note that government policies should target regulating entrepreneurship that could boost economic development.

Both quantitative and qualitative results revealed that government policies do not prioritise the support of new and growing firms in South Africa. As a result, entrepreneurship is hindered by a delay in the processing of business permits and tax requirements. In addition, these regulations are not applied consistently, and in most cases, entrepreneurs do not know where to get government assistance. In order to deal with this challenge, findings of the current study suggest that regulations should be eased so that doing business would be affordable. This can be done by allowing no custom duties when small businesses are exporting and importing goods. Entrepreneurs should also be granted free access to market economy and they should be allowed to start businesses without being penalised for not having licences. Entrepreneurs should also be provided with mentorship programmes on business management and should be encouraged to embark on incubation programmes. Government also needs to remove red tape in the regulatory environment, as it hampers entrepreneurship, reduce costs associated with environmental regulations, and abolish some of the red tape in both local and national businesses.

7.10.4.3 Government entrepreneurship programmes

Government entrepreneurship programmes refer to the presence and quality of programmes directly assisting SMMEs at all levels of government (national, regional and municipal). These programmes may be enterprise development programmes and implementation of policies that protect small businesses from exposure to competition in the early stages of their development. In South Africa, these government programmes have proved to be ineffective in stimulating economic development (Herrington *et al.*, 2015:28). This was supported by the quantitative findings, which indicated that government programmes are inadequate to support new and growing businesses, and people working for government agencies are incompetent. Entrepreneurs also struggle to get assistance from government programmes. Furthermore, business incubators from government programmes have failed to lead the creation and growth of businesses. The qualitative findings suggest that entrepreneurship education and skills development through incubator programmes could assist in addressing ineffective government programmes.

7.10.4.4 Entrepreneurship education

Entrepreneurship education refers to the extent to which training in creating or managing SMMEs is incorporated within the education and training system at all levels (primary, secondary and tertiary). Schumpeter (1934) and Kirzner (1973) assert that the significance of learning the entrepreneurial process boosts entrepreneurial levels in an economy. Scholars (Costea *et al*., 2015:69; Grant, 2017:2; Herrington *et al.,* 2015:28; Mkwanazi, 2018:55; Omoniyi, 2013:176; Schwab, 2013:5) therefore agree that entrepreneurial education and training plays a critical role in entrepreneurship and economic development. It supplies skills required to start or grow businesses, enhances the cognitive ability required to manage the complexities in entrepreneurial process, and provides skills necessary for building social networks and industrial relationships. It is therefore crucial that primary, secondary and tertiary entrepreneurship courses should be of high quality to equip learners with the relevant entrepreneurial skills and competences.

The quantitative findings reveal that education and training contribute significantly to entrepreneurship in South Africa. These findings reveal that South African colleges and universities have enough courses on entrepreneurship. The level of South African business management education is therefore competitive and it prepares learners for self-employment.

The findings however also indicate that primary education does not provide adequate entrepreneurship training. These findings are supported by the findings of the qualitative part of the study, which revealed that entrepreneurship education offered in primary and secondary schools does not prepare learners to become competent and skilled entrepreneurs. Furthermore, the entrepreneurship education offered in colleges and at university remains a contentious issue.

According to the qualitative findings, primary and secondary schools should implement adequate curriculums in terms of entrepreneurship education. The practical component should be incorporated into the entrepreneurship curriculums at all levels of schooling. This will allow learners to gain relevant entrepreneurship skills that would assist them to start their businesses successfully. The qualitative findings also indicate that it is crucial that government implement funding or grant schemes for those who have completed their entrepreneurship education and who have acquired sufficient practical entrepreneurship skills and are ready to start their businesses. It is also paramount that government implement incubator programmes for communities where community members can be trained in terms of practical entrepreneurship skills that would allow them to start successful businesses.

7.10.4.5 Research and development (R&D) transfer

Research and development (R&D) transfer is described as the extent to which national research and development will lead to new commercial opportunities. These commercial opportunities are available to SMMEs. R&D transfer contributes to entrepreneurship and economic development, as it facilitates entrepreneurial knowledge spill-over within the economy. However, Mkwanazi (2018:55) argues that this entrepreneurial knowledge spill-over is only possible if the economy has research institutions of high quality and universities that have the ability to collaborate with industries. This is in agreement with Van Zyl *et al*. (2007:2) who claim that, if businesses and universities are able to transfer knowledge obtained from research and development and convert it into opportunities, such businesses or universities contribute to the improvement of economic development.

Conversely, the quantitative findings revealed that R&D transfer does not contribute to economic development in South Africa. These findings indicated that South Africa has ineffective systems for transferring new findings from universities and public research centres to the firms. South African start-up firms also struggle to access new research and technology and they cannot afford the latest technology compared to their large counterparts. Although

government introduced subsidies for start-up and growing firms to acquire appropriate technologies, these subsidies have proved to be inadequate for both new and growing firms. Furthermore, the findings revealed that there seems to be a lack of support for scientists to have their ideas commercialised through growing firms.

These findings also indicate that a transformation in African research methodologies may improve the contribution of research and development to South African economic development. These findings are in agreement with findings by Owusu-Ansah and Gubela (2013:1) who indicate that African researchers need to move towards developing and using African research methodologies when studying African reality, and to refrain from holding onto research pathways mapped out by Western methodologies, within which many African researchers have been trained. Mkabela (2005:180) also claims that African researchers should adopt Afrocentric paradigm as it positions African research from an African viewpoint and create Africa's own intellectual perspective. It focuses therefore on Africa as the centre for the study of African economic problems, and interprets research data from an African perspective. However, in order for this transformation to be effective, funding is critical. The qualitative findings emphasise that enough funds should be allocated to research and development to improve existing research methodologies and innovation in the country.

7.10.4.6 Commercial and legal infrastructure

In this framework, commercial and legal infrastructure represents the presence of property rights and commercial, accounting and legal services and institutions that support or promote SMMEs. The contribution of entrepreneurship can also be influenced by the existence of commercial and legal infrastructure within the economy. Mkwanazi (2018:60) notes that this infrastructure promotes the growth of small, new and growing businesses, such as suppliers, sub-contractors, consultants and professional services as well as banking services. Herrington and Coduras (2019:7) indicate that South Africa scored a 4.55 mean score in 2017 on this type of infrastructure, with 1 being the lowest performance and 5 being the highest in the National Experts Survey. Mkwanazi (2018:60) interprets these scores that the commercial and legal infrastructure in South Africa as quite good. However, many new and growing businesses cannot afford the cost associated with it (Obokoh & Goldman, 2016:4).

In contrast, the quantitative findings of the study revealed that the contribution of commercial and professional infrastructure to economic development of South Africa is not stable. These

findings indicate that there are insufficient stakeholders to support South African firms and both new and growing firms cannot afford the cost of using stakeholders. It is also not easy for South African start-up firms to get professional legal, accounting and banking services. As a result, the findings indicate that commercial and professional infrastructure is not significantly correlated with all the economic development dimensions in South Africa. Commercial and professional infrastructure is therefore not a predictor of all the economic development dimensions (income growth, employment generation, poverty, inequality, and human welfare). This implies that the contribution of commercial and professional infrastructure to economic development of South Africa is significantly minimal. Continuous support of entrepreneurs through entrepreneurial training and entrepreneurial funding, remain the best strategy to improve the contribution of commercial and professional infrastructure to stimulate entrepreneurship in the country.

7.10.4.7 Physical infrastructure

Physical infrastructure is considered as ease of access to physical resources, communication, utilities, transportation, land or space at a price that does not discriminate against small and medium-sized enterprises (SMEs). Access and availability of such infrastructure promote entrepreneurship and economic development (Hakeem *et al.*, 2016:4; Schwab, 2013:8).

Quantitative findings reveal that physical infrastructure such as roads, utilities, communications and waste disposal, provides good support for South African firms. South African entrepreneurs have access to communications, such as phones and the internet. However, most of them cannot afford the cost of basic utilities such as gas, water, electricity and sewerage removal. South African small firms cannot pay the same amounts as large establishments for these utilities. Unlike small firms, most large businesses in South Africa have private back-up for utilities (Mkwanazi, 2018:60). This is in agreement with findings by Obokoh and Goldman (2016:4) who indicate that small firms in developing countries, such as South Africa, pay more than developed countries for utilities, because they experience failure of utilities, such as water and power outages. This imposes considerable costs on small firms due to idle workers, spoiled materials, lost output, damaged equipment and costs of providing own electricity. The overall effect is an increase in cost and reduction of the competitiveness of such firms. These findings are supported by the qualitative findings of the current study, which indicated that most entrepreneurs cannot access technology infrastructure at an affordable cost. Improvement of technology infrastructure is therefore also paramount to allow efficient and effective access.

This can be done if government provides funding and continuous support to entrepreneurs. In the same vein, Mirzanti *et al*. (2015:330) assert that information and technology (IT) is growing rapidly. IT could provide a competitive advantage for businesses. As a result, internet access has become a crucial variable that should be prioritised by government. In terms of entrepreneurship infrastructure, this has to be added to other physical infrastructure, such as gas, water, electricity, sewer, roads and electricity.

7.10.4.8 Internal market dynamics and entry regulation

Internal market dynamics and entry regulation refer to two components:

- market dynamics: the level of change in markets from year to year; and
- market openness: the extent to which new firms are free to enter existing markets.

The quantitative findings reveal that market flexibility is not significantly correlated with all the economic development dimensions in South Africa. Market flexibility is therefore not a predictor of all the economic development dimensions (income growth, employment generation, reduction of poverty, reduction of inequality, and human welfare). Furthermore, South African markets for consumer goods, consumer services, business-to-business goods and business-to-business services change drastically every year. It is also costly for South African firms to enter new markets, as many new firms are unfairly blocked by established firms. The contribution of market flexibility to economic development of South Africa is therefore significantly minimal. The findings suggest that South African businesses should have access to markets where they can sell their products or services or buy their capital goods.

These findings are in agreement with findings by Mkwanazi (2018:60) and Rostami *et al*. (2019:44) who indicate that the extent to which new businesses are free to enter existing markets, and the extent to which the markets change drastically, have an influence on the contribution of entrepreneurship to economic development. Rostami *et al.* (2019:44) also found that new business entry into the markets provides new products and services that promote innovation in and competitiveness of an economy. Changes in market provide opportunities for new businesses and opportunity exploitation for existing entrepreneurial businesses. Market openness and market dynamism drive entrepreneurial opportunities in an economy, resulting in promoting entrepreneurship.

7.10.4.9 Cultural and social norms

This is the extent to which social and cultural norms encourage or allow actions leading to new business methods or activities that could potentially increase personal wealth and income. Entrepreneurship can be promoted or hindered by social, cultural and political norms of an economy. Herrington *et al*. (2015:16) describe social, cultural and political norms as the extent to which existing social and cultural norms encourage individual actions that lead to new ways of running a business or economic activity which, in turn, would lead to improvement in citizens' wealth and income. Celikkol *et al.* (2019:780) argue that social, cultural and political norms influence both behaviour of individuals and the economic functioning of society. The supportive social, cultural and political norms therefore encourage entrepreneurial orientations that could influence an individual's cognitive ability and attitudes towards entrepreneurship, resulting in an increased level of economic development (Ndofirepi *et al.*, 2018:7).

In contrast, the quantitative findings reveal that the South African national culture does not provide supportive individual entrepreneurial success that can be achieved through own personal efforts. The South African culture does not encourage entrepreneurial risk taking, creativity and innovativeness adequately among the citizens. Individuals therefore prefer to work for well-established organisations rather than creating new firms, although they are able to notice many entrepreneurial opportunities. The findings also reveal that, although some South Africans seem to have entrepreneurial management skills for small firms and to be able to organise the resources required for a new business, they are struggling to get the information required to access business opportunities. Nonetheless, the findings reveal that many South Africans consider the creation of new ventures as an appropriate way to become rich, and they choose entrepreneurship as their preferred career. It is also evident from the findings that starting a new business in South Africa is a socially acceptable career option for women, as women have the same level of knowledge and skills as men to start new businesses. These findings are in agreement with findings by Bhandari (2012:141, as cited by Ndofirepi *et al*., 2018:7) regarding the effect of gender on entrepreneurial intention, namely that there are no significant differences between men and women. South Africa supports gender neutrality regarding entrepreneurial intention.

Qualitative findings emphasise the creation of an environment that supports and instils a positive desire in black individuals to embark on entrepreneurship in South Africa. This would allow social and cultural norms to stimulate entrepreneurship in a country. According to these

findings, black people's mind-set can be improved through entrepreneurship education where their mind-set is changed from thinking of becoming an employee to thinking of becoming an employer. The qualitative findings also note that *lekgotlas* (i.e. consultative processes), continued support and entrepreneurship teaching might instil an entrepreneurial mind-set into the black communities of South Africa. In addition, black entrepreneurs may be successful if the locally produced products are given preference by consumers. Black entrepreneurs should learn to deliver quality products and to work together to increase business opportunities for themselves. This working together may be promoted by sharing entrepreneurial ideas, creating communities and networks of entrepreneurs, and sharing resources among themselves. The socio-cultural environment that encourages both 'push' and 'pull' entrepreneurship is critical in South Africa, as both of these stimulate entrepreneurial activities that could improve the economic development of the country.

7.10.5 Entrepreneurship policy framework

In the framework developed during the current study, an EPF represents a collection of all policies to achieve objectives related to entrepreneurship in South Africa. These objectives cover a range of economic factors from economic development to poverty reduction, in order to promote entrepreneurial competitiveness of the country (see Cassim *et al.,* 2014:33). The effectiveness of an EPF depends on how its components are integrated, how it is aligned with the overall national development framework, as well as how it is aligned with other national competitiveness and private sector development policy frameworks. Harmonisation with various ministerial strategic processes is therefore crucial to exploit these synergies (UNCTAD, 2012:9). Dahlstrand and Stevenson (2010:6) highlight that the EPF focuses on creating a supportive environment that fosters entrepreneurship. The EPF comprises, among others, promotion of entrepreneurship, reduction of entry and/or exit barriers and target group measures. Furthermore, EPF integrates ways to remove administrative and burdensome regulations to allow entrepreneurship to flourish, ways to improve access to financing and to information, and ways to integrate entrepreneurship into the education system.

The framework that was developed indicates the elements of the EPF as described.

7.10.5.1 National entrepreneurship strategy

Entrepreneurship is the driver of various elements of economic development, such as employment generation, income growth, and reduction of inequality and of poverty. Despite its

significance, entrepreneurship does not always contribute significantly to the economic development of South Africa because of ineffective policy initiatives. However, the South African EPF seems to have been integrated into the national development strategy plan. For example, the National Growth Plan of 2010 aims at shifting South Africa into a higher growth route. This policy contains government's strategy to build an inclusive economy that creates decent employment, sustainable welfare and reduction of poverty. In addition, the Broad-based Black Economic Empowerment Act 53 of 2003 aims at promoting economic affirmative action for previously disadvantaged groups. This is based on the knowledge that the apartheid government contributed to the current economic and social inequality. Although these policies were integrated into the EPF, they have failed to recognise where the innovative entrepreneurship is within the economy. They consequently failed to address the unique needs of the integration of innovation into the entrepreneurial processes of the economy (see Anwana, 2019:63). In a similar vein, qualitative findings of the current study indicate that the South African EPF is lagging behind because of a lack of government support, corrupt management of resources, and poorly implemented policies due to the detrimental impact of corruption. Although there is a positive impact of the EPF in some instances, this cannot outweigh the negative impact.

The qualitative findings further indicate that the strategies to improve South African policies in order to stimulate entrepreneurship centre on four major themes, namely financial and support programmes, skills programmes, policy implementation, and overall improvement of life. The findings also reveal that the EPF can be improved by providing adequate funding and continuous support. This continuous support may include practical entrepreneurship skills and support programmes.

7.10.5.2 Optimisation of the regulatory environment

Entrepreneurship requires an environment that enables business processes to flourish while complying with the regulations governing disclosure, licensing and registration procedures, and the protection of physical and intellectual property. The regulatory environment should promote entrepreneurship by encouraging entrepreneurs to set up their own businesses, try new business ideas, and take on calculated risks, keeping administrative burdens to the minimum (UNCTAD, 2012:6). In an endeavour to follow a similar pattern, the South African government published *Guidelines for reducing municipal red tape* in 2013 (see dti, 2013) to ease the regulatory factors that hamper entrepreneurship in the country. These regulatory factors are perpetual burdens in

complying with tax, permits and licensing, labour and product markets. This policy document provides guidelines on how to reduce red tape and bureaucratic burdens in the business development process (dti, 2013:25). Nonetheless, red tape and bureaucratic burdens remain the critical regulatory factors that impede entrepreneurship in South Africa (GEM, 2017:43).

The qualitative findings suggest that the South African regulatory environment can be improved by easing regulations, so that doing business would be affordable. This can be done by allowing no custom duties when small businesses are exporting and importing goods. Entrepreneurs should also be granted free access to market economy. The continuous support can be provided by allowing entrepreneurs to start businesses without being penalised for not having licences, providing mentorship programmes on business management, as well as embarking on incubation programmes. Government also needs to remove red tape in the regulatory environment that hamper entrepreneurship by reducing costs associated with environmental regulations and abolishing some of the red tape both in local and national businesses.

7.10.5.3 Enhancement of entrepreneurship education and skills

Entrepreneurial skills constitute attitudes (soft skills), such as persistence, networking and self-confidence on the one hand, and enabling skills (hard skills) on the other, such as basic start-up knowledge, business planning, financial literacy, and managerial skills. In order to develop these skills, entrepreneurship education and programmes should focus on developing and enhancing these skills so that they can be transferable and beneficial to the communities. It is therefore critical that government policies promote the embedding of entrepreneurship in the education system. Furthermore, communities should be trained in entrepreneurship through apprentice training programmes (UNCTAD, 2012:7).

However, the qualitative findings indicate that apprentice training programmes are not sufficient to improve entrepreneurship education and skills development in South Africa. The findings emphasise that implementing adequate practical curriculums in terms of entrepreneurship education is also crucial. This will allow learners to gain relevant entrepreneurship skills that would assist them to start their businesses successfully. Furthermore, the qualitative results suggest that government should consider implementing funding or grant schemes for those who have completed their entrepreneurship education, who have acquired sufficient practical entrepreneurship skills and who are ready to start their businesses. Government should also implement incubator programmes for communities, where

community members can be trained in terms of practical entrepreneurship skills that would allow them to start successful businesses.

7.10.5.4 Facilitation of technology exchange and innovation development

Technology and innovation stimulate entrepreneurship in various ways. For instance, technology makes it possible for entrepreneurs to improve the efficiency and productivity of their businesses. It also provides them with new platforms on which to develop new businesses. However, there seems to be a mutual relationship between entrepreneurship and technology, as entrepreneurship fuels technological innovation by developing new products or improving existing products, services or processes and ensuring commercialisation of such products or services (UNCTAD, 2012:8). Cassim *et al.* (2014:33) argue that innovation and technology are critical elements for an effective EPF. They also assert that continuous monitoring and assessing the impact of technology on economic development is of paramount importance. Scholars, such as Cernescu *et al.* (2018:520), Stoica *et al.* (2020:5), Zsuzsanna and Herman (2012:269), Kirikkaleli and Ozun (2019:353) and Acs *et al*. (2017:4), accept that in the new knowledge economy, innovation is key to economic development; hence, it should be integrated into the EPF.

According to the qualitative findings, in South Africa, technology and innovation can be improved by providing sufficient access to technology infrastructure at an affordable cost. Improvement of technology infrastructure is also paramount to allow efficient and effective access. The findings further reveal that sufficient support by funding innovation and creativity among the entrepreneurs may stimulate entrepreneurship in South Africa. This innovation and creativity should be part of education in schools and at universities and colleges. In addition, the implementation of an incentive scheme where individuals who generate innovative and creative business ideas, are awarded with incentives, could encourage entrepreneurship. Moreover, enough funds should be allocated to research and development to improve existing technology and innovation.

