

**OCCUPATIONAL HEALTH AND SAFETY: A COMPLIANCE
MANAGEMENT FRAMEWORK FOR SMALL BUSINESSES
IN SOUTH AFRICA**

by

Elriza Esterhuyzen
31840124

submitted in accordance with the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in

MANAGEMENT STUDIES

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: DR D VISSER

FEBRUARY 2017

DECLARATION

I declare that "OCCUPATIONAL HEALTH AND SAFETY: A COMPLIANCE MANAGEMENT FRAMEWORK FOR SMALL BUSINESSES IN SOUTH AFRICA" is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.

.....
Signature

Mrs E Esterhuyzen

.....
Date

ACKNOWLEDGEMENTS

My deepest appreciation goes to my Father in heaven for giving me the opportunity, ability and dedication to complete this degree.

I wish to express my sincere appreciation to my loving husband, Jasper, and my three children Jacques, Helize and Corlien. Without your support, encouragement and understanding I would not have been able to achieve this milestone. I thank you and love you with all my heart.

To my supervisor, Dr Thea Visser, a special note of appreciation for your expert guidance, advice and encouragement throughout this whole process. I would also like to thank Prof RH Mynhardt for his advice and assistance during the initial stages of this study. I specifically wish to acknowledge the support and assistance I received from Dr Sarel Smit and Mrs Thea Smit. Your dedication and perseverance with regard to the fieldwork for this study are appreciated. Thank you for your continued support.

I would like to express my gratitude towards the Department of Statistics at the University of South Africa, with special reference to Dr Dion van Zyl. Your assistance with the statistical analysis was of inestimable value. Thank you for acting as my "critical friend" during this process. To Dr Nellie Swart, thank you for your assistance in making sense of the statistics. Thank you also to Ms Jackie Viljoen for meticulously editing the final document. Your input and assistance are greatly appreciated.

A sincere thank you goes to Prof Annemarie Davis, the Head of the Office of Graduate Studies and Research in the College of Economic and Management Sciences at the University of South Africa, for her support and motivation. Your assistance with regard to obtaining the necessary funding for this study is greatly appreciated. To my colleague and friend, Ms Leonie Louw, a special note of appreciation. Without your support and motivation, this study would have been much more difficult to complete.

Lastly, I also wish to express my appreciation towards all 350 small business owners/managers who took time out of their busy schedules to complete the questionnaire. Without them, this study would not have been possible.

ABSTRACT

This study focused on occupational health and safety in South African small businesses. The owners/managers of small businesses have a moral, legal and financial obligation to ensure the health and safety of their employees. Both an international and South African perspective on occupational health and safety in small businesses are included in the literature study. Twelve core occupational health and safety criteria, developed specifically with regard to small businesses, were identified and used as basis for this study, in conjunction with the aspects of the theory of planned behaviour.

The research design of this study included a positivistic research philosophy and a deductive research approach. A questionnaire was developed and used to determine the knowledge, attitude, behavioural intent and actual behaviour of South African small business owners/managers with regard to occupational health and safety in their businesses. In addition, barriers to occupational health and safety compliance were determined and tested to determine the perceived strength of these barriers. South African small business owners/managers completed the questionnaire for this study. It was determined that the knowledge, attitude, behavioural intent and actual behaviour of South African small business owners/managers related to occupational health and safety were not at optimum levels. Barriers to compliance should be reduced.

Legal compliance issues comprise one of the main reasons why South African small businesses fail. Therefore, this study proposes a compliance management framework, based on applicable occupational health and safety legislation that encompasses moral, legal and financial contentions. The identified core occupational health and safety criteria were used as sections in the compliance management framework. This proposed compliance management framework aims to reduce the complexity of occupational health and safety legislation for South African small business owners/managers.

TABLE OF CONTENTS

	Page
DECLARATION	ii
ACKNOWLEDGEMENTS.....	iii
ABSTRACT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	xxix
LIST OF FIGURES.....	xxxii
ABBREVIATIONS AND ACRONYMS	xxxiv
CHAPTER 1 INTRODUCTION.....	1
1.1 INTRODUCTION	1
1.2 BACKGROUND ON OCCUPATIONAL HEALTH AND SAFETY.....	3
1.3 DEFINITION OF KEY TERMS.....	5
1.3.1 Compliance management framework	5
1.3.1.1 Moral component.....	5
1.3.1.2 Legal component	6
1.3.1.3 Financial component	7
1.3.2 Occupational health and safety	8
1.3.3 Direct and indirect costs	8
1.3.4 Owner/manager.....	8
1.3.5 Small business	8
1.4 OCCUPATIONAL HEALTH AND SAFETY IN SMALL BUSINESSES: AN INTERNATIONAL PERSPECTIVE	9
1.5 OCCUPATIONAL HEALTH AND SAFETY IN SMALL BUSINESSES: A SOUTH AFRICAN PERSPECTIVE	10
1.5.1 Role of small businesses in economic growth	10
1.5.2 Importance of occupational health and safety	11
1.5.3 Occupational health and safety in South African small businesses.....	11

1.6	DESCRIPTION OF KEY CONCEPTS CONTAINED IN THE TITLE OF THIS STUDY	17
1.6.1	Occupational health and safety	17
1.6.2	Compliance management framework	17
1.6.3	Small businesses.....	18
1.6.4	Integrated approach	19
1.7	PROBLEM STATEMENT	20
1.8	RESEARCH OBJECTIVES	21
1.8.1	Primary objective	21
1.8.2	Secondary objectives	21
1.9	AIM AND SIGNIFICANCE OF THE STUDY	22
1.10	METHODOLOGY	23
1.10.1	Research design.....	23
1.10.1.1	Research philosophy	24
1.10.1.2	Research approach	25
1.10.1.3	Methodological approach	25
1.10.1.4	Research strategy	25
1.10.1.5	Time horizon.....	26
1.10.1.6	Data collection and analysis	26
1.10.2	Sampling	28
1.10.3	Validity.....	30
1.10.4	Reliability	31
1.10.5	Pilot study	31
1.10.6	Fieldworkers	31
1.11	ASSUMPTIONS	31
1.12	DELIMITATIONS	32

	Page
1.13	ETHICAL CONSIDERATIONS33
1.14	OUTLINE OF CHAPTERS34
1.15	CONCLUSION.....37
CHAPTER 2 INTERNATIONAL PERSPECTIVE ON OCCUPATIONAL	
	HEALTH AND SAFETY IN SMALL BUSINESSES.....39
2.1	INTRODUCTION39
2.2	GROUP OF TWENTY – VIEWS WITH REGARD TO OCCUPATIONAL HEALTH AND SAFETY41
2.3	OCCUPATIONAL HEALTH AND SAFETY CRITERIA FOR SMALL BUSINESSES.....42
2.3.1	Health and safety policy and organisation45
2.3.2	Ensuring health and safety measures46
2.3.3	Risk assessment (and safe systems of work).....46
2.3.4	Access to competent advice46
2.3.5	Training and information46
2.3.6	Individual qualifications and experience47
2.3.7	Workforce involvement47
2.3.8	Contracting procedures (i.e. using contractors)47
2.3.9	Cooperating and coordinating with others47
2.3.10	Accident and near-hit reporting and investigation.....48
2.3.11	First aid and emergency measures (where applicable, notably fire).....48
2.3.12	Monitoring, checking and reviewing performance.....48
2.4	G20 MEMBER COUNTRIES48
2.4.1	Argentina49
2.4.1.1	Health and safety policy and organisation49
2.4.1.2	Ensuring health and safety measures49

	Page
2.4.1.3 Risk assessment (and safe systems of work).....	50
2.4.1.4 Access to competent advice.....	50
2.4.1.5 Training and information.....	50
2.4.1.6 Individual qualifications and experience.....	51
2.4.1.7 Workforce involvement.....	51
2.4.1.8 Contracting procedures (i.e. using contractors).....	51
2.4.1.9 Cooperating and coordinating with others.....	52
2.4.1.10 Accident/near-hit reporting and investigation.....	52
2.4.1.11 First aid and emergency measures (where applicable, notably fire).....	52
2.4.1.12 Monitoring, checking and reviewing performance.....	52
2.4.2 Australia.....	52
2.4.2.1 Health and safety policy and organisation.....	53
2.4.2.2 Ensuring health and safety measures.....	53
2.4.2.3 Risk assessment (and safe systems of work).....	53
2.4.2.4 Access to competent advice.....	53
2.4.2.5 Training and information.....	54
2.4.2.6 Individual qualifications and experience.....	54
2.4.2.7 Workforce involvement.....	54
2.4.2.8 Contracting procedures (i.e. using contractors).....	54
2.4.2.9 Cooperating and coordinating with others.....	55
2.4.2.10 Accident/near-hit reporting and investigation.....	55
2.4.2.11 First aid and emergency measures (where applicable, notably fire).....	55
2.4.2.12 Monitoring, checking and reviewing performance.....	55
2.4.3 Brazil.....	56
2.4.3.1 Health and safety policy and organisation.....	56
2.4.3.2 Ensuring health and safety measures.....	56

	Page
2.4.3.3 Risk assessment (and safe systems of work).....	56
2.4.3.4 Access to competent advice.....	57
2.4.3.5 Training and information.....	57
2.4.3.6 Individual qualifications and experience.....	57
2.4.3.7 Workforce involvement.....	57
2.4.3.8 Contracting procedures (i.e. using contractors).....	58
2.4.3.9 Cooperating and coordinating with others.....	58
2.4.3.10 Accident/near-hit reporting and investigation.....	58
2.4.3.11 First aid and emergency measures (where applicable, notably fire).....	58
2.4.3.12 Monitoring, checking and reviewing performance.....	58
2.4.4 Canada.....	59
2.4.4.1 Health and safety policy and organisation.....	59
2.4.4.2 Ensuring health and safety measures.....	59
2.4.4.3 Risk assessment (and safe systems of work).....	60
2.4.4.4 Access to competent advice.....	60
2.4.4.5 Training and information.....	60
2.4.4.6 Individual qualifications and experience.....	60
2.4.4.7 Workforce involvement.....	61
2.4.4.8 Contracting procedures (i.e. using contractors).....	61
2.4.4.9 Cooperating and coordinating with others.....	61
2.4.4.10 Accident/near-hit reporting and investigation.....	61
2.4.4.11 First aid and emergency measures (where applicable, notably fire).....	61
2.4.4.12 Monitoring, checking and reviewing performance.....	62
2.4.5 China.....	62
2.4.5.1 Health and safety policy and organisation.....	62
2.4.5.2 Ensuring health and safety measures.....	62

	Page
2.4.5.3 Risk assessment (and safe systems of work).....	62
2.4.5.4 Access to competent advice.....	63
2.4.5.5 Training and information.....	63
2.4.5.6 Individual qualifications and experience.....	63
2.4.5.7 Workforce involvement.....	63
2.4.5.8 Contracting procedures (i.e. using contractors).....	63
2.4.5.9 Cooperating and coordinating with others.....	64
2.4.5.10 Accident/near-hit reporting and investigation.....	64
2.4.5.11 First aid and emergency measures (where applicable, notably fire).....	64
2.4.5.12 Monitoring, checking and reviewing performance.....	64
2.4.6 France.....	64
2.4.6.1 Health and safety policy and organisation.....	65
2.4.6.2 Ensuring health and safety measures.....	65
2.4.6.3 Risk assessment (and safe systems of work).....	65
2.4.6.4 Access to competent advice.....	66
2.4.6.5 Training and information.....	66
2.4.6.6 Individual qualifications and experience.....	66
2.4.6.7 Workforce involvement.....	66
2.4.6.8 Contracting procedures (i.e. using contractors).....	66
2.4.6.9 Cooperating and coordinating with others.....	67
2.4.6.10 Accident/near-hit reporting and investigation.....	67
2.4.6.11 First aid and emergency measures (where applicable, notably fire).....	67
2.4.6.12 Monitoring, checking and reviewing performance.....	67
2.4.7 Germany.....	67
2.4.7.1 Health and safety policy and organisation.....	68
2.4.7.2 Ensuring health and safety measures.....	68

	Page
2.4.7.3 Risk assessment (and safe systems of work).....	68
2.4.7.4 Access to competent advice.....	69
2.4.7.5 Training and information.....	69
2.4.7.6 Individual qualifications and experience.....	69
2.4.7.7 Workforce involvement.....	69
2.4.7.8 Contracting procedures (i.e. using contractors).....	70
2.4.7.9 Cooperating and coordinating with others.....	70
2.4.7.10 Accident/near-hit reporting and investigation.....	70
2.4.7.11 First aid and emergency measures (where applicable, notably fire).....	70
2.4.7.12 Monitoring, checking and reviewing performance.....	71
2.4.8 India.....	71
2.4.8.1 Health and safety policy and organisation.....	71
2.4.8.2 Ensuring health and safety measures.....	71
2.4.8.3 Risk assessment (and safe systems of work).....	72
2.4.8.4 Access to competent advice.....	72
2.4.8.5 Training and information.....	72
2.4.8.6 Individual qualifications and experience.....	72
2.4.8.7 Workforce involvement.....	72
2.4.8.8 Contracting procedures (i.e. using contractors).....	72
2.4.8.9 Cooperating and coordinating with others.....	73
2.4.8.10 Accident/near-hit reporting and investigation.....	73
2.4.8.11 First aid and emergency measures (where applicable, notably fire).....	73
2.4.8.12 Monitoring, checking and reviewing performance.....	73
2.4.9 Indonesia.....	73
2.4.9.1 Health and safety policy and organisation.....	73
2.4.9.2 Ensuring health and safety measures.....	74

	Page
2.4.9.3 Risk assessment (and safe systems of work).....	74
2.4.9.4 Access to competent advice.....	74
2.4.9.5 Training and information.....	74
2.4.9.6 Individual qualifications and experience.....	75
2.4.9.7 Workforce involvement.....	75
2.4.9.8 Contracting procedures (i.e. using contractors).....	75
2.4.9.9 Cooperating and coordinating with others.....	75
2.4.9.10 Accident/near-hit reporting and investigation.....	75
2.4.9.11 First aid and emergency measures (where applicable, notably fire).....	76
2.4.9.12 Monitoring, checking and reviewing performance.....	76
2.4.10 Italy.....	76
2.4.10.1 Health and safety policy and organisation.....	76
2.4.10.2 Ensuring health and safety measures.....	76
2.4.10.3 Risk assessment (and safe systems of work).....	77
2.4.10.4 Access to competent advice.....	77
2.4.10.5 Training and information.....	77
2.4.10.6 Individual qualifications and experience.....	77
2.4.10.7 Workforce involvement.....	77
2.4.10.8 Contracting procedures (i.e. using contractors).....	78
2.4.10.9 Cooperating and coordinating with others.....	78
2.4.10.10 Accident/near-hit reporting and investigation.....	78
2.4.10.11 First aid and emergency measures (where applicable, notably fire).....	78
2.4.10.12 Monitoring, checking and reviewing performance.....	78
2.4.11 Japan.....	79
2.4.11.1 Health and safety policy and organisation.....	79
2.4.11.2 Ensuring health and safety measures.....	79

	Page
2.4.11.3 Risk assessment (and safe systems of work).....	79
2.4.11.4 Access to competent advice.....	79
2.4.11.5 Training and information.....	79
2.4.11.6 Individual qualifications and experience.....	80
2.4.11.7 Workforce involvement.....	80
2.4.11.8 Contracting procedures (i.e. using contractors).....	80
2.4.11.9 Cooperating and coordinating with others.....	80
2.4.11.10 Accident/near-hit reporting and investigation.....	81
2.4.11.11 First aid and emergency measures (where applicable, notably fire).....	81
2.4.11.12 Monitoring, checking and reviewing performance.....	81
2.4.12 Republic of Korea.....	82
2.4.12.1 Health and safety policy and organisation.....	82
2.4.12.2 Ensuring health and safety measures.....	82
2.4.12.3 Risk assessment (and safe systems of work).....	82
2.4.12.4 Access to competent advice.....	82
2.4.12.5 Training and information.....	83
2.4.12.6 Individual qualifications and experience.....	83
2.4.12.7 Workforce involvement.....	83
2.4.12.8 Contracting procedures (i.e. using contractors).....	83
2.4.12.9 Cooperating and coordinating with others.....	83
2.4.12.10 Accident/near-hit reporting and investigation.....	83
2.4.12.11 First aid and emergency measures (where applicable, notably fire).....	84
2.4.12.12 Monitoring, checking and reviewing performance.....	84
2.4.13 Mexico.....	84
2.4.13.1 Health and safety policy and organisation.....	84
2.4.13.2 Ensuring health and safety measures.....	85

	Page
2.4.13.3 Risk assessment (and safe systems of work).....	85
2.4.13.4 Access to competent advice.....	85
2.4.13.5 Training and information.....	85
2.4.13.6 Individual qualifications and experience.....	85
2.4.13.7 Workforce involvement.....	86
2.4.13.8 Contracting procedures (i.e. using contractors).....	86
2.4.13.9 Cooperating and coordinating with others.....	86
2.4.13.10 Accident/near-hit reporting and investigation.....	86
2.4.13.11 First aid and emergency measures (where applicable, notably fire).....	87
2.4.13.12 Monitoring, checking and reviewing performance.....	87
2.4.14 Russia.....	87
2.4.14.1 Health and safety policy and organisation.....	87
2.4.14.2 Ensuring health and safety measures.....	87
2.4.14.3 Risk assessment (and safe systems of work).....	87
2.4.14.4 Access to competent advice.....	88
2.4.14.5 Training and information.....	88
2.4.14.6 Individual qualifications and experience.....	88
2.4.14.7 Workforce involvement.....	89
2.4.14.8 Contracting procedures (i.e. using contractors).....	89
2.4.14.9 Cooperating and coordinating with others.....	89
2.4.14.10 Accident/near-hit reporting and investigation.....	90
2.4.14.11 First aid and emergency measures (where applicable, notably fire).....	90
2.4.14.12 Monitoring, checking and reviewing performance.....	90
2.4.15 Saudi Arabia.....	90
2.4.15.1 Health and safety policy and organisation.....	91
2.4.15.2 Ensuring health and safety measures.....	91

	Page
2.4.15.3 Risk assessment (and safe systems of work).....	91
2.4.15.4 Access to competent advice.....	91
2.4.15.5 Training and information.....	91
2.4.15.6 Individual qualifications and experience.....	92
2.4.15.7 Workforce involvement.....	92
2.4.15.8 Contracting procedures (i.e. using contractors).....	92
2.4.15.9 Cooperating and coordinating with others.....	92
2.4.15.10 Accident/near-hit reporting and investigation.....	93
2.4.15.11 First aid and emergency measures (where applicable, notably fire).....	93
2.4.15.12 Monitoring, checking and reviewing performance.....	93
2.4.16 South Africa.....	93
2.4.17 Turkey.....	94
2.4.17.1 Health and safety policy and organisation.....	94
2.4.17.2 Ensuring health and safety measures.....	94
2.4.17.3 Risk assessment (and safe systems of work).....	94
2.4.17.4 Access to competent advice.....	94
2.4.17.5 Training and information.....	94
2.4.17.6 Individual qualifications and experience.....	95
2.4.17.7 Workforce involvement.....	95
2.4.17.8 Contracting procedures (i.e. using contractors).....	95
2.4.17.9 Cooperating and coordinating with others.....	95
2.4.17.10 Accident/near-hit reporting and investigation.....	96
2.4.17.11 First aid and emergency measures (where applicable, notably fire).....	96
2.4.17.12 Monitoring, checking and reviewing performance.....	96
2.4.18 United Kingdom.....	96
2.4.18.1 Health and safety policy and organisation.....	96

	Page
2.4.18.2	Ensuring health and safety measures97
2.4.18.3	Risk assessment (and safe systems of work).....97
2.4.18.4	Access to competent advice.....98
2.4.18.5	Training and information.....98
2.5.18.6	Individual qualifications and experience98
2.4.18.7	Workforce involvement.....98
2.4.18.8	Contracting procedures (i.e. using contractors).....99
2.4.18.9	Cooperating and coordinating with others99
2.4.18.10	Accident/near-hit reporting and investigation.....99
2.4.18.11	First aid and emergency measures (where applicable, notably fire)...100
2.4.18.12	Monitoring, checking and reviewing performance.....100
2.4.19	United States.....100
2.4.19.1	Health and safety policy and organisation100
2.4.19.2	Ensuring health and safety measures100
2.4.19.3	Risk assessment (and safe systems of work).....101
2.4.19.4	Access to competent advice.....101
2.4.19.5	Training and information.....102
2.4.19.6	Individual qualifications and experience102
2.4.19.7	Workforce involvement.....103
2.4.19.8	Contracting procedures (i.e. using contractors)103
2.4.19.9	Cooperating and coordinating with others103
2.4.19.10	Accident/near-hit reporting and investigation.....104
2.4.19.11	First aid and emergency measures (where applicable, notably fire)...104
2.4.19.12	Monitoring, checking and reviewing performance.....104
2.4.20	European Union.....105
2.4.20.1	Health and safety policy and organisation105