7.10.5.5 Socio-cultural environment

Celikkol *et al.* (2019:780) assert that creating entrepreneurial social and cultural norms would influence individuals' behaviour to embark on entrepreneurship. The supportive social and cultural environment encourages entrepreneurial orientations that could influence an individual's cognitive ability and his or her attitudes towards entrepreneurship (Ndofirepi *et al.,*

2018:7). In South Africa, the positive cultural disposition towards entrepreneurship is more highly observed by Indian and Jewish people than by other racial groups. This implies that most of the Indian and Jewish people have a positive desire to embark on entrepreneurship (Mkwanazi, 2018:65). This means that the South African government needs to develop the cultural disposition towards entrepreneurship and promote entrepreneurial social and cultural norms. These norms should support black-owned businesses; hence, stimulate entrepreneurship in the country.

Similarly, the qualitative findings reveal that most black-owned businesses offer substandard products and services. The socio-cultural environment consequently does not support these businesses. Findings then suggest that, in order to stimulate entrepreneurship in the country, the South African government should create a socio-cultural environment that adequately supports and instils positive desires in black individuals to embark on entrepreneurship and to deliver goods and services of high quality. The findings emphasise that black people's mind-sets can be improved through entrepreneurship education where their mind-sets are changed from thinking of becoming an employee to thinking about becoming an employer.

7.11 CONCLUSION

The purpose of the study was to establish the correlation between entrepreneurship and economic development in South Africa, with the aim to develop a framework for optimising the contribution of entrepreneurship to the economic development of South Africa. The framework that was developed sought to suggest entrepreneurial practices that are relevant to South Africa in terms of the contribution of entrepreneurship to economic development. The framework was envisaged to be a useful instrument for policymakers, entrepreneurs, economic development practitioners, and any other relevant stakeholders. The current study adopted a novel methodological approach to investigate the contribution of entrepreneurship to economic development. By employing a mixed-method approach, the researcher was able to gather deep data that conceptualised the realities of entrepreneurs and then combined it with quantitative data that added value to the understanding of this contribution from a South African perspective. Previous studies on this phenomenon were predominantly quantitative, and secondary data were utilised. Unlike these studies, the current study utilised both quantitative and qualitative approaches and both primary and secondary data were utilised.

The literature review undertaken during the current study revealed the following gaps:

- the correlation between entrepreneurship and economic development in South Africa and the world at large is fragmented. This required more scientific studies in order to understand the significant nature of this correlation;
- the nature of entrepreneurship that contributes significantly to the economic development in South Africa has not been sufficiently researched; and
- the stage of economic development that contributes significantly to the promotion of entrepreneurship in South Africa is not well documented.

To fill these gaps, the current study investigated the correlation between entrepreneurship and economic development scientifically, and came up with a unifying correlation from a South African perspective. The study also investigated the nature of entrepreneurship that contributes significantly to the economic development of South Africa, and the stage of economic development that contributes significantly to the promotion of entrepreneurship in South Africa. The existing theories on the correlation between entrepreneurship and economic development could not address these phenomena from a South African perspective. The findings of the study were subsequently summarised, and were presented in the form of a framework for optimising the contribution of entrepreneurship to the economic development of South Africa.

On the one hand, the framework indicates both opportunity and necessity entrepreneurship as crucial for enhancing economic development in the country. On the other hand, it indicates economic development elements, namely income growth, employment generation, reduction of poverty and of inequality, and human welfare as crucial for stimulating entrepreneurship in South Africa. This demonstrates the mutual determinant relationship between entrepreneurship and economic development of South Africa. The framework also indicates that the significant contribution of entrepreneurship to economic development prompts the transition of economic development of the country from one economic development stage to another. These stages are the factor-driven, efficiency-driven and innovation-driven stages. The factor-driven stage is characterised by high rates of agricultural self-employment and low-cost efficiencies in the production of goods and services. In the efficiency-driven stage, countries have efficient productive practices, and entrepreneurs exploit economies of scale. In the innovation-driven stage, entrepreneurship is able to increase productive activities, and economic development is acknowledged at this stage. South Africa currently falls in the efficiency-driven stage. The framework indicates that South Africa needs to move to the innovation-driven stage in order to

stimulate entrepreneurship in the country. The strategies to transition South Africa from efficiency-driven to innovation-driven, are provision of funding for promoting innovation and creativity, implementation of practical entrepreneurship education, introduction of an incentive scheme for innovation, and provision of adequate investment in research and development.

The framework further indicates that the mutual determinant relationship between entrepreneurship and economic development can be improved by the presence of entrepreneurial policy framework conditions and EPF elements. The entrepreneurial policy framework conditions are entrepreneurial finance, government policy, government entrepreneurship programmes, entrepreneurship education, R&D transfer, commercial and legal infrastructure, physical infrastructure, internal market dynamics, entry regulation, and cultural and social norms. The EPF elements consist of a national entrepreneurship strategy, optimisation of the regulatory environment, enhancement of entrepreneurship education and skills, facilitation of technology exchange and innovation development, and socio-cultural environment.

This framework provides EFCs and EPF. It may therefore be useful to entrepreneurs regarding the strategies they should adopt in their business processes in order for their businesses to improve and to contribute to the economic development of South Africa. Furthermore, the framework provides insight to policymakers that assist in the design of policies that enhance the contribution of entrepreneurship to the economic development of South Africa. This means the framework is a guiding tool for practising entrepreneurship in South Africa and for developing policies pertaining to entrepreneurship and economic development of the country. Many South Africans are experiencing economic and social challenges, such as poverty, unemployment and inequality. The application of the framework by entrepreneurs, economic development practitioners and policymakers may assist in addressing these challenges. The application of this framework would improve the sustainability and profitability of South African businesses by stimulating entrepreneurship, which would contribute significantly to the reduction of unemployment, poverty and inequality in South Africa.

7.12 RECOMMENDATIONS OF THE STUDY

The contribution of entrepreneurship to the economic development of South Africa affects the economic life of South African citizens. Entrepreneurship contributes to the economy in different ways, namely increasing GDP of the country, providing employment for the citizens

as well as reducing inequality and poverty. This will result in the improvement of economic development of the country as a whole. It is therefore critical to attend to some of the aspects that arose during the course of the study in the form of recommendations. The following recommendations arose from the study:

7.12.1 Policy recommendations from an entrepreneurship perspective

The following are policy recommendations arising from the study from an entrepreneurship perspective:

- The low levels of entrepreneurship in South Africa are the result of multiple economic, social and environmental factors. These factors can be minimised by improving the skills base and fostering positive entrepreneurial attitudes through the education system. They can also be minimised by providing an enabling environment that encourages citizens to perceive entrepreneurship as a financially viable option for improving their lives. Key to stimulating entrepreneurship in South Africa is therefore a dual focus on improving human capital through education and skills training, and creating an enabling environment that removes negative perceptions about entrepreneurship. An enabling environment can also minimise the cost of managing a business, which would improve the sustainability of entrepreneurship in South Africa.

- Government should consider introducing practical entrepreneurship education into schools to foster entrepreneurial problem-solving skills and self-confidence that would benefit the learners. These skills could be applied across a range of contexts, such as managing a family business and/or working as an employee. It is crucial that entrepreneurship is not perceived as a mechanism for combating unemployment only, but rather as a means to reach dynamic economic development. Entrepreneurship education will stimulate entrepreneurial aspirations, attitudes and behaviour in the long term. Education – from primary to university or tertiary level – should promote creativity and innovation as well as provide a realistic picture of entrepreneurship as a viable alternative to employment that realises dependence and self-employment among citizens.

- Government should also establish experiential incubators that are easily accessible to young potential entrepreneurs. In addition, implementing mentorship programmes for new entrepreneurs where the mentors have practical personal experience of running a

business could stimulate entrepreneurship in the country. It is therefore crucial that all entrepreneurial trainers and consultants are well trained and/or experienced in the specific area of expertise that they offer. This could be improved by the introduction of compulsory entrepreneurship training programmes for entrepreneurial consultants. Government should also ensure that the creation and growth of innovative firms ARE supported by universities and other research institutions with strong links to industry.

- An urgent review of South African regulations pertaining to entrepreneurship is needed. Government should ease the bureaucracy and red tape in order to allow entrepreneurs to start and run businesses with ease. This may include providing tax breaks for businesses below certain revenue thresholds, and reducing barriers to entry in certain markets. Business registration processes should be simple, efficient and streamlined to foster formal entrepreneurship. Besides regulatory burden, corruption remains a detrimental factor in terms of the sustainability of entrepreneurship as it is seen as the biggest problem for doing business in South Africa. It is therefore critical that government reduce incentives for corruption, and ensure better enforcement of laws and penalties against corruption.

- The issue of funding entrepreneurs remains critical for sustaining entrepreneurship in South Africa. The current study found that funding is channelled to individuals who have not acquired sufficient entrepreneurial skills and competencies. Government should implement a policy where business incubators are mandated to assess the level of entrepreneurial skills of individuals before providing them with funding. This will facilitate proper channelling of funding resulting in the reduction of the failure rate of businesses. The policy should also emphasise that emerging entrepreneurs should acquire relevant entrepreneurial finance training to prepare them for management of finances prior to starting their businesses.

7.11.2 Policy recommendations from an economic development perspective

The following are policy recommendations arising from the current study from an economic development perspective:

- The creation, transfer and preservation of knowledge could contribute to economic development. As a result, knowledge is regarded as a key element in ensuring the sustainable position of any economy in a competitive environment. Many advanced

economies have achieved a great deal of economic and social development by investing in knowledge. It is therefore recommended that improvement in knowledge through education should be considered when deciding on economic policies.

- As education plays a critical role in economic development, it is recommended that enough resources be allocated to basic education and to have improved governance in schools. In addition, policymakers should take education into consideration when they formulate economic policies, i.e. there should be improved and sufficient capacity within the basic education sector. Resources, such as school infrastructure and learning and teaching support materials, should be sufficient. There should also be improved control over the relationships between stakeholders involved in the provision of basic education services and resources.

- The study revealed that the contribution of entrepreneurship to economic development of South Africa is skewed. South African economic policies should therefore be reviewed. The impact of current macroeconomic policies on the proliferation of entrepreneurship, particularly entrepreneurship that emphasises innovation, should be assessed and revised.

- Government should implement policies that promote business sophistication in the economy to improve its economic development. This can be done by providing support to local suppliers and producers. Such policies may increase production range and quality of production. The government should also implement policies that promote efficiency in local South African businesses.

- Findings of the study indicate that South Africa continues to underperform in many areas of the basic requirements of competitiveness, such as health and basic education. This prompts the need for South Africa to implement appropriate structural reforms immediately and efficiently. These reforms should include enhancing competition, especially in strategic sectors of the economy, by removing bottlenecks and barriers to entry, and by making the labour markets more flexible and more effective by utilising all existing talents in the country. Government should also improve the efficiency of public institutions to ensure effective implementation of structural reforms.

- While research and development are crucial for economic development, their contribution to South African economic development is statistically insufficient and characterised by weak synergy between academic and industry. Promoting current R&D practices might not optimise the significant contribution of entrepreneurship to the economic development of South Africa. Academic institutions and government should consider developing African research methodologies for African studies. Adopting research methodologies from developed countries may not produce the right results, as the economic, social and political structures of African environments are different from those of developed countries.

- To address inequality in happiness in South Africa, government should implement policies that target unemployment among low-skilled citizens, for example, by providing them with tax credits. This will increase happiness among poor citizens, thereby reducing inequality in happiness, and increasing trust. There should also be policies that provide adequate access to low-income families as this will also raise the level of happiness and provide them with opportunities to societal participation. This will decrease the frustration and disconnectedness of population groups within the country. Policies should also foster civil liberties, such as freedom of expression and belief, as well as freedom of association and the rule of law. This is especially crucial with regard to the lower-income category of citizens as it protects them against abuse by economic and political influences, and will allow them to mitigate their own vulnerability by speaking out and by organising themselves. Furthermore, educational policies targeting children from low-income, disadvantaged groups will have substantial long-term positive effects on inequality in happiness, as such policies will provide these children with a better starting point in life.

7.13 LIMITATIONS OF THE STUDY

As the main objective, the study sought to determine the correlation between entrepreneurship and the economic development of South Africa. This phenomenon was problematic to investigate due to its complicated dimensionality.

Like any other research, this research had some limitations.

- Firstly, some of the CEOs were unwilling to participate by completing the questionnaire out of fear that the confidential information of their companies might be leaked to their competitors. To address this limitation, it was stated on the cover page of the questionnaire that the information provided by the respondents would be used for research purposes only and that confidentiality would be maintained in an adequate way.

- The researcher also experienced time constraints and funding limitations. To ensure sufficient time for conducting the study, the researcher as an employee of an academic institution, utilised his study leave. In addition, the researcher had some access to funding from the university, which assisted him to address the funding limitation of the study.

- The fact that JSE-listed companies and experts in economic development are spread across South Africa made it impossible and impractical to conduct the study on the entire South Africa. Cluster sampling was therefore adopted where a cluster that represented the entrepreneurship and economic development experts of South Africa, was adopted. This was complemented by the adoption of census sampling where the entire population of one category (economic development experts) formed part of the sample.

7.14 AREAS FOR FUTURE RESEARCH

Based on the findings of this study, there is a need to focus on certain research areas that could provide more insight into the significant correlation between entrepreneurship and economic development from different broad perspectives. Further research could be conducted in the following areas:

- This study developed and presented its framework for optimising the contribution of entrepreneurship to the economic development of South Africa. The concept of economic development is broad, comprising constructs such as income growth, employment generation, reduction of poverty and of inequality, and human welfare. Further research is recommended for developing a framework on how entrepreneurship contributes to each construct independently – in South Africa or in any other specific locality.

- Financial support remains a critical aspect to stimulate the contribution of entrepreneurship to economic development. However, the quantitative and qualitative findings of this study revealed skewed influence of financial support as a predictor of the correlation of entrepreneurship to economic development. Further research that could develop a framework for the optimisation of financial support as a determinant of the correlation between entrepreneurship and economic development in South Africa, is therefore recommended.

7.15 CHAPTER SUMMARY

Chapter Seven presented the achievement of the objectives of the current study, summaries, conclusions, recommendations, limitations and areas for future research. The primary motivation of the study was South Africa facing socio-economic challenges, such as unemployment, poverty, ineffective innovation, and a decline in economic development. Although entrepreneurship is scholarly acknowledged as an instrument for addressing socio-economic challenges, these challenges are increasing in an unbearable fashion in South African societies. Despite there being statistical improvement in the level of entrepreneurial activities in the country, an escalation of socio-economic challenges is apparent. This clearly demonstrates the ineffectiveness of the current entrepreneurship and economic policies, as well as the lack of an effective framework to optimise the contribution of entrepreneurship to economic development.

The study investigated the significant relationship between entrepreneurship and economic development from a South African perspective. Similar studies have predominantly been done in developed countries, and research indicates that findings of such studies are less effective when applied to developing countries, such as South Africa, due to differences in economic, political and social structures between developed and developing countries. The current study developed a framework for optimising the contribution of entrepreneurship to economic development. It is envisaged that the application of this framework will address the socio-economic challenges that South Africa is currently facing.

REFERENCE LIST

Abdesselam, R., Bonnet, J., Renou-Maissant, P. & Aubry, M. 2017. Entrepreneurship, economic development, and institutional environment: Evidence from OECD countries. *Journal of International Entrepreneurship*, 16(4):504–546. doi: 10.1007/s10843-017-0214-3.

ACBF (African Capacity Building Foundation). 2017. *Drivers of economic growth in Africa: Opportunities, financing, and capacity issues*. Available at: https://www.google.com/search?q=The+African+Capacity+Building+Foundation+%5BACBF%5D.2017.+Drivers+of+economic+growth+in+Africa%3A+Opportunities%2C+financing%2C+and+capacity+issues.&rlz=1C1CHBD_enZA956ZA956&oq=The+African+Capacity+Building+Foundation+%5BACBF%5D.2017.+Drivers+of+economic+growth+in+Africa%3A+Opportunities%2C+financing%2C+and+capacity+issues.&aqs=chrome..69i57.1918j0j15&sourceid=chrome&ie=UTF-8 [Accessed on 14 June 2022].

Aceytuno, M.T., Sánchez-López, C. & De Paz-Báñez, M.A. 2020. Rising inequality and entrepreneurship during economic downturn: An analysis of opportunity and necessity entrepreneurship in Spain. *Sustainability*, 12(11):1–16. doi: 10.3390/su12114540.

Acs, Z.J., Estrin, S., Mickiewicz, T. & Szerb, L. 2018. Entrepreneurship, institutional economics, and economic growth: An ecosystem perspective. *Small Business Economics*, 51(2):501–514.

Acs, Z.J. & Naudé, W. 2011. *Entrepreneurship, stages of development, and industrialization.* Working paper no. 2011/80. The United Nations University World Institute for Development Economics Research (UNU-WIDER). Available at: https://www.econstor.eu/handle/10419/53974 [Accessed on 12 February 2022].

Acs, Z.J. & Naudé, W. 2012. *Entrepreneurship, stages of development, and industrialization.* Working paper no. #2012-021. UNU-MERIT. Available at: https://ssrn.com/abstract=3236316 or http://dx.doi.org/10.2139/ssrn.3236316 [Accessed on 14 June 2022].

Acs, Z.J., Szerb, L. & Autio, E. 2017. *The Global Entrepreneurship Index (GEDI)*. Global Entrepreneurship and Development Institute. Available at: https://www.researchgate.net/profile/Laszlo-Szerb/publication/316595971_Global_Entrepreneurship_Index_2017/links/5906107ba

6fdccd580d37ba1/Global-Entrepreneurship-Index-2017.pdf [Accessed on 12 February 2022].

Acs, Z.J., Szerb, L. & Lloyd, A. 2018. *The Global Entrepreneurship Index (GEDI).* The Global Entrepreneurship and Development Institute. Available at: https://thegedi.org/wp-content/uploads/dlm_uploads/2017/11/GEI-2018-1.pdf [Accessed on 12 February 2022].

Adom, D., Hussain, E.K. & Agyem, J.A. 2018. Theoretical and conceptual framework: Mandatory ingredients of a quality research. *International Journal of Scientific Research*, 7(1):93–98.

Adu-Gyamfi, R., Kuada, J. & Asongu, S. 2018. *An integrative framework for entrepreneurship research in Africa.* Paper no. 89133. MPRA. doi: 10.2139/ssrn.3219626.

Adusei, M. 2016. Does entrepreneurship promote economic growth in Africa? *African Development Review*, 28(2):201–214.

AfDB (African Development Bank). 2020. *African Economic Outlook 2020. Developing Africa's workforce for the future*. Available at: https://www.afdb.org/sites/default/files/documents/publications/african_economic_outlook_2020-en.pdf [Accessed on 12 February 2022].

Agrawal, S. & Tyagi, R. 2018. *Development economics*. ALagappa University- Vikas publishing. house. Available at: http://162.241.27.72/siteAdmin/dde-admin/uploads/1/PG_M.Com_Commerce%20(English)_310%2012%20_%20Managerial%20Economics%20_%20MCom.pdf [Accessed on 12 February 2022].

Ahmad, S., Wasim, S., Irfan, S., Gogoi, S., Srivastava, A. & Farheen, Z. 2019. Qualitative v/s quantitative research: A summarized review. *J. Evid. Based Med. Healthc*, 6(43):2828–2832. doi: 10.18410/jebmh/2019/587.

Aitken, A. 2019. Measuring welfare beyond GDP. *National Institute Economic Review*, 249(1):3–16. doi: 10.1177/002795011924900110.

Alexandru, T.A. 2019. Defining the concept of risk applied in entrepreneurship: Conceptual delimitation risk – entrepreneurial uncertainty. *European Review of Applied Sociology*, 12(18):43–46. doi: 10.1515/eras-2019-0004.

Alsaqr, A.M. 2021. Remarks on the use of Pearson's and Spearman's correlation coefficients in assessing relationships in ophthalmic data. *African Vision and Eye Health*, 80(1):1–10. doi: 10.4102/aveh.v80i1.612.

Amankwaa, L. 2016. Creating protocols for trustworthiness in qualitative research. *Journal of Cultural Diversity*, 23(3):121–127.

Amha, W., Woldehanna, T., Tamrat, E. & Gebremedhin, A. 2015. The characteristics and determinants of entrepreneurship in Ethiopia. *Ethiopian Journal of Economics*, 24(1):131–165.

Amorós, J.E., Ciravegna, L., Mandakovic, V. & Stenholm, P. 2019. Entrepreneurial efforts necessity or opportunity? The effects of state fragility and economic development on entrepreneurial efforts. *Entrepreneurship Theory and Practice,* 43(4):725–750. doi: 10.1177/1042258717736857.

Anokhin, S. & Wincent, J. 2012. Start-up rates and innovation: A cross-country examination. *Journal of International Business Studies*, 43(1):41–60. doi: 10.1057/jibs.2011.47

Antoncic, J., Antoncic, B., Gantar, M., Hisrich, R., Marks, L., Bachkirov, A.A., Polzin, P., Borges, J.L., Coelho, A. & Kakkonen, M. 2018. Risk-taking propensity and entrepreneurship: The role of power distance. *Journal of Enterprising Culture*, 26(1):1–26. doi: 10.1142/s0218495818500012.

Anwana, E. & Anwana, T. 2020. Enhancing the entrepreneurship framework in South Africa. *International Journal of Entrepreneurship*, 24(3):1–13.

Anwana, T.O. 2019. *Enhancing the entrepreneurship framework in South Africa*. Master's dissertation, Tilburg University. Available at: http://arno.uvt.nl/show.cgi?fid=149401 [Accessed on 4 April 2022].

Aparicio, S. 2017. *Linking institutions, entrepreneurship and economic development: An international study*. Doctoral thesis, Universitat Autonoma de Barcelona. Available at: https://ddd.uab.cat/pub/tesis/2017/hdl_10803_456564/seap1de1.pdf [Accessed on 12 February 2022].

Aparicio, S., Urbano, D. & Audretsch, D. 2016. Institutional factors, opportunity entrepreneurship and economic growth: Panel data evidence. *Technological Forecasting and Social Change*, 102:45–61.

Aparicio, S., Urbano, D. & Gomez, D. 2018. Entrepreneurship and regional economic growth in Antioquia: An empirical analysis. *Economics and Business Letters*, 7(2):84-290.

Atkins, L. & Wallace, S. 2012. *Qualitative research in education*. London: Sage.

Audretsch, D.B. & Keilbach, M. 2004. Entrepreneurship capital and economic performance. *Regional Studies*, 38(8):949–959. doi: 10.1080/0034340042000280956.

Avnimelech, G., Zelekha, Y. & Sharabi, E. 2014. The effect of corruption on entrepreneurship in developed vs non-developed countries. *International Journal of Entrepreneurial Behavior & Research*, 20:237–262.

Awa Uduma, I. & Sylva, W. 2015. A critique of the adequacy of positivist and interpretivist views of organisational studies for understanding the 21st century organisation(s). *International Journal of Business and Management Review*, 3(8):44–52.

Ayankoya, K. 2016. *Entrepreneurship in South Africa: A solution*. Port Elizabeth: Nelson Mandela Metropolitan University Business School.

Babaheidari, P. & De Geer, H. 2017. *Corporate foresight in Sweden: A quantitative comparison between Swedish and European companies*. Degree project, KTH Royal Institute of Technology. Available at: http://kth.diva-portal.org/smash/get/diva2:1118877/FULLTEXT01.pdf [Accessed on 16 April 2022].

Bakari, S. 2017. *Why is South Africa still a developing country?* Paper no. 80763. MPRA. Available at: https://mpra.ub.uni-muenchen.de/80763/ [Accessed on 10 January 2022].

Banerjee, M.M. 2016. We routinely borrow to survive: Exploring the financial capability of income-poor people in India. *Social Work*, 61(4):349–358. doi: 10.1093/sw/sww045.

Barsanti, S., Salmi, L., Bourgueil, Y., Daponte, A., Pinzal, E. & Ménival, S. 2017. Strategies and governance to reduce health inequalities: Evidences from a cross-European survey. *Global Health Research and Policy*, 2(1):1–11. doi: 10.1186/s41256-017-0038-7.

Bartlett, M.S. 1954. A note on the multiplying factors for various chi square approximation. *Journal of Royal Statistical Society*, 16(Series B):296–298.

Baumol, W.J., Litan, R.E. & Schramm, C.J. 2007. *Good capitalism, bad capitalism and the economics of growth and prosperity*. New Haven, CT: Yale University Press.

Bayraktar, S. 2016. Do entrepreneurs really create entrepreneurial cultures? When intentions do not match actions. *Bogazici Journal*, 30(2):79–98.

Bazargan, A., Ghasemi, R., Ardebili, M.E. & Zarei, M. 2017. The relationship between 'higher education and training' and 'business sophistication'. *Iranian Economic Review*, 21(2):319–341. doi: 10.22059/ier.2017.62106.

Berkowitz, D. & DeJong, D.N. 2005. Entrepreneurship and post-socialist growth. *Oxford Bulletin of Economics and Statistics*, 67(1):25–46.

Bhorat, H., Asmal, Z., Lilenstein, K. & Van der Zee, K. 2018. *SMMES in South Africa: Understanding the constraints on growth and performance*. Working paper no. 201802. Development Policy Research Unit. Available at: http://www.dpru.uct.ac.za/sites/default/files/image_tool/images/36/Publications/Working_Papers/DPRU%20WP201802.pdf [Accessed on 19 June 2022].

Bhorat, H., Cassim, A. & Tseng, D. 2014. *Higher education, employment and economic growth: Exploring the interactions*. Development Policy Research Unit, University of

Cape Town. Available at: https://lmip.org.za/sites/default/files/documentfiles/HSRC%20LMIP%20Report%205%20web%20final_0.pdf [Accessed on 16 April 2022].

Bless, C. & Higson-Smith, C. 2013. *Fundamentals of social research methods: An African perspective.* Second edition. Kenwyn: Juta.

Block, J., Sandner, P. & Spiegel, F. 2015. How do risk attitudes differ within the group of entrepreneurs? The role of motivation and procedural utility. *Journal of Small Business Management*, 53(1):183–206. doi: 10.1111/jsbm.12060.

Block, J.H. & Wagner, M. 2010. Necessity and opportunity entrepreneurs in Germany: Characteristics and earnings differentials. *Schmalenbach Business Review*, 62(2):154–174.

Bloomberg, L. & Volpe, M. 2019. *Completing your qualitative dissertation: A road map from beginning to end.* Fourth edition. London: Sage.

Booth, P., Chaperon, S.A., Kennell, J.S. & Morrison, A.M. 2020. Entrepreneurship in island contexts: A systematic review of the tourism and hospitality literature. *International Journal of Hospitality Management*, 85:1–12. doi: 10.1016/j.ijhm.2019.102438.

Bosma, N., Sanders, M. & Stam, E. 2018. Institutions, entrepreneurship, and economic growth in Europe. *Small Business Economics*, 51:483–499. doi: 10.1007/s11187-018-0012-x

Braun, V. & Clarke, V. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3:77–101.

Bridge, S. 2017. *The search for entrepreneurship: Finding more questions than answers.* London: Routledge.

Brixiová, Z. & Ncube, M. 2015. *Entrepreneurship and the business environment in Africa: An application to Ethiopia.* Working paper no. 146. Cape Town: Southern Africa Labour and Development Research Unit, University of Cape Town.

Brockhaus, R.H. 1980. Risk taking propensity of entrepreneurs. *Academy of Management Journal*, 23(3):509–520.

Brooks, J.R. 2018. The definitions of income. *Tax Law Review*, 71:253–309. doi: 10.2139/ssrn.2928972.

Bryman, A. 2001. *Social research methods*. London: Oxford University Press.

Bryman, A. 2012. *Social research methods*. London: Oxford University Press.

Bryman, A. & Bell, E. 2011. *Business research methods*. Second edition. United Kingdom: Oxford University Press.

Bula, H.O. 2012. Evolution and theories of entrepreneurship: A critical review on the Kenyan perspective. *International Journal of Business and Commerce*, 1(11):81–96.

Cai, R. 2015. *The transition from necessity-based start-up to subsequent opportunity entrepreneurship: A case study of China*. PhD thesis, University of Tasmania. Available at: https://eprints.utas.edu.au/23173/1/Cai_whole_thesis.pdf [Accessed on 27 April 2022].

Cantillon, R. 1755. *Essai Sur la Nature du Commerce en Général.* London: Macmillan.

Cassim, S., Soni, P. & Karodia, A. 2014. Entrepreneurship policy in South Africa. Oman chapter of *Arabian Journal of Business and Management Review*, 3(9):29-43. Available at: http://arabianjbmr.com/pdfs/OM_VOL_3_(10)/2.pdf [Accessed on 4 April 2022].

Çelikkol, M., Kitapçi, H. & Doven, G. 2019. Culture's impact on entrepreneurship and interaction effect of economic development level: An 81 country study. *Journal of Business Economics and Management*, 20(4):777–797. doi: 10.3846/jbem.2019.10180.

Cernescu, L., Bitea, C. & Dungan, I. 2018. The analysis of the Romanian global competitiveness international ranking. The impact of the IEC program. *Procedia - Social and Behavioral Sciences*, 238:517–526. doi: 10.1016/j.sbspro.2018.04.031.

Cervantes, R. & Jorge Villasenor, J. 2015. Political stability and economic growth: Some considerations. Available at: https://www.researchgate.net/profile/Jorge-Villasenor-Becerra/publication/332949897_Political_Stability_and_Economic_Growth/links/5cd3136c92851c4eab8c39c9/Political-Stability-and-Economic-Growth.pdf [Accessed on 4 April 2022].

Champeyrache, C. 2018. Destructive entrepreneurship: The cost of the mafia for the legal economy. *Journal of Economic Issues*, 52(1):157–172.

Chavez, J. 2016. *The personality characteristics of an entrepreneur and their effects on the performance of a new business venture*. Bachelor's thesis, Helsinki Metropolia University of Applied Sciences. Available at: https://core.ac.uk/download/pdf/45600476.pdf [Accessed on 20 April 2022].

Chen, C. & Pan, J. 2019. The effect of the health poverty alleviation project on financial risk protection for rural residents: Evidence from Chishui City, China. *International Journal for Equity in Health*, 18(79):1–16. doi: 10.1186/s12939-019-0982-6.

Chenery, H.B. 1960. Patterns of industrial growth. *American Economic Review*, 50(4):624–654.

Cirera, X. & Maloney, W. 2017. *The innovation paradox: Developing country capabilities and the unrealised promise of technological catch-up*. World Bank Group. Available at:

https://openknowledge.worldbank.org/bitstream/handle/10986/28341/9781464811609.pdf?sequence=4&isAllowed=y [Accessed on 12 February 2022].

Clarke, V. & Braun, V. 2013. Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The Psychologist*, 26(2):120–123.

Clarkea, P. & Erreygers, G. 2020. Defining and measuring health poverty. *Social Science & Medicine*, 244:1–9. doi: 10.1016/j.socscimed.2019.112633.

Cobbinah, P.B., Black, R. & Thwaites, R. 2013. Dynamics of poverty in developing countries: Review of poverty reduction approaches. *Journal of Sustainable Development*, 6(9):25–35.

Cohen, L., Manion, L. & Morrison, K. 2011. *Research methods in education*. Seventh edition. London: Routledge.

Connolly, P. 2007. *Qualitative data analysis in education: A critical introduction using SPSS*. London: Routledge.

Cooper, D.R. & Schindler, P.S. 2009. *Business research methods*. Seventh edition. New York, NY: McGraw-Hill Irwin.

Cooper, D.R. & Schindler, P.S. 2014. *Business research methods*. Twelfth edition. Singapore: McGraw-Hill.

Costanza, R., Hart, M., Posner, S. & Talberth, J. 2009. *Beyond GDP: The need for new measures of progress beyond GDP*. The Pardee Papers, 4. Boston University. Available at: https://www.bu.edu/pardee/files/documents/PP-004-GDP.pdf [Accessed on 12 February 2022].

Costea, M., Hapenciuc, C. & Bejinaru, R. 2015. Analysis of global competitiveness pillars' influence upon the Romanian tourism industry. *Journal of Tourism - Studies and Research in Tourism*, 22:64–75.

Coteanu. 1998. *Decizia in afaceri Risc si incertitudine in afaceri. Decizie si negociere*. Available at: https://zdocs.ro/doc/decizia-in-afaceri-donciu-gina-3d1m5k47z4p0#! [Accessed on 5 May 2022].

Cowan, T. 2017. *The complacent class: The self-defeating quest for the American dream*. New York, NY: Picador.

Creswell, J. & Creswell, D. 2018. *Research design: Qualitative, quantitative, and mixed methods approaches*. Fifth edition. Thousand Oaks, CA: Sage.

Creswell, J.W. 2007. *Qualitative inquiry and research design: Choosing among five approaches*. Second edition. Thousand Oaks, CA: Sage.

Creswell, J.W. 2009. *Research design: Qualitative, quantitative, and mixed methods approaches.* Third edition. Los Angeles, CA: Sage.

Creswell, J.W. 2013. *Research design: Qualitative, quantitative, and mixed methods approaches.* Second edition. Thousand Oaks, CA: Sage.

Creswell, J.W. 2014. *Research design: Qualitative, quantitative, and mixed methods approaches*. Third edition. Thousand Oaks, CA: Sage.

Creswell, J.W. & Clark, V.L. 2011. *Designing and conducting mixed methods research.* Second edition. Los Angeles, CA: Sage.

Cronbach, L.J. 1951. Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3):297–334.

Cross, J. & Morales, A. 2007. Introduction: Locating street markets in the modern/postmodern world. In J. Cross & A. Morales (eds.). *Street entrepreneurs: People, place and politics in local and global perspective*. London: Routledge, 1–13.

Dabla-Norris, E., Kochhar, K., Suphaphiphat, N., Ricka, F. & Tsounta, E. 2015. Causes and consequences of income inequality: A global perspective. *International Monetary Fund Staff Discussion Notes*, 15(13):1–39. doi: 10.5089/9781513555188.006

Dahlstrand, A.L. & Stevenson, L. 2010. Innovative entrepreneurship policy: Linking innovation and entrepreneurship in a European context. *Annals of Innovation and Entrepreneurship*, 1:1–56. doi: 10.3402/aie.v1i1.5845

Damme, D. 2014. *How closely is the distribution of skills related to countries' overall level of social inequality and economic prosperity?* OECD education working papers no. 105. Available at: https://www.oecd-ilibrary.org/education/how-closely-is-the-distribution-of-skills-related-to-countries-overall-level-of-social-inequality-and-economic-prosperity_5jxvd5rk3tnx-en. [Accessed on 27 April 2022].

Daniel, E. 2016. The usefulness of qualitative and quantitative approaches and methods in researching problem-solving ability in science education curriculum. *Journal of Education and Practice*, 7(15):91–100.

Dang, G. & Sui Pheng, L. 2015. Infrastructure investments in developing economies. Available at: http://link.springer.com/10.1007/978-981-287-248-7 [Accessed on 27 April 2022].

Dawadi, S., Shrestha, S. & Giri, R.A. 2021. Mixed-methods research: A discussion on its types, challenges, and criticisms. *Journal of Practical Studies in Education*, 2(2):25–36. doi: 10.46809/jpse.v2i2.20.

De Janvry, A. & Sadoulet, E. 2016. *Development economics: Theory and practice*. London: Routledge.

De Janvry, A. & Sadoulet, E. 2021. *Development economics: Theory and practice*. Second edition. London: Routledge.

Demirdag, I. 2015. *Entrepreneurship and regional development: Evidence on Turkish regions*. Degree dissertation, Middle East Technical University. Available at: https://etd.lib.metu.edu.tr/upload/12619126/index.pdf [Accessed on 4 April 2022].

Demirdag, I. 2018. Investigating the mediating role of innovation in the relationship between entrepreneurship and regional economic development. *Journal of Entrepreneurship and Innovation Management*, 7(2):1–32.

Denzin, N.K. & Lincoln, Y.S. 2011. *The Sage handbook of qualitative research*. New Delhi: Sage.

De Vaus, D.A. 2014. *Surveys in social research*. Sixth edition. London: UCL Press.

Devereux, S., Sabates-Wheelers, R. & Longhurst, R. 2012. *Seasonality, rural livelihoods and development*. Second edition. New York, NY: Earthscan.

De Vos, A., Strydom, H., Fouché, C. & Delport, C. 2016. *Research at grass roots: For the social sciences and human service professions*. Fourth edition. Pretoria: Van Schaik.

Dhahri, S. & Omri, A. 2018. Entrepreneurship contribution to the three pillars of sustainable development: What does the evidence really say? *World Development*, 106:64–77.

Dima, M., Begu, L., Vasilescu, D. & Maassen, A. 2020. The relationship between the knowledge economy and global competitiveness in the European Union. *Sustainability*, 10(6):1–15. doi: 10.3390/su10061706.

Donovan, A.M. 2015. Entrepreneurship and innovation. *Education and Training*, 57(1):74–87. doi: 10.1108/ET-02-2013-0018.

Doran, J., McCarthy, N. & O'Connor, M. 2018. The role of entrepreneurship in stimulating economic growth in developed and developing countries. *Cogent Economics and Finance*, 6(1):1–14. doi: 10.1080/23322039.2018.1442093.

dti (Department of Trade and Industry). 2013. *Guidelines for reducing municipal red tape: How municipalities can improve service delivery that supports small business*. Available at: http://www.businessenvironment.org/dyn/be/docs/258/red_tape_reduction_booklet_2013.pdf [Accessed on 4 April 2022].

Du Plooy-Cilliers, F., Davis, C. & Bezuidenhout, R. 2016. *Research matters*. Second edition. Cape Town: Juta.

Dvouletý, O., Gordievskaya, A. & Procházka, D.A. 2018. Investigating the relationship between entrepreneurship and regional development: Case of developing countries. *Journal of Global Entrepreneurship Research*, 8(1):1-9.

Dvouletý, O. & Orel, M. 2019. Entrepreneurial activity and its determinants: Findings from African developing countries. In *Sustainable entrepreneurship: The role of collaboration in the global economy*. doi: 10.1007/978-3-030-12342-0_2.

Dynan, K. & Sheiner, L. 2019. *GDP as a measure of economic well-being*. International Centre for Economic Research. Available at: ttps://www.brookings.edu/wp-content/uploads/2018/08/WP43-8.23.18.pdf [Accessed on 11 February 2022].

Edenhofer, O., Croix, D., Fosu, A.K. & Jakob, M.O. 2017. Economic growth, human development and welfare. Available at: https://www.researchgate.net/publication/329566993_Economic_Growth_Human_Development_and_Welfare [Accessed on 22 April 2022].

Eke, P.O., Okoye, L.U. & Evbuomwan, G.O. 2018. A dynamic analysis of the nexus between entrepreneurship, human capital development and financial deepening: Evidence from selected African economies. *Journal of Applied Economic Sciences*, 5(59):1344–1356.