	Page
2.4.20.2	Ensuring health and safety measures 106
2.4.20.3	Risk assessment (and safe systems of work)..... 107
2.4.20.4	Access to competent advice 107
2.4.20.5	Training and information 108
2.4.20.6	Individual qualifications and experience 108
2.4.20.7	Workforce involvement 108
2.4.20.8	Contracting procedures (i.e. using contractors) 109
2.4.20.9	Cooperating and coordinating with others 109
2.4.20.10	Accident/near-hit reporting and investigation..... 109
2.4.20.11	First aid and emergency measures (where applicable, notably fire)... 110
2.4.20.12	Monitoring, checking and reviewing performance..... 110
2.5	INTERNATIONAL LABOUR ORGANISATION..... 112
2.6	WORLD HEALTH ORGANISATION..... 114
2.7	INTERNATIONAL MONETARY FUND..... 118
2.8	INTERNATIONAL ORGANISATION FOR STANDARDISATION 119
2.9	CONCLUSION..... 120
CHAPTER 3 SOUTH AFRICAN PERSPECTIVE ON OCCUPATIONAL	
	HEALTH AND SAFETY IN SMALL BUSINESSES..... 121
3.1	INTRODUCTION 121
3.2	ESSENTIAL OCCUPATIONAL HEALTH AND SAFETY
	CRITERIA FOR SOUTH AFRICAN SMALL BUSINESSES 124
3.2.1	Health and safety policy and organisation 124
3.2.2	Application of occupational health and safety measures 125
3.2.3	Risk assessment (and safe systems of work)..... 125
3.2.4	Access to competent advice 126
3.2.5	Training and information 126

	Page
3.2.6	Qualifications and experience of South African small business owners/managers 127
3.2.7	Workforce involvement 128
3.2.8	Contracting procedures (i.e. using contractors) 128
3.2.9	Cooperating and coordinating with important stakeholders 129
3.2.10	Accident/near-hit reporting and investigation 129
3.2.11	First aid and emergency measures (where applicable, notably fire) ... 130
3.2.12	Monitoring, checking and reviewing performance 130
3.3	COMPLIANCE WITH THE CORE OCCUPATIONAL HEALTH AND SAFETY CRITERIA 131
3.4	INTERNATIONAL AND NATIONAL STANDARDS 137
3.5	COMPLIANCE MANAGEMENT FRAMEWORK 138
3.5.1	Moral component 138
3.5.1.1	Corporate social responsibility 139
3.5.1.2	Business ethics 141
3.5.2	Legal component 143
3.5.3	Financial component 144
3.5.3.1	Sustainability and the triple bottom-line 147
3.6	THEORY OF PLANNED BEHAVIOUR AND THE CORE OCCUPATIONAL HEALTH AND SAFETY CRITERIA 148
3.6.1	Knowledge 150
3.6.2	Attitude 151
3.6.3	Behavioural intent 151
3.6.4	Actual behaviour 151
3.7	BARRIERS TO OCCUPATIONAL HEALTH AND SAFETY COMPLIANCE 152
3.8	CONCLUSION 154

	Page
CHAPTER 4 RESEARCH METHODOLOGY	156
4.1 INTRODUCTION	156
4.2 RESEARCH METHODOLOGY DEFINED.....	158
4.3 RESEARCH PROCESS	159
4.3.1 Research problem	160
4.3.2 Research objectives	160
4.3.3 Research design.....	161
4.3.3.1 Research philosophy	161
4.3.3.2 Research approach	162
4.3.3.3 Methodological approach	162
4.3.3.4 Research strategy	162
4.3.3.5 Time horizon.....	163
4.3.3.6 Data collection and analysis	163
4.3.4 Information types and sources	164
4.3.5 Sample	164
4.3.6 Research instrument – the questionnaire	166
4.3.6.1 Construct validity and content validity of questions	166
4.3.6.2 Type of scale for desired analysis, communication approach and process structure	167
4.3.6.3 Constructing and refining the measurement questions.....	169
4.3.6.4 Drafting and refining the questionnaire.....	169
4.3.6.5 Types of questions	170
4.3.6.6 Comparison of questionnaire questions with research objectives	172
4.3.6.7 Questionnaire designed for pre-testing.....	178
4.3.6.8 Pre-testing of the questionnaire.....	179
4.3.7 Collection of primary data	190

	Page
4.3.8	Coding of primary data192
4.3.9	Capturing and storing of primary data193
4.3.10	Analysis of primary data193
4.3.11	Presentation of research findings196
4.3.12	Follow-up.....197
4.4	RESEARCH ETHICS197
4.5	CONCLUSION.....199
CHAPTER 5	RESEARCH RESULTS AND FINDINGS201
5.1	INTRODUCTION.....201
5.2	AIM AND SIGNIFICANCE OF STUDY201
5.3	STRUCTURE OF EMPIRICAL RESULTS.....204
5.4	SECTION A: THE QUALIFYING CHARACTERISTICS OF SMALL BUSINESSES.....205
5.4.1	Position of respondent in the small business.....206
5.4.2	The provincial location of small businesses.....206
5.4.3	Eligibility to participate in the study.....207
5.4.4	Primary economic sectors in which small businesses operate209
5.5	SECTION B: THE STATUS OF OCCUPATIONAL HEALTH AND SAFETY IN SMALL BUSINESSES.....211
5.5.1	Availability of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 on premises212
5.5.2	Reason of small business for complying with the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993.....213
5.5.3	Occupational health and safety incidents that occurred in small businesses during the last two years.....216

		Page
5.5.4	The effect of occupational health and safety incidents or accidents on small businesses in terms of direct and indirect costs	217
5.5.5	Additional occupational health and safety aspects regarding occupational incidents/accidents that might affect small businesses..	219
5.5.6	Small businesses registered with the Compensation Fund	220
5.6	SECTION C: SMALL BUSINESS OWNER/MANAGER KNOWLEDGE OF OCCUPATIONAL HEALTH AND SAFETY	222
5.6.1	Descriptive statistics of the knowledge of small business owners/managers regarding occupational health and safety	222
5.6.2	Bivariate analysis of the knowledge of small business owners/managers regarding occupational health and safety	227
5.7	SECTION D: SMALL BUSINESS OWNER/MANAGER ATTITUDE TOWARDS OCCUPATIONAL HEALTH AND SAFETY ...	228
5.7.1	Descriptive statistics of the attitudes of small business owners/managers towards occupational health and safety	229
5.7.2	Bivariate analysis of the attitude of small business owners/managers towards occupational health and safety	233
5.8	SECTION E: SMALL BUSINESS OWNER/MANAGERS BEHAVIOURAL INTENT WITH REGARD TO OCCUPATIONAL HEALTH AND SAFETY	235
5.8.1	Descriptive statistics of the behavioural intent of small business owners/managers towards occupational health and safety compliance	235
5.8.2	Bivariate analysis of the behavioural intent of small business owners/managers towards occupational health and safety	239
5.9	SECTION F: ACTUAL BEHAVIOUR OF SMALL BUSINESSES WITH REGARD TO OCCUPATIONAL HEALTH AND SAFETY ASPECTS.....	241

	Page
5.9.1	Employer responsibilities in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993241
5.9.2	Rating by small businesses of actual compliance with general administrative regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993246
5.9.3	Rating by small businesses of actual compliance with general safety regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993.....247
5.9.4	Rating by small businesses of actual compliance with employer responsibilities in terms of the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997.....249
5.9.5	Descriptive statistics of actual behaviour of small businesses towards occupational health and safety.....250
5.9.6	Bivariate analysis of actual behaviour of small businesses towards occupational health and safety.....256
5.10	SECTION G: BARRIERS TO COMPLIANCE WITH OCCUPATIONAL HEALTH AND SAFETY DIRECTIVES258
5.10.1	The rating of preselected barriers to comply with occupational health and safety directives258
5.10.2	Additionally listed and rated barriers to comply with occupational health and safety directives260
5.10.3	Exploratory Factor Analysis on barriers to occupational health and safety compliance.....262
5.10.4	Pearson Product-moment Correlation264
5.11	DATA ANALYSIS SUPPORTING RESEARCH OBJECTIVES.....267
5.11.1	The status of small businesses participating in the study268

	Page
5.11.1.1	Locality of small businesses268
5.11.1.2	Eligibility to participate269
5.11.1.3	Managing authority within the small businesses.....269
5.11.1.4	Primary economic sectors in which participating small businesses operated269
5.11.1.5	Availability of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993270
5.11.1.6	Reasons for complying with the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993.....270
5.11.1.7	Incidents during the previous two years and registration with the Compensation Fund271
5.11.1.8	The effect of direct and indirect costs of occupational health and safety incidents on small businesses.....271
5.11.2	The knowledge of small business owners/managers regarding health and safety in the workplace272
5.11.3	The attitude of small business owners/managers towards health and safety in the workplace272
5.11.4	The behavioural intent of small business owners/managers towards health and safety compliance in the workplace273
5.11.5	The actual compliant behaviour of small business owners/managers with regard to health and safety compliance in the workplace.....273
5.11.5.1	Employer responsibilities in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993273

	Page
5.11.5.2 Compliance with selected general administrative regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993	274
5.11.5.3 Compliance with selected general safety regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993	274
5.11.5.4 Compliance with the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997	274
5.11.5.5 Barriers to health and safety compliance in the workplace named by small business owners/managers	275
5.12 CONCLUSION.....	275
 CHAPTER 6 COMPLIANCE MANAGEMENT FRAMEWORK	 276
6.1 INTRODUCTION.....	276
6.2 STRUCTURAL CONTENTS OF THE COMPLIANCE MANAGEMENT FRAMEWORK	277
6.3 GUIDELINES FOR THE APPLICATION OF THE COMPLIANCE MANAGEMENT FRAMEWORK	279
6.4 INTEGRATIVE CONTEXT OF THE COMPLIANCE MANAGEMENT FRAMEWORK	280
6.5 COMPLIANCE MANAGEMENT FRAMEWORK WITH CORE OCCUPATIONAL HEALTH AND SAFETY CRITERIA	281
6.5.1 Core occupational health and safety criterion no. 1: Health and safety policy of the organisation	282
6.5.2 Core occupational health and safety criterion no. 2: Risk assessment (and safe systems of work).....	283

	Page
6.5.3	Core occupational health and safety criterion no. 3: Ensuring health and safety measures284
6.5.4	Core occupational health and safety criterion no. 4: Access to competent advice285
6.5.5	Core occupational health and safety criterion no. 5: Training and information.....286
6.5.6	Core occupational health and safety criterion no. 6: Individual qualifications and experience287
6.5.7	Core occupational health and safety criterion no. 7: Workforce involvement287
6.5.8	Core occupational health and safety criterion no. 8: Contracting procedures (i.e. using contractors)288
6.5.9	Core occupational health and safety criterion no. 9: Cooperating and coordinating with others.....288
6.5.10	Core occupational health and safety criterion no. 10: Accident/near-hit reporting and investigation289
6.5.11	Core occupational health and safety criterion no. 11: First aid and emergency measures (where applicable, notably fire)290
6.5.12	Core occupational health and safety criterion no. 12: Monitoring, checking and reviewing performance291
6.6	CONCLUSION.....291
	CHAPTER 7 CONCLUSION AND RECOMMENDATIONS.....293
7.1	INTRODUCTION293
7.2	OVERVIEW AND SIGNIFICANCE OF THE STUDY294
7.2.1	Moral, legal and financial components294
7.2.2	Direct and indirect costs295

	Page
7.2.3	International perspective on occupational health and safety in small businesses295
7.2.4	South African perspective on occupational health and safety in small businesses296
7.2.5	Theory of planned behaviour and occupational health and safety in small businesses298
7.3	PROBLEM STATEMENT AND STUDY OBJECTIVES REVISITED...298
7.3.1	Problem statement298
7.3.2	Primary objective299
7.3.3	Secondary objectives299
7.4	SUMMARY OF RESEARCH PROCESS AND METHODOLOGY299
7.4.1	Research process.....300
7.4.1.1	Identify and define research problem300
7.4.1.2	Establish research objectives300
7.4.1.3	Determine research design300
7.4.1.4	Identify information types and sources301
7.4.1.5	Develop the sample301
7.4.1.6	Design the research instrument (questionnaire).....302
7.4.1.7	Primary data collection303
7.4.1.8	Coding, capturing and storing of primary data303
7.4.1.9	Analysis of primary data303
7.4.1.10	Presentation of research findings and follow-up.....304
7.5	RESEARCH ETHICS304
7.6	RESEARCH RESULTS AND FINDINGS305
7.6.1	Qualifying characteristics and status of occupational health and safety in South African small businesses305

	Page
7.6.2	Small business owner/manager knowledge of occupational health and safety307
7.6.3	Small business owner/manager attitude towards occupational health and safety308
7.6.4	Small business owners/manager behavioural intent towards occupational health and safety compliance309
7.6.5	Small business owner/manager actual behaviour towards occupational health and safety compliance310
7.6.6	Barriers to compliance with occupational health and safety directives311
7.7	COMPLIANCE MANAGEMENT FRAMEWORK.....312
7.8	SUMMARY OF THE STUDY313
7.9	LIMITATIONS OF THE STUDY314
7.10	RECOMMENDATIONS315
7.11	AREAS FOR FURTHER RESEARCH.....317
7.12	CONCLUSION.....318
	REFERENCES.....320
	ANNEXURE A ETHICAL CLEARANCE358

LIST OF TABLES

	Page
Table 1.1: Employer responsibilities in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (RSA, 1993).....	13
Table 1.2: General administrative and safety regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (RSA, 1993).....	15
Table 1.3: Employer responsibilities in terms of the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997 (RSA, 1997)	16
Table 1.4: Active businesses per province	30
Table 1.5: Breakdown of sample.....	30
Table 2.1: Awareness of the Group of Twenty countries regarding core occupational health and safety criteria of small businesses	111
Table 3.1: Employer responsibilities in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 and the corresponding occupational health and safety criteria	132
Table 3.2: General administrative regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 and the corresponding occupational health and safety criteria.....	135
Table 3.3: General safety regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 and the corresponding occupational health and safety criteria	136
Table 3.4: Employer responsibilities in terms of the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997 and corresponding occupational health and safety criteria.....	136

	Page
Table 4.1: Measurement scales	168
Table 4.2: Response categories for different types of rating questions	171
Table 4.3: Comparison of research objectives with the questionnaire	176
Table 4.4: Reliability estimates.....	178
Table 4.5: Final questionnaire	181
Table 4.6: Comparative usage of questions on initial and final questionnaires	189
Table 4.7 Contents of question 5 in final questionnaire added to initial questionnaire	190
Table 4.8: Ethical research principles and the rationale for and development of each principle	198
Table 5.1: Annual turnover of small businesses	208
Table 5.2: Primary economic sectors in which small businesses operated	210
Table 5.3: Categorised primary economic sectors in which participating small businesses operated.....	211
Table 5.4: Reasons why participating small businesses complied with the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993	215
Table 5.5: Effect of occupational health and safety incidents on small businesses in terms of direct and indirect costs	218
Table 5.6: Additional occupational health and safety aspects that might affect small businesses	220
Table 5.7: Rating by small businesses of knowledge regarding occupational health and safety core criteria	223
Table 5.8: Descriptive statistics on the knowledge of small business owners/managers regarding occupational health and safety.....	225
Table 5.9: The rating of the attitudes of owners/managers of small businesses towards occupational health and safety in the workplace	230
Table 5.10: Descriptive statistics on the attitude of small business owners/managers.....	231

	Page
Table 5.11: Rating of behavioural intent with regard to complying with occupational health and safety aspects.....	237
Table 5.12: Descriptive statistics on behavioural intent of small business owners/managers.....	238
Table 5.13: Rating of small business with regard to actual compliance with the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993	243
Table 5.14: Small businesses' rating of actual compliance with selected general administrative regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993	247
Table 5.15: Rating by small businesses of actual compliance with general safety regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993.....	248
Table 5.16: Rating of actual compliance with employer responsibilities in terms of the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997	250
Table 5.17: Descriptive statistics on actual behaviour of small business owners/managers.....	252
Table 5.18: The effect of barriers to compliance with occupational health and safety directives.....	259
Table 5.19: Additionally listed barriers, which affect compliance with occupational health and safety directives	261
Table 5.20: Table of total variance explained.....	262
Table 5.21: Exploratory factor analysis on barriers to occupational health and safety compliance.....	263
Table 5.22: Pearson Product-moment Correlation	265

LIST OF FIGURES

	Page
Figure 1.1: Structure of contents in Chapter 1	2
Figure 1.2: Compensation Fund amounts paid for workplace incidents	3
Figure 1.3: Costs for workplace incidents during 2008–2011	4
Figure 1.4: Occupational health and safety components.....	17
Figure 1.5: Components of the compliance management framework	18
Figure 1.6: Qualifying criteria for small businesses	19
Figure 1.7: Integrated approach	20
Figure 1.8: Overview of the study.....	22
Figure 1.9: Research design	24
Figure 1.10: Outline of chapters	37
Figure 2.1: Structure of contents in Chapter 2.....	40
Figure 3.1: Structure of contents in Chapter 3.....	123
Figure 3.2: The four components of corporate social responsibility.....	139
Figure 3.3: Iceberg effect of direct and indirect costs related to occupational health and safety incidents and accidents.....	146
Figure 3.4: Planned behaviour with regard to occupational health and safety compliance.....	152
Figure 3.5: Theory of planned behaviour and influence of barriers on actual behaviour	154
Figure 4.1: Structure of contents in Chapter 4.....	157
Figure 4.2: Steps in the research process.....	159
Figure 4.3: Sample – number of questionnaires.....	165
Figure 4.4: Structured process for questionnaire design	168
Figure 4.5: Flowchart for questionnaire design	170
Figure 5.1: Structure of contents in Chapter 5.....	204
Figure 5.2: Position in small businesses	206
Figure 5.3: Provincial location of small businesses	207

	Page
Figure 5.4: Number of employees in participating small businesses	209
Figure 5.5: Availability of a copy of the Occupational Health and Safety Act at small businesses	212
Figure 5.6: Reasons for compliance with the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993	214
Figure 5.7: Occurrence of occupational health and safety incidents during the previous two years	217
Figure 5.8: Small businesses registered with the Compensation Fund	221
Figure 5.9: Histogram of the knowledge of small business owners/managers regarding occupational health and safety	227
Figure 5.10: Histogram depicting the attitudes of small business owners/managers.....	233
Figure 5.11: Histogram showing the behavioural intent of small business owners/managers.....	239
Figure 5.12: Histogram of actual behaviour of small businesses towards occupational health and safety	256
Figure 5.13: Barriers to OHS compliance	263
Figure 6.1: Structure of contents in Chapter 6.....	277
Figure 6.2: Integrated nature of the compliance management framework with occupational health and safety criteria and components	281
Figure 7.1: Structure of contents in Chapter 7.....	293
Figure 7.2: Overview of study on occupational health and safety in South African small businesses.....	314

ABBREVIATIONS AND ACRONYMS

AA	Automobile Association
ANOVA	Analysis of Variance
APMG	Accrediting Professional Managers Globally
APP	annual performance plan
ASSE	American Society of Safety Engineers
BASF	Badische Anilin und Soda Fabrik (German chemical products company)
CHSCT	General Occupational Health and Safety Commission
CI	confidence interval
CIPC	Companies and Intellectual Property Commission
CMF	compliance management framework
COID	Compensation for Occupational Injuries and Diseases
COID Act	Compensation for Occupational Injuries and Diseases Act No. 61 of 1997
CSIR	Council for Scientific and Industrial Research
CSR	corporate social responsibility
DoL	Department of Labour
DSBD	Department of Small Business Development
dti	Department of Trade and Industry
EEA	European Economic Area
EFA	Exploratory Factor Analysis
EIA	environmental impact assessment
EMS	environmental management system
ENWHP	European Network for Workplace Health Promotion
EU	European Union
GEM	Global Entrepreneurship Monitor
G20	Group of Twenty
GDP	gross domestic product
GNP	gross national product
IBM SPSS	IBM Statistical Package for the Social Science
ICCEF	International Conference on Computing in Economics and Finance

IFC	International Finance Corporation
ILO	International Labour Organisation
IMF	International Monetary Fund
IoDSA	Institute of Directors in Southern Africa
IOSH	Institution of Occupational Safety and Health
ISO	International Organisation for Standardisation
IWH	Institute for Work and Health
KMO MSA	Kaiser-Meyer-Olkin Measure of Sampling Adequacy
MD	managing director
MO	mode
MSA	mean sum of all
MSs	management systems
NDP	National Development Plan
NOSA	National Occupational Safety Association
NOSHC	National Occupational Safety and Health Committee
NPC	National Planning Commission
OHS	occupational health and safety
OHS Act	Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993
OHSAS	Occupational Health and Safety Advisory Services
OSH	occupational safety and health
OSHA	Occupational Safety and Health Administration
PPE	personal protective equipment
PwC	PricewaterhouseCoopers
RCI Safety	Regulatory Compliance Incorporated Safety
RoSPA	Royal Society for the Prevention of Accidents
RSA	Republic of South Africa
SA	South Africa/n
SABS	South African Bureau of Standards
SANS	South African National Standards
SARS	South African Revenue Service
SASSA	South African Social Security Agency
SBA	Small Business Administration

SD	standard deviation
SEWA	Self-Employed Women's Association
SHE	safety, health and environment
SHEQ	safety, health, environment and quality
SIC	Standard Industrial Classification
SIST	Inter-Company Occupational Health Service
SMEs	small and medium enterprises
SMME	small, medium and micro enterprises
SOP	standard operating procedure
TBL	triple bottom line
TPB	theory of planned behaviour
TQM	total quality management
UCT	University of Cape Town
UK	United Kingdom
UN	United Nations
Unisa	University of South Africa
US	United States
VOC	volatile organic compounds
WESSA	Wildlife and Environmental Society of South Africa
WHO	World Health Organisation
WHP	workplace health promotion

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

South Africa (SA) currently experiences major challenges pertaining to economic sustainability and economic progress that result from the global economic crises (2007–2008), unemployment and population growth (Department of Labour [DoL], 2014b:10). The government foresees to deal with such challenges through the implementation of the Department of Trade and Industry's (dti's) Annual Performance Plan (dti, 2014b:9). In order to deal with the challenge of unemployment and the associated economic dependency on government, the National Development Plan (NDP) emphasises the establishment and growth of small businesses on a major scale (National Planning Commission [NPC], 2014:9). The dti's Strategic Plan 2014/2019 (dti, 2014a:11) foresees that small businesses will contribute significantly to the growth of the South African economy. Dealing with unemployment along such lines necessitates the identification and implementation of policies that will encourage and enable SA people to start and grow businesses in order to create jobs and thereby ensure economic growth as well as stability in society (Xavier, Kelley, Kew, Herrington & Vorderwülbecke, 2012:10). Whereas the traditional analyses regarding the enhancement of economic development and growth focused on large corporations, the important role of small businesses in this respect is increasingly recognised by policy makers and academics (Xavier *et al.*, 2012:12).