Elghawi, E. 2018. *The role of oil in the development of Libya*. thesis, Mendel University in Brno. Available at: https://theses.cz/id/q9fovi/ [Accessed on 22 April 2022].

Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K. & Kyngäs, H. 2014. Qualitative content analysis: A focus on trustworthiness. *SAGE Open*, 1–10. doi: 10.1177/2158244014522633.

Esmail, A.H. 2019. The impact of cultural diversity on economic development in Saudi Arabia: Empirical study. *Journal of Sustainable Development*, 12(2):70–81.

Essig, L. 2015. Means and ends: A theory framework for understanding entrepreneurship in the US arts and culture Sector. *Journal of Arts Management, Law, and Society*, 45(1):227–246.

Eyal, G. 2013. For a sociology of expertise: The social origins of the autism epidemic. *American Journal of Sociology*, 118(4):863–907. doi: 10.1086/668448.

Fàbregues, S., Hong, Q.N., Escalante-Barrios, E.L., Guetterman, T.C., Meneses, J. & Fetters, M.D. 2020. A methodological review of mixed methods research in palliative and end-of-life care (2014–2019). *International Journal of Environmental Research and Public Health*, 17(11):38–53. doi: 10.3390/ijerph17113853.

Fairlie, R.W. & Fossen, F.M. 2018. Opportunity versus necessity entrepreneurship: Two components of business creation. *SSRN Electronic Journal*, (11258). Available at: https://ftp.iza.org/dp11258.pdf [Accessed on 7 May 2022].

Feldman, M., Hadjimichael, T. & Lanahan, L. 2016. The logic of economic development: A definition and model for investment. *Environment and Planning C: Government and*

Policy, 34(1):5–21.

Ferreira, N. 2012. *Constructing a psychological career profile for staff retention*. PhD thesis, University of South Africa. Available at: https://uir.unisa.ac.za/bitstream/handle/10500/6722/thesis_ferreira_n.pdf?sequence=1&isAllowed=y [Accessed on 16 April 2022].

Filser, M., Kraus, S., Roig-Tierno, N., Kailer, N. & Fischer, U. 2019. Entrepreneurship as catalyst for sustainable development: Opening the black box. *Sustainability*, 11(16):1–18. doi: 10.3390/su11164503.

Fourie, F. 2011. *The South African unemployment debate: Three worlds, three discourses?* Working paper no. 63. Southern Africa Labour and Development Research Unit, University of Cape Town. Available at: https://www.opensaldru.uct.ac.za/bitstream/handle/11090/80/2011_63.pdf?sequence=1 [Accessed on 14 April 2022].

Fredström, A., Peltonen, J. & Wincent, J. 2020. A country-level institutional perspective on entrepreneurship productivity: The effects of informal economy and regulation. *Journal of Business Venturing*. doi: 10.1016/j.jbusvent.2020.106002

Freimann, A. 2016. Limitations of the GDP as a measure of progress and well-being. *Ekonomski Vjesnik*, 29(1):257–272.

Funjika, P. & Gisselquist, R. 2020. *Social mobility and inequality between groups*. Working paper no. 2020/12. UNU-WIDER. Available at: https://www.wider.unu.edu/sites/default/files/Publications/Working paper/PDF/wp2020-12.pdf [Accessed on 12 February 2022].

Furceri, D. & Ostry, J.D. 2019. What really drives inequality? *Oxford Review of Economic Policy*, 35(3):490–517.

Gamede, B.T. & Uleanya, C. 2018. Entrepreneurship: Solution to unemployment and development in rural communities. *Journal of Entrepreneurship Education*, 21, Special issue:1–12.

Gauteng Provincial Government. 2016. *Gauteng socio-economic review and outlook*. Available at: http://www.treasury.gov.za/documents/provincial%20budget/2016/3.%20Provincial%20Appropriation%20Acts/5.%20Guide%20to%20the%20Budget/GT/Gauteng%20-%20Social-Economic%20Review%20and%20Outlook.pdf [Accessed on 12 February 2022].

GEM (Global Entrepreneurship Monitor). 2014. *Fifteen years of assessing: Entrepreneurship across the globe*. Available at: https://www.gemconsortium.org/report/gem-2013-global-report [Accessed on 12 February 2022].

GEM (Global Entrepreneurship Monitor). 2016. *Is South Africa heading for an economic meltdown? South African Report 2015/16.* Available at: https://www.gemconsortium.org/report/gem-south-africa-2015-2016-report [Accessed on 12 February 2022].

GEM (Global Entrepreneurship Monitor). 2017. *Is there a change in attitude towards the small and medium business sector in South Africa?* Available at: https://www.gemconsortium.org/file/open?fileId=50411 [Accessed on 4 April 2022].

GEM (Global Entrepreneurship Monitor). 2018. *Global report 2017/2018.* Available at: https://www.gemconsortium.org/report/gem-2017-2018-global-report#:~:text=The%202017%2F18%20Global%20Entrepreneurship,86%25%20of%20the%20world's%20GDP [Accessed on 12 February 2022].

GEM (Global Entrepreneurship Monitor). 2010. *Global report 2010*. Available at: https://www.gemconsortium.org/report/gem-2010-global-report [Accessed on 12 February 2022].

GEN (Global Entrepreneurship Network). 2019. *Global start-up ecosystem report 2019.* Available at: https://startupgenome.com/reports/global-startup-ecosystem-report-2019 [Accessed on 4 April 2022].

Georgescu, M.A. & Herman, E. 2019. Productive employment for inclusive and sustainable development in European Union countries: A multivariate analysis. *Sustainability*, 11(6):1–19. doi: 10.3390/su11061771.

Ghazali, M.D. 2016. A reliability and validity of an instrument to evaluate the school-based assessment system: A pilot study. *International Journal of Evaluation and Research in Education*, 5(2):148–157. doi: 10.11591/ijere.v5i2.4533.

Ghura, H. & Li, X. 2017. Towards a theoretical framework between opportunity entrepreneurship, institutions and economic development. Available at: https://www.researchgate.net/publication/317505247_Towards_a_Theoretical_Framework_Between_Opportunity_Entrepreneurship_Institutions_and_Economic_Development [Accessed on 12 February 2022].

Gifford, S. 1998. Limited entrepreneurial attention and economic development. *Small Business Economics*, 10:17–30. doi: 10.1023/A:1007966215575.

Goel, M. & Bhand, U. 2017. Understanding innovation by analysing the pillars of the global competitiveness index. *International Journal of Law and Political Sciences*, 11(8):2112–2119.

Graafland, J. & Lous, B. 2019. Income inequality, life satisfaction inequality and trust: A cross country panel analysis. *Journal of Happiness Studies*, 20(6):1717–1737. doi: 10.1007/s10902-018-0021-0.

Grant, C. 2017. *The contribution of education to economic growth: Knowledge, evidence and learning for development*. Institute of Development Studies. Available at: https://assets.publishing.service.gov.uk/media/5b9b87f340f0b67896977bae/K4D_HDRThe_Contribution_of_Education_to_Economic_Growth_Final.pdf [Accessed on 12 February 2022].

Gray, D. 2013. *Doing research in the real world.* Second edition. Los Angeles, CA: Sage.

Greene, J.C. & Caracelli, V.J. 2003. Making paradigmatic sense of mixed methods practice. In A. Tashakkori & L. Teddlie (eds.). *Handbook of mixed methods in social and behavioral research*. Thousand Oaks, CA: Sage, 91–110.

Grundmann, R. 2017. The problem of expertise in knowledge societies. *Minerva*, 55(1):25–48. doi: 10.1007/s11024-016-9308-7.

Guerrero, M., Urbano, D. & Salamzadeh, A. 2015. Entrepreneurial transformation in the Middle East: Experiences from Tehran universities. *Technics Technologies Education Management*, 10(4):533–537.

Gurak, H. 2015. Economic growth & development: Theories, criticisms and an "alternative" growth model. *Journal of Economics Library*, 2(3):203–240.

Gutterman, A.S. 2016. *Growth-oriented entrepreneurship: Global survey and assessment*. International Center for Growth-Oriented Entrepreneurship. Available at: https://alangutterman.typepad.com/files/gs_p5_16.pdf [Accessed on 4 April 2022].

Gweshengwe, B. & Hassan, N.H. 2020. Defining the characteristics of poverty and their implications for poverty analysis. *Cogent Social Sciences*, 6:1. doi: 10.1080/23311886.2020.1768669.

Hadi, N., Abdullah, N. & Sentosa, I. 2016. An easy approach to exploratory factor analysis: Marketing perspective. *Journal of Educational and Social Research*, 6(1):215–223. doi: 10.5901/jesr.2016.v6n1p215.

Hair, J.H. Jr, Black, W.C., Babin, B.J. & Anderson, R.E. 2010. *Multivariate data analysis*. Seventh edition. Upper Saddle River, NJ: Prentice Hall.

Hair, J.F. Jr, Black, W.C., Babin, B.J., Anderson, R.E. & Tatham, R.L. 1998. *Multivariate data analysis*. Fifth edition. Upper Saddle River, NJ: Pearson Prentice Hall.

Hair, J.F. Jr, Hult, G.T.M., Ringle, C.M. & Sarstedt, M. 2017. *A primer on partial least squares structural equation modeling (PLS-SEM).* Second edition. Thousand Oaks, CA: Sage.

Hakeem, S., Abubakar, H. & Tsoho, H. 2016. Nigeria and global competitiveness: Imperative for international trade a comparative approach. *International Journal of Business and Management Invention*, 5(11):1–11.

Haller, A. 2012. Concepts of economic growth and development: Challenges of crisis and of knowledge. *Economy Transdisciplinarity Cognition*, 15(1):66–71.

Halvarsson, D., Korpi, M. & Wennberg, K. 2018. Entrepreneurship and income inequality. *Journal of Economic Behaviour and Organisation*, 145:275–293. doi: 10.1016/j.jebo.2017.11.003.

Hana, U. 2013. Competitive advantage achievement through innovation and knowledge. *Journal of Competitiveness*, 5(1):82–96. doi: 10.7441/joc.2013.01.06.

Hardos, P. 2018. Who exactly is an expert? On the problem of defining and recognizing expertise. *Sociologia*, 50(3):268–288.

Harrod, R.F. 1960. Second essay in dynamic theory. *Economic Journal*, 70:277–293.

Heerington, H., Kew, P. & Mwanga, A. 2017. *South Africa report 2016/2017: Can small businesses survive in South Africa?* Global Entrepreneurship Monitor. Available at: https://www.gemconsortium.org/report/49833 [Accessed on 4 April 2022].

Hendriks, M. & Bartram, D. 2019. Bringing happiness into the study of migration and its consequences: What, why, and how? *Journal of Immigrant & Refugee Studies*, 17(3):279–298. doi: 10.1080/15562948.2018.1458169.

Herman, E. 2018. Innovation and entrepreneurship for competitiveness in the EU: An empirical analysis. In *Proceedings of the 12th International Conference on Business Excellence 2018*, 12(1):425–435. doi: 10.2478/picbe-2018-0038.

Herrington, M. & Coduras, A. 2019. The national entrepreneurship framework conditions in sub-Saharan Africa: A comparative study of GEM data/National Expert Surveys for South Africa, Angola, Mozambique and Madagascar. *Journal of Global Entrepreneurship Research*, 9(1):1–24. doi: 10.1186/s40497-019-0183-1.

Herrington, M., Kew, J. & Kew, P. 2015. 2014 *GEM South Africa report. South Africa: The crossroads – a goldmine or a time bomb?* Development Unit for New Enterprise, University of Cape Town. Available at: https://www.researchgate.net/publication/317565999_GEM_South_Africa_2014_Rep

ort [Accessed on 4 April 2022].

Hessels, J. & Naudé. 2017. *The intersection of the fields of entrepreneurship and development economics: A review towards a new view*. Discussion paper no. 11103. IZA. Available at: https://docs.iza.org/dp11103.pdf [Accessed on 4 April 2022].

Hessels, J., Van Gelderen, M. & Thurik, R. 2008. Drivers of entrepreneurial aspirations at the country level: The role of start-up motivations and social security. *International Entrepreneurship and Management Journal*, 4(4):401–417. doi: 10.1007/s11365-008-0083-2.

Heys, R., Martin, J. & Mkandawire, W. 2019. *GDP and welfare: A spectrum of opportunity.* Discussion paper no. 2019-16. London: Economic Statistics Centre of Excellence.

Holcombe, R. 2009. *Entrepreneurship and economic progress.* Second edition. London: Routledge.

Holsinger, D. & Jacob, W.J. 2009. Inequality in education. doi: 10.1007/978-90-481-2652-1

Howell, D. 2008. *Fundamental statistics for the behavioral sciences*. Sixth edition. Belmont, CA: Thomson Wadsworth.

Hsieh, Y.J. & Wu, Y.J. 2019. Entrepreneurship through the platform strategy in the digital era: Insights and research opportunities. *Computers in Human Behavior*, 95:315–323. doi: 10.1016/j.chb.2018.03.033.

Hulten, C. & Nakamura, L. 2018. *Accounting for growth in the age of the internet: The importance of output-saving technical change*. Working paper. NBER. Available at: https://www.nber.org/papers/w23315 [Accessed on 11 February 2022].

ICSB (International Council for Small Business). 2019. *ICSB annual global small and medium-sized enterprises report.* Available at: https://icsb.org/wp-content/uploads/2019/09/REPORT-2019.pdf [Accessed on 4 April 2022].

IFC (International Finance Corporation). 2006. *Access to finance for women entrepreneurs in South Africa: Challenges and opportunities*. Available at: https://www.ifc.org/wps/wcm/connect/dd73ba18-a3fd-4331-bca8-7ef9430a282c/Access%2Bto%2BFinance%2B-%2BWomen%2Bin%2BSouth%2BAfrica.pdf?MOD=AJPERES [Accessed on 19 June 2022].

ILO (International Labour Organization). 2012. *Understanding deficits of productive employment and setting targets: A methodological guide*. Available at: http://www.ilo.org/wcmsp5/groups/public/@ed_emp/documents/publication/wcms_177149.pdf [Accessed on 12 February 2022].

IMF (International Monetary Fund). 2020. *World economic outlook databases: GDP dataset*. Available at: https://www.imf.org/en/Publications/WEO/weo-database/2020/April [Accessed on 12 October 2020].

Imran, T., Ahmed, R., Streimikiene, D., Soomro, H., Parmar, V. & Vveinhardt, J. 2019. Assessment of entrepreneurial traits and small-firm performance with entrepreneurial orientation as a mediating factor. *Sustainability*, 11(19):1–23. doi: 10.3390/su11195301

IoDSA (Institute of Directors in Southern Africa). 2009. *King Report on Corporate Governance for South Africa 2009*. Available at: https://cdn.ymaws.com/www.iodsa.co.za/resource/collection/94445006-4F18-4335-B7FB7F5A8B23FB3F/King_Code_of_Governance_for_SA_2009_Updated_June_2012.pdf [Accessed on 11 February 2022].

Jafari-Sadeghi, V. 2019. The motivational factors of business venturing: Opportunity versus necessity? A gendered perspective on European countries. *Journal of Business Research*, 113:279–289. doi: 10.1016/j.jbusres.2019.09.058.

Jencova, S., Litavcova, E., Kotulic, R., Vavrek, R. & Vozarova, I.K. 2015. Phenomenon of poverty and economic inequality in the Slovak Republic. *Procedia Economics and Finance*, 26(15):737–741. doi: 10.1016/s2212-5671(15)00832-1.

Johnson, B. & Christensen, L. 2012. *Educational research: Qualitative, quantitative and mixed approach.* Fourth edition. London, CA: Sage.

Jovicic, S. 2016. Wage inequality, skill inequality, and employment: Evidence and policy lessons from PIAAC. *IZA Journal of European Labor Studies*, 5(1):1–26. doi: 10.1186/s40174-016-0071-4.

JSE (Johannesburg Stock Exchange). 2019. *List of JSE listed companies*. Available at: https://clientportal.jse.co.za/companies-and-financial-instruments [Accessed on 12 February 2022].

Junaid, M., Durrani, M., Rashid, M. & Shaheen, N. 2015. Entrepreneurship as a socially constructed phenomenon: Importance of alternate paradigms research. *Journal of Managerial Science*, 9(1):35–48.

Kanyama, B.J. 2011. *A comparison of the performance of three multivariate methods in investigating the effects of province and power usage on the amounts of five power modes in South Africa.* MA thesis, University of South Africa. Available at: https://uir.unisa.ac.za/bitstream/handle/10500/4681/dissertation_kanyama_b.pdf?sequence=1&isAllowed=y [Accessed on 14 April 2022].

Karadag, D.H. 2016. The role of SMEs and entrepreneurship on economic growth in emerging economies within the post-crisis era: An analysis from Turkey. *Journal of Small Business and Entrepreneurship Development*, 4(1):22–31.

Karikari-Apau, E. & Abeti, W. 2019. *The impact of unemployment on economic growth in China*. Paper no. 96100. MPRA. Available at: https://mpra.ub.uni-muenchen.de/96100/ [Accessed on 12 February 2022].

Karlsson, C., Rickardsson, J. & Wincent, J. 2019. Diversity, innovation and entrepreneurship: Where are we and where should we go in future studies? *Small Business Economics*, 56:759–772. doi: 10.1007/s11187-019-00267-1.

Kaur, M. & Singh, L. 2016. Knowledge in the economic growth of developing economies. *African Journal of Science, Technology, Innovation and Development*, 8(2):205–212. doi: 10.1080/20421338.2016.1147207.

Kaushik, V. & Walsh, C. 2019. Pragmatism as a research paradigm and its implications for social work research. *MDPI Social Sciences*, 8(9):255-360. doi: 10.3390/socsci8090255.

Kelle, U., Kühberger, C. & Bernhard, R. 2019. How to use mixed-methods and triangulation designs: An introduction to history education research. *History Education Research Journal*, 16(1):5–23. doi: 10.18546/HERJ.16.1.02.

Kemp, N. & Viviers, S. 2018. Executive performance evaluation and remuneration: Disclosure and practices of selected listed South African companies (2002–2015). *South African Journal of Accounting Research*, 32(2/3):154–173. doi: 10.1080/10291954.2018.1465149.

Kennedy, T., Smyth, R., Valadkhani, A. & Chen, G. 2017. Does income inequality hinder economic growth? New evidence using Australian taxation statistics. *Economic Modelling*, 65:119–128. doi: 10.1016/j.econmod.2017.05.012.

Kennedy-Clark, S. 2012. *Design research and the solo higher degree research student: Strategies to embed trustworthiness and validity into the research design*. Paper presented at the Joint AARE APERA International Conference, Sydney. Available at: https://files.eric.ed.gov/fulltext/ED542294.pdf [Accessed on 14 April 2022].

Kerr, S.P., Kerr, W.R. & Xu, T. 2018. Personality traits of entrepreneurs: A review of recent literature. *Foundations and Trends in Entrepreneurship*, 14(3):279–356.

Keser, H.Y. 2015. Effects of higher education on global competitiveness: Reviews in relation with European countries and the Middle East countries. *Annals - Economy Series*, 1(1):58–68.

Kim, J., Tang, L. & Wang, X. 2020. The uniqueness of entrepreneurship in the sharing accommodation sector: Developing a scale of entrepreneurial capital. *International Journal of Hospitality Management*, 84:1–9. doi: 10.1016/j.ijhm.2019.102321.

Kirikkaleli, D. & Ozun, A. 2019. Innovation capacity, business sophistication and macroeconomic stability: Empirical evidence from OECD countries. *Journal of Business Economics and Management*, 20(2):351–367. doi: 10.3846/jbem.2019.9602.

Kirsten, C.L. 2018. The role of financial management training in developing skills and financial self-efficacy. *Southern African Journal of Entrepreneurship and Small Business Management*, 10(1):a211. doi: 10.4102/sajesbm.v10i1.211.

Kirzner, I. 1973. *Competition and entrepreneurship*. Chicago, IL: University of Chicago Press.

Kirzner, I. 1985. *Discovery and the capitalist process*. Chicago, IL: University of Chicago Press.

Kline, R.B. 2010. *Principles and practice of structural equation modelling*. Third edition. New York, NY: Guilford Press.

Knight, F.H. 1921. *Risk, uncertainty and profit*. New York, NY: Houghton-Mifflin.

Knox, A., Bressers, H., Mohlakoana, N. & De Groot, J. 2019. Aspirations to grow: When micro- and informal enterprises in the street food sector speak for themselves. *Journal of Global Entrepreneurship Research*, 9(38):1–24. doi: 10.1186/s40497-019-0161-7.

Korstjens, I. & Moser, A. 2018. Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice*, 24(1):120–124. doi: 10.1080/13814788.2017.1375092.

Kosa, A. & Mohammed, I. 2017. Uncovering the backings to passion: Why do small firm owners/managers engage in entrepreneurship? *Journal of Innovation and Entrepreneurship*, 6(1):1–13. doi: 10.1186/s13731-017-0080-1.

Kothari, C.R. 2004. *Research methodology: Methods and techniques.* Second edition. New Delhi: New Age International.

Kritikos, A. 2014. *Entrepreneurship and their impact on jobs and economic growth*. World of Labor. Available at: https://wol.iza.org/uploads/articles/8/pdfs/entrepreneurs-and-their-impact-on-jobs-and-economic-growth.pdf?v=1 [Accessed on 4 May 2022].

Kumar, P. & Castro, A. 2020. *Is GDP an adequate measure of development?* International Growth Centre. Available at: https://www.theigc.org/blog/is-gdp-an-adequate-measure-of-development/ [Accessed on 13 June 2022].

Kumar, R. 2014. *Research methodology: A step-by-step guide for beginners*. Fourth edition. London: Sage.

Kus, B., Nolan, B. & Whelan, C.T. 2016. Material deprivation and consumption. In D. Brady & L.M. Burton (eds.). *The Oxford handbook of the social science of poverty*. London: Oxford University Press, 577–601.

Lafuente, E. & Vaillant, Y. 2016. Recent developments in the study of entrepreneurship and territorial economic performance. *Strategic Change*, 25:99–103.

Laishram, R. 2020. *Investing in nutrition for long-term returns: Improved human capital and productivity*. International Food Policy Research Institute. Available at: https://www.ifpri.org/blog/investing-nutrition-long-term-returns-improved-human-capital-and-productivity [Accessed on 19 June 2022].

Langroodi, E.F. 2018. Schumpeter's theory of economic development: A study of the creative destruction and entrepreneurship effects on the economic growth. doi: 10.2139/ssrn.3153744.

Lecuna, A. 2019. Income inequality and entrepreneurship. *Economic Research-Ekonomska Istraživanja*, 33(1):2269–2285. doi: 10.1080/1331677X.2019.1663545.

Leedy, P.D. & Ormrod, J.E. 2014. *Practical research: Planning and design*. Tenth edition. New York, NY: Pearson Education.

Leedy, P.D. & Ormrod, J.E. 2015. *Practical research: Planning and design*. Eleventh edition. New York, NY: Pearson Education.

Leedy, P.D. & Ormrod, J.E. 2016. *Practical research: Planning and design.* Twelfth edition. New York, NY: Pearson Education.

Leff, N.H. 1979. Entrepreneurship and economic development: The problem revisited. *Journal of Economic Literature*, XVII:46–64.

Lekhanya, L.M. 2016. Critical analysis of entrepreneurial spirit, attitudes and perceptions of young South Africans in KwaZulu-Natal province. *Problems and Perspectives in Management*, 14(3-1):179–184.

Leshoro, T. 2013. Does economic growth lead employment in South Africa? *Journal of Economics and Behavioral Studies*, 5(6):336–345. doi: 10.22610/jebs.v5i6.409.

Lewis, A.W. 1954. Economic development with unlimited supplies of labour. *The Manchester School of Economics and Social Sciences*, 22:139–191.

Lichtman, M. 2006. *Qualitative research in education: A user's guide*. London: Sage.

Lichtman, M. 2013. *Qualitative research in education: A user's guide*. Third edition. London: Sage.

Liñán, F. & Fernandez-Serrano, J. 2014. National culture, entrepreneurship and economic development: Different patterns across the European Union. *Small Business Economics*, 42(4):685–701.

Lincoln, Y.S. & Guba, E.G. 1985. *Naturalistic inquiry*. Beverly Hills, CA: Sage.

Linton, G. 2019. Proactiveness in start-ups: A case study and conceptual development. *Journal of Global Entrepreneurship Research*, 9(20):1–21. doi: 10.1186/s40497-019-0147-5.

Lloyd, N. & Leibbrandt, M. 2014. New evidence on subjective well-being and the definition of unemployment in South Africa. *Development Southern Africa*, 31(1):85–105. doi: 10.1080/0376835X.2013.864513.

Lucas, D.S. & Fuller, C.S. 2017. Entrepreneurship: Productive, unproductive, and destructive – relative to what? *Journal of Business Venturing Insights*, 7:45–49.

Luiz, J. & Mariotti, M. 2011. Entrepreneurship in an emerging and culturally diverse economy: A South African survey of perceptions. *South African Journal of Economic and Management Sciences*, 14(1):47–65.

Lukes, M. 2013. Entrepreneurs as innovators: A multi-country study on entrepreneurs' innovative behaviour. *Prague Economic Papers*, 1:72–84. doi: 10.18267/j.pep.441.

Lundberg, H. & Rehnfors, A. 2018. Transnational entrepreneurship: opportunity identification and venture creation. *Journal of International Entrepreneurship*, 16(2):150–175. doi: 10.1007/s10843-018-0228-5

Lustig, N. 2004. *Investing in health for economic development*. Commission on Microeconomics and Health Macroeconomics and Health. Available at: http://www.who.int/macrohealth/action/sintesis15novingles.pdf [Accessed on 12 February 2022].

Maguire, M. & Delahunt, B. 2017. Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland Journal of Teaching and Learning in Higher Education (AISHE-J,)* 3:3351–33514.

Mahadea, D. & Zogli, J. 2019. Constraints to growth in informal sector activities and formalisation: A case study of Ghanaian slums. *Southern African Journal of Entrepreneurship and Small Business Management*, 10(1):1–9. doi: 10.4102/sajesbm.v10i1.130.

Makaringe, S.C. & Khobai, H. 2018. The effect of unemployment on economic growth in South Africa (1994–2016). Available at: https://mpra.ub.unimuenchen.de/85305/1/MPRA _ paper_85305.pdf [Accessed on 4 May 2022].

Malayaranjan, S. & Sahoo, J. 2019. The relationship between unemployment and some macroeconomic variables: Empirical evidence from India. *Theoretical and Applied Economics*, XXVI(1):115–128.

Mannino, J. 2014. A descriptive mixed-methods study examining resilience and transitioning to adulthood among emerging adults with disabilities. Degree thesis/dissertation, Molloy University. Available at: https://digitalcommons.molloy.edu/etd/41 [Accessed on 4 May 2022].

Mansi, E., Hysa, E., Panait, M. & Voica, M.C. 2020. Poverty: A challenge for economic development? Evidences from Western Balkan countries and the European Union. *Sustainability*, 12(18):1–24. doi: 10.3390/SU12187754.

Maradana, R.P., Pradhan, R.P., Dash, S., Gaurav, K., Jayakumar, M. & Chatterjee, D. 2017. Does innovation promote economic growth? Evidence from European countries. *Journal of Innovation and Entrepreneurship*, 6(I):1–23. doi: 10.1186/s13731-016-0061-9.

Marcotte, C. 2014. Measuring entrepreneurship at the country level: A review and research agenda. *Entrepreneurship & Regional Development*, 25:174–194.

Maree, K. 2013. *First steps in research*. Thirteenth edition. Pretoria: Van Schaik.

Maritz, A. & Donovan, J. 2015. Entrepreneurship and innovation: Setting an agenda for greater discipline contextualization. *Education and Training*, 57(1):74–87. doi: 10.1108/ET-02-2013-0018.

Marx, K. 1867. *Capital: A critique of political economy. Volume 1, Part 1: The process of capitalist production*. New York, NY: Cosimo.

Marx, K. 1933. *Capital*. London: J.M. Dent.

Masocha, K. 2016. *Can entrepreneurship be the answer to Zimbabwe's unemployment crisis: A case study of Epworth*. Honour's degree dissertation, Midlands State University. Available at: http://ir.msu.ac.zw:8080/xmlui/bitstream/handle/11408/2183/Kudakwashe%20Masocha%20Final.pdf?sequence=1&isAllowed=y [Accessed on 4 April 2022].

Masuku, S. 2011. *The instructional leadership role of the high school head in creating a culture of teaching and learning in Zimbabwe*. PhD thesis, University of South Africa. Available at: https://uir.unisa.ac.za/bitstream/handle/10500/7741/thesis_masuku_s.pdf?sequence=1&isAllowed=y [Accessed on 14 April 2022].

Mayhew, K. & Wills, S. 2019. Inequality: An assessment. *Oxford Review of Economic Policy*,

35(3):351–367. doi:10.1093/oxrep/grz009.

Mbah, B. & Ojo, O. 2018. Africa's economic growth: Trends, constraints and lessons from Asia. *International Journal of Humanities and Social Science Invention*, 7(5):13–25. doi: 10.9790/0837-2303032234.

McCaffrey, M. 2018. William Baumol's entrepreneurship: Productive, unproductive, and destructive. *Researchgate*, 1–30. doi: 10.1007/978-3-319-73528-3.

McKay, A. 2002. *Inequality briefing: Defining and measuring inequality*. Paper no. 1. Development Institute and University of Nottingham. Available at: https://cdn.odi.org/media/documents/3804.pdf [Accessed on 12 February 2022].

Medvedev, O. & Landhuis, C. 2018. Exploring constructs of well-being, happiness and quality of life. PeerJ, doi: 10.7717/peerj.4903.

Mirzanti, R., Simatupang, M. & Larso, D. 2015. A conceptual framework of entrepreneurship policy. *International Business Management*, 9(4):397–404. doi: 10.3923/ibm.2015.397.404.

Mitonga-Monga, J. 2015. *The effects of ethical context and behaviour on job retention and performance-related factors*. PhD thesis, University of South Africa. Available at: https://uir.unisa.ac.za/bitstream/handle/10500/19882/thesis_mitonga-monga_j.pdf?sequence=1&isAllowed=y [Accessed on 16 April 2022].

Mizero, O. 2018. *Growth and development*. MA thesis, UiT Norges Arktiske Universitet. Available at: https://munin.uit.no/bitstream/handle/10037/13070/thesis.pdf?sequence=2 [Accessed on 4 May 2022].

Mkabela, Q. 2005. Using the Afrocentric method in researching indigenous African culture. *The Qualitative Report*, 10(1):178–189.

Mkwanazi, B. 2018. An investigation and problematisation of the entrepreneurial framework conditions associated with entrepreneurship amongst black Africans in Johannesburg, South Africa. Unpublished MA dissertation, Wits Business School.

Mlalazi, L. 2015. *Implementation of strategies used to maintain positive discipline in secondary schools in Bulawayo Metropolitan Province, Zimbabwe: Towards a holistic positive discipline management model*. PhD thesis, University of Fort Hare. Available at: http://libdspace.ufh.ac.za/bitstream/handle/20.500.11837/703/LWAZI%20FINAL%20COPY%20EDITED%20MAY%202015%20FORMATTED%20DOC_final_version%202.pdf?sequence=1&isAllowed=y [Accessed on 3 April 2022].

Mncayi, N.P. 2016. *The determinants of employment status of young graduates*. MA thesis,

North-West University. Available at: https://dspace.nwu.ac.za/bitstream/handle/10394/17038/Mncayi_NP.pdf?sequence=1 [Accessed on 3 April 2022].

Mohajan, H. 2017. Two criteria for good measurements in research: Validity and reliability. *Annals of Spiru Haret University. Economic Series*, 17(4), 59–82.

Momani, B. 2017. *Entrepreneurship: An engine for job creation and inclusive growth in the Arab world*. Policy briefing. Brookings Institution. Available at: https://www.think-asia.org/bitstream/handle/11540/7521/entrepreneurship_in_the_arab_world.pdf?sequence=1 [Accessed on 4 May 2022].

Morady, F., Kapucu, H. & Yalçinkaya, O. 2017. Development and growth: Economic impacts of globalization. *Global Studies*, 3. doi: 10.5281/zenodo.1291756.

Morales-Alonso, G., Núñez, G., Yilsy, A., Juan, F. & Rodríguez-Monroy, C. 2020. Entrepreneurial aspirations: Economic development, inequalities and cultural values. *European Journal of Innovation Management*, 24(2):553–571. doi: 10.1108/EJIM-07-2019-0206.

Mouton, J. 2005. *How to succeed in your master's and doctoral studies: A South African guide and resource handbook*. Pretoria: Van Schaik.

Mrożewski, M. & Kratzer, J. 2017. Entrepreneurship and country-level innovation: Investigating the role of entrepreneurial opportunities. *Journal of Technology Transfer*, 42(5):1125–1142. doi: 10.1007/s10961-016-9479-2.

Mueller, P. 2007. Exploiting entrepreneurial opportunities: The impact of entrepreneurship on growth. *Small Business Economics*, 28(4):355–362.

Muller, H., Mekgwe, P. & Marvellous, M. 2013. *Values and development in Southern Africa.* Council for the Development of Social Science Research in Africa. Available at: https://publication.codesria.org/index.php/pub/catalog/download/76/495/1157?inline=1 [Accessed on 4 May 2022].

Murad, M.S. & Alshyab, N. 2019. Political instability and its impact on economic growth: The case of Jordan. *International Journal of Development Issues*, 18(3):366–38. doi: 10.1108/IJDI-02-2019-0036.

Mussina, K.P. & Bachisse, M. 2018. Canonical correlation analysis between business sophistication and macroeconomic environment: A secondary study of countries global competitiveness. *Espacios*, 38(18):1–10.

Mutize, M., Tefera, E. & Nkhalamba, M. 2020. The development of financial markets in Africa: Trends, challenges and prospects. *Journal of Economics and Behavioral Studies*, 12(1):46–54.

Nafziger, W. 2015. *Economic development*. Fifth edition. England: Cambridge University Press.

Nasiri, N. & Hamelin, N. 2018. Entrepreneurship driven by opportunity and necessity: Effects of education, gender and occupation in Mena. *Asian Journal of Business Research*, 8(2):57–71. doi: 10.14707/ajbr.180049.

Naudé, W. 2013. *Entrepreneurship and economic development: Theory, evidence and policy*. Discussion paper no. 7507. IZA. Available at: http://ftp.iza.org/dp7507.pdf [Accessed on 14 June 2022].

Naudé, W. 2018. *Entrepreneurship and economic development: Theory, evidence and policy*. Discussion paper no. 7507. Available at: https://ftp.iza.org/dp7507.pdf [Accessed on 4 May 2022].

Naudé, W. 2019. *The decline in entrepreneurship in the West: Is complexity ossifying the economy?* Discussion paper no. 12602. IZA. Available at: https://www.iza.org/publications/dp/12602/the-decline-in-entrepreneurship-in-the-west-is-complexity-ossifying-the-economy [Accessed on 4 April 2022].

Ndofirepi, T.M., Rambe, P. & Dzansi, D.Y. 2018. The relationship among technological creativity, self-efficacy and entrepreneurial intentions of selected South African university of technology students. *Acta Commercii*, 18(1):a544. doi: 10.4102/ac.v18i1.544.

Newlyn, D. 2015. Are professors professionals? A fresh look at this question. *Universal Journal of Educational Research*, 3(2):113–119. doi: 10.13189/ujer.2015.030207

Nicolaides, A. 2014. Research and innovation – the drivers of economic development. *African Journal of Hospitality, Tourism and Leisure*, 3(2):1–16.

Nieuwenhuis, J. 2007. Introducing qualitative research. In K. Maree (ed.). *First steps in research*. Pretoria: Van Schaik, 47–52.

Nițu, R.D., Feder, E.S. & Munteanu, V.P. 2017. Macroeconomic effects of entrepreneurship from an international perspective. *Sustainability*, 9(7):11–59.

Nkurunziza, D. 2016. Entrepreneurship and income level in developing countries. United Nations Conference on Trade and Development (UNCTAD). doi: 10.4324/9781315562179.

Noseleit, F. 2012. Entrepreneurship, structural change, and economic growth. *Journal of Evolutionary Economics*, 23(4):735–766.

Nunnally, J.C. & Bernstein, I.R. 1994. *Psychometric theory*. Third edition. New York, NY: McGraw-Hill.

Nuru-River, A. 2016. *Inequality in the SDGs: Fighting multidimensional inequality in the Arab region*. Economic and Social Commission for Western Asia. Available at: https://yptoolbox.unescapsdd.org/wp-content/uploads/2017/08/ESCWA_Policy-Brief-no.-6-Inequality-in-the-SDGs-Fighting-Multidimensional-Inequality-in-the-Arab-Region.pdf [Accessed on 12 February 2022].

Obaji, N. & Olugu, M. 2014. The role of government policy in entrepreneurship development. *Science Journal of Business and Management*, 2(4):109–115.

Obokoh, L.O. & Goldman, G. 2016. Infrastructure deficiency and the performance of small- and medium-sized enterprises in Nigeria's liberalised economy. *Acta Commercii*, 16(1):339–348.

OECD (Organisation for Economic Co-operation and Development). 2017a. *Entrepreneurship and industrialisation: African economic outlook.* Available at: https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/AEO_2017_Report_Full_English.pdf [Accessed on 4 May 2022].

OECD (Organisation for Economic Co-operation and Development). 2017b. *OECD economic surveys: South Africa*. Available at: www.oecd.org/eco/surveys/economic-survey southafrica.htm [Accessed on 11 February 2022].

OECD (Organisation for Economic Co-operation and Development). 2019. *The economy of well-being: Creating opportunities for people's well-being and economic growth*. Available at: https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=SDD/DOC(2019)2&docLanguage=En [Accessed on 13 June 2022].

Ogbo, A. & Nwachukwu, A. 2015. The role of entrepreneurship in economic development. *Global Entrepreneurship and Development Index 2013*, July:53–71.

Ogunlana, F. 2018. *The role of entrepreneurship as the driver of economic growth*. Centria University of Applied Sciences. Available at: https://www.theseus.fi/bitstream/handle/10024/144309/Ogunlana%20_Folarin.pdf?sequence=1&isAllowed=y [Accessed on 4 May 2022].

Okoye, I.B. 2018. *Complex simulation of entrepreneurial opportunity emergence: The case of Nigerian entrepreneurship*. PhD thesis, Cardiff Metropolitan University. Available at: https://repository.cardiffmet.ac.uk/handle/10369/9568 [Accessed on 4 May 2022].

Okoye, P., Ogunoh, P. & Mbakwe, C. 2016. Comparative analysis of pre and post re-basing economic performance of Nigeria construction sector for economic development. *Universal Journal of Computational Mathematics*, 4(4):51–60. doi: 10.13189/ujcmj.2016.040401.

Okun, A.M. 1962. Potential GNP: Its measurement and significance. In *Proceedings of the Business and Economic Statistics Section of the American Statistical Association*. Alexandria, VA: American Statistical Association, 89–104.