The emphasis of the SA government on the role of small businesses in economic growth implies the possible enlargement of the workforce, which will have financial implications associated with occupational accidents, injuries and illnesses (NPC, 2014:39). Such enlargement of the workforce will imply that the traditional economic approach of saving costs with regard to occupational health and safety (OHS) will no longer be a viable option (Ahonen & Hussi, 2012:4). Figure 1.1 presents a schematic flow of this chapter.

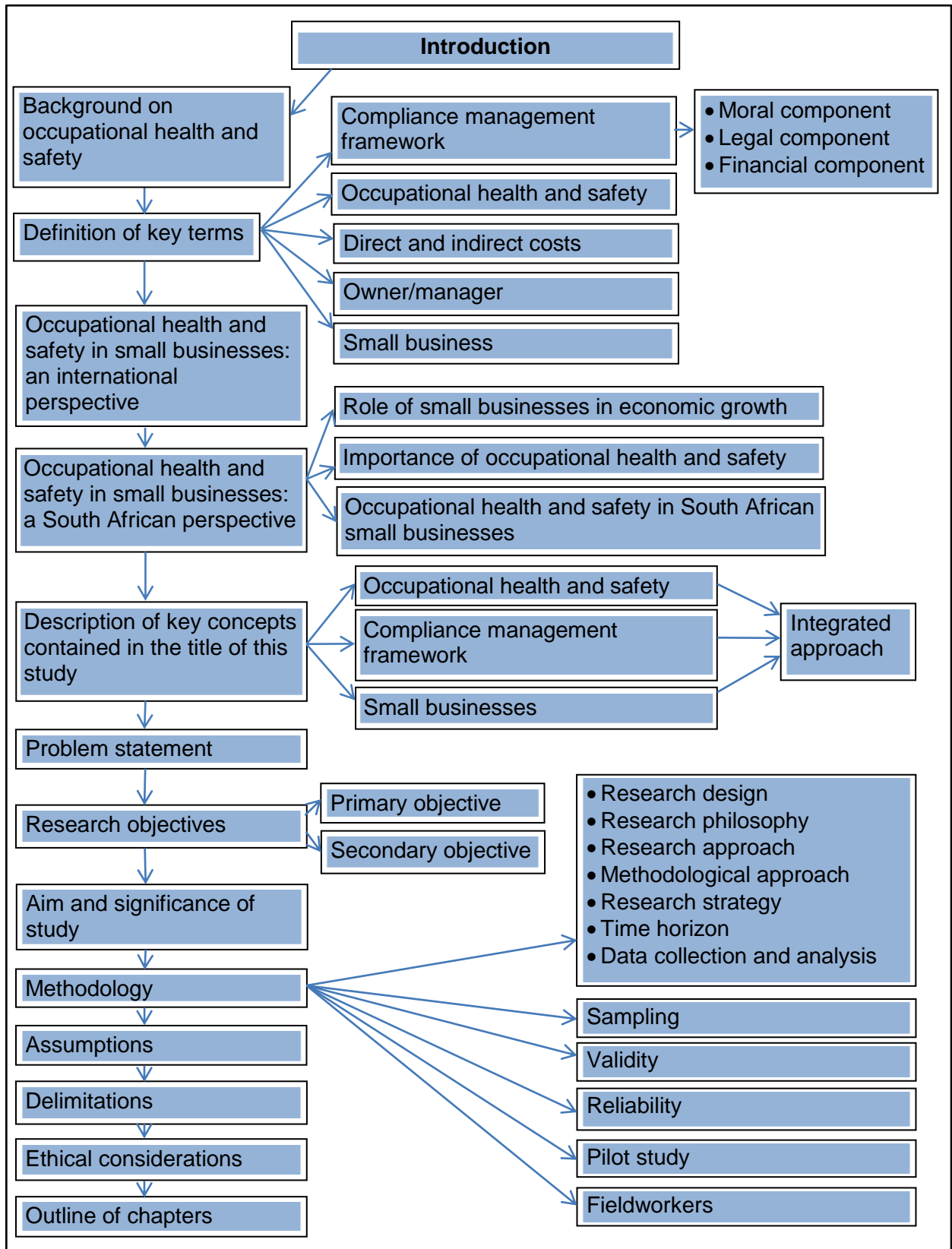


Figure 1.1: Structure of contents in Chapter 1

Source: Author's own compilation (2014)

1.2 BACKGROUND ON OCCUPATIONAL HEALTH AND SAFETY

The social and economic implications of occupational injuries and ill health on individuals, families and communities are of great concern worldwide (Hermanus, 2007:53). Chen and Zorigt (2013:2321) reiterate the fact that OHS requirements are increasingly receiving attention in every country in the world. According to the Annual Report of the Compensation Fund 2015/2016 of SA, millions of Rands are paid out annually for temporary and permanent disabilities due to workplace incidents and in resultant pensions (Compensation Fund, 2016:19-20). Figure 1.2 below indicates these amounts in millions of Rands.

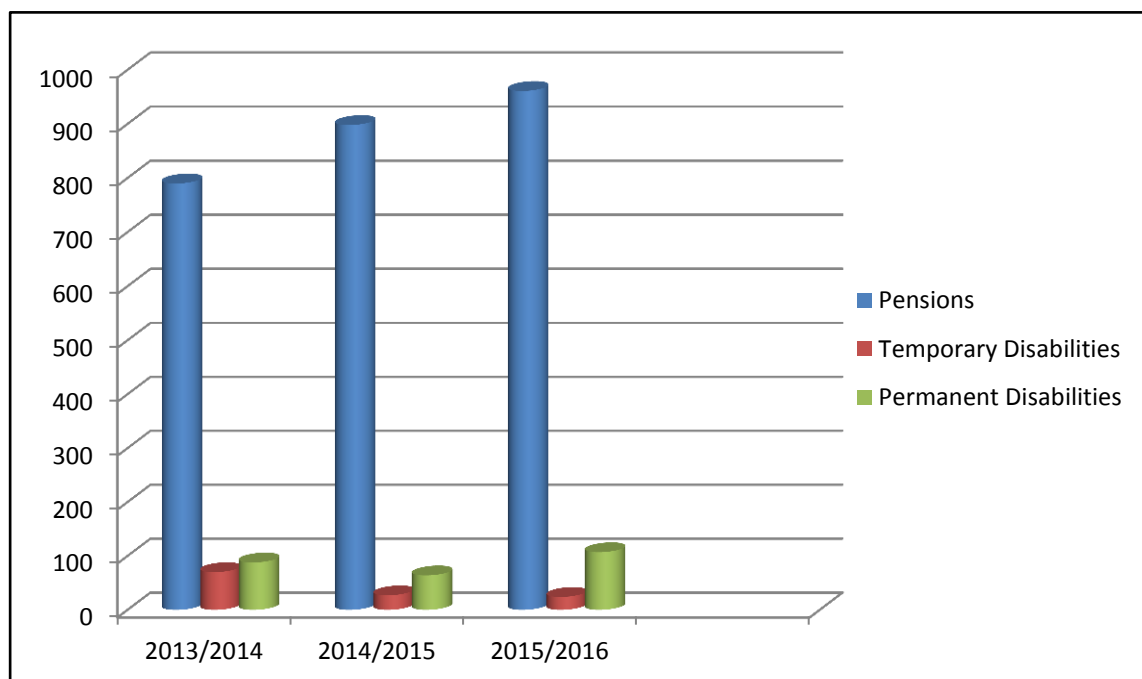


Figure 1.2: Compensation Fund amounts paid for workplace incidents

Source: Adapted from the Compensation Fund (2016:19-20)

These payments are indicative of the challenge that the SA government experience with regard to cost related to occupational injuries and diseases. This predicament is confirmed in the Annual Performance Plan 2014-2015 of the DoL (DoL, 2014a:10).

On 27 March 2013, Boikanyu, the departmental spokesperson of the DoL made a statement in which he postulated that compliance with OHS requirements should be emphasised in order to save resources necessary for job creation and

sustainable development (DoL, 2013:1). Sustainable development requires control over direct and indirect costs pertaining to OHS. Direct and indirect costs associated with accidents, injuries, illnesses and fatalities in the workplace contribute to rising expenses as Figure 1.3 below confirms for the years previous to those indicated by the Compensation Fund (see Figure 1.2).



Figure 1.3: Costs for workplace incidents during 2008–2011

Source: Adapted from the DoL (2013:1)

According to Markowitz and Gerardu (2012:540), such sustainable development, as recognised by the DoL, relies on good governance, which in turn is dependent upon the rule of law, and this rule of law rests upon “effective compliance and enforcement”. Markowitz and Gerardu (2012:553) further contend that both individuals and businesses need to have an unwavering commitment to such compliance and enforcement. Morrison-Saunders and Retief (2012:40) reiterate that individuals (such as small business owners and/or managers) play an important role in influencing peers in their respective industries to such commitment. Starren, Hornikx and Luijters (2013:42) emphasise that small businesses are faced with very specific problems pertaining to managing health and safety challenges. Clusel, Guarnieri, Martin and Lagarde (2011a:1–2) emphasise that managing OHS depends greatly on the level of knowledge (training) and experience, which small businesses in many cases lack and which result in non-compliance behaviour. Floyd, Lawson, Shalloe, Eastgate and D’Cruz (2013:70) add that small businesses lack the availability of resources to address such issues. Reiner (2011:49) found that three elements influence the capability of small businesses to comply with legal requirements related to health

and safety. These elements constitute that OHS issues are complex, time-consuming and cost-intensive. It is therefore important that perception (including that of small business owners and/or managers) should be changed to realise the far-reaching effects of non-compliance with legislation regarding occupational injuries and diseases.

1.3 DEFINITION OF KEY TERMS

For the purpose of this study, the following definitions of the key terms apply:

1.3.1 Compliance management framework

For the purpose of this study, the compliance management framework (CMF) will be studied under three inter-dependent components, namely a moral component, a legal component and a financial component.

1.3.1.1 Moral component

Even as early as 1989, the moral obligation of an employer to his/her employee was recognised with society requiring that a reasonably safe working environment be maintained (Heinrich, 1959:43; Duluth, 2013:22; Louw, 2015a:131-133). Bever (1984:45) postulates that moral obligations towards the community transcend legality. A substantial consideration of such moral obligation is to ensure that employees (the working community) are made competent to deal with the safety risks to which they are exposed within the everyday work *via* instruction and training. Employee injuries and fatalities have a demoralising effect on the workforce, their families and the surrounding community. Everybody prefers to return home as healthy and as safe as when they left home. This moral responsibility of management plays a major role in setting, implementing and maintaining an effective programme to ensure optimum safety in the working environment.

According to Grimaldi and Simonds (1989:101–102), workers are inclined to regard occupational injuries as an indication that employers care little about worker safety and health. Such presupposition affects the morale of the workforce negatively. Goetsch (2014a:603) indicates that businesses that operate in a

socially responsible way have a greater chance for ultimate success than those who are focused solely on profits. Management is therefore morally obligated to meet or comply with the expectations of workers to work in a working environment that is safe, just as management is expected to comply with the legal rules and requirements pertaining to safety in the workplace.

1.3.1.2 Legal component

Laws, ordinances and rules direct all facets of OHS in the workplace (Heinrich, 1959:43; Arya & Bassi, 2011:674; Maamoun, 2013:8; Goetsch, 2014a:642). Such responsibility and accountability for management is defined and set *via* legal requirements and prescriptions. Legal issues related to OHS depict society's moral concerns in writing about workers' safety in the workplace. From a moral and legal point of view, management has a legal obligation to exercise appropriate care to avoid harm to others or damage to their property (Goetsch, 2014b:131).

Legal requirements stipulate management responsibilities and accountability to ensure that (Goetsch, 2014b:131):

- the working environment is safe at all times;
- workers are provided with all the necessary plant, machinery and protective equipment;
- workers are competent to deal with all levels of safety risk offered by the normal work activities; as well as
- appropriate qualified supervision is provided to assist in such endeavours.

Fuller and Vassie (2004:200–201) mention that legal regulation of OHS is inextricably interwoven with management.

Regulation of health and safety in the workplace is a very important and indispensable part of modern business operations and has become the focus of government agencies, non-government safety agencies and international safety agencies. Examples of such developments are governments of major industrialised countries worldwide, the United Nations (UN), the World Health Organisation (WHO), International Labour Organisation (ILO) and the International

Safety Organisation (Fuller & Vassie, 2004:202). Legal regulation of health and safety in the workplace is regarded as pivotal in the pursuit of sustainable development. Goetsch (2014a:642) summarises management's legal obligations pertaining to safety as:

- rules that ensure safety and health in the workplace;
- worker competence about such rules; and
- objective and consistent enforcement of such rules.

1.3.1.3 Financial component

Addressing safety and health risk in the organisation inevitably goes hand in hand with financial decisions (Valsamakis, Vivian & Du Toit, 1992:245; Hart, 2015:1). Bever (1984:236) stipulates that meeting legal safety regulations require meaningful financial expenditures. Fuller and Vassie (2004:127) argue that the success of an organisation depends on the extent to which the needs of customers can be met by delivering appropriate goods and services at an acceptable price, as well as meeting the needs of workers by offering acceptable remuneration while working under acceptable working conditions. Heinrich (1959:40) contends that methods of achieving safety are intensely integrated with procedures of controlling production.

Occupational injuries and illnesses, including damage to machinery which disrupt business operations, as well as damage claims, legal costs, increased insurance premiums and company disrepute add to overall costs of the company (Fuller & Vassie, 2004:136). Such economic repercussions of occupational unsafety and ill health comprise both direct and indirect costs. The former is qualified as costs that have to be laid out for items such as medical treatment and hospitalisation of injured and ill employees, repair or replacement of plant and machinery, damage to facilities, claims or compensation by employees or families for loss of income, legal fees, and an increase in insurance premiums (Goetsch, 2014b:27). Indirect costs relate to issues such as loss of income during recuperation of injured, finding and training replacements, retraining of injured, damage to company image and disrepute (Goetsch, 2014b:19).

1.3.2 Occupational health and safety

OHS encompasses conditions in the workplace that relate to the well-being of employees. Employees should experience the optimum protection under all working conditions and must not be exposed to physiological, physical or mental stressors (Bergh & Theron, 2004:39).

1.3.3 Direct and indirect costs

Direct costs are differentiated from indirect costs. Direct costs refer to costs associated with occupational injuries and diseases, workplace damage and production interruption. Indirect costs relate to costs regarding the loss of lives, the support of dependants and the costs related to diminished stature and reputation of businesses (Hermanus, 2007:531).

1.3.4 Owner/manager

The owner of a small business is the person who owns, controls and operates the small business because it belongs to him or her as the legal owner (Mahmood & Hanafi, 2013:84). A manager of a small business is the person who acts, *via* the functions of planning, organising, leading and control, as a leader or captain of a team through whom business objectives are achieved (Robbins, 2001:2–3; Oosthuizen, 2014:85).

1.3.5 Small business

The definition of small businesses needs to consider qualitative as well as quantitative criteria as indicated by the National Small Business Amendment Act No. 29 of 2004 (Republic of South Africa [RSA], 2004:3-4). Quantitative criteria refer to the number of employees, annual turnover and total gross asset value upon which the size of the organisation is classified as being micro, very small, small or medium. Qualitative criteria that determine the nature of small businesses are, amongst others, the structure of ownership, distinctness of the business enterprise and management of such enterprise as defined by the National Small Business Amendment Act No. 29 of 2004 (RSA, 2004:3-4).

The National Small Business Amendment Act No. 29 of 2004 (RSA, 2004:2) defines an enterprise as:

“A separate and distinct business entity, together with its branches or subsidiaries, if any, including co-operative enterprises, managed by one owner or more predominantly carried on in any sector or subsector of the economy and classified as a micro-, a very small, a small or a medium enterprise.”

In this study, a small business implies one whose annual turnover does not exceed R10 million and which employs fewer than 50 employees. This corroborates with a similar study performed by Arocena and Nuñez (2010:398) who found that small businesses on the whole seldom achieve excessive turnovers.

1.4 OCCUPATIONAL HEALTH AND SAFETY IN SMALL BUSINESSES: AN INTERNATIONAL PERSPECTIVE

No business functions in isolation and thus, irrespective of their approach to OHS, countries around the world should take notice of the need for, and emphasis on, globalisation pertaining to “the flows of people, capital, ideas and technologies” which introduces increased complexities (NPC, 2014:31). South Africa is also exposed to the phenomenon of globalisation and experiencing the rippling implications of such unavoidable international effects (NPC, 2014:32).

The awareness regarding OHS in small businesses in the Group of Twenty (G20) countries (of which South Africa forms part) is explained in this study. The following 20 countries are the member countries comprising the G20: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, SA, Turkey, United Kingdom (UK), United States (US), and the European Union (EU) (G20, 2014a:1). The G20’s priorities include stimulating economic growth and enhancing job creation by, amongst others, identifying and addressing key obstacles (G20, 2014b:1). OHS forms part of such obstacles.

1.5 OCCUPATIONAL HEALTH AND SAFETY IN SMALL BUSINESSES: A SOUTH AFRICAN PERSPECTIVE

Section 24(a) of the Constitution of the Republic of South Africa (RSA, 1996) indicates, "everyone has the right to an environment that is not harmful to their health or well-being". In addition, Section 27(1)(c) of the Constitution of the Republic of South Africa (RSA, 1996) stipulates that South Africans have the right to social security, which implies social security related to occupational injuries and diseases (Compensation Fund, 2013:6). This stipulation unequivocally applies to all types of business, including small businesses and their owners/managers.

However, statistics indicate that the amount of money that the government pays out for occupational injuries and diseases is unacceptably high because businesses in general do not give execution to legal requirements related to financial security pertaining to OHS (Compensation Fund, 2013:9). The consistent prevalence of unsafe work environments frequently results in occupational accidents and diseases with unwanted social, community and family effects. The financial costs associated with OHS that businesses have to carry, cannot be tolerated in modern society (Patel, Goetzel, Beckowski, Milner, Greyling, Da Silva, Kolbe-Alexander, Trabizi & Nossel, 2013:172).

1.5.1 Role of small businesses in economic growth

The SA government regards small businesses as vital role players in economic growth and development as part of the National Development Plan (NDP) 2030 (NPC, 2014:39-40). The current dependence of the unemployed on financial support by the government, such as social grants administered by the South African Social Security Agency (South African Social Security Agency [SASSA], 2012:18; SASSA, 2016:21), can greatly be alleviated through the establishment of small businesses that would enhance economic growth and development. Therefore, the challenge is to grow the numbers of small businesses to contribute to the reduction of growing unemployment (Herrington, Kew & Kew, 2009:12).

The successful development and management of small businesses form an integral part of the SA government's job creation goals (Ladzani & Netswera,

2009:225; Swanepoel, Strydom & Nieuwenhuizen, 2010:59; Meyer, 2014:68). Small businesses assist in the establishment and maintenance of individual and family social security as set by the SA government (Compensation Fund, 2013:6).

1.5.2 Importance of occupational health and safety

The successful management and financial growth of a small business are dependent upon, the full recognition and implementation of OHS directives specified in applicable legislation (Okoye & Okolie, 2014:21). Hasle, Kines and Andersen (2009:10) emphasise this viewpoint, and further postulate that small businesses generally have limited financial and management resources with regard to dealing with occupational injuries and diseases.

Within the context of the emphasis on the important role that small businesses should play in growing and maintaining a viable economy in South Africa, it is necessary to ascertain whether small business owners are aware of and adhere to OHS directives. In their study based in Denmark, Hasle *et al.* (2009:10) found that small business owners/managers generally do not follow legislative requirements particularly pertaining to OHS. Small business owners/managers are inclined to address OHS issues on an ad hoc basis whilst experiencing difficulty to deal with the financial implications that may result from occupational injuries and diseases (Hasle *et al.*, 2009:9). The adversity of small business owners in engaging in OHS directives results in limited productivity, low employee morale and unforeseeable financial loss (Nuñez & Villaneuva, 2011:56).

1.5.3 Occupational health and safety in South African small businesses

It is important to ascertain SA small business owner/manager knowledge, attitude, behavioural intent and actual behaviour as applicable OHS directives. Upon determining the current SA small business owner/manager contention and application of such directives, it seems significant to identify different barriers that small business owners/managers identify as hindering elements to comply with OHS directives in order to set guidelines for future improvement and, thereby, enhance competitiveness (Stranks, 2010:137–138).

According to the Companies and Intellectual Property Commission (CIPC) (2013a:3), 2013 saw more than 1.2 million active businesses in the nine provinces of South Africa. Active businesses are businesses that deliver proof that they are actual active entities by: being formally CIPC-registered; submitting annual tax returns and having supporting documents, such as bank statements, of actively doing business (CIPC, 2013b:1; CIPC, 2013c:12).

The SA government expects of these businesses and any expansion in the number of businesses thereafter, to play an important role in reducing the unemployment rate, advancing the economy, as well as enhancing and sustaining the financial independence of the growing SA population (dti, 2014a:34). An important element of such endeavour is compliance with legal requirements with regard to OHS in the workplace, with the view to prevent and at least limit as far as possible unnecessary costs on the account of small businesses and government expenditure related to occupational injuries, illnesses and fatalities (Maxey, 2013:12).

Businesses, including small businesses, need to comply with a range of legal requirements or obligations pertaining to OHS in the workplace. Such legal obligations comprise a relatively diverse but integrated CMF that prescribes the legal, financial and moral responsibilities that employers (owners/managers) need to uphold and practice with regard to health and safety in the working environment. The CMF is explained in more detail in section 1.6.2.

For the purpose of this study, certain general sections (as applicable to employers) of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (OHS Act) (RSA, 1993) as well as the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997 (COID Act) (RSA, 1997) were researched. Tables 1.1, 1.2 and 1.3 summarise the applicable sections of these two Acts.

Table 1.1: Employer responsibilities in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (RSA, 1993)

Section	Elements	Section	Elements
7(1)(b) (2&3)	Health and safety policy – prepares guidelines, contents and display in writing	8(1)	General duties of employers. Ensure a safe working environment without health and safety risk
8(2)(a)	Systems of work, plant and machinery are safe and without risk to health and safety	8(2)(b)	Eliminate or mitigate all hazards before resorting to personal protective equipment (PPE)
8(2)(c)	Absence of safety risk regarding any articles or substances	8(2)(d)	Determine any hazard present in any work processes and applicable precautionary measures
8(2)(e)	Ensure worker competence <i>via</i> information, instruction and training with supervision to ensure employee health and safety	8(2)(f)	Permit no work unless precautionary measures are in place
8(2)(g)	Ensure that all prescribed legal requirements of this Act are complied with by every person under his or her authority	8(2)(h)	Enforce measures in the interest of health and safety
8(2)(i)	Ensure appropriate supervision by competent person/s and authority to ensure implementation of precautions	8(2)(j)	Ensure all employees are informed on the scope of authority in terms of what must or ought to be done in terms of health and safety
9(1)	Every employer to ensure that non-workers are not exposed to hazards to their health and safety	9(2)	Self-employed persons must ensure no exposure to hazards that threaten the health and safety of any employee or non-employee
13(a)	Ensure employee competence concerning the nature of all hazards and applicable precautionary measures	13(b)	Inform health and safety representative in advance regarding inspections, investigations or formal inquiries and any exemption
13(c)	Inform health and safety representative/s of incidents as soon as required	16(1)	Employer to ensure responsibilities in terms of this Act are properly discharged
16(2)	Employer to assign any person any duty in any subsection who shall act under his authority	16(3)	Employer remains responsible and accountable in spite of delegation
23	Employer may not require or permit any payment by employee for any provisions or action regarding employee health and safety in terms of this Act	24	Report incidents at work, arising out of or in connection with work activities

Section	Elements	Section	Elements
24(1)(a)	Report incidents that resulted in: unconsciousness, loss of limb, or part, injury, disease and likelihood to die or suffer permanent physical defect or not being able to work for 14 days in current position	24(1)(b)	Report major incidents
24(1)(c)	Report incidents that endanger health <i>via</i> : (i) Substance spill (ii) Uncontrolled release of substance under pressure (iii) Machinery/part fractured or failed, flying, falling or uncontrolled moving objects (iv) Machinery that ran out of order	24(2)	Report incidents within a prescribed period and prescribed manner. Rescue person/s from danger, but leave scene undisturbed
26(1&2)	Victimisation: no dismissal, reduction of payment or alteration of terms and conditions less favourable to the employee or in relation to colleagues to disadvantage them because of information provided	34	Give full cooperation in all respects of investigations
36	Disclosure of information	35	May appeal against decision of inspector

Source: Adapted from the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (RSA, 1993)

Table 1.2: General administrative and safety regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (RSA, 1993)

GENERAL ADMINISTRATIVE REGULATIONS			GENERAL SAFETY REGULATIONS	
Section	Elements	Section	Elements	
4	Copy of this Act must be made available if five or more employees are employed	2	Personal safety equipment should be supplied if necessary	
8(1)	Reporting of incidents within 7 days – with full personal details of involved persons prescribed	2A	Intoxicated persons should not be permitted at the workplace	
9	Record and investigate incidents that have to be reported	2B	Display appropriate symbols and signs	
		2C	Do not permit persons in dangerous premises	
		3(1&2)	First aid emergency equipment and procedures must be in place	
		3(a)	Minimum contents of first aid box	

Source: Adapted from the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (RSA, 1993)

Table 1.3: Employer responsibilities in terms of the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997 (RSA, 1997)

Section	Elements
39	Employer must report the accident to the Commissioner within 7 days after receiving notice of an accident
80	Employer must register with the Commissioner
86	Assessment must be paid to Commissioner

Source: Adapted from the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997 (RSA, 1997)

1.6 DESCRIPTION OF KEY CONCEPTS CONTAINED IN THE TITLE OF THIS STUDY

The title of this study, "Occupational health and safety: A compliance management framework for small businesses in South Africa", comprise three main constructs. These constructs represent an interrelated significance, which is depicted below.

1.6.1 Occupational health and safety

Health and safety management are regarded as part of the daily occupational activities within small businesses in South Africa (Smit & Watkins, 2012:6328). The focus of this study honed in on determining compliance with applicable OHS legislation and identifying a framework to assist management to meet such legal requirements. The interrelatedness of OHS is depicted in Figure 1.4 below.

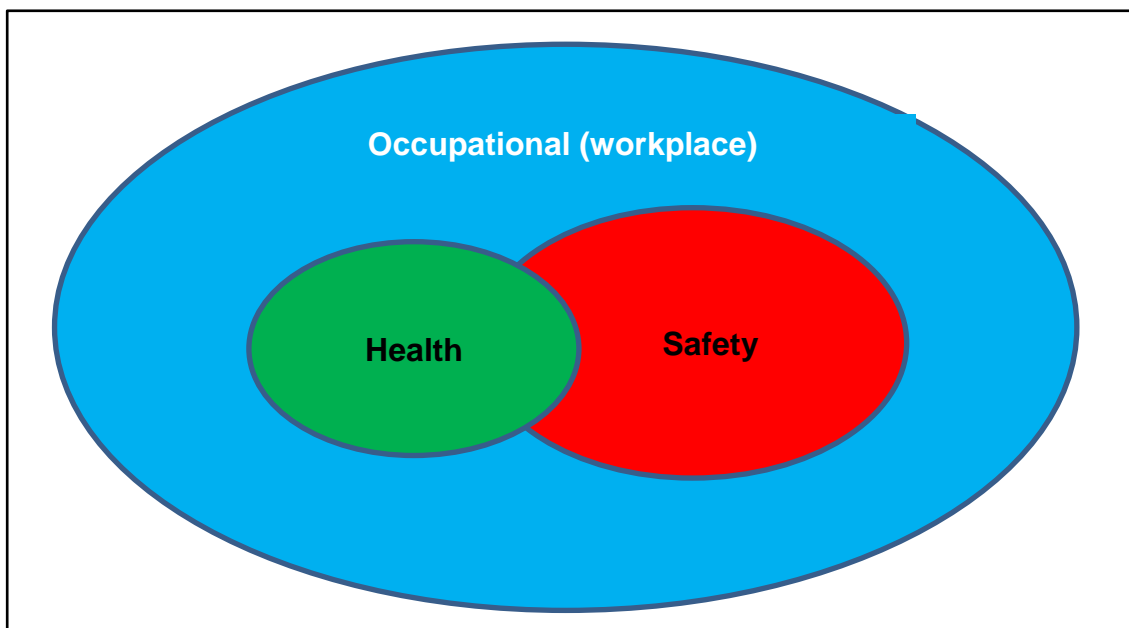


Figure 1.4: Occupational health and safety components

Source: Author's own compilation (2015)

1.6.2 Compliance management framework

This study endeavoured to develop a CMF that would assist small business owners/managers to comply with OHS legal directives that apply to the work

situation. In formulating such CMF, attention was given to integrating the legal, financial and moral components as indicated in Figure 1.5 below.

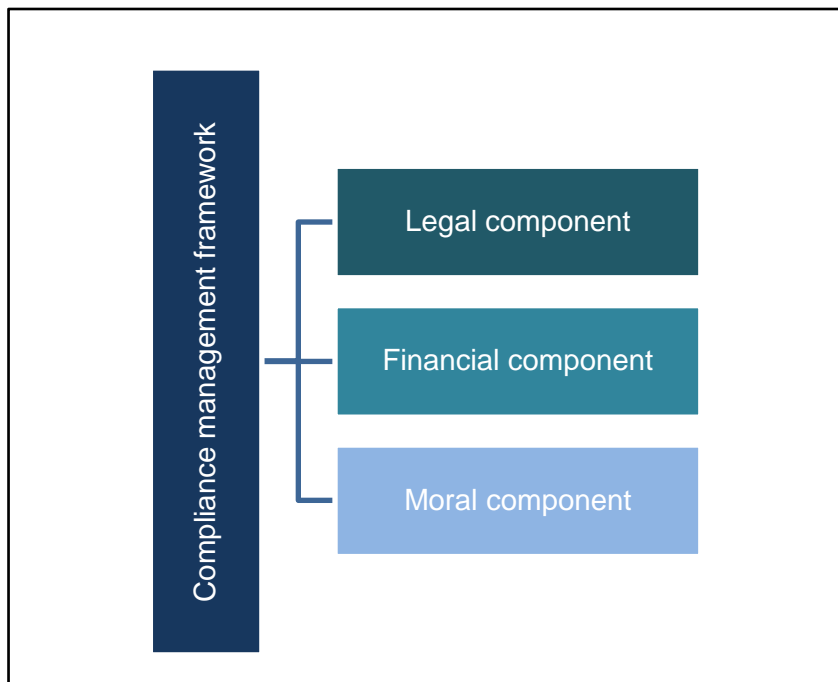


Figure 1.5: Components of the compliance management framework

Source: Author's own compilation (2015)

1.6.3 Small businesses

Internationally, the terms SMMEs, referring to small, medium and micro enterprises (Kent, 2013:1), SMEs used for small and medium enterprises (Kheni, Gibb & Dainty, 2010:1104), and small businesses (Maxey, 2013:12) are applied to refer to smaller-sized businesses. In spite of these different terms used in the literature, this study used the term small businesses only. Using only one term maintained consistency in this study. The empirical study focused on the contentions of owners/managers of such small businesses. Figure 1.6 contains the characteristics of the small business utilised as objects of study in this study.

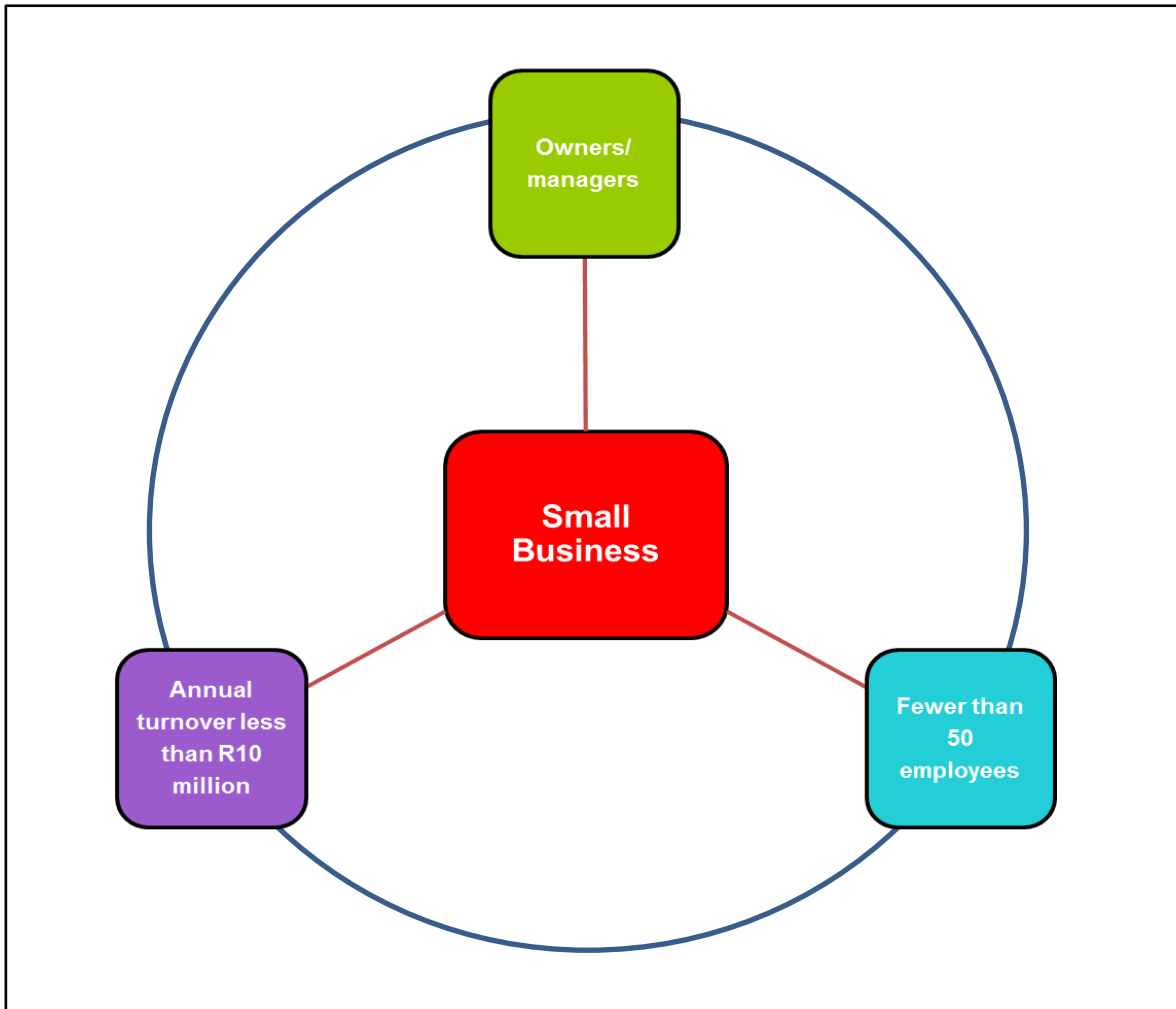


Figure 1.6: Qualifying criteria for small businesses

Source: Adapted from the National Small Business Amendment Act No. 29 of 2004 (RSA, 2004)

1.6.4 Integrated approach

Figure 1.7 combines the various components of the title into one integrated functional unit, the compliance management framework (CMF), which are derived at and constructed after empirical determination to what extent small business owners/managers in South Africa currently are knowledgeable about and comply with basic OHS directives.

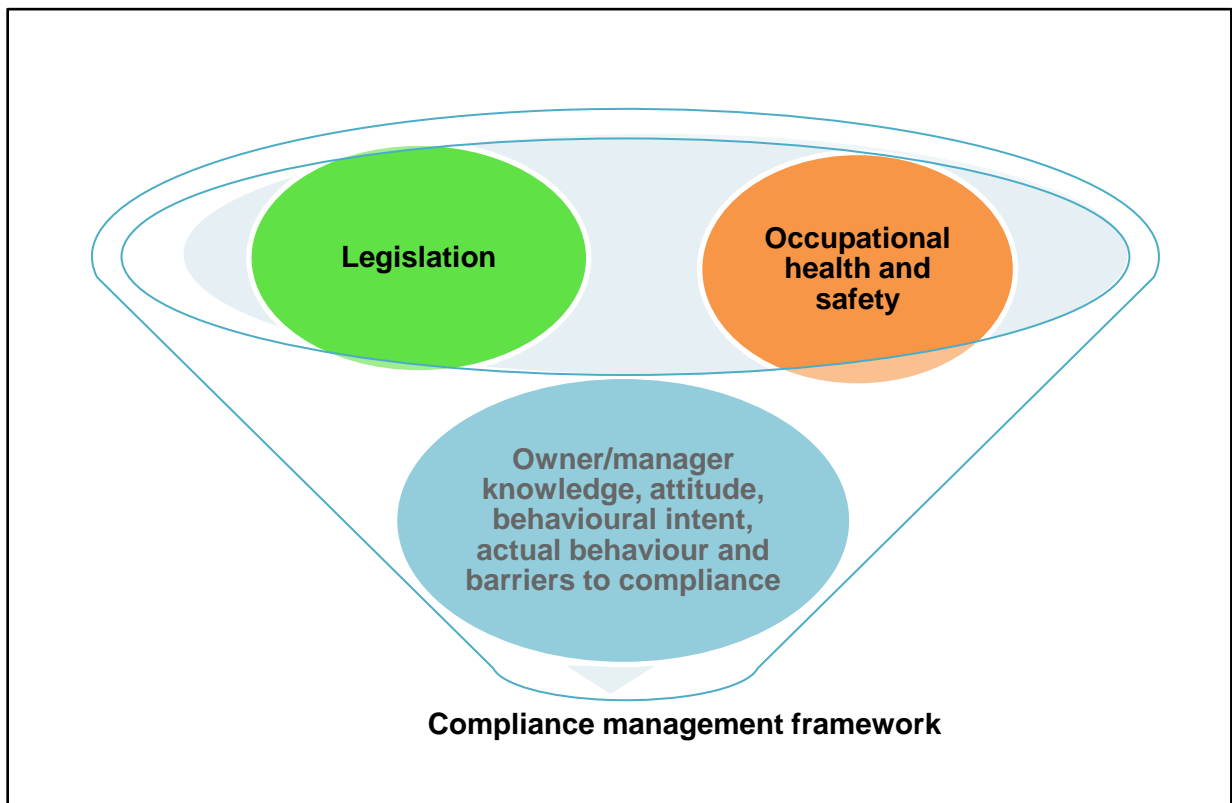


Figure 1.7: Integrated approach

Source: Author's own compilation (2015)

1.7 PROBLEM STATEMENT

The managing director of SureSwipe, Kent, was quoted on Fin24.com, when he stated, "Too many laws are killing small businesses" because legal compliance issues is the main reason why small businesses fail (Kent, 2013:1). Small businesses experience great challenges pertaining to OHS because of a lack of financial resources, a lack of managerial skills and poor commitment (Floyde *et al.*, 2013:70). Mardon (2010:1) reiterates that the lack of legal compliance with OHS directives results in SA losing many economically active workers through occupational injuries and diseases.