Omar, A., Ali, F. & Imhamed, S. 2020. Exploring entrepreneurial framework conditions in Libya: A national experts' perspective. *Journal of Entrepreneurship, Business and Economics*, 8(1):15–53.

Omoniyi, M.B.I. 2013. The role of education in poverty alleviation and economic development: A theoretical perspective and counselling implications. *British Journal of Arts and Social Sciences*, 5(23):868–872. doi: 10.5901/mjss.2014.v5n23p868.

Omoruyi, E.M., Olamide, K.S., Gomolemo, G. & Donath, O.A. 2017. Entrepreneurship and economic growth: Does entrepreneurship bolster economic expansion in Africa? *Journal of Socialomics*, 6(4):1–11. doi: 10.4172/2167-0358.1000219.

Onwuegbuzie, A.J. & Combs, J.P. 2011. Data analysis in mixed research: A primer. *International Journal of Education*, 3(1):1–25. doi: 10.5296/ije.v3i1.618.

Ordeñana, X., Vera, P., Zambrano, J. & Amaya, A. 2018. *Revisiting entrepreneurship: The contribution of dynamic entrepreneurial activity to economic growth*. Paper presented at the 53 CLADEA Annual Assembly, Costa Rica. Available at: https://www.espae.edu.ec/publicaciones/revisiting-entrepreneurship-the-contribution-of-dynamic-entrepreneurial-activity-to-economic-growth/ [Accessed on 4 May 2022].

Owusu-Ansah, F.E. & Gubela, M. 2013. African indigenous knowledge and research. *African Journal of Disability*, 2(1):1–5. doi: 10.4102/ajod. v2i1.30.

Oxfam. 2012. *Inequality in South Africa: A two part document on the current understanding and dimensions of inequality in health, gender and livelihoods*. Available at: http://oxfamilibrary.openrepository.com/oxfam/bitstream/10546/322516/1/rr-inequality-south-africa- 010714-en.pdf [Accessed on 12 February 2022].

Pabón, F.A., Leibbrandt, M., Ranchhod, V. & Savage, M. 2020. Piketty comes to South Africa. *British Journal of Sociology*, 72(1):106–124. doi: 10.1111/1468-4446.12808.

Pahn, P., Venkataraman, S. & Velamuri, S. 2008. *Entrepreneurship in emerging regions around the world: Theory, evidence and implications*. Edward Elgar. Available at: http://www.untag smd.ac.id/files/Perpustakaan_Digital_1/ENTREPRENEURSHIP%20Entrepreneurship%20in%20emerging%20regions%20around%20the%20world%20%20theory,%20evidence,.pdf [Accessed on 12 February 2022].

Pallant, J. 2013. *SPSS survival manual.* Fifth edition. London: Open University Press.

Paraušić, V., Domazet, I. & Simeunović, I. 2017. Analysis of the relationship between the stage of economic development and the state of cluster development. *Argumenta Oeconomica*, 39(2):279–306. doi: 10.15611/aoe.2017.2.12.

Parker, C. 2018. *The economics of entrepreneurship*. Fifth edition. England: Cambridge University Press.

Pasara, M.T. & Garidzirai, R. 2020. Causality effects among gross capital formation, unemployment and economic growth in South Africa. *Economies*, 8(2):1–12.

Pavel, A. & Moldovan, O. 2019. Determining local economic development in the rural areas of Romania: Exploring the role of exogenous factors. *Sustainability*, 11(2): 2-24.

Peach, J. 2018. Habits of thought and the process of economic development: Remarks on receiving the Veblen-Commons Award. *Journal of Economic*, 52(2):293–305.

Peral, S.L. 2016. *Exploring the effects of job crafting on subjective well-being amongst South African high school teachers*. MA dissertation, University of Johannesburg. Available at: https://ujcontent.uj.ac.za/vital/access/services/Download/uj:19071/SOURCE1?view=true [Accessed on 16 April 2022].

Petkovska, T., Mirchevska, T. & Angelova, B. 2017. Digital economy, entrepreneurship and the concept of open innovation. *Journal of Sustainable Development*, 7(18):83–95.

Pilkova, A. & Kovacicova, Z. 2015. Specifics of the entrepreneurial activities of Slovaks: Evidences based on GEM research. *Procedia Economics and Finance*, 34(15):368–375. doi: 10.1016/s2212-5671(15)01642-1.

Pittman, R. & Phillips, R. 2014. *Introduction to community development*. London: Routledge.

Pokhrel, S. & Chhetri, R. 2021. A literature review on impact of COVID-19 pandemic on teaching and learning. *Higher Education for the Future*, 8(1):133–141. doi: 10.1177/2347631120983481.

Pope, J.F. 2010. *The effects of early intervention on the cognitive and social development of kindergarteners*. Degree thesis/dissertation, The University of Southern Mississippi.

Available at: https://aquila.usm.edu/cgi/viewcontent.cgi?article=1650&context=dissertations [Accessed on 14 April 2022].

Pradhan, R.P., Arvin, M.B., Nair, M. & Bennett, S.E. 2020. The dynamics among entrepreneurship, innovation, and economic growth in the eurozone countries. *Journal of Policy Modeling*. doi: 10.1016/j.jpolmod.2020.01.004.

PwC. 2015. *Working together, moving forward: Emerging companies and the ecosystem*. Available at: https://www.pwc.co.za/en/assets/pdf/emerging-companies-and-the-ecosystem.pdf [Accessed on 4 April 2022].

Qudah, M. 2018. The impact of entrepreneurship initiatives in enhancing creativity and innovation. *International Journal of Business and Management*, 13(7):157–168. doi: 10.5539/ijbm.v13n7p157.

Quintero, A., Andrade, J. & Ramírez, E. 2019. Entrepreneurship as an area of knowledge: Literature review. *European Research Studies Journal*, XXII(2):100–124. doi: 10.35808/ersj/1428.

Rahman, S. 2016. The advantages and disadvantages of using qualitative and quantitative approaches and methods in language "testing and assessment" research: A literature review. *Journal of Education and Learning*, 6(1):102–112. doi: 10.5539/jel.v6n1p102.

Rai, J. 2019. Understanding poverty-environment relationship from sustainable development perspectives. *Journal of Geography, Environment and Earth Science International*, 19(1):1–19. doi: 10.9734/jgeesi/2019/v19i130077.

Razavi, S.M., Abdollahi, B., Ghasemi, R. & Shafie, H. 2012. Relationship between "innovation" and "business sophistication": A secondary analysis of countries global competitiveness. *European Journal of Scientific Research*, 79(1):29–39.

Reddy, C.D. 2012. *Entrepreneurship, institutions and economic development: A configurational approach*. PhD thesis, Graduate School of Business, University of Cape Town. Available at: https://open.uct.ac.za/bitstream/handle/11427/11095/thesis_com_2012_reddy_d.pdf?sequence=1&isAllowed=y [Accessed on 20 April 2022].

Remler, D.K. & Van Ryzin, G.G. 2011. *Research methods in practice: Strategies for description and causation.* Seventh edition. London, CA: Sage.

Remund, M.C., Peris-Ortiz, M. & Gehrke, H.J. 2017. The Vitruvian Man of Leonardo da Vinci as a model of innovative entrepreneurship at the intersection of business, art and

technology. *Journal of Innovation and Entrepreneurship*, 6(1):1–18. doi: 10.1186/s13731-017-0077-9.

Ridley, D. 2018. Entrepreneurial economics: Revising the Econ 101. *International Journal of Economics, Business and Management Research*, 2(5):183–203.

Rostami, N., Khyareh, M. & Mazhari, R. 2019. Competitiveness, entrepreneurship, and economic performance: Evidence from factor-, efficiency-, and innovation-driven countries. *Economic Annals*, 64(221):33–64. doi: 10.2298/EKA1921033R.

Rostow, W.W. 1960. *The stages of economic growth: A non-communist manifesto*. England: Cambridge University Press.

RSA (Republic of South Africa). 2003. The Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003). *Government Gazette*, 463(25899). Pretoria: Government Printer.

Sahin, S., Ülengin, F., Gündüz, U., Emel, A., Kabak, O. & Topcu, D. 2006. *A new perspective in competitiveness of nations.* Available at: https://ref.sabanciuniv.edu/sites/ref.sabanciuniv.edu/files/2021-05/anewperspective1_0.pdf [Accessed on 12 February 2022].

Salamzadeh, A. 2015. New venture creation: Controversial perspectives and theories. *Economic Analysis*, 48(3/4):101–109.

Salamzadeh, A. & Kawamorita Kesim, H. 2017. The enterprising communities and start-up ecosystem in Iran. *Journal of Enterprising Communities*, 11(4):456–479.

Sanchez, M., Ochoa, S., Toledo, E. & Ordóñez, J. 2020. The relevance of Index of Sustainable Economic Wellbeing: Case study of Ecuador. *Environmental and Sustainability Indicators*, 6:1–11. doi: 10.1016/j.indic.2020.100037.

Sauka, A. 2017. *Productive, unproductive and destructive entrepreneurship: A theoretical and empirical exploration*. Peter Lang. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1147811 [Accessed on 4 May 2022].

Saunders, M., Lewis, P. & Thornhill, A. 2016. *Research methods for business students*. Seventh edition. London: Pearson Education.

Sautet, F. 2013. Local and systemic entrepreneurship: Solving the puzzle of entrepreneurship and economic development. *Entrepreneurship Theory and Policy*, 387–407.

Say, J.B. 1828. *Cours Complet d'Economie Politique Practique*, Paris SBA: See Small Business Administration.

Schiliro, D. 2018. A glance at Solow's growth theory. *Journal of Mathematical Economics and Finance*, 2(5):83–103. doi: 10.14505/jmef.v3.2 (5).04.

Schober, P. & Boer, C. 2018. Correlation coefficients: Appropriate use and interpretation. *Anesthesia and Analgesia*, 126(5):1763–1768. doi: 10.1213/ANE.0000000000002864.

Schoonenboom, J. & Johnson, R.B. 2017. How to construct a mixed methods research design. *Köln Z Soziol*, 69(2):107–131. doi: 10.1007/s11577-017-0454-1.

Schram, T.N. 2003. *Conceptualising qualitative inquiry: Mind work, for field work in education and the social sciences.* Upper Saddle River, NJ: Merrill Prentice Hall.

Schumpeter, J.A. 1911. *The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle*. Transaction Books.

Schumpeter, J.A. 1934. *The theory of economic development*. Cambridge, MA: Harvard University Press.

Schumpeter, J.A. 1939. *Business cycles: A theoretical, historical and statistical analysis of the capitalist process* (2 vols). New York, NY: McGraw-Hill.

Schumpeter, J.A. 1942. *Capitalism, socialism and democracy.* Cambridge, MA: Harvard University Press.

Schwab, K. 2013. *The global competitiveness report (2012–2013).* World Economic Forum. Available at: https://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2012-13.pdf [Accessed on 12 February 2022].

Schwab, K. 2018. *The global competitiveness report (2018)*. World Economic Forum. Available at: https://www3.weforum.org/docs/GCR2018/05FullReport/TheGlobalCompetitivenessReport2018.pdf [Accessed on 12 February 2022].

Sekaran, U. & Bougie, R. 2012. *Research methods for business: Skill building approach*. Fifth edition. New York, NY: Wiley.

Serefoglu, C. 2016. Weakness and limitations of Lewis Model. *Akademik Bakış Uluslararası Hakemli Sosyal Bilimler Dergisi*, 56:175–182.

Shane, S. 2009. Why encouraging more people to become entrepreneurs is bad public policy. *Small Business Economics*, (33):141–149.

Shava, E. & Maramura, T. 2017. National development plan as an entrepreneurial mechanism for rural economic development in South Africa. *Journal of Economics and Behavioral Studies*, 9(2):234–242.

Sheriff, M., Muffatto, M. & Cooper, S. 2016. Measuring entrepreneurship environments in Africa: Challenges in using international reports. *International Journal of Entrepreneurship and Innovation Management*, 20(1/2):20–44.

SIDA (Swedish International Development Cooperation Agency). 2017. *Dimensions of poverty: SIDA's conceptual framework.* Available at: https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2021/07/Sida-multidimensional-poverty.pdf [Accessed on 12 February 2022].

Signore, M. & Fazio, D. 2014. A European framework for measuring progress: Fostering the understanding of individual and societal well-being and sustainability. *Sustainability Accounting, Management and Policy Journal*, 5(3):313–324. doi: 10.1108/SAMPJ-11-2013-0046.

Sira, E., Vavrek, R., Vozárová, I.K. & Kotulič, R. 2020. Knowledge economy indicators and their impact on the sustainable competitiveness of the EU countries. *Sustainability*, 12(10):1–22. doi: 10.3390/su12104172.

Skinner, G. 2011. *The Neoclassical counterrevolution and developing economies: A case study of political and economic changes in the Philippines*. Western Connecticut State University. Available at: https://westcollections.wcsu.edu/bitstream/handle/20.500.12945/2271/2007_skinner.pdf?sequence=3&isAllowed=y [Accessed on 4 April 2022].

Smith, A. 1776. *Inquiry into the nature and causes of the Wealth of Nations*. Amazon-Kindle.

Solow, R.M. 1956. A contribution to the theory of economic growth. *Quart. J. Econ*, 70(1):65–94.

Sowole, O.E., Hogue, M.E. & Adeyeye, O.P. 2018. Entrepreneurship: Psychological factors influencing youth's desire for self-sustenance in Mpumalanga. *Academy of Entrepreneurship Journal*, 24(2):1–17.

Stam, E. & Van Stel, A. 2009. *Types of entrepreneurship and economic growth*. Research paper no. 2009/49. World Institute for Development Economics Research. Available at: https://www.academia.edu/16649389/Types_of_Entrepreneurship_and_Economic_Growth [Accessed on 5 May 2022].

Stangler, D. & Spulber, D. 2013. *The age of the entrepreneur: Demographics and entrepreneurship.* Paper presented at IIIJ Innovation and Communication. Available at: https://i4j.info/wp-

content/uploads/2013/05/i4jDaneStanglerDemographicsandEntrepreneurship-1.pdf [Accessed on 4 April 2022].

Stephens, H.M. & Partridge, M.D. 2011. Do entrepreneurs enhance economic growth in lagging regions? *Growth and Change*, 42(4):431–465.

Stevens, J.P. 2002. *Applied multivariate statistics for the social sciences*. Fourth edition. Hillsdale, NJ: Erlbaum.

Stock, W.A. & Siegfried, J.J. 2014. Fifteen years of research on graduate education in economics: What have we learned? *Journal of Economic Education*, 45(4):287–303. doi: 10.1080/00220485.2014.942410.

Stoica, O., Roman, A. & Rusu, D. 2020. The nexus between entrepreneurship and economic growth: A comparative analysis on groups of countries. *Sustainability*, 12(3):1–19. doi: 10.3390/su12031186.

Suddaby, R., Bruton, G.D. & Si, S.X. 2015. Entrepreneurship through a qualitative lens: Insights on the construction and/or discovery of entrepreneurial opportunity. *Journal of Business Venturing*, 30(1):1–10. doi: 10.1016/j.jbusvent.2014.09.003.

Sürücü, L. & Maslakçı, A. 2020. Validity and reliability in quantitative research. *Business & Management Studies: An International Journal*, 8(3):2694–2726. doi: 10.15295/bmij.v8i3.1540.

Sutanapong, C. & Louangrath, P. 2015. Descriptive and inferential statistics. *International Journal of Research & Methodology in Social Science*, 1(1):22–35.

Sutter, C., Bruton, G.D. & Chen, J. 2019. Entrepreneurship as a solution to extreme poverty: A review and future research directions. *Journal of Business Venturing*, 34(1):197–214. doi: 10.1016/j.jbusvent.2018.06.003.

Svalastog, A.L., Donev, D., Kristoffersen, N.J. & Gajović, S. 2017. Concepts and definitions of health and health-related values in the knowledge landscapes of the digital society. *Croatian Medical Journal*, 58(6):431–435. doi: 10.3325/cmj.2017.58.431.

Szaban, J. & Skrzek-Lubasińska, M. 2018. Self-employment and entrepreneurship: A theoretical approach. *Journal of Management and Business Administration*, 26(2):89–120.

Tabachnick, B.G. & Fidell, L.S. 2007. *Using multivariate statistics*. London: Pearson Education.

Taherdoost, H. 2016. Validity and reliability of the research instrument: How to test the validation of a questionnaire/survey in a research. *International Journal of Academic Research in Management*, 5(3):28–36. doi: 10.2139/ssrn.3205040.

Tasnim, N. & Afzal, M.N.I. 2018. An empirical investigation of country level efficiency and national systems of entrepreneurship using data envelopment analysis (DEA) and the TOBIT model. *Journal of Global Entrepreneurship Research*, 8(1):2-17.

Taylor, J. & Lybbert, T. 2015. *Essentials of development economics*. Second edition. Berkeley: University of California Press.

Taylor, P.C. & Medina, M.N.D. 2013. Educational research paradigms: From positivism to multi-paradigmatic. *The Journal of Meaning-Centred Education*, 1(2):1-16.

Terraneo, M. 2017. Material deprivation, health and well-being in old age: A comparative analysis of 14 European countries. In R. White (ed.). *Measuring multidimensional poverty and deprivation: Incidence and determinants in developed countries*. Palgrave Macmillan, 113–138. Available at: https://link.springer.com/chapter/10.1007/978-3-319-58368-6_6 [Accessed on 5 May 2022].

Theofanidis, D. & Fountouki, A. 2019. Limitations and delimitations in the research process. *Perioperative Nursing (GORNA)*, 7(3):155–162. doi: 10.5281/zenodo.2552022

The Real Economy Bulletin. 2016. The real economy bulletin- trends, developments and data. Available at: https://www.tips.org.za/images/The_REB_Provincial_Review_2016_Gauteng.pdf [Accessed on 12 February 2022].

The World Bank. 2016. *World Development Report: Jobs*. doi: 10.1596/978-0-8213-9575-2

The World Bank. 2018a. *An incomplete transition: Overcoming the legacy of exclusion in South Africa*. Available at: https://openknowledge.worldbank.org/bitstream/handle/10986/30017/127304-Education-in-SouthAfrica.pdf?sequence=1&isAllowed=y%0Ahttp://documents.worldbank.org/curated/en/661661529320791504/pdf/127303-Wage-Setting-and-Labor-Regulatory-Challenges-in-a-Middle [Accessed on 4 April 2022].

The World Bank. 2018b. *South Africa Poverty and Inequality Assessment 2018. Overcoming poverty and inequality in South Africa: Drivers, constraints and opportunities.* doi: 10.1596/25971.

The World Bank. 2019. *Doing business 2019: Training for reform.* Available at: https://www.worldbank.org/content/dam/doingBusiness/media/Annual Reports/English/DB2019-report_web-version.pdf [Accessed on 4 April 2022].

The World Bank. 2020. *World Development Indicators*. Available at: https://databank.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/1ff4a498/Popular-Indicators [Accessed on 12 October 2020].

Thomas, S., Bose, A. & Aswathi, T. 2019. Happiness, meaning, and satisfaction in life as perceived by Indian university students and their association with spirituality. *Journal of Religion and Health*, 59(5):2469–2485. doi: 10.1007/s10943-019-00806-w.

Thurik, A., Stam, E. & Audretsch, D. 2013. The rise of the entrepreneurial economy and the future of dynamic capitalism. *Technovation*, 33(8/9):302–310. doi: 10.1016/j.technovation.2013.07.003.

Thurik, R., Wennekers, S. & Uhlaner, L.M. 2002. Entrepreneurship and economic performance: A macro perspective. *International Journal of Entrepreneurship Education*, 1(2):157–179.