Compliance with OHS requirements, which is inadequate in SA, will contribute to economic growth and job creation and the advancement of the economic environment (DoL, 2013:1). Eakin (2010:1) stipulates that enlarging the vision field of management to include the importance of OHS, is crucial in addressing the conflict between interests of businesses and workers pertaining to OHS in small businesses.

This study endeavoured to bridge the gap that small businesses in SA experience between knowledge, attitude, behavioural intent, actual behaviour and dealing effectively with barriers that hinder actual compliance with OHS directives. Development and application of the CMF in the workplace will play a contributory role in ensuring that knowledge, attitude, behavioural intent and actual behaviour lead to OHS compliance.

1.8 RESEARCH OBJECTIVES

With the view to address the challenge stated above, primary and secondary objectives were set for this study.

1.8.1 Primary objective

The primary objective of this study was to establish a CMF pertaining to OHS directives that will guide and assist small business owners/managers to comply with applicable legal requirements as constituted by the OHS Act (RSA, 1993), as well as the COID Act (RSA, 1997).

1.8.2 Secondary objectives

As basis for establishing the CMF, this research ascertained the context of OHS knowledge, attitude, behavioural intent and actual behaviour of small business owners/managers with reference to compliance. Simultaneously, the actual compliance of owners/managers of small businesses and barriers that they regarded as hindrances to compliance was ascertained.

The following secondary objectives were set for this study to support the primary objective:

- to determine small business owner/manager knowledge of health and safety in the workplace;
- to determine small business owner/manager attitude towards health and safety in the workplace;
- to determine small business owner/manager behavioural intent towards health and safety compliance in the workplace;

- to determine small business owner/manager actual behaviour towards health and safety compliance in the workplace; and
- to investigate small business owner/manager perceived barriers to health and safety compliance in the workplace.

This study consequently proposes a CMF for small businesses in South Africa which, when implemented, could enhance small business compliance with the relevant OHS Acts in South Africa. The study, as structured below in Figure 1.8, attempted to depict the way and procedures that applied in the process of achieving these objectives.

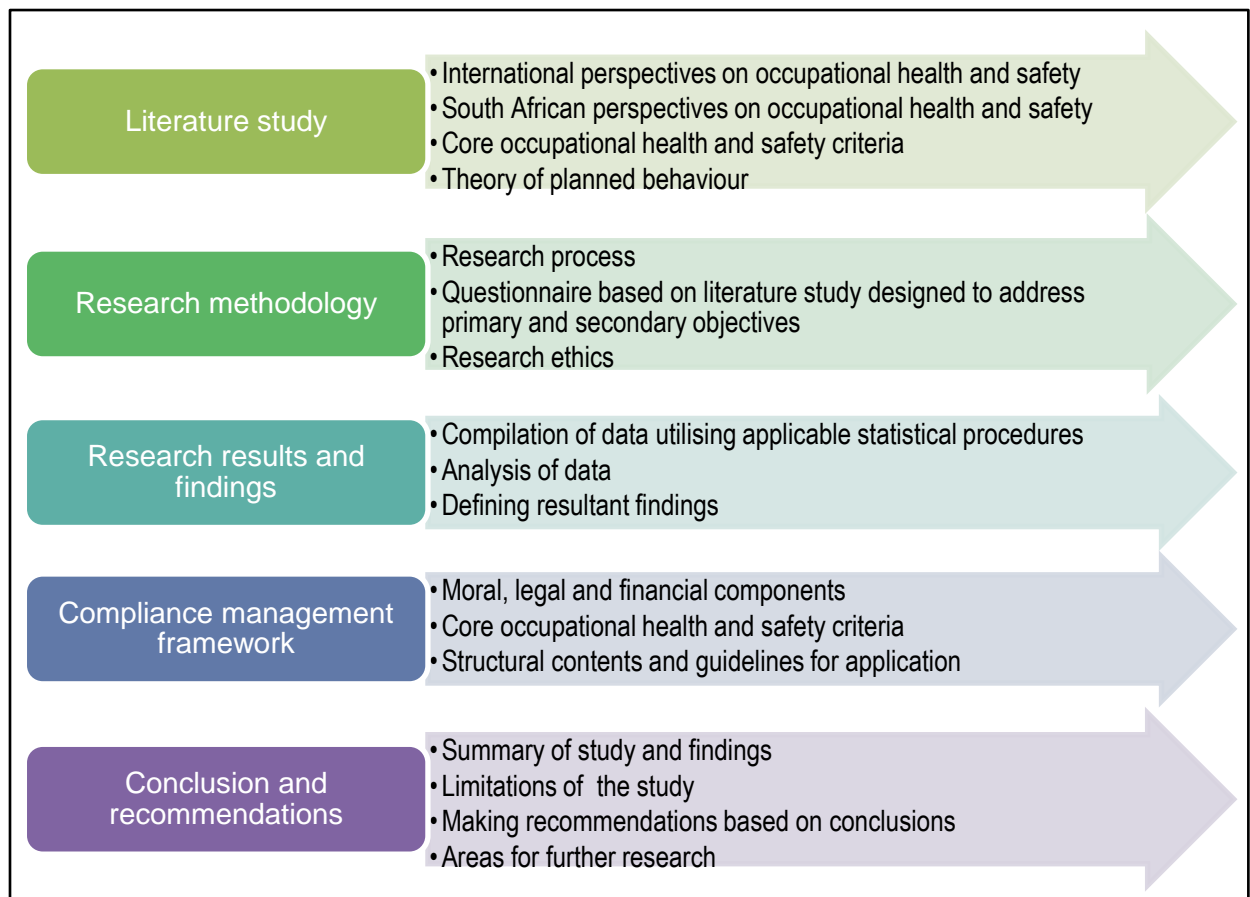


Figure 1.8: Overview of the study

Source: Author's own compilation (2016)

1.9 AIM AND SIGNIFICANCE OF THE STUDY

Small businesses play an important role in growing and sustaining the SA economy as well as combating unemployment (G20, 2014e:21). In order to

achieve such objectives, SA small businesses (small business owners/managers) have to ensure financial security inter alia by preventing losses associated with occupational injuries and diseases. Therefore, small businesses (small business owners/managers) should be enlightened, competent and accountable with regard to applying the OHS directives that apply to owners/managers of small businesses.

With the view to ensuring that small businesses (small business owners/managers) maintain such capabilities (awareness and accountability with regard to OHS directives), it was relevant to ascertain to what extent they were meeting such expectations in terms of the knowledge, attitude, behavioural intent and actual behaviour of small business owners/managers as well as the barriers to compliance that they experience at the time of this study, in order to compile a CMF.

1.10 METHODOLOGY

The term “methodology” describes the process of how research is conducted (Saunders, Lewis & Thornhill, 2012:4). It represents the consideration and explanation of the reasoning that forms the basis of research methods and research techniques (Welman, Kruger & Mitchell, 2011:2).

1.10.1 Research design

The research design constitutes a framework by which data is collected and analysed in order to answer the research questions and objectives (Saunders *et al.*, 2012:680). Research design further indicates that data-collecting procedures are determined by the aims of the study and could be adapted during the process of data collection when new constructs related to the research topic emerge (Welman *et al.*, 2011:192). The results that are foreseen influence the choice of a research design, for example the choice between an observation schedule *versus* a survey questionnaire (Sreejesh, Mohapatra & Anusree, 2014:19). The research design has to be planned and structured effectively (Sreejesh *et al.*, 2014:14, 29). The research design for this study is reflected in Figure 1.9.



Figure 1.9: Research design

Source: Author's own compilation (2015)

1.10.1.1 Research philosophy

A research philosophy indicates the process of the development of knowledge and the relationship of such knowledge to the research outcome (Saunders *et al.*, 2012:680). For the purpose of this study, a positivist research philosophy, which implies an emphasis on a structured methodology to present a replica of an end product that describes very specific elements of the phenomena studied, was

applied (Saunders *et al.*, 2012:678). The positivist research philosophy provides for the description of large numbers of observations and predictions concerning the results obtained through a highly structured methodology (Hawking, 1988:9; Saunders *et al.*, 2012:678).

1.10.1.2 Research approach

As this study endeavoured to draw conclusions from the general to the specific, an inductive and deductive approach was followed (Saunders *et al.*, 2012:144). Data collection and conclusions were therefore based on a positivist approach, which took the form of a quantitative study (Welman *et al.*, 2011:6).

1.10.1.3 Methodological approach

This study utilised a quantitative research design associated with positivism by generating descriptive data (Saunders *et al.*, 2012:162). Furthermore, a concurrent embedded design formed part of this study as limited use of qualitative responses was included in the measuring instrument (Saunders *et al.*, 2012:168). Utilising a questionnaire realised a positivist methodological approach that implied selecting a data-collection procedure before data was collected *versus* an anti-positivist approach that used an emergent design (Welman *et al.*, 2011:192). Sreejesh *et al.* (2014:17) stipulate that surveys as a means of primary research are utilised to obtain first-hand information from a sample of respondents who can be contacted personally, which was the practice in this study.

1.10.1.4 Research strategy

A research strategy elucidates an overall plan explaining the procedure, which will be followed to answer the research questions (Saunders *et al.*, 2012:680). This study utilised a structured questionnaire in order to generate quantitative (and some qualitative) data.

External literature was utilised to develop applicable content constructs that served as basis for developing a measuring instrument (questionnaire). Constructs were designed in the form of closed and open-ended questions. Responses to closed questions were mostly forced-choice scale questions taking the format of a five-point Likert-type rating scale (Likert, 1932:55; Vagias, 2006:1-2). Three open

questions were analysed on the basis of utilising the practice of categorising by attaching meaning to units of data (Saunders *et al.*, 2012:666, 679).

The preliminary questionnaire was included in the research proposal that served at the University of South Africa's (Unisa's) Research Ethics Review Committee of the College of Economic and Management Sciences, who granted permission that this study may proceed after considering all applicable ethical issues (Welman *et al.*, 2011:202, 276).

1.10.1.5 Time horizon

As this study was conducted at a certain point in time, a cross-sectional time horizon applied (Saunders *et al.*, 2012:190). In the context of a cross-sectional design, the study took the format of gathering opinions or perceptions of a sample of a particular population within the business sector in South Africa (Welman *et al.*, 2011:100). Time constraints related to implementing research need to be taken into account effectively (Sreejesh *et al.*, 2014:7). Time elements associated with the empirical research of this study were carefully considered.

1.10.1.6 Data collection and analysis

In order to realise the objectives of this study, data was collected and analysed.

- **Data collection**

Data was collected *via* a questionnaire. The questionnaire was designed and developed based on the applicable constructs related to establishing the small business owner/manager knowledge, attitude, behavioural intent and actual behaviour coupled with barriers to compliance in the implementation of the moral, legal and financial components of a CMF pertaining to OHS directives as constituted by the OHS Act (RSA, 1993) and the COID Act (RSA, 1997).

- **Data analysis**

Conclusions and results were drawn from the research based on both the literature review and results obtained from the questionnaires. The latter was

utilised to establish the small business owner/manager knowledge, attitude, behavioural intent, actual behaviour and barriers to the implementation of the moral, legal and financial components of a CMF pertaining to OHS directives. Conclusions and recommendations are based on the analysis of data utilising the following:

(a) Descriptive statistics

Quantitative and qualitative data were analysed. The questionnaire was electronically coded in consultation with a statistician at Unisa. Completeness of questionnaires was ensured.

Data was analysed by focusing on statistical frequencies, measurement of central tendency, measures of variability, and measures of shape taking into account different types of measurement scales, as well as parametric and nonparametric tests for significance (Cooper & Schindler, 2008:438–440).

(b) Inferential statistical techniques

Inferential statistical data was used pertaining to factor analysis to reflect the significance of different variables (such as location, industry and period of existence) pertaining to establishing the small business owner's/manager's knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance in the implementation of the moral, legal and financial components of a CMF pertaining to OHS directives as constituted by the OHS Act (RSA, 1993) and the COID Act (RSA, 1997).

Analysis of Variance (ANOVA), independent-samples-t-tests, Exploratory Factor Analysis (EFA) and Pearson Product-moment Correlation, as applicable, were utilised for this purpose (Cooper & Schindler, 2008:552; Pallant, 2011:103, 181, 239, 249; Saunders *et al.*, 2012:665, 672, 677). A statistician from Unisa assisted in the analysis of the data.

(c) Categorising

Responses to open-ended questions were categorised in accordance with theoretically based criteria with the view to purposeful analysis (Saunders *et al.*, 2012:666).

1.10.2 Sampling

The type and level of sampling differs from research to research, which implies that researchers could select a research method with the view to suit the accuracy needs of the research (Sreejesh *et al.*, 2014:7). In this study, it was decided to use the survey method *via* a questionnaire in order to ensure the acquisition of accurate information.

A homogeneous purposive sampling technique was used to select the sample for this study, as selective cases from a particular subgroup were the focus of this study (Saunders *et al.*, 2012:672). The total population (all small business owners/managers in SA) were not available and accessible. This non-probability sample was extended *via* the snowballing and referral techniques as further respondents were identified through information provided by selected and willing respondents (Saunders *et al.*, 2012:682). Such decision of selecting and application of the sampling method represents the most important element in the planning of a research project (Sreejesh *et al.*, 2014:19).

The sample consisted of 350 small business owners/managers from three provinces in South Africa, which host the highest number (in total 81.8%) of active businesses, namely Gauteng, the Western Cape and KwaZulu-Natal (CIPC, 2013a:3). The following criteria were applied in selecting this significantly representative sample:

- In terms of sample power, Kadam and Bhalerao (2010:1) state that in most cases, studies accept that an 80% sample is regarded as acceptable. The authors further contend that when the sample frame is well constructed (as was the case in this study), the standard deviation (SD) can be expected to be reduced and therefore a smaller size sample is acceptable. Cooper and

Schindler (2008:712) indicate that if the standard deviation, as a measure of spread, is expected to be small, based on a well-defined population, the sample size can be smaller accordingly.

- Sample size is duly affected by availability of resources, financial support and time available (Saunders *et al.*, 2012:292). Sreejesh *et al.* (2014:8–9) add that the nature of the information that is wanted and associated costs must be compared with the expected benefits of the research. When looking at the small percentage of active businesses in the other six provinces (see Table 1.4), these did not warrant inclusion within the sample as it would not have affected the results significantly. Sullivan (n.d.:3) indicates that the selection of non-overlapping groups (such as provinces in this study) allows for the total population to be divided into percentages. In this study, the researcher listed the limitation to a complete research design as it was accepted that the 81.8% represented by the three provinces indicated below, lent itself to a limited standard deviation and was therefore acceptable (Cooper & Schindler, 2011:14). Therefore, the inclusion of respondents in the other six provinces would not have affected the outcome of this study significantly.
- The estimation of sample size is dependent upon the nature of the research that is to be undertaken and the statistical techniques to be employed. A sample size of 350 is deemed to constitute a good quality sample size, and is appropriate in relation to the number of items included in the questionnaire used for this study (Siddiqui, 2013:286). SurveyMonkey Inc (n.d.:1), even though not an academic reference, also indicates that for a population of this size, a sample of 350 is sufficient.

The number of active businesses in SA per province is indicated in Table 1.4 that follow.

Table 1.4: Active businesses per province

Province	Number of active businesses	Percentage
Gauteng	607 120	50.5
Western Cape	203 112	16.9
KwaZulu-Natal	173 101	14.4
Eastern Cape	52 161	4.4
Mpumalanga	47 004	3.9
Limpopo	42 410	3.5
Free State	40 036	3.3
North West	27 976	2.3
Northern Cape	9 264	0.8
Total:	1 202 184	100

Source: Adapted from CIPC (2013a:3)

Based on the information contained in Table 1.4, the sample was compiled as indicated in Table 1.5.

Table 1.5: Breakdown of sample

Province	Population	Population %	Sample
Gauteng	607 120	61.7	215
Western Cape	203 112	20.7	73
KwaZulu-Natal	173 101	17.6	62
Total:	983 333	100	350

Source: Author's own compilation (2014)

1.10.3 Validity

Face validity was ascertained and verified in order to confirm accurate measuring of intended measures (Saunders *et al.*, 2012:671). Verification of validity substantiated the meaningfulness of the measurement instrument (questionnaire) and significance of the outcome.

1.10.4 Reliability

The reliability of this study was tested and verified in order to ensure that the study resulted in consistent findings (Saunders *et al.*, 2012:680). Confirmation of the reliability of the study validated the effectiveness of measurements.

1.10.5 Pilot study

A pilot study was conducted to verify validity, reliability as well as user-friendliness of the questionnaire (Saunders *et al.*, 2012:677–678). A group comprising of two small business owners/managers, two academics, two fieldworkers, as well as a statistician were involved.

1.10.6 Fieldworkers

The services of two fieldworkers were contracted in order to ensure that the total sample was reached and that fully completed questionnaires were received. These fieldworkers were trained, assessed and declared competent by the researcher. All the ethical considerations and the confidentiality aspects have been discussed with the fieldworkers. The fieldworkers were further required to sign confidentiality agreements.

1.11 ASSUMPTIONS

The following assumptions applied to this study, which focused on the compliance with OHS aspects of small business owners/managers with the view to develop a CMF to enhance compliance with regard to OHS in the workplace:

- Small business owners/managers perceptions are measurable and present valuable sources of data.
- As all communication was conducted in English in written form, it was assumed that all the respondents were competent in reading English and conversant with the terminology used in the questionnaire.
- Small business owners/managers have a basic knowledge pertaining to OHS.

- Small business owners/managers are able to rate themselves with regard to their knowledge, attitude, behavioural intent and actual behaviour according to OHS requirements.
- Small business owners/managers are able to recognise and rate the effect of barriers to OHS compliance.

1.12 DELIMITATIONS

Delimitations that were applicable constitute the following:

- An outline of specific directives pertaining to OHS that applies to small business owners/managers in a SA context.
- International perspectives on awareness of OHS applicable to small businesses are provided, but the empirical research was conducted in SA. Basic, generic OHS legislation applicable to small business in SA was focused on.
- The knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance of small business owners/managers pertaining to OHS were utilised as the only source of obtaining empirical information.
- This study did not include any employee responsibilities pertaining to occupational health and safety.
- The CMF is generic in nature, not claiming to include all applicable legislative requirements for all small businesses in South Africa. A limitation applied with regard to the geographical area of selection of respondents. Selection of respondents was conducted in Gauteng, the Western Cape and KwaZulu-Natal.
- The CMF represents the basic, generic and common elements related to OHS. The framework does not pretend in any way to represent all OHS elements for all the different economic sectors.
- Perceptions of respondents are subjective and not scientifically verified. No further empirical testing was conducted in order to verify responses.
- Triangulation refers to the using more than one approach to research with the view to confirming research results or to obtain richer or fuller data. Triangulation refers to data triangulation by making use of different data

sources, investigator triangulation which refer to the use of several people to gather and analyse data, theory triangulation by using different theories, and methodological triangulation (through the use of more than one method to gather data (Wilson, 2014:74). As only one source of data was used (the questionnaire), data was not gathered and analysed by more than one person (fieldworkers worked as a pair, and one statistician did the data analysis), one theory (planned behaviour theory) was used, and one method was used to gather data, triangulation did not apply to this study thus decreasing construct validity..

- This study did not pretend to have focused on all OHS core criteria that apply to a small business, because it was not feasible and practicable to hone in on all such elements. The emphasis of this study was to ascertain the knowledge, attitudes, behavioural intent, actual behaviour and barriers to compliance of small business owners/managers with regard to the very basic or minimum OHS core criteria as enlightened in:
 - (a) employer responsibilities in terms of the OHS Act (RSA, 1993);
 - (b) general administrative and safety regulations in terms of the OHS Act (RSA, 1993); and
 - (c) employer responsibilities in terms of the COID Act (RSA, 1997).

1.13 ETHICAL CONSIDERATIONS

Ethical considerations needed to be taken into account as this study involved human respondents and ethical clearance needed to be obtained. The following international ethical principles (Saunders *et al.*, 2012:231–232) applied to this study:

- Researcher integrity and objectivity – the outcome of this study is directly related to the integrity and objectivity of the researcher, implying openness, truthfulness, impartiality and accuracy.
- Respect for others – the rights and dignity of all people involved were respected.

- Avoidance of harm – no harm was caused to any individual or business, neither through the gathering of data or thereafter.
- Privacy of those taking part – anonymity of all respondents was ensured.
- Voluntary nature of participation and right to withdraw – no owner/manager was forced to participate or to complete the questionnaire.
- Informed consent of those taking part – all respondents were duly informed of all the elements of the study, and provided the opportunity to confirm their willingness to participate.
- Ensuring confidentiality of data and maintenance of anonymity of those taking part – no personal or business-related data that may cause harm was revealed in any way.
- Responsibility in the analysis of data and reporting of findings – anonymity was ensured and all data was analysed and reported in accordance with scientific requirements and professionalism.
- Compliance in the management of data – all people involved in handling of the data were required to sign a confidentiality agreement.
- Ensuring the safety of the fieldworkers – the two fieldworkers collected the questionnaires as a pair in order to minimise risk.

Ethical considerations formed part of every stage of this research: from the onset of the research, defining the research topic, the proposal, data collection, storage, processing and analysis.

Ethical clearance was obtained from Unisa when and where applicable. All relevant documentation was included when applying for ethical clearance. The ethical clearance certificate received from UNISA is included in Annexure A.

1.14 OUTLINE OF CHAPTERS

This thesis comprises the following structure:

Chapter 1 Introduction and background

The purpose of Chapter 1 is to introduce briefly the context of the study and the basic procedures pertaining to theoretical frameworks and practical research proceedings in realisation of the study objectives.

Chapter 2 International perspective on occupational health and safety in small businesses

This chapter focuses on depicting international trends in OHS with regard to small businesses. Awareness of OHS criteria in the G20 countries served as benchmark for developing a CMF on OHS for small businesses in South Africa.

Chapter 3 South African perspective on occupational health and safety in small businesses

Chapter 3 extrapolates, from available literature, the stance of OHS in small businesses in South Africa. Furthermore, applicable SA legislation is identified and contextualised as it applies to small businesses.

Chapter 4 Research methodology

This chapter specifies the statement of the problem and the research objectives. It provides a discussion of all relevant features that applied to make this research undertaking become a reality by explaining the research design, assumptions, limitations, sampling, the measuring instrument and the analysis of data according to scientific research requirements.

Chapter 5 Research results and findings

Producing research findings is the focus of this chapter. The findings, reached through inductive and deductive reasoning, are based on data obtained through the measuring instrument (questionnaire). The results of the primary research undertaken compared to the research objectives are discussed.

Chapter 6 Compliance management framework

This chapter combines all secondary research findings, obtained through the international and national literature reviews, as well as primary research findings gathered *via* the applied measuring instrument, to compile a CMF for small businesses in South Africa with regard to OHS.

Chapter 7 Conclusion and recommendations

This final chapter makes applicable conclusions based on the findings. Recommendations that follow from conclusions are suggested. Figure 1.9 gives a flow diagram overview of the outline of the successive flow of the chapters.

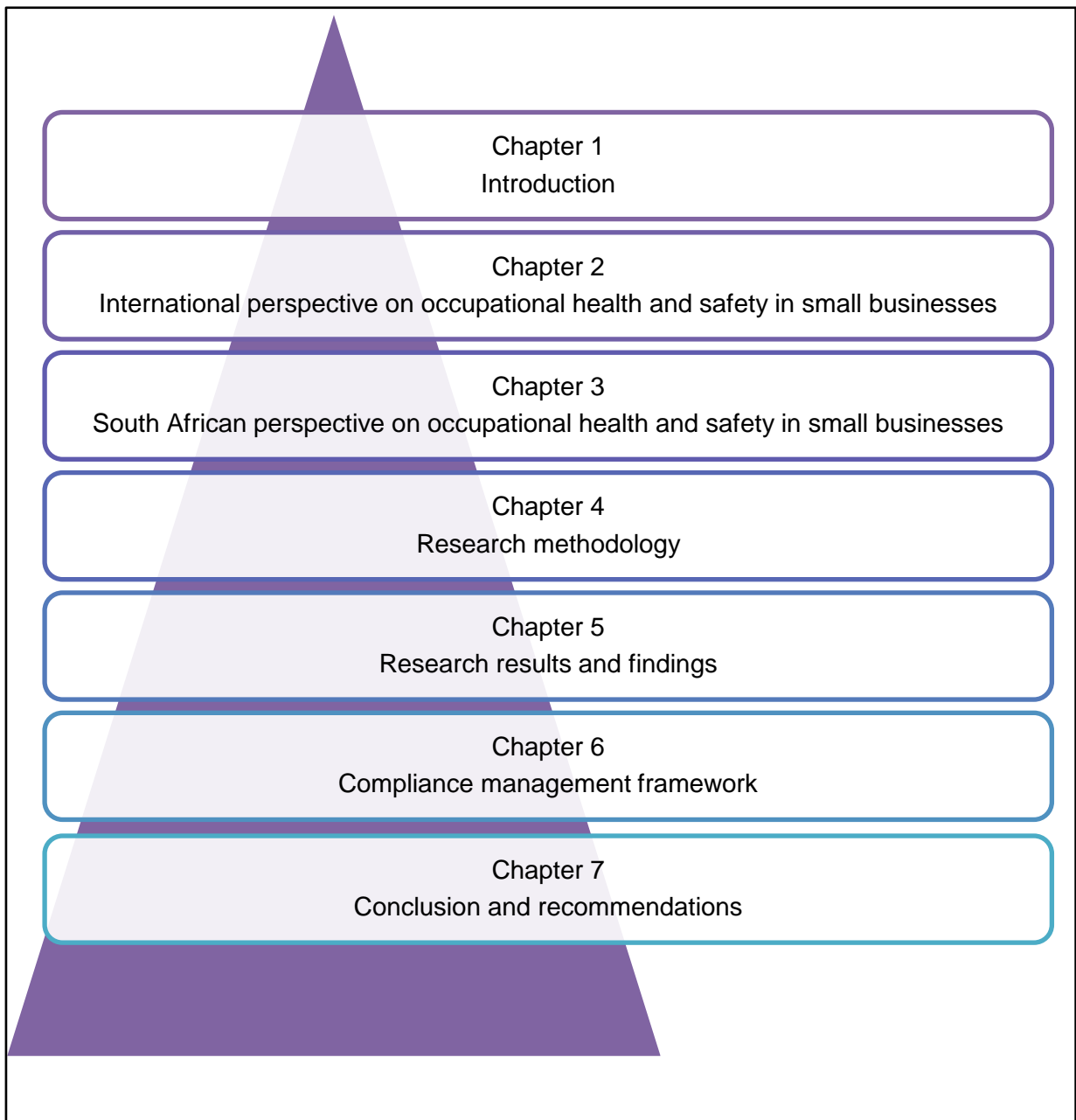


Figure 1.10: Outline of chapters

Source: Author's own compilation (2015)

1.15 CONCLUSION

This chapter focused on elements of a CMF, international and SA perspectives with regard to OHS, definitions of key terms in this study, all required elements of the research design that applied to this study, as well as the outline of the study in terms of the chapters and their respective contents.

Chapter 2 explains the international perspective on awareness with regard to the G20 member countries in accordance with essential OHS criteria that apply to small businesses.

CHAPTER 2

INTERNATIONAL PERSPECTIVE ON OCCUPATIONAL HEALTH AND SAFETY IN SMALL BUSINESSES

2.1 INTRODUCTION

It is generally recognised worldwide that poor health and safety in the workplace subjects small businesses to substantial costs associated both with the frequencies, effects and interventions required in terms of accidents and ill health (Gervais, Pawlowska, Bajonowski, Kouvonen, Karanika-Murray, Van den Broek & De Greef, 2009:7–8; Arocena & Nuñez, 2010:398; Micheli & Cagno, 2010:729). The small and medium enterprise (SME) policy of the Institution of Occupational Safety and Health (IOSH) (2015:1) postulates that it is crucial to support small businesses with the view to cutting costs due to accidents and ill health in the workplace.

This study intended to set up a compliance management framework (CMF) in order to assist small businesses in South Africa (SA) to comply with occupational health and safety (OHS) directives that apply locally. Within the context of SA's involvement on the international scene, for example the Group of Twenty (G20), the development of a CMF needs to take notice of applicable awareness in leading international constituencies. The G20 plays a dominant role in advancing global economic and financial issues of which the improvement of OHS, *inter alia*, forms a vital part (G20, 2015:2). Benchmarking awareness of current OHS guidelines and practices that apply to small businesses and the development of innovative assistance to small businesses in such G20 member countries would imply significant relevant perspectives that would benefit small businesses in SA. OHS criteria that are relevant for small businesses in other G20 countries should be relevant for small businesses in SA as well.

Chapter 2 endeavours to elicit the awareness of current OHS guidelines and practices applicable to small businesses with regard to compliance with OHS directives in G20 member countries. The awareness of the G20 member countries regarding OHS in small businesses is used for contextualisation and not for a

comparative analysis. The flow order of the contents of Chapter 2 is presented in Figure 2.1 below.

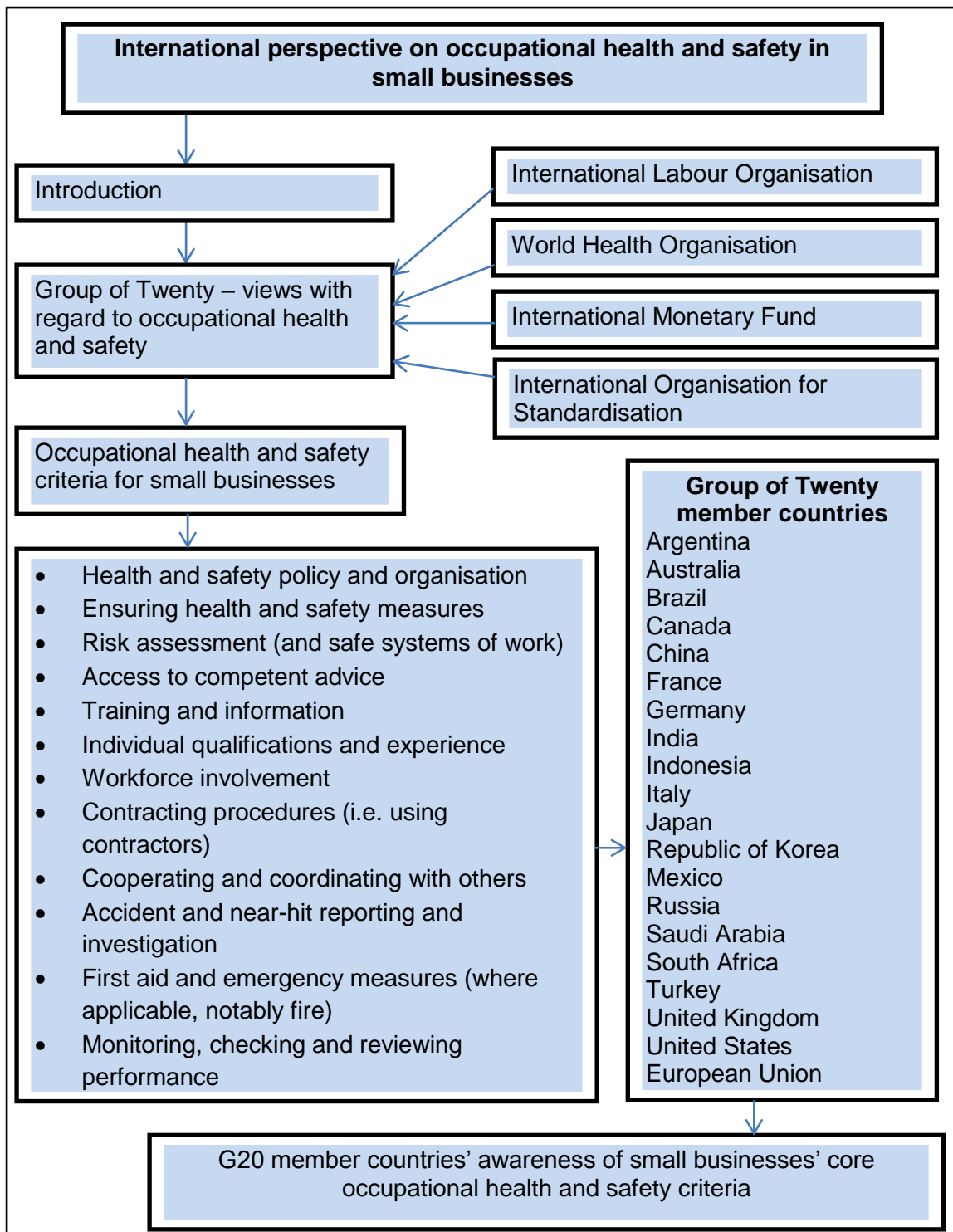


Figure 2.1: Structure of contents in Chapter 2

Source: Author's own compilation (2015)

2.2 GROUP OF TWENTY – VIEWS WITH REGARD TO OCCUPATIONAL HEALTH AND SAFETY

The G20, as the forum for international economic cooperation, sets out to promote sustainable growth and rising prosperity for all (G20, 2013:2). Such sustainable growth is based upon effective regulation, inclusiveness, strong global institutions, close partnerships, collective action, shared responsibility and policy coordination between member countries (G20, 2013:2). Part of such cooperation and coordination is OHS. The G20 specifically highlights workplace health and safety in its Labour and Employment Ministerial Declaration (G20, 2014c:7). According to the G20 Statement on Safer and Healthier Workplaces (G20, 2014c:7):

- The G20 will strive towards ensuring that national safety and health bodies focus on the needs of employees and employers through continuous assessments and advisory services with regard to potential safety hazards, preventative and protective measures, as well as risk management and control.
- Adequate resources will be made available for prevention and compensation, training, compliance assistance as well as enforcement efforts. Applicable legislation should be strengthened.
- Programme design should be based on empirical data and should effectively target enforcement and outreach efforts.
- OHS conditions should be improved for vulnerable workers and those in high-risk sectors.
- Small businesses should be made aware of the importance of OHS and the resultant positive effect on production, employee participation, economic growth and sustainable development.
- Best practices should be compiled and shared between G20 member countries and other interested non-G20 countries, and new studies in this field should be supported.

- Voluntary national and international efforts to implement exchanges, share relevant technologies and coordinate technical cooperation should be supported.
- Partnering with the International Labour Organization (ILO) in order to improve OHS and the promotion of collaboration should be undertaken.
- The G20 should continue to engage closely with social partners with the view to improving OHS.
- Responsible business practices should be promoted in order to improve OHS.

South Africa, as one of the G20 member countries, should benefit from developing a CMF by using similar guidelines to those developed in other countries. Comparative benchmarking with other G20 countries will set an acceptable basis for determining OHS core criteria that apply specifically to small businesses.

The G20 works closely with other international organisations – such as the ILO, the World Health Organisation (WHO) and the International Monetary Fund (IMF) (G20, 2014d:1). The contribution of these international organisations to OHS in small businesses will be discussed with the view to identifying OHS requirements that would enhance applicable small business OHS compliance in South Africa.

2.3 OCCUPATIONAL HEALTH AND SAFETY CRITERIA FOR SMALL BUSINESSES

Laws and regulations regarding OHS might not be exactly the same in all countries. The global principle remains that workers need to be protected in the workplace (Doumbia, 2015:4). This study comprises an overview of OHS compliance directives that apply and are being applied by members of the G20 group of countries. For the purpose of this study, information with regard to basic OHS requirements was sought to be used to determine small businesses' compliance to basic OHS requirements that apply to all small businesses. Such information would serve the purpose of benchmarking awareness in the G20 group of countries.

Small businesses play an important role in the global economy, and OHS models developed for larger businesses have proved to be ineffective for small businesses as small businesses have unique characteristics, challenges and opportunities with regard to OHS (Institute for Work and Health [IWH], 2008:3). The literature study revealed a list of core OHS criteria that apply to small businesses in dealing with OHS matters effectively. Such a list of basic OHS requirements was identified by the National Occupational Safety and Health Committee (NOSHC) of the Royal Society for the Prevention of Accidents (RoSPA). RoSPA is a registered charity dealing specifically with accident prevention in the United Kingdom (UK) and worldwide, for the past 100 years (RoSPA, 2015a:1). Furthermore, the RoSPA states its mission as “to save lives and reduce injuries” and its vision “to lead the way on accident prevention” (RoSPA, 2015c:1).

The RoSPA and NOSHC undertook a long-term study into the health and safety assistance available to small businesses as many small businesses need assistance in complying with health and safety law (RoSPA, 2015d:1). Such assistance should focus on (RoSPA, 2015d:1):

- determining the quality of advice available to small businesses;
- determining how to avoid unnecessary duplication of effort and bureaucracy;
- determining ways in which good practice could be shared; and
- determining how to encourage better collaboration between key players.

Based on this long-term inquiry, RoSPA and NOSHC compiled a list of core OHS criteria for small businesses. This list of OHS criteria serves as a joint statement (of RoSPA and NOSHC) on basic health and safety requirements that apply as core criteria for small businesses to deal with OHS challenges effectively. This joint statement was underwritten by 24 institutions and/or experts in the field of OHS. The joint statement suggests complying with the core criteria as crucial requirement for managing OHS issues effectively in small businesses (Fidderman, 2007:1; RoSPA, 2015b:1–3).

The joint statement is based on the premise that the core criteria will assist small businesses in complying with OHS requirements in the workplace more readily (RoSPA, 2015b:1-3) by:

- reducing time and expenses related to dealing with health and safety enquiries;
- reducing red tape and duplication of paperwork;
- reducing the extent of uncertainty of OHS questions listed to small businesses;
- clarifying the important requirements on managing OHS;
- improving training by qualifying applicable curriculum contents on which to focus; and
- improving competence through enhancing exchange of knowledge and experience between small businesses.

The contention of the joint statement is that small businesses will experience the listed benefits by effectively applying the core OHS criteria to deal with OHS challenges (RoSPA, 2015b:1).

The joint statement lists 12 different inter-related OHS criteria that are regarded as essential for the effective management of OHS in small businesses (RoSPA, 2015b:1). These criteria are greatly congruent with the guidance notes for OHS management in small businesses as indicated by the ILO as well as the WHO (Doumbia, 2015:4). For the purpose of awareness of such OHS core criteria, the criteria are initially listed in order to provide an overview of the focus of the criteria (see section 2.3). The list is followed by a brief indication of the essentiality of each criterion in dealing with OHS matters in small businesses effectively (see sections 2.3.1 to 2.3.12). Such explanation sets the basis for identifying whether the member countries of the G20 are aware of the listed core OHS criteria. In the final instance, the awareness are presented within a table (see Table 2.1).

The list of basic OHS requirements that serve as core OHS criteria for small businesses to deal with OHS challenges effectively comprises the following (RoSPA, 2015b:1):

- health and safety policy and organisation;
- ensuring health and safety measures;
- risk assessment (and safe systems of work);
- access to competent advice;
- training and information;
- individual qualifications and experience;
- workforce involvement;
- contracting procedures (i.e. using contractors);
- cooperating and coordinating with others;
- accident and near-hit reporting and investigation;
- first aid and emergency measures (where applicable, notably fire); and
- monitoring, checking and reviewing performance.

The essence of each of these criteria is explained briefly in order to provide a basic framework for identification of the application and comparison of compliance with basic OHS requirements for managing OHS effectively.

2.3.1 Health and safety policy and organisation

Small businesses need to develop a health and safety policy. Such policy, which must be in writing, sets the foundation for a successful health and safety programme (SME Toolkit, 2015:1). Such OHS policy must explicate the business values, management commitment, worker obligations, risk assessment and control, as well as information dissemination within the business all pertaining to OHS. The policy should stipulate organisational differentiation with regard to OHS responsibility and accountability between management and workers (RoSPA, 2015b:3; SME Toolkit, 2015:2). An OHS policy, in writing, provides a valid basis for OHS compliance and protection of the business itself, and small business owners/managers should research availability and access applicable advice (Boitnott, 2015:3).

2.3.2 Ensuring health and safety measures

A small business must specify the measures that will be taken and applied to ensure that workers will be safe during their daily involvement with the activities of the business at all times and under all circumstances (SME Toolkit, 2015:1). Such measures will also specify which measures apply to ensure that workers take responsibility for their own OHS (SME Toolkit, 2015:2). Effective safety management will not be achieved unless sound and safe work practices are established and implemented (Çalışkan, 2014:176). It is important that small business owners/managers understand the need for OHS management systems as it is a worldwide trend that larger businesses have OHS management systems of higher quality (Sørensen, Hasle & Bach, 2007:1045, 1056).

2.3.3 Risk assessment (and safe systems of work)

Safety risk assessment, which is a must for all small businesses, serves as a guide for depicting the nature of safety hazards as well as the procedures to deal with such safety hazards successfully (Health and Safety Executive, 2015:2). No work can be performed by a small business unless such work is based on timely and effective safety risk assessment (SME Toolkit, 2015:2).

2.3.4 Access to competent advice

Research has verified that staff of small businesses is extremely vulnerable to occupational incidents and accidents (Gervais *et al.*, 2009:7). Within the functional and geographical context in which a small business operates there should be opportunities for such businesses to access competent advice with regard to all elements of OHS (Health and Safety Executive, 2015:1).

2.3.5 Training and information

In order to be safe at all times and under all circumstances employees of a small business need to be informed, instructed and trained pertaining to all safety risks that apply to all operations of the business they are employed with. Çalışkan (2014:169) postulates that the extent to which employees are aware and capable of dealing with safety risk depends on the knowledge, education and information with regard to the work within which they are involved.