Todaro, S. & Smith, S. 2015. *Economic development*. Twelfth edition. New York, NY: Pearson Prentice Hall.

Toma, S.G., Grigore, A.M. & Marinescu, P. 2014. Economic development and entrepreneurship. *Procedia Economics and Finance*, 8(14):436–443.

Toscher, B. & Bjorno, A. 2019. Music students' definitions, evaluations, and rationalizations of entrepreneurship. *The Journal of Arts Management, Law, and Society*, 49(6):389–412. doi: 10.1080/10632921.2019.1646178.

Townsend, D.M., Hunt, R.A., McMullen, J.S. & Sarasvathy, S.D. 2018. Uncertainty, knowledge problems, and entrepreneurial action. *Academy of Management Annals*, 12(2):659–687.

Trapeznikova, I. 2019. *Measuring income inequality*. IZA World of Labor. doi: 10.15185/izawol.462.

Treiman, D.J. 2014. *Quantitative data analysis: Doing social research to test ideas*. Fourth edition. London: Wiley.

Trinh, T.H. 2014. Value concept and economic growth model. *Journal of Economic & Financial Studies*, 2(6):62–71. doi: 10.18533/jefs.v2i04.97.

Tsaliki, P.V. 2006. Marx on entrepreneurship: A note. *International Review of Economics*, 53(4):592–602. doi: 10.1007/BF03029765.

Ujjwala, B. & Mridula, G. 2017. Understanding innovation by analysing the pillars of global competitiveness. *International Journal of Law and Political Sciences*, 11(8):2111–2119.

Ulman, S. 2013. Corruption and national competitiveness in different stages of country development. *Procedia Economics and Finance*, 6(13):150–160. doi: 10.1016/s2212-5671(13)00127-5.

Umaru, I.G. & Tende, S.B.A. 2013. Can management technology reduce poverty? Some evidences from Nasarawa State, Nigeria. *African Journal of Business Management*, 7(17):1583–1593.

UN (United Nations). 2015. *The Millennium Development Goals report*. doi: 978-92-1-101320-7.

UNCTAD (United Nations Conference on Trade and Development). 2012. *Entrepreneurship policy framework and implementation guidance*. Available at: https://unctad.org/system/files/official-document/diaeed2012d1_en.pdf [Accessed on 4 April 2022].

UNCTAD (United Nations Conference on Trade and Development). 2017. *Promoting entrepreneurship for sustainable development: a selection of business cases from the Empretec network.* Available at: https://unctad.org/system/files/official-document/diaeed2017d6_en.pdf [Accessed on 4 April 2022].

UNDP (United Nations Development Programme). 2016. *Human Development Report.* Available at: https://hdr.undp.org/sites/default/files/2016_human_development_report.pdf [Accessed on 5 May 2022].

Uslu, D. & Kedikli, E. 2019. The importance of entrepreneurship and innovation management in terms of modern businesses. *International Journal of Academic Value Studies*, 5(1):1–11.

Valliere, D. & Peterson, R. 2009. Entrepreneurship and economic growth: Evidence from emerging and developed countries. *Entrepreneurship and Regional Development*, 21(5/6):459–480. doi: 10.1080/08985620802332723.

Van der Zwan, P., Thurik, R., Verheul, I. & Hessels, J. 2016. Factors influencing the entrepreneurial engagement of opportunity and necessity entrepreneurs. *Eurasian Business Review*, 6(3):273–295. doi: 10.1007/s40821-016-0065-1.

Van Niekerk, A. 2017. *Towards inclusive growth in Africa*. Available at: https://www.tandfonline.com/doi/full/10.1080/0376835X.2020.1736004?scroll=top&needAccess=true [Accessed on 20 April 2022].

Van Vuuren, J. & Alemayehu, B.Z. 2018. The role of entrepreneurship in transforming efficiency economies into innovation-based economies. *Southern African Journal of*

Entrepreneurship and Small Business Management, 10(1):1–12. doi: 10.4102/sajesbm.v10i1.140.

Van Wyk, D. & Dippenaar, M. 2017. A critical analysis of the meaning of the term 'income' in Sections 7(2) to 7(8) of the Income Tax Act No. 58 of 1962. *South African Journal of Economic and Management Sciences*, 20(1):a1560. doi: 10.4102/sajems. v20i1.1560

Van Zyl, A., Amadi-Echendu, J. & Bothma, T.J.D. 2007. Nine drivers of knowledge transfer between universities and industry R&D partners in South Africa. *South African Journal of Information Management*, 9(1):1–30. doi: 10.4102/sajim.v9i1.18.

Van Zyl, L.E. 2013. *Research methodology for the economic and management sciences*. Upper Saddle River, NJ: Pearson Education International.

Vesal, S.M., Nazari, M., Hosseinzadeh, M., Shamsoddsini, R. & Nawaser, K. 2013. The relationship between "labor market efficiency" and "business sophistication" in global competitiveness. *International Journal of Business and Management*, 8(13):83–92.

Vesković, N. 2014. *Aspects of entrepreneurial risk*. Paper presented at Singidunum University International Scientific Conference Finiz. doi: 10.15308/finiz-2014-115-117.

Victor, B. & Cullen, J.B. 1988. The organisational bases of ethical work climates. *Administrative Sciences Quarterly*, 33(1):101–125.

Villar, A. 2017. Inequality of opportunity. *Lecture Notes in Economics and Mathematical Systems*, 685:73–92. doi: 10.1007/978-3-319-45562-4_5.

Wegner, T. 2007. *Applied business statistics: Methods and Excel-based applications*. Second edition. Cape Town: Juta.

Were, M. 2015. Differential effects of trade on economic growth and investment: A cross-country empirical investigation. *Journal of Africa Trade*, 2:71–85. doi: 10.1016/j.joat.2015.08.002.

Williams, C.C. & Youssef, Y.A. 2014. Is informal sector entrepreneurship necessity- or opportunity-driven? Some lessons from urban Brazil. *Global Business and Management Research: An International Journal*, 3(1):41–53. doi: 10.5430/bmr.v3n1p41.

Willis, J.W. 2007. *Foundations of qualitative research: Interpretive and critical approaches*. Thousand Oaks, CA: Sage.

Yang, Y. & Greaney, T.M. 2017. Economic growth and income inequality in the Asia-Pacific region: A comparative study of China, Japan, South Korea, and the United States. *Journal of Asian Economics*, 48:6–22. doi: 10.1016/j.asieco.2016.10.008.

Yasir, M., Majid, A. & Yasir, M. 2017. Entrepreneurial knowledge and start-up behavior in a turbulent environment. *Journal of Management Development*, 36(9):1149–1159.

Zakaria, N. & Kaushal, L. 2018. *Global entrepreneurship and new venture creation in the sharing economy*. Advances in Business Strategy and Competitive Advantage (ABSCA) book series. doi: 10.4018/978-1-5225-2835-7.ch009.

Zaki, I.M. & Rashid, N.H. 2016. Entrepreneurship impact on economic growth in emerging countries. *The Business & Management Review*, 7(2):31–39.

Zamawe, F.C. 2015. The implication of using NVivo software in qualitative data analysis: Evidence-based reflections. *Malawi Medical Journal*, 27(1):13–15. doi: 10.4314/mmj.v27i1.4.

Zhang, H. & Xu, S. 2017. The innovation-driven impact on economic structure transition. The case of China. *International Journal of Management and Economics*, 53(4):9–26. doi: 10.1515/ijme-2017-0023.

Zsuzsanna, S. & Herman, E. 2012. Innovative entrepreneurship for economic development in EU. *Procedia Economics and Finance*, 3(12):268–275. doi: 10.1016/s2212-5671(12)00151-7.

APPENDIX 1:

RESEARCH INSTRUMENT (QUESTIONNAIRE)

CONSENT TO PARTICIPATE IN THE STUDY

Applied Management Department

Title of the Study: The Correlation Between Entrepreneurship and Economic Development: Towards a Framework for Optimising its Contribution to the Economic Development of South Africa.

Research conducted by: Mr Samuel John Chiromo

Dear Prospective Respondent/Participant,

You are hereby invited to participate in a survey conducted by Samuel John Chiromo as part of his Doctor of Philosophy (PhD) in Management Studies at the University of South Africa, under the supervision of Professor G. V. Nani.

The questionnaire you have received aims to investigate the relationship between entrepreneurship and economic development in South Africa, with an intention of developing a framework for optimising the contribution of entrepreneurship to the economic development of the country. You were selected to participate in this survey because you form part of the experts identified by the study who can provide useful information on the relationship between entrepreneurship and economic development from a South African context.

By completing this questionnaire, you agree that the information you provide may be used for research purposes, including dissemination through peer-reviewed publications and conference proceedings. It is anticipated that the information obtained from this questionnaire will help the researcher to better understand the significant relationship between entrepreneurship and economic development specifically from a South African context. You are, however, under no obligation to complete the questionnaire and you can withdraw from the study prior to submitting the questionnaire without any penalty. The questionnaire has been designed to be anonymous, which means that there is no way of connecting the information that you provide to you personally.

If you choose to participate in this survey, it will take no more than 30 minutes of your time. You will not be reimbursed or receive any incentives for your participation in the survey. You will not benefit from your participation as an individual, but it is envisaged that the findings of

this study will contribute towards the body of knowledge on the relationship between entrepreneurship and economic development as the current relationship is fragmented.

The researcher undertakes to keep any information provided herein confidential, and to report on the findings from the perspective of the participating group, and not from the perspective of an individual.

The records will be kept for five years for audit purposes, after which time they will be permanently destroyed. Hard copies will be shredded, and electronic versions will be permanently deleted from the hard drive of the device on which the information is stored.

The primary researcher, Samuel Chiromo, can be contacted during office hours on 0798790265/012 429 6196 or at echirosj@unisa.ac.za. The study leader, Professor G. V. Nani, can be contacted at gweni.nani@gmail.com . Should you have any concerns about the way in which the research has been conducted, you may contact Professor G. V. Nani at the e-mail address provided.

Thank you for taking time to read this information sheet and for participating in this study.

INSTRUCTIONS

1. Please do not write your name on the questionnaire.

2. Please respond by ticking [✓] the appropriate box (es) where applicable and write in full in the spaces provided where specified.

SECTION 1: Biographic data.

Please tick the appropriate box.

1.1. Please indicate your gender

Male	1	Female	2

1.2. Please indicate your age group.

Below 30 years	1	30-40 years	2	41-50 years	3	Above 50 years	4

1.3. Please indicate your highest level of education.

PhD/Doctoral Degree	1	Master's degree	2	Honours /BTEC Degree	3	Undergraduate Degree	4
Diploma	5	No formal education	6	Other (specify)	7		

1.4. If you are an academic, please indicate the university that you are currently affiliated to.

Tshwane University of Technology	1	University of Johannesburg	2	University of South Africa	3
University of Pretoria	4	University of Witwatersrand	5	Vaal University of Technology	6
Other (please, specify)	7				

1.5. If you are an academic, please indicate your department.

Economics	1	Accounting	2	Finance	3	Management	4
Engineering	5	Information technology	6	Humanities	7	Education	8
Law	9	Agriculture	10	Health Science	11	Research Office	12
Other (specify)			13				

1.6. Please indicate the sector within which your company or institution falls.

Academic	1	Construction	2	Manufacturing	3	Mining	4
Services	5	Agriculture	6	Wholesale and retail	7	Other (specify)	8

1.7. Please indicate your current position.

Dean	1	Head of Department	2	Full Professor	3	Associate Professor	4
Senior Lecturer	5	Senior Researcher	6	Lecturer	7	Researcher	8
Chief Executive Officer (CEO)	9	Director	10	Manager	11	Other (specify	12

1.8. Please indicate your experience (academic, professional or working experience).

Academic (1-5 years)	1	Academic (6-10 years)	2	Academic (more than 10 years)	3	Industry (1-5 years)	4
Industry (6-10 years)	5	Industry (more than 10 years)	6	Both academic and industry (1-5 years)	7	Both academic and industry (6-10 years)	8
Both academic and industry (more than 10 years)	9	Both academic and professional(1-5years)	10	Both academic and professional(6-10years)	11	Both academic and professional (more than 10years)	12

SECTION 2: The nature of entrepreneurship that significantly contributes to the economic development of South Africa.

This section uses a scale of 1 – 5, where 1- Strongly Disagree (SD), 2- Disagree (D), 3- Neutral (N), 4- Agree (A), and 5-Strongly Agree (SA).

Please indicate to what extent you agree or disagree with the statements in the table below.

In order for entrepreneurship to meaningfully contribute to the economic development of South Africa, businesses should only be created when:

Variable no.	Statements *(Please place a [✓] in the appropriate box and choose only one answer.)*	1 Strongly Disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree(A)	5 Strongly Agree (SA)
Opportunity entrepreneurship						
1	There is an entrepreneurial opportunity.	1	2	3	4	5
2	There is a profit motive.	1	2	3	4	5
3	There is a demand for products.	1	2	3	4	5
4	There is a demand for services.	1	2	3	4	5
5	There is a discovery of a better production method by the entrepreneur.	1	2	3	4	5
6	There is increased entrepreneurial skills of the entrepreneur.	1	2	3	4	5
7	There is increased entrepreneurial abilities of the entrepreneur.	1	2	3	4	5
8	There is availability of capital.	1	2	3	4	5
9	An individual voluntarily leaves his or her paid job to start a business.	1	2	3	4	5
10	An individual develops an interest to establish a new venture because he received training in running a business.	1	2	3	4	5
11	An individual develops an interest to establish a new venture because he got business exposure.	1	2	3	4	5
Necessity entrepreneurship						
12	An individual has no other income options.	1	2	3	4	5
13	An individual wants to meet basic needs such as food, shelter and clothing.	1	2	3	4	5
14	An individual starts the business as a survival strategy.	1	2	3	4	5

SECTION 3: The stage of economic development that significantly promotes entrepreneurship in South Africa

This section uses a scale of 1 – 5, where 1- Strongly Disagree (SD), 2- Disagree (D), 3- Neutral (N), 4- Agree (A), and 5-Strongly Agree (SA).

Please indicate to what extent you agree or disagree with the statements in the table below. The following economic development indicators can promote entrepreneurship in South Africa:

Variable no.	Statements *(Please place a [✓] in the appropriate box and choose only one answer.)*	1 Strongly Disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree(A)	5 Strongly Agree (SA)
A factor-driven stage of economic development						
15	Subsistence agriculture.	1	2	3	4	5
16	Extraction businesses.	1	2	3	4	5
17	Heavy reliance on unskilled labor.	1	2	3	4	5
18	Abundance of natural resources.	1	2	3	4	5
19	Sufficient infrastructure.	1	2	3	4	5
20	Improved public health.	1	2	3	4	5
21	Quality primary education.	1	2	3	4	5
22	Improved regulations.	1	2	3	4	5
23	Improved macroeconomic stability.	1	2	3	4	5
An efficiency-driven stage of economic development						
24	Industrialization.	1	2	3	4	5
25	Economies of scale.	1	2	3	4	5
26	Capital-intensive businesses.	1	2	3	4	5
27	Quality higher education and training.	1	2	3	4	5
28	Improved financial markets.	1	2	3	4	5
29	Labor market efficiency.	1	2	3	4	5
30	Goods market efficiency.	1	2	3	4	5
31	Services market efficiency	1	2	3	4	5
32	The economy's technological readiness.	1	2	3	4	5
33	Large market size.	1	2	3	4	5
An innovation-driven stage of economic development						
34	Knowledge intensive.	1	2	3	4	5
35	Expanded businesses.	1	2	3	4	5

SECTION 3: Stage of economic development that significantly promotes entrepreneurship in South Africa continued.

The following economic development indicators can promote entrepreneurship in South Africa:

Variable no.	Statements *(Please place a [✓] in the appropriate box and choose only one answer.)*	1 Strongly Disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree(A)	5 Strongly Agree (SA)
36	Quality business networks.	1	2	3	4	5
37	Quality individual business' operations.	1	2	3	4	5
38	Quality business strategies.	1	2	3	4	5
39	Sufficient investment in Research and Development (R&D).	1	2	3	4	5
40	High-quality scientific research institutions.	1	2	3	4	5
41	Protection of intellectual property rights.	1	2	3	4	5

SECTION 4: The extent to which entrepreneurship significantly contributes to the economic development of South Africa

This section uses a scale of 1 – 5, where 1- Strongly Disagree (SD), 2- Disagree (D), 3- Neutral (N), 4- Agree (A), and 5-Strongly Agree (SA).

Please indicate to what extent you agree or disagree with the statements in the table below:

In South Africa, entrepreneurship:

Variable no.	Statements *(Please place a [✓] in the appropriate box and choose only one answer)*	1 Strongly Disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree(A)	5 Strongly Agree (SA)
Income growth						
42	Increases citizens' individual income.	1	2	3	4	5
43	Increases goods produced in the economy	1	2	3	4	5
44	Increases services produced in the economy.	1	2	3	4	5
45	Reduces the cost of producing goods in the economy.	1	2	3	4	5
46	Reduces the cost of services in the economy.	1	2	3	4	5
47	Increases domestic investments.	1	2	3	4	5
48	Increases exports.	1	2	3	4	5

SECTION 4: The extent to which entrepreneurship significantly contributes to the economic development of South Africa continued.

In South Africa, entrepreneurship:

Variable no.	Statements *(Please place a [✓] in the appropriate box and choose only one answer.)*	1 Strongly Disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree(A)	5 Strongly Agree (SA)
49	Decreases imports.	1	2	3	4	5
50	Increases government consumption.	1	2	3	4	5
51	Increases tax revenue.	1	2	3	4	5
Employment generation						
52	Creates wage employment that sufficiently improves the standard of living of the worker.	1	2	3	4	5
53	Creates self- employment that sufficiently improves the standard of living of the worker.	1	2	3	4	5
Inequality						
54	Reduces income inequality.	1	2	3	4	5
55	Reduces skills' inequality.	1	2	3	4	5
56	Reduces opportunities' inequality.	1	2	3	4	5
57	Reduces happiness' inequality.	1	2	3	4	5
58	Reduces health inequality.	1	2	3	4	5
59	Reduces education inequality.	1	2	3	4	5
60	Reduces welfare inequality.	1	2	3	4	5
61	Reduces social mobility inequality.	1	2	3	4	5
Poverty						
62	Reduces deprivation of food in South Africa.	1	2	3	4	5
63	Reduces deprivation of clothes in South Africa.	1	2	3	4	5
64	Reduces deprivation of shelter in South Africa.	1	2	3	4	5
65	Improves environment.	1	2	3	4	5
66	Increase political participation.	1	2	3	4	5
67	Increases community participation.	1	2	3	4	5
68	Improves the average standard of living for citizens.	1	2	3	4	5
Human welfare						
69	Improves nutrition.	1	2	3	4	5
70	Improves good health of citizens.	1	2	3	4	5

SECTION 4: The extent to which entrepreneurship significantly contributes to the economic development of South Africa continued. In South Africa, entrepreneurship:						
Variable no.	**Statements** ***(Please place a [✓] in the appropriate box and choose only one answer.)***	**1** **Strongly Disagree (SD)**	**2** **Disagree (D)**	**3** **Neutral (N)**	**4** **Agree(A)**	**5** **Strongly Agree (SA)**
71	Improves knowledge of citizens.	1	2	3	4	5
72	Contributes to decent living standards of citizens.	1	2	3	4	5
73	Contributes to citizens' happiness.	1	2	3	4	5
74	Contributes to the emotional wellbeing of citizens.	1	2	3	4	5

SECTION 5: Entrepreneurial Framework Conditions (EFCs) that contribute to the economic development of South Africa

This section uses a scale of 1 – 5, where 1- Strongly Disagree (SD), 2- Disagree (D), 3- Neutral (N), 4- Agree (A), and 5-Strongly Agree (SA).