2.3.6 Individual qualifications and experience

Research indicates that employees of small businesses fall amongst those with lower levels of qualification and that this lack of higher levels of qualification contributes to employers of small businesses being more frequently involved in occupational accidents (Çalışkan, 2014:169). Small businesses are required to ensure that employees are adequately qualified and experienced to handle all safety risks to which they are exposed in their daily operations effectively.

2.3.7 Workforce involvement

The involvement of senior management in improving the effectiveness of managing OHS has been identified by Çalışkan (2014:174). However, employees are mostly in the line of fire during their work, and therefore they have first-hand knowledge with regard to any safety risk in the organisation. Small businesses have to involve employees in group decisions related to the effective understanding and dealing with safety risk in the workplace (Reese, 2009:35).

2.3.8 Contracting procedures (i.e. using contractors)

Outsourcing and sub-contracting of services have increased in recent years and for this reason, small businesses need to set specific safety requirements with regard to cooperation and coordination between themselves and sub-contractors (Arocena & Nuñez, 2010:406).

2.3.9 Cooperating and coordinating with others

The manager/owner of a small business should be aware of the principle of sharing, and of how to share health and safety responsibilities specified in the business's health and safety policy (Çalışkan, 2014:174). This implies that the extent of employee safety awareness is fundamental with the view to improving the health and safety performance of the business. Small businesses need to specify and structure obligations and responsibilities within the context of cooperation and coordination on an interpersonal, interdepartmental and inter-institutional basis with the view to achieve OHS objectives and targets (Kelbitsch & Kenny, 2003:8). Coordination and cooperation lead to achieving desirable results (Kanerva, 2009:80).

2.3.10 Accident and near-hit reporting and investigation

Small businesses need to report and investigate near misses, incidents, accidents and hazardous situations in the workplace with the focus on identifying causes of actual and potential serious events and implementing solutions to eradicate root causes (Çalışkan, 2014:172).

2.3.11 First aid and emergency measures (where applicable, notably fire)

It is important for a small business to establish a plan for the purpose to respond to medical and other emergency situations in order to minimise damage to people, property and the environment (Kelbitsch & Kenny, 2003:5). The application of first aid by trained personnel forms an important part of such emergency plan.

2.3.12 Monitoring, checking and reviewing performance

Small businesses need to establish active monitoring and checking procedures to measure and confirm that control measures are working as required in accordance with legal requirements (Çalışkan, 2014:172). In this regard, safety auditing with successive review is a major way of determining overall safety compliance (Çalışkan, 2014:177). The importance of regular checking as part of quality control has been accepted as an important part of management practices (Targue, 2004:91). Checking produces information that forms the basis of decision-making with regard to planning for successive action to improve current situations.

2.4 G20 MEMBER COUNTRIES

For the purpose of this study, this part of the literature study pertaining to the G20 member countries was conducted by using mainly academic sources to collect applicable information. OHS guidelines and practices that apply to small businesses in member countries of the G20 were analysed as far as information was available on the awareness of the core OHS criteria within the G20 member countries.

This analysis does not pretend to be an all-inclusive encompassing depiction regarding OHS practices in individual countries. The main purpose is to determine existing awareness in these countries and eventual manifestations in South Africa, which will be discussed in the next chapter. Only a limited number of resources (which might not be current in all instances, but which were available to the researcher) per country are included with the view to contextualising the awareness of OHS guidelines and practices in the different G20 member countries. The purpose was not to conduct a complete comparative analysis as such analysis does not form part of the parameters or objectives of this study. Therefore, the awareness of the small business core OHS criteria of each G20 member country is shortly indicated, and is mostly generic in nature.

2.4.1 Argentina

Awareness of the core OHS criteria for small businesses in Argentina is indicated below.

2.4.1.1 Health and safety policy and organisation

In this country, small business OHS policy formulation must focus on designing preventive strategies and effective employee understanding of OHS outcomes at all staff levels within the business (Cornelio, Sapoznik, Esteban, Alberto, Contreras, Covaro, Gerke & Iñiguez, 2014:A107). Informing employees about the macro and long-term objectives and strategies *via* the OHS policy contributes to employee concentration on micro objectives and attaining short-term success on the way to ensuring continual business operations (Perez-Floriano & Gonzales, 2007:415).

2.4.1.2 Ensuring health and safety measures

Owners/managers of small businesses need to be consistently aware of the importance of OHS in the workplace which must guarantee the physical, intellectual and social well-being of all employees and other interest groups (Perez-Floriano & Gonzales, 2007:404).

2.4.1.3 Risk assessment (and safe systems of work)

The information about hazard exposure and risk assessment that owners/managers of small businesses relate to employees should be honest and reliable so that employees are capable of recognising threats accurately and of taking applicable measures to deal with such safety risks effectively (Perez-Floriano & Gonzales, 2007:414).

2.4.1.4 Access to competent advice

Small businesses have direct access to the Federal Labour Council of Argentina that assists businesses at national and provincial level (ILO, 2016a:1). This Council assists in developing and implementing business policies in order to increase coordination, cooperation, co-participation and co-responsibility for labour departments with the view to deliver services to small businesses (Bertranou, 2014:10). Small businesses have direct access to the Federal Labour Council that provides assistance with the design of programmes geared to enhance employment and job training, as well as to provide means to finance such programmes. The Self-Employed Women's Association (SEWA) offers access to small businesses by means of providing information and training related to OHS (De Gobbi, 2013:5). Injured workers have direct access to legal advice provided by the Occupational Risk Law No. 24457 of 1995 (Viego & Sagui, 2015:60).

2.4.1.5 Training and information

The quality of OHS performance is linked to the level of dedication combined with education and experience of employees (Berrone, Gertel, Giuliadori, Bernard & Meiners, 2014:495). The use of virtual and real training as well as assessment for developing management skills appear to be important elements in enhancing OHS (World Health Organisation [WHO], 2015a:7). Small business owners/managers need to ensure that OHS training focuses on contents concerning the adverse effects of hazards on employee health, as well as behavioural options that will ensure the effective identification and avoidance of hazardous situations. Additionally, OHS training should appeal to specific local cultural values and other differences pertaining to working conditions and ethnical grouping (Perez-Floriano

& Gonzales, 2007:414). A fund has been created in Argentina to finance the employment policy with emphasis on employment and job training (Bertranou, 2014:7).

2.4.1.6 Individual qualifications and experience

Adequately trained and experienced management and employees play an important role in preventing and reducing the effects of OHS incidents and accidents (Rajal, Cid, Cruz, Poma, Cacciabue, Romano, Moraga & Last, 2013:13, 16). Human capital, enhanced by individual qualifications, experience and dedication, plays a major role in achieving OHS objectives and targets (Berrone *et al.*, 2014:495).

2.4.1.7 Workforce involvement

Employees should be consulted and involved when establishing and maintaining OHS innovation rather than making use of costly external service providers as employees are knowledgeable about the internal conditions and processes of the small business (Glückler, 2014:905).

2.4.1.8 Contracting procedures (i.e. using contractors)

Small businesses are in a contracting capacity with regard to generating jobs and training human resources with the Agencies for Employment and Job Training (Bertranou, 2014:18). Small businesses need to contract with the More and Better Employment for Youth Programme in order to have employers and leaders who participate in business management courses offered by specialised consultants, which contribute to the development of effective business plans (Bertranou, 2014:22). Informal small businesses subcontract with medium and large formal companies with regard to improving their social and environmental performance in delivering goods and services (De Gobbi, 2013:3). Contracting practices of small businesses lead to a reduction of occupational injuries of temporary contract workers (Viego & Sagui, 2015:64).

2.4.1.9 Cooperating and coordinating with others

Multi-disciplinary working teams present a viable and practical option to confront and solve the wide variety of OHS challenges faced in business operations (Rajal *et al.*, 2013:13). OHS performance can be enhanced by establishing and maintaining relationships with strategic partners (De Arruda, 2010:75).

2.4.1.10 Accident/near-hit reporting and investigation

Employees should develop a high likelihood for accident reporting and investigation, which will enhance taking appropriate precautions and performing applicable steps with regard to OHS matters in business operations (Perez-Floriano & Gonzales, 2007:410).

2.4.1.11 First aid and emergency measures (where applicable, notably fire)

The emphasis on developing a business policy which focuses on putting emergency measures in place and on addressing the consequences of loss of employment instigated a fund that alleviates the social emergency of families (Bertranou, 2014:6–7). Motta (2016:13) confirms that the likelihood of crime is reduced *via* contingency planning for emergencies, which includes the maintenance of accurate records for installing security strategies and measuring their effectiveness.

2.4.1.12 Monitoring, checking and reviewing performance

With the view to determining effectiveness and success of OHS business operations, it is important to develop and maintain simple and accessible procedures for the purpose of monitoring and reviewing all OHS elements of the business venture (Lerner, Sanchez, Sambeth & Porta, 2012:446).

2.4.2 Australia

Awareness of the core OHS criteria for small businesses in Australia is indicated below.

2.4.2.1 Health and safety policy and organisation

Small businesses should not regard legal compliance as a burden, but as an opportunity to structure and plan small business operations purposefully and effectively in order to gain a competitive advantage (Mayson, Barrett & Bahn, 2014:1). The OHS policy of small businesses should provide for regulatory compliance, which is becoming increasingly important (Gallagher & Underhill, 2012:227). Furthermore, it is important that the OHS policy of small businesses is holistic in nature in order to address all necessary OHS elements (Zanko & Dawson, 2012:334).

2.4.2.2 Ensuring health and safety measures

OHS measures should be integrated into the strategic and daily management of business operations in order to achieve organisational OHS objectives and goals (Gallagher & Underhill, 2012:233). New approaches are being developed to translate organisational OHS objectives and goals into operational practice by involving all stakeholders *via* processes of communication, feedback, revision, auditing and review of OHS practices (Michael & Patrick, n.d.:7).

2.4.2.3 Risk assessment (and safe systems of work)

Safety hazards that could potentially cause harm should be identified (WorkSafe, 2015:1). Managers/owners of small businesses are expected to demonstrate due diligence with regard to safety hazard identification and safety risk assessment at all levels of operation (Mayson *et al.*, 2014:4). It is therefore important to have a hazard-focused approach to OHS risk management in small businesses (MacDonald, Driscoll, Stuckey & Oakman, 2012:176).

2.4.2.4 Access to competent advice

Owners/managers as well as employees of small businesses in Australia have free access to online OHS consultation services offered by an independent OHS consultant under the WorkSafe OHS Essentials Programme from the Australian government (WorkSafe, 2015:1).

2.4.2.5 Training and information

Formal OHS training is important in order to enhance employee involvement and participation in achieving OHS objectives and targets (Mayson *et al.*, 2014:4). Accidents and incidents in small businesses tend to increase if employees are not properly trained, supervised and informed regarding OHS (Gallagher & Underhill, 2012:230). Furthermore, it is important to ensure that employees are properly trained in using equipment safely and also when any OHS changes are made (WorkSafe, 2014a:1; WorkSafe, 2015:1).

2.4.2.6 Individual qualifications and experience

Academically OHS qualified and skilled employees tend to be more committed than less qualified and skilled employees to OHS efforts in small businesses (Mayson *et al.*, 2014:6). When the goal is to develop qualified and expert OHS leaders, training and education need to combine experience and deliberate practice on and off the job (Day, 2010:44).

2.4.2.7 Workforce involvement

The OHS goals and responsibilities of employees should be clearly communicated, and employee involvement in OHS decisions should be encouraged with the view to enhancing OHS efforts (Mayson *et al.*, 2014:4). Employee involvement in elements of OHS must be sustained to ensure commitment and dedication in order to realise the OHS objectives and goals of the business (Gallagher & Underhill, 2012:238). Employee involvement is evident by creating opportunities for participation and consultation pertaining to all levels of OHS operations (Idris, Dollard, Coward & Dormann, 2012:20). Recognition should be given to the input given by employees in contributing to the improvement of OHS in the workplace (Zanko & Dawson, 2012:331).

2.4.2.8 Contracting procedures (i.e. using contractors)

The outsourcing of OHS responsibilities and concerns to service providers *via* fixed-term contracts and dependent contractors, subcontractors, and principal contractors, are becoming common practice (Gallagher & Underhill, 2012:229–230).

2.4.2.9 Cooperating and coordinating with others

As from 2008, the Australian government promulgated OHS laws with the view to harmonise work, health and safety laws, beneficial also to small businesses. This effort led to better coordination *via* consultation related to identifying safety hazards, addressing safety risks and the implementation of control measures to eliminate or reduce such risks (MacDonald *et al.*, 2012:172–173).

Two-way communication (between employers and employees, and between employees themselves) serves the purpose of ensuring that organisational OHS policies, practices and procedures are well understood and applied in business operations (Idris *et al.*, 2012:20).

2.4.2.10 Accident/near-hit reporting and investigation

It is important that all incidents and accidents be reported, and relevant documentation can be obtained from, and submitted to WorkSafe (WorkSafe, 2014b:1). A harmonised system in terms of OHS will reduce red tape, thereby making it easier to report incidents and accidents in Australian small businesses (Stevens & Fauvreille, 2009:10).

2.4.2.11 First aid and emergency measures (where applicable, notably fire)

Operational procedures of small businesses in Australia must provide for fire and evacuation plans and procedures in case of any OHS emergency (WorkSafe, 2014b:1).

2.4.2.12 Monitoring, checking and reviewing performance

Small business owners/managers have the responsibility to ensure that OHS measures are implemented and enforced with the view to prevent occurrences of undesired events by monitoring, checking and reviewing OHS performance (McCallum, Schofield & Reeve, 2012:696). Small businesses should ensure that all equipment, specifically electrical appliances, are checked and monitored on a regular basis by a competent person (WorkSafe, 2014a:1).

2.4.3 Brazil

Awareness of the core OHS criteria for small businesses in Brazil is indicated below.

2.4.3.1 Health and safety policy and organisation

South America (including Brazil) is experiencing one of the largest increases in its working population in the last 50 years with the majority of people employed in small businesses and informal jobs (Hong, 2012:116). OHS initiatives, oriented towards maintaining, respecting and encouraging social and environmental responsible attitudes, form part of ethical initiatives within the small business management context (De Arruda & Granado, 2013:695).

Small business owners/managers have a direct influence on business activities and should therefore ensure that the goals and objectives of the business include OHS elements (Pozo, Tachizawa, Pozo & Pozo, 2013:2735–2736, 2742). Employers in Brazil have been required to provide OHS programmes at all work sites since 1995 (Hong, 2012:119). Furthermore, the Brazilian government issued policies specifically aimed at reducing the risk of illness as well as other hazards as required by the Brazilian Constitution (Bastian, 2012:8).

2.4.3.2 Ensuring health and safety measures

Conscious efforts have been made in Brazil in recent years to improve OHS in small businesses (Hong, 2012:117). Small businesses need to take a proactive approach to OHS elements, thereby increasing financial performance, sustainability and continuous improvement (Ferenhof, Vignochi, Selig, Lezana & Campos, 2014:47). Small business owners/managers need to, for instance, ensure that appropriate OHS measures are in place to ensure that the effect of shift work on the safety and health of shift workers is eliminated or minimised as far as possible (Baptista, Tito, Felli, Silva & Silva, 2014:108).

2.4.3.3 Risk assessment (and safe systems of work)

It is suggested that small businesses should adopt international standards such as the International Organisation for Standardisation (ISO) 9000, dealing with quality

management systems, and ISO 14000, dealing with environmental management standards, in order to ensure that risk assessment is done properly and according to a management system whereby faults are analysed and improvements implemented (Ferenhof *et al.*, 2014:50–51).

2.4.3.4 Access to competent advice

Small businesses face particular challenges with regard to financial and human resources when developing, implementing and maintaining management systems (Campos, 2012:141). Access to competent advice might assist in reducing the financial and human resources required to have such a management system developed, implemented and maintained (Campos, 2012:141–143).

2.4.3.5 Training and information

Training and education of safety practitioners in postgraduate training programmes have become essential with the view to relieving the shortage of OHS specialists in the field (Hong, 2012:117, 118).

Owners/managers of small businesses need to ensure that the programmes and procedures pertaining to OHS training are appropriate for the employees and aligned with business OHS objectives and targets (Perez-Floriano & Gonzales, 2007:407).

2.4.3.6 Individual qualifications and experience

Small business owners/managers have unique experiences and should ensure that their knowledge and experience positively influence OHS efforts (Pozo *et al.*, 2013:2736). Improvement of the educational and professional qualifications of employers and employees will allow people to feel independent, creative and innovative – also with regard to OHS issues (De Arruda & Granado, 2013:694).

2.4.3.7 Workforce involvement

Employees should be involved in the entire OHS process in order to gain their commitment, including their emotional and physical support (Pozo *et al.*, 2013:2735). Any changes regarding OHS efforts should be clearly communicated

to employees in order to reduce possible conflict (Pozo *et al.*, 2013:2737). Small business owners/managers need to facilitate an OHS culture in which employees are involved and informed with regard to preventative OHS measures and the rationale of such measures (Perez-Floriano & Gonzales, 2007:408).

2.4.3.8 Contracting procedures (i.e. using contractors)

Brazilian employers tend not to contribute much towards OHS efforts, preferring to make use of contractors that are regarded as OHS specialists (Hong, 2012:117).

2.4.3.9 Cooperating and coordinating with others

The Brazilian government encourages cooperation and collaboration between the government and businesses – also with regard to OHS elements – and realises that inefficient regulation could be a barrier to small business activity (Bastian, 2012:8). The development and implementation of an OHS management system could be costly if done on an individual basis; however, if businesses work together, the costs could be reduced by up to 50% (Ferenhof *et al.*, 2014:50). A team approach to OHS might lead to new actions and operations being suggested (De Arruda & Granado, 2013:694).

2.4.3.10 Accident/near-hit reporting and investigation

The reporting of accidents and incidents enables the business to conduct fault analysis in order to implement corrections, as well as to monitor and reduce future impacts (Ferenhof *et al.*, 2014:50).

2.4.3.11 First aid and emergency measures (where applicable, notably fire)

Small business owners/managers should ensure that emergency plans, preparedness and responses are in place in order to deal with any OHS emergency (Campos, 2012:145).

2.4.3.12 Monitoring, checking and reviewing performance

The monitoring, checking and reviewing of OHS performance should be done in order to provide feedback, keep employers and employees motivated and be

realistic in terms of OHS (De Arruda & Granado, 2013:692). Such processes will assist in sustainable growth and development of the business. Small business owners/managers regard system documentation, operational control, monitoring, as well as measurement, as important factors to account for when implementing control measures (Campos, 2012:147).

2.4.4 Canada

Awareness of the core OHS criteria for small businesses in Canada is indicated below.

2.4.4.1 Health and safety policy and organisation

Canadian small business owners/managers should guard against focusing on generating revenue and survival at the cost of employee health and safety. Instead, they should drive the integration of OHS in all business operations (Gravel, Rhéaume & Legendre, 2011:165, 171). Small businesses need to realise that addressing OHS elements, such as scarcity of resources to properly deal with incidents and accidents, simplified processes of decision-making and the tendency to improve OHS policy that affect responsiveness in the interests of stakeholders (Darnall, Henriques & Sadorsky, 2010:1076). Canadian small business owners/managers should take note that inadequate resources, improper measuring instruments and unrealistic expectations are some of the reasons why OHS programmes sometimes fail (Kelly, 2011:307).

2.4.4.2 Ensuring health and safety measures

Owners/managers of small businesses in Canada are frequently directly involved in production work and the associated social relationships with employees, which leads to such owners/managers not being able to realise fully their authority in terms of OHS activities (Champoux & Brun, 2003:304). Furthermore, small businesses tend to lack a safety committee and structured allocated OHS authority. This lack gives rise to unacceptable circumstances that could lead to undesirable OHS events (Champoux & Brun, 2003:310). OHS measures should make provision for the needs and cultural background of a multi-cultural workforce in Canada, for example overcoming language barriers (Gravel *et al.*, 2011:166).

2.4.4.3 Risk assessment (and safe systems of work)

Owing to the lack of internal expertise, Canadian small businesses link up with OHS inspectors to deal with intensive basic safety risk assessment, as well as safety risk assessment and accountability that originate in a change of business operations (Gravel *et al.*, 2011:172). During project management, it is important to emphasise three major phases in order to minimise safety risk, namely identification of safety risk, assessing safety risk, and mitigating safety risk (Badri, Nadeau & Gbodossou, 2012b:226). Small business owners/managers tend to place the responsibility for OHS safety on the shoulders of employees; thus, implying that OHS behaviour is individual to each employee. This perception of risk leads to small business owners/managers usually demonstrating low levels of involvement in risk assessment processes (Champoux & Brun, 2003:303–304).

2.4.4.4 Access to competent advice

Canadian small business owners/managers have access to OHS networks, even though the majority of them tend to prefer to handle their OHS issues within the business by entrusting OHS responsibility to employees (Champoux & Brun, 2003:312). However, if deciding to make use of external advisors, small businesses in Canada are inclined to mainly make use of the OHS expectorate (Gravel *et al.*, 2011:172).

2.4.4.5 Training and information

Canadian small businesses must ensure that OHS training make employees conversant with all OHS legislation that applies to all elements of their daily involvement in business operations (Gravel *et al.*, 2011:166, 171). It is important to ensure that OHS training equips employees with the skills, attitudes and behaviour necessary to perform all OHS activities effectively (Laberge, MacEachen & Calvet, 2014:251).

2.4.4.6 Individual qualifications and experience

Small businesses tend to employ younger, less educated and less experienced employees than larger businesses, which leads to a high frequency of OHS incidents and accidents in Canada (Champoux & Brun, 2003:303). Employees,

especially young workers, should gain the necessary OHS qualifications and experience in order to reduce accidents and injuries in the workplace (Laberge *et al.*, 2014:250; Tucker, Diekrager, Turner & Kelloway, 2014:72).

2.4.4.7 Workforce involvement

In order to achieve success, small businesses in Canada need to involve all relevant workforce and other stakeholder groups during all phases of managing projects (Badri, Gbodossou & Nadeau, 2012a:194).

2.4.4.8 Contracting procedures (i.e. using contractors)

Small businesses tend to be less bureaucratic than larger businesses. This makes them more flexible when negotiating with and managing contractors, especially with regard to OHS aspects in the workplace (Darnall *et al.*, 2010:1077).

2.4.4.9 Cooperating and coordinating with others

Safety committees in Canadian small businesses play an important role in specifying OHS problems as well as finding, implementing, monitoring and adjusting applicable solutions (Gravel *et al.*, 2011:172). The effective management of stakeholder relationships contributes positively to financial performance (Darnall *et al.*, 2010:1072).

2.4.4.10 Accident/near-hit reporting and investigation

Canadian small businesses should focus on enhancing a safety climate in order, to inspire and encourage novice and other employees to report all incidents and accidents without fear of being victimised (Tucker *et al.*, 2014:68). However, small businesses still experience low levels of reporting OHS incidents and accidents owing to management maintaining a reactive approach in this regard (Gravel *et al.*, 2011:174).

2.4.4.11 First aid and emergency measures (where applicable, notably fire)

Focusing on emergency procedures and emergency measures forms an important part of mitigating safety risk (Badri *et al.*, 2012b:231).

2.4.4.12 Monitoring, checking and reviewing performance

OHS auditing and review form a vital element of monitoring workplace safety in a business, while the outcomes of OHS auditing should be part of OHS training (Breslin, Kyle, Bigelow, Irvin, Morassaei, MacEachen, Mahood, Couban, Shannon & Amick, 2010:170, 177).

2.4.5 China

Awareness of the core OHS criteria for small businesses in China is indicated below.

2.4.5.1 Health and safety policy and organisation

OHS policy should structure clear guidelines for cooperation with regard to OHS incident and accident reporting and investigation in order to instigate clear mitigation procedures in small businesses in China (De Gobbi, 2013:8). The OHS policy should clearly inform all relevant parties of the OHS risks associated with all elements of business operations in China (Zeng, Tam & Tam, 2008:1157).

2.4.5.2 Ensuring health and safety measures

Small business owners/managers in China should strive to obtain international certification, such as ISO 9000 (dealing with quality management systems standards) or Occupational Health and Safety Advisory Services (OHSAS) 18001 (dealing with OHS management systems), which provides directives for all elements related to quality and health and safety measures (Zeng *et al.*, 2008:1160).

2.4.5.3 Risk assessment (and safe systems of work)

Proper risk assessment, specifically pertaining to the handling of machinery and equipment, should be performed regularly in small businesses in China (De Gobbi, 2013:2).

2.4.5.4 Access to competent advice

Small businesses should have access to competent advice and support through applicable OHS bodies (Zeng *et al.*, 2008:1165). The ILO provides a profile of OHS in China, with the view to providing a picture of the regulatory framework in China. The development of small businesses in China is seen as an important issue. Safety in small businesses should be enhanced through better administration and inspection, including access to advice from governmental OHS bodies (ILO, 2016b:9,31).

2.4.5.5 Training and information

A lack of adequate OHS training and infrastructure leads to more frequent incidents and accidents in China (De Gobbi, 2013:2; ILO, 2016b:9). Small business owners/managers in China should realise the importance of participatory training with the view to enhancing OHS buy-in (Fu, Zhu, Yu & He, 2013:85).

2.4.5.6 Individual qualifications and experience

Employees of small business in China should be educated and trained with the view to ensuring that they possess applicable OHS qualifications and experience in order to deal with OHS elements (Zeng *et al.*, 2008:1158; ILO, 2016b:2).

2.4.5.7 Workforce involvement

All levels of employees should be involved in OHS to ensure that management commitment is communicated effectively, which will lead to employee buy-in, participation and knowledge with regard to OHS elements (Wang, Wu, Song, Tse, Yu, Wong, & Griffiths, 2011:3).

2.4.5.8 Contracting procedures (i.e. using contractors)

When making use of the OHS services of contractors, the business should ensure that such contractors have the necessary OHS training and experience (Zeng *et al.*, 2008:1158).

2.4.5.9 Cooperating and coordinating with others

Small businesses in China must take care not to prohibit employees to disclose incidents and accidents and should advance cooperation and coordination in this regard (De Gobbi, 2013:8). In order to reduce incident and accident rates, cooperation between small business owners/managers and external interest groups such as legal, administrative, social and economic disciplines should be encouraged (Wang *et al.*, 2011:9; ILO, 2016b:2).

2.4.5.10 Accident/near-hit reporting and investigation

It is important to report all incidents and accidents, irrespective of the severity of the outcome in order to inform all relevant stakeholders (De Gobbi, 2013:2). Owners/managers of small businesses in China should also take care not to discourage employees from reporting incidents and accidents (Zeng *et al.*, 2008:1155).

2.4.5.11 First aid and emergency measures (where applicable, notably fire)

Small businesses should develop OHS measures that will prevent uncontrolled fire hazards, effective evacuation procedures, rescue programmes, and appropriate medical or first aid treatment (Wang *et al.*, 2011:4).

2.4.5.12 Monitoring, checking and reviewing performance

Quantitative safety data should be utilised in order to measure the performance of OHS measures (Zeng *et al.*, 2008:1155). The roles, responsibilities and objectives of a safety audit should also be specifically stated and then implemented (Zeng *et al.*, 2008:1164).

2.4.6 France

Awareness of the core OHS criteria for small businesses in France is indicated below.

2.4.6.1 Health and safety policy and organisation

When placing emphasis on strategic routes with the view to improving and innovating OHS matters, small business owners/managers in France are inclined to utilise high involvement of employees in a collective range of OHS matters in order to develop and maintain an OHS policy (Gilman & Raby, 2013:382, 384). Such OHS policy needs to state clearly specified goals, as well as strategy and actions that focus on OHS matters in the workplace (Matsuda, 2012:45).

2.4.6.2 Ensuring health and safety measures

The small business owner/manager or other responsible OHS persons in the business in France, should be seen as someone standing up for workplace safety, and not as a threat or negative influence on production (Audiffren, Rallo, Guarnieri & Martin, 2013:3). Furthermore, the attitude of the French small business owner/manager greatly influences the OHS culture and organisational climate when dealing with OHS challenges (Audiffren *et al.*, 2013:7). Corporate social responsibility (CSR) in France contributes to the development of innovation with regard to implementing effective health and safety measures (Battaglia, Testa, Bianchi, Iraldo & Frey, 2014:882).

2.4.6.3 Risk assessment (and safe systems of work)

Part of successfully managing a small business in France is the development of a risk management system (Clusel, Guarnieri, Martin & Lagarde, 2012:1). Small businesses should comply with certain regulatory requirements and the management of OHS risk analysis in order to achieve long-term success (Audiffren *et al.*, 2013:6). The significance of risk assessment should focus on preventative rather than curative measures (Clusel *et al.*, 2011a:47; Clusel *et al.*, 2012:2). It is important that a small business should have a risk management system reflecting organisational maturity (Clusel, Lagarde, Guarnieri & Martin, 2011b:10). Research on the management of human resources in France proved that programmes on preventing risks with regard to the health and safety of workers reduced absenteeism, enhanced labour productivity, lessened injury costs and identified additional financial benefits (Battaglia *et al.*, 2014:874).

2.4.6.4 Access to competent advice

Various organisations in France, such as the General Occupational Health and Safety Commission (CHSCT) and the Inter-Company Occupational Health Service (SIST), exist with the view to assisting businesses with OHS compliance, and small business owners/managers should familiarise themselves with such organisations and the assistance and advice that they provide (Matsuda, 2012:47-48).

2.4.6.5 Training and information

Small business owners/managers in France should inspire employees to develop appropriate skills, through training, that will allow them to contribute towards decision-making in OHS matters (Gilman & Raby, 2013:384).

2.4.6.6 Individual qualifications and experience

OHS specialists in France need to be properly qualified through academic and vocational training, and small business owners/managers should ensure that they make use of such properly qualified OHS specialists to ensure that their OHS efforts are legally compliant (Matsuda, 2012:48).

2.4.6.7 Workforce involvement

Owners/managers of small businesses should follow a teamwork approach by involving employees in OHS business operations and should invite employees to participate through quality circles when addressing quality-related OHS issues (Gilman & Raby, 2013:381). French small businesses mobilise the workforce in delivering services which result in developing more initiatives by all, and the improvement of their overall performance (Berger-Douce, 2014:9).

2.4.6.8 Contracting procedures (i.e. using contractors)

Small businesses in France have to contract continuously with the community by satisfying corporate customers with regard to CSR specifying health and safety issues, environmental practices and social or community commitment (Vo, Delchet-Cochet & Akeb, 2015:1976).

2.4.6.9 Cooperating and coordinating with others

There should be a high level of communication, cooperation and coordination between employer and employee in French small businesses pertaining to all elements of the business, including OHS issues (Gilman & Raby, 2013:377). Small businesses in France are found to operate mostly in integrated supply chains, which demonstrate close customer–provider interactions (Battaglia *et al.*, 2014:884).

2.4.6.10 Accident/near-hit reporting and investigation

Accident reporting, analysis and investigation must be regarded as opportunities for gathering information relating to OHS and should set the basis for improvement of OHS in the French small business (Dechy, Dien, Funnemark, Roed-Larsen, Stoop, Valvisto & Arellano, 2012:1380). The main focus of incident analysis is to constitute causal factors and the development of applicable controls to prevent reoccurrence (Dechy *et al.*, 2012:1382).

2.4.6.11 First aid and emergency measures (where applicable, notably fire)

The cohesion within the workforce of a French small business contributes to the effective dealing with an emergency, for example in case of a fire in the product warehouse. Cohesion among workers could prevent injuries and adverse consequences to the environment (Berger-Douce, 2014:9).

2.4.6.12 Monitoring, checking and reviewing performance

Owners/managers of small businesses in France should be regarded as effective observers and assessors of individual employee practices, which also include OHS performance (Gilman & Raby, 2013:379).

2.4.7 Germany

Awareness of the core OHS criteria for small businesses in Germany is indicated below.

2.4.7.1 Health and safety policy and organisation

Small businesses need to focus on organisational OHS policy that is flexible and custom-made for each individual business (Thinius & Jakob, 2015:178). Small businesses in Germany are seen as being the backbone of the German economy, as small businesses are the main drivers and innovative elements (Reich & Fonger, 2015:249). Work place management must take a prominent place in the OHS policy of German small businesses, which needs to focus on workplace health promotion (WHP), occupational safety and corporate integration management (Reich & Fonger, 2015:251).

2.4.7.2 Ensuring health and safety measures

The small business owner/manager should ensure that OHS measures are in place in order to protect employees through timeous prevention of incidents and accidents (Beck, Lenhardt, Schmitt & Sommer, 2015:343). The shortage of employable people in the working ages that Germany is experiencing lends itself to the reconciliation of work and family life within the focus to expand occupational training (Reich & Fonger, 2015:249). This focus on training has led to the institution of workplace health management with its focus on WHP as a new approach in human resource management. Research (Reich & Fonger, 2015:249) has indicated that WHP has become general practice among companies, which include small businesses in Germany, although the WHP activities fall short from the requirements of the WHP (Beck *et al.*, 2015:348). Employee involvement and the availability of health and safety expertise in small businesses play an important role in implementing WHP effectively (Beck *et al.*, 2015:349).

2.4.7.3 Risk assessment (and safe systems of work)

German small business owners/managers are obliged to perform risk assessments with the view to reducing OHS incidents and accidents in the workplace (Lenhardt & Beck, 2016:48). Small businesses in Germany, especially in the farming industry, are affected by a range of safety and health factors (Thinius & Jakob, 2015:175). The focus of small businesses should be to (Reich & Fonger, 2015:251–252):

- provide healthy and safe working conditions;
- emphasise prevention of incidents; and
- assist in speeding up recovery of any injuries or diseases.

2.4.7.4 Access to competent advice

Small businesses sometimes find WHP advantages challenging to reach because of limited funds, a lack of expertise, staff turnover and limited access to WHP service providers. Such limited access experienced by German small businesses frequently results in work overload and neglecting important elements of the WHP (Beck *et al.*, 2015:349).

2.4.7.5 Training and information

German small businesses, particularly in farming, need to focus on specific safety training (Thinius & Jakob, 2015:175). In general, workplace health programmes for German small businesses need to be presented at a low-scale price owing to the relative financial resources of small businesses (Reich & Fonger, 2015:248).

2.4.7.6 Individual qualifications and experience

According to Reich and Fonger (2015:248), the shortage of skilled employees that results from the changes in the demographics of the employable ages in Germany causes a big challenge to small businesses in the German labour market. This problem requires specific attention to grow occupational training to deal with such challenges. There exists a lack of information in Germany about the processes that go with the recruitment and qualifications of employees in small businesses and how these processes are managed. The expertise and experience of safety play an important role in the effective prediction of WHP activities (Beck *et al.*, 2015:350).

2.4.7.7 Workforce involvement

Communication and participation of employees with regard to operations in German small businesses should be regarded as a high priority in improving the general quality of the working environment (Thinius & Jakob, 2015:179). The

development and implementation of WHP must be characterised by the continuous involvement of the German workforce or employees; however, not all German businesses adhere to involving employees intensively and effectively (Beck *et al.*, 2015:345, 348).

2.4.7.8 Contracting procedures (i.e. using contractors)

Workplace risk assessment in Germany is enhanced when contracting out occupational safety and health services to specialists (Lenhardt & Beck, 2016:53). The behaviour of German contractors should adhere to the same safety policies and procedures as the employees of a business (Zwetsloot, Kines, Wybo, Ruotsala, Drupsteen & Bezemer, 2016:262).

2.4.7.9 Cooperating and coordinating with others

German small business owners are encouraged to cooperate with employees to enhance the success of OHS programmes (Wollesen, Menzel, Drögenmüller, Hartwig & Mattes, 2016:1). Managers and employees of small businesses tend to be characterised by strong social cohesion, non-bureaucratic communication and a flat hierarchical structure (Thinius & Jakob, 2015:178). Thinius and Jakob (2015:179) further specify that managers should be amenable to the contribution of employees and engage in dialogue with employees.

2.4.7.10 Accident/near-hit reporting and investigation

The importance of reporting is recognised, but even so, qualitative data with regard to workplace health and safety is not often collected or reported in small businesses (Lenhardt & Beck, 2016:49). Even though Germany is striving towards zero accidents in the workplace, this should not be used as an excuse to underreport accidents and incidents that do occur (Zwetsloot *et al.*, 2016:263).

2.4.7.11 First aid and emergency measures (where applicable, notably fire)

Occupational safety is concerned with creating and preserving safe and healthy working conditions, and is enhanced by measures to prevent accidents (Reich & Fonger, 2015:251). It is suggested that preventive action should adhere to a hierarchy of control measures with complete removal of hazards being the best

option, and person-oriented measures, such as personal protective equipment (PPE) being the last resort (Lenhardt & Beck, 2016:48–49). It is suggested that a safety culture and climate be created in Germany with the view to prevent emergencies as far as possible (Zwetsloot *et al.*, 2016:266).

2.4.7.12 Monitoring, checking and reviewing performance

The WHP should be developed and applied as a continuous improvement process that is systematically managed, and comprising the analysis of needs, setting priorities, coupled with planning, utilisation, consistent control and evaluation (Beck *et al.*, 2015:345). In spite of the relative intensive focus on WHP in Germany in general, monitoring and evaluating indicate that WHP in small businesses is less prevalent and less comprehensive in comparison with larger companies (Beck *et al.*, 2015:350).

2.4.8 India

Awareness of the core OHS criteria for small businesses in India is indicated below.

2.4.8.1 Health and safety policy and organisation

In India, it is important that a small business should have an OHS policy clearly stating its OHS goals and objectives and that such policy is in writing, implemented and regularly updated (Unnikrishnan, Iqbal, Singh & Nimkar, 2015:51, 54).

2.4.8.2 Ensuring health and safety measures

The prediction of different types of OHS accidents assists in the formulation of OHS policies in order to improve safety performance (Unnikrishnan *et al.*, 2015:47). Furthermore, these authors (Unnikrishnan *et al.*, 2015:47) highlight the responsibility of the employer to ensure that employees are safe under all conditions as far as is reasonably practicable.

2.4.8.3 Risk assessment (and safe systems of work)

Small business owners/managers should see that proper risk assessment is conducted on a regular basis to ensure that employees are not exposed to increased levels of risk (Unnikrishnan *et al.*, 2015:49). Furthermore, the perceptions and understanding of safety risk by employers and employees influence risk control in the business (Beriha, Parnaik & Mahapatra, 2011a:30; Beriha, Parnaik & Mahapatra, 2011b:298).

2.4.8.4 Access to competent advice

Access to external safety consultants enhances the chances of OHS success of a business in India (Unnikrishnan *et al.*, 2015:54).

2.4.8.5 Training and information

Behaviour-based safety training in India should be provided in order to enhance the safety awareness and performance of employees (Unnikrishnan *et al.*, 2015:54).

2.4.8.6 Individual qualifications and experience

Intellectual stimulation and working experience of employees in India have a positive effect on OHS efforts in the business, as such stimulation and experiences lead to a more positive attitude towards OHS (Unnikrishnan *et al.*, 2015:47).

2.4.8.7 Workforce involvement

Involving employees in OHS matters enhances their commitment and stewardship toward safety efforts (Unnikrishnan *et al.*, 2015:54).

2.4.8.8 Contracting procedures (i.e. using contractors)

Small businesses in India should ensure that OHS measures are in place for their own workers as well as for subcontractors that they might use (Prasad, Rao & Chalapathi, 2013:159).

2.4.8.9 Cooperating and coordinating with others

It is important that the management and small business owners/managers in India provide goal-directed leadership in order to enhance safety performance of employees (Unnikrishnan *et al.*, 2015:47).

2.4.8.10 Accident/near-hit reporting and investigation

The frequency of occupational accidents and incidents in India can be reduced by measures that focus on effective prevention based on previous occurrences (Unnikrishnan *et al.*, 2015:47).

2.4.8.11 First aid and emergency measures (where applicable, notably fire)

Small businesses in India should ensure that they have the ability to respond to an OHS emergency as such ability enhances the reputation of a business and lessens the potential effect of emergencies (Thakkar, Kanda & Deshmukh, 2012:647, 649, 656, 660).

2.4.8.12 Monitoring, checking and reviewing performance

It is important to structure operating margins for OHS audits in order to measure safety performance in small businesses in India (Unnikrishnan *et al.*, 2015:51). OHS inspections also assist in ensuring regulatory compliance in India (Unnikrishnan *et al.*, 2015:54).

2.4.9 Indonesia

Awareness of the core OHS criteria for small businesses in Indonesia is indicated below.

2.4.9.1 Health and safety policy and organisation

The small business owner/manager in Indonesia should ensure that the business has an OHS policy in place that depicts the motives and ethical values of the employer, the objectives and scope of the OHS programme, as well as a prevention strategy pertaining to OHS incidents and accidents (Frick, 2011:979). The OHS policy needs to be adjusted consistently to depict competitive strategies

in order to sustain long-term survival and growth (Rosli, Kuswanto & Omar, 2012:461, 462). The organisational policy of small businesses needs to target the individual employee to utilise business skills, personal dedication and self-motivation through a process of entrepreneurial innovation and dedication (Mirzanti, Simatupang & Larso, 2015:1).

2.4.9.2 Ensuring health and safety measures

The integration of OHS with the general business activities of Indonesian small businesses leads to an increase in the efficiency and effectiveness of such OHS measures (Frick, 2011:977). Furthermore, OHS measures should be regularly updated and diversified in order to remain efficient and effective