Please indicate to what extent you agree or disagree with the statements in the table below:
In South Africa:

Variable no.	**Statements** ***(Please place a [✓] in the appropriate box and choose only one answer.)***	**1** **Strongly Disagree (SD)**	**2** **Disagree (D)**	**3** **Neutral (N)**	**4** **Agree(A)**	**5** **Strongly Agree (SA)**
EFC1: Financial support						
75	There is sufficient equity funding available for new firms.	1	2	3	4	5
76	There is sufficient equity funding available for growing firms.	1	2	3	4	5
77	There is sufficient debt funding available for new firms.	1	2	3	4	5
78	There is sufficient debt funding available for growing firms.	1	2	3	4	5
79	There are sufficient government subsidies available for new firms.	1	2	3	4	5
80	There are sufficient government subsidies available for growing firms.	1	2	3	4	5
81	There is sufficient funding available from private individuals (other than founders) for new firms.	1	2	3	4	5
82	There is sufficient funding available from private individuals (other than founders) for growing firms.	1	2	3	4	5

SECTION 5: Entrepreneurial Framework Conditions (EFCs) that contribute to the economic development of South Africa continued.

In South Africa:

Variable no.	Statements *(Please place a [✓] in the appropriate box and choose only one answer.)*	1 Strongly Disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree(A)	5 Strongly Agree (SA)
83	There is sufficient venture capitalist funding available for new firms.	1	2	3	4	5
84	There is sufficient venture capitalist funding available for growing firms.	1	2	3	4	5
85	There is sufficient funding available through initial public offerings (IPOs) for new firms.	1	2	3	4	5
86	There is sufficient funding available through initial public offerings (IPOs) for growing firms.	1	2	3	4	5
EFC2: Government policies						
87	Government policies (e.g., public procurement) consistently favor new firms.	1	2	3	4	5
88	The support for new firms is a high priority for policy at the local government level.	1	2	3	4	5
89	The support for growing firms is a high priority for policy at the local government level.	1	2	3	4	5
90	New firms can get most of the required permits fast enough.	1	2	3	4	5
91	The amount of taxes is not a burden for new firms.	1	2	3	4	5
92	The amount of taxes is not a burden for growing firms.	1	2	3	4	5
93	Government regulations are applied to new firms in a consistent way.	1	2	3	4	5
94	Government regulations are applied to growing firms in a consistent way.	1	2	3	4	5
95	Government policies aimed at supporting new firms are effective.	1	2	3	4	5
96	Government policies aimed at supporting growing firms are effective.	1	2	3	4	5
97	A wide range of government assistance for new firms can be obtained through contact with a single agency.	1	2	3	4	5
98	A wide range of government assistance for growing firms can be obtained through contact with a single agency.	1	2	3	4	5

SECTION 5: Entrepreneurial Framework Conditions (EFCs) that contribute to the economic development of South Africa continued.

In South Africa:

Variable no.	Statements *(Please place a [✓] in the appropriate box and choose only one answer.)*	1 Strongly Disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree(A)	5 Strongly Agree (SA)
EFC3: Government programs						
99	There are adequate government programs for new businesses.	1	2	3	4	5
100	There are adequate government programs for growing businesses.	1	2	3	4	5
101	People working for government agencies are competent in supporting new firms.	1	2	3	4	5
102	People working for government agencies are competent in supporting growing firms.	1	2	3	4	5
103	Almost anyone who needs help from government programs for a new business can find what he or she needs.	1	2	3	4	5
104	Almost anyone who needs help from government programs for a growing business can find what he or she needs.	1	2	3	4	5
105	Government programs aimed at supporting new firms are effective.	1	2	3	4	5
106	Government programs aimed at supporting growing firms are effective.	1	2	3	4	5
107	Business incubators have led to the creation of many businesses.	1	2	3	4	5
108	Business incubators have led to the growth of many businesses.	1	2	3	4	5
EFC4: Education and training						
109	Teaching in primary education provides adequate attention to entrepreneurship.	1	2	3	4	5
110	Teaching in secondary education provides adequate attention to entrepreneurship.	1	2	3	4	5
111	Colleges have enough courses on entrepreneurship.	1	2	3	4	5
112	Universities have enough courses on entrepreneurship.	1	2	3	4	5
113	The level of business management education is truly world-class.	1	2	3	4	5
114	The education systems provide good preparation for self-employment.	1	2	3	4	5
EFC5: Research and development transfer						
115	There are well-developed systems in place for transferring new findings from universities to firms.	1	2	3	4	5

SECTION 5: Entrepreneurial Framework Conditions (EFCs) that contribute to the economic development of South Africa continued.

In South Africa:

Variable no.	Statements *(Please place a [✓] in the appropriate box and choose only one answer.)*	1 Strongly Disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree(A)	5 Strongly Agree (SA)
116	There are well-developed systems in place for transferring new findings from public research centers to firms.	1	2	3	4	5
117	New firms have just as much access to new research and technology as large established firms.	1	2	3	4	5
118	New firms can afford the latest technology.	1	2	3	4	5
119	Growing firms can afford the latest technology.	1	2	3	4	5
120	There are adequate government subsidies for new firms to acquire new technology.	1	2	3	4	5
121	There are adequate government subsidies for growing firms to acquire new technology.	1	2	3	4	5
122	There is good support available for scientists to have their ideas commercialized through growing firms.	1	2	3	4	5
EFC6: Commercial and professional infrastructure						
123	There are enough stakeholders to support firms.	1	2	3	4	5
124	New firms can afford the cost of using stakeholders.	1	2	3	4	5
125	Growing firms can afford the cost of using stakeholders.	1	2	3	4	5
126	It is easy for firms to get good stakeholders.	1	2	3	4	5
127	It is easy for firms to get good, professional legal and accounting services.	1	2	3	4	5
128	It is easy for firms to get good banking services (checking accounts, foreign exchange transactions, letters of credit, and the like).	1	2	3	4	5
EFC7: Market flexibility						
130	The markets for consumer goods change dramatically year to year.	1	2	3	4	5
131	The markets for services change dramatically year to year.	1	2	3	4	5
132	The markets for business-to-business goods change dramatically year to year.	1	2	3	4	5
133	The markets for business-to-business services change dramatically year to year.	1	2	3	4	5
134	It is often too costly for firms to enter new markets.	1	2	3	4	5

SECTION 5: Entrepreneurial Framework Conditions (EFCs) that contribute to the economic development of South Africa continued.

In South Africa:

Variable no.	Statements *(Please place a [✓] in the appropriate box and choose only one answer.)*	1 Strongly Disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree(A)	5 Strongly Agree (SA)
135	Firms can enter markets without being unfairly blocked by established firms.	1	2	3	4	5
EFC8: Access to physical infrastructure						
136	The physical infrastructure (roads, utilities, communications, waste disposal) provides good support for firms.	1	2	3	4	5
137	It is not too expensive for firms to get good access to communications (phone, Internet).	1	2	3	4	5
138	Firms pay about the same as large establishments for utilities (gas, water, electricity, sewer).	1	2	3	4	5
139	Firms can afford the cost of basic utilities (gas, water, electricity, sewer).	1	2	3	4	5
140	Firms can get good access to utilities (gas, water, electricity, sewer) in about a month.	1	2	3	4	5
141	The social security and welfare systems provide appropriate encouragement for citizens to take the initiative and be self-sufficient.	1	2	3	4	5
142	Firms can afford the cost of basic utilities (gas, water, electricity, sewer).	1	2	3	4	5
143	Firms can get good access to utilities (gas, water, electricity, sewer) in about a month.	1	2	3	4	5
144	The social security and welfare systems provide appropriate encouragement for citizens to take the initiative and be self-sufficient.	1	2	3	4	5
145	The national culture is highly supportive of individual success achieved through own personal efforts.	1	2	3	4	5
146	National culture encourages entrepreneurial risk taking.	1	2	3	4	5
147	National culture encourages creativity.	1	2	3	4	5
148	National culture encourages innovativeness.	1	2	3	4	5
149	People prefer to work for well-established organizations rather than new firms.	1	2	3	4	5
150	People see lots of good opportunities for the creation of new firms.	1	2	3	4	5

SECTION 5: Entrepreneurial Framework Conditions (EFCs) that contribute to the economic development of South Africa continued.

In South Africa:

Variable no.	Statements *(Please place a [✓] in the appropriate box and choose only one answer.)*	1 Strongly Disagree (SD)	2 Disagree (D)	3 Neutral (N)	4 Agree(A)	5 Strongly Agree (SA)
151	It is easy to get the information required to assess business opportunities.	1	2	3	4	5
152	Citizens know how to manage a small business.	1	2	3	4	5
153	Citizens have the ability to organize the resources required for a new business.	1	2	3	4	5
154	The creation of new ventures is considered an appropriate way to become rich.	1	2	3	4	5
155	Most people consider becoming an entrepreneur a desirable career.	1	2	3	4	5
156	Starting a new business is a socially acceptable career option for women.	1	2	3	4	5
157	Women have the same level of knowledge and skills as men to start new businesses.	1	2	3	4	5

SECTION 6: OPTIMISING ENTREPRENEURSHIP POLICY FRAMEWORK AND ITS IMPLEMENTATION IN SOUTH AFRICA

6.1. How do you view South African policies on entrepreneurship? Please give reasons for your answer.

6.2. How can South African policies on entrepreneurship be improved to adequately improve economic development?

6.3. Suggest ways of how the South African regulatory environment can be improved to stimulate entrepreneurship.

6.4. Suggest ways of how entrepreneurship education and skills development in South Africa can be improved.

6.5. Come up with ways of how technology and innovation in South Africa can be improved.

6.6. Suggest ways of how entrepreneurs' access to finance can be improved to enhance entrepreneurship in South Africa.

6.7. How can the South African socio-cultural environment be improved to enhance entrepreneurship?

Thank you for your participation

APPENDIX 2:
MOTIVATION LETTER FOR THE PARTICIPATION OF UNISA DOCTORAL ACADEMICS

From: Samuel John Chiromo -PhD student (University of South Africa)

To: University of South Africa Ethics Committee (College of Economics and Management Sciences)

Date: 19th October 2020

Dear Prof,

RE: MOTIVATION LETTER FOR THE PARTICIPATION OF UNIVERSITY OF SOUTH AFRICA'S ACADEMIC STAFF MEMBERS OF THE DEPARTMENT OF ECONOMICS

I hereby request to be granted access to use University of South Africa staff members from the department of Economics as participants of my PhD studies, entitled: *The correlation between entrepreneurship and economic development-towards a framework for optimizing its contribution to the economic development of South Africa.*

This study will be limited to Gauteng Province because it is the most entrepreneurial and economic province in South Africa which contributes about 34% of the country's GDP (Gauteng Socio-Economic Review and Outlook, 2016:23). It dominates in manufacturing industry of South Africa. It has long been the fastest growing and richest province in the country. As a result of entrepreneurial and economic activities, Gauteng enjoys higher incomes, employment, education and infrastructure than other provinces (Gauteng Provincial Review, 2016:1). Hence, Gauteng Province has been chosen as a region where the current study will be conducted due to its high performance in terms of entrepreneurial and economic activities (Gauteng Socio-Economic Review and Outlook, 2016:23).

The population for the study will consist of entrepreneurship experts consisting of Chief Executive Officer (CEO) and Directors of JSE listed companies; and economics experts consisting of academics with Doctoral Degrees in Economics, in the Gauteng Province of South Africa. The underlying motive for their choice is that they are regarded as experts in the fields

of entrepreneurship and economic development respectively (Mans-kemp & Viviers,2018:10; Newlyn, 2015:1; Stock & Siegfried, 2014:2). Hence, they are expected to make meaningful contributions to the body of knowledge regarding the correlation between entrepreneurship and economic development in South Africa.

The study considers economists with doctoral degrees in Economics as part of the population of the study. Newlyn (2015:1) asserts that individuals with doctoral degrees are regarded as experts in their specific field of knowledge as they undergo specialised training to gain that status. According to Stock and Siegfried (2014:2), the primary sector of employment for economists with doctoral degrees is academia. Therefore, academics with doctoral degrees in economics who are employed in public universities meet the participants' inclusive criteria for the current study.

As Gauteng province has been identified to be used as the cluster for the study, all the economic experts (academics with doctoral degree in economics) employed in public universities in the Gauteng province will form part of the population for the current study. The university of Johannesburg falls within the cluster of the study as it is in Gauteng province.

Your approval of granting me access to the academic staff members who are employed in the department of economics of the University of South Africa will be highly appreciated.

Best regards

Samuel Chiromo (PhD student)

APPENDIX 3:

UNISA PERMISSION TO USE STAFF MEMBERS

UNISA university of south africa

RESEARCH PERMISSION SUB-COMMITTEE (RPSC) OF THE SENATE RESEARCH, INNOVATION, POSTGRADUATE DEGREES AND COMMERCIALISATION COMMITTEE (SRIPCC)

19 November 2020

Decision: Research Permission Approval from 19 November 2020 until 31 July 2021.

Ref #: 2020_RPSC_045
Mr. Samuel John Chiromo
Student #: N/A
Staff #: 51860600

Principal Investigator:
Mr. Samuel John Chiromo
Department of Business Management
School of Management Sciences
College of Economic and Management Sciences
echirosj@unisa.ac.za; 079 879 0265

Supervisor: Prof Gwendoline Nani, gweni.nani@gmail.com;
+263772601202/+263715318558

The Correlation between Entrepreneurship and Economic Development: Towards a Framework for Optimizing its Contribution to the Economic Development of South Africa

Your application regarding permission to involve UNISA employees, students and data in regard to the above study has been received and was considered by the Research Permission Subcommittee (RPSC) of the UNISA Senate, Research, Innovation, Postgraduate Degrees and Commercialisation Committee (SRIPCC) on 13 November 2020.

It is my pleasure to inform you that permission has been granted for the study. You may use the email addresses from the website to invite of lecturers who hold a Ph. D. degree from the Department of Economics to complete an online survey.

You are requested to submit a report of the study to the Research Permission Subcommittee (RPSC@unisa.ac.za) within 3 months of completion of the study.

The personal information made available to the researcher(s)/gatekeeper(s) will only be used for the advancement of this research project as indicated and for the purpose as described in this permission letter. The researcher(s)/gatekeeper(s) must take all appropriate precautionary

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

measures to protect the personal information given to him/her/them in good faith and it must not be passed on to third parties. The dissemination of research instruments through the use of electronic mail should strictly be through blind copying, so as to protect the participants' right of privacy. The researcher hereby indemnifies UNISA from any claim or action arising from or due to the researcher's breach of his/her information protection obligations.

Note:

*The reference number **2020_RPSC_045** should be clearly indicated on all forms of communication with the intended research participants and the Research Permission Subcommittee.*

We would like to wish you well in your research undertaking.

Kind regards,

Dr Retha Visagie – Deputy Chairperson
Email: visagrg@unisa.ac.za, Tel: (012) 429-2478

Prof Lessing Labuschagne – Chairperson
Email: llabus@unisa.ac.za, Tel: (012) 429-6368

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

APPENDIX 4:

ETHICAL CLEARANCE CERTIFICATE

UNISA university of south africa

UNISA DEPARTMENT APPLIED MANAGEMENT RESEARCH ETHICS REVIEW COMMITTEE (DAM-RERC)

Date: 8 September 2020

ERC Reference # : 2020_CEMS_DAM_008
Name: Mr. Samuel John Chiromo
Student #: 43431542

Dear Mr. Samuel John Chiromo

Decision: Ethics Approval from September 2020 to September 2023

Researcher(s): Mr. Samuel John Chiromo
0798790265 / 0124296196/ echirosj@unisa.ac.za

Supervisor (s): Dr Gwendoline Vusumuzi Nani
+263715318558 / +263772601202 / gweni.nani@gmail.com

Working title of research:
The Correlation between Entrepreneurship and Economic Development: Towards a Framework for Optimizing its Contribution to the Economic Development of South Africa

Qualification: Doctor of Philosophy (PHD) in Management Studies

---

Thank you for the application for research ethics clearance by the Unisa DAM Ethics Review Committee for the above-mentioned research. Ethics approval is granted for three years.

*The **medium risk application** was **reviewed** by the DAM Ethics Review Committee in September 2020 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment. The decision was approved on the 8th of September 2020.*

The proposed research may now commence with the provisions that:

1. The researcher will ensure that the research project adheres to the relevant guidelines set out in the Unisa Covid-19 position statement on research ethics attached.

Open Rubric

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

2. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
3. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the DAM Committee.
4. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
5. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
6. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
7. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
8. No field work activities may continue after the expiry date (09/2023). Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

*The reference number **2020_CEMS_DAM_008** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Yours sincerely,

Mrs C Poole
Chair: DAM-RERC
E-mail: damrerc@unisa.ac.za
Tel: (012) 433-4668

Prof RT Mpofu
CEMS DED
(on behalf of Prof Mogale

Prof M Mogale
Executive Dean: CEMS
E-mail: mogalmt@unisa.ac.za
Tel: (012) 429-4419

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

APPENDIX 5:

CONFIDENTIALITY AGREEMENT: STATISTICIAN

UNISA university of south africa

Confidentiality Agreement : Statistician

This is to certify that I, Andries Masenge, the statistician of the research project titled: **The Correlation between Entrepreneurship and Economic Development: Towards a Framework for Optimizing its Contribution to Economic Development of South Africa** agree to the responsibilities of the statistical analysis of the data obtained from participants (and additional tasks the researcher(s) may require in my capacity as statistician).

I acknowledge that the research project is conducted by **Mr Samuel Chiromo** of the **Applied Management Department**, University of South Africa.

I understand that any information (written, verbal or any other form) obtained during the performance of my duties must remain confidential and in line with the UNISA Policy on Research Ethics.

This includes all information about participants, their employees/their employers/their organisation, as well as any other information.

I understand that any unauthorised release or carelessness in the handling of this confidential information is considered a breach of the duty to maintain confidentiality.

I further understand that any breach of the duty to maintain confidentiality could be grounds for immediate dismissal and/or possible liability in any legal action arising from such breach.

Full Name of Statistician: **Andries Masenge**

Signature of Statistician: *A. Masenge* Date: 22nd July, 2020

Full Name of Primary Researcher: **Samuel John Chiromo**

Signature of Primary Researcher:  Date: 22nd July, 2020

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

APPENDIX 6:

LANGUAGE EDITING CERTIFICATE

Jackie Viljoen
Language Editor and Translator
16 Bergzicht Gardens
Fijnbos Close
STRAND 7140

Accredited member of the South African Translators' Institute
No APSTrans No. 1000017
Member of the Professional Editors' Group (PEG) No. VIL003
Member of Safrea No. SAF03316

082 783 0263
Postal address: 16 Bergzicht Gardens, Fijnbos Close, STRAND 7140 South Africa

---

DECLARATION

I hereby certify that the thesis by **SAMUEL JOHN CHIROMO** was properly language edited but without viewing the final version.

The track changes function was used and the author was responsible for accepting the editor's changes and for finalising the reference list.

Title of thesis:

THE CORRELATION BETWEEN ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT: TOWARDS A FRAMEWORK FOR OPTIMISING ITS CONTRIBUTION TO THE ECONOMIC DEVELOPMENT OF SOUTH AFRICA

The editor did not write or rewrite any part of the thesis on behalf of the client, including passages that may have been plagiarised. The academic content is the sole responsibility of the client as author of the work. The editor could not and did not test definitively for plagiarism, nor is there any explicit or implicit guarantee that the content that was edited contained no material used without consent. The editor accepts no responsibility for any failure on examination of the thesis by the university.

JACKIE VILJOEN
Strand
South Africa
11 September 2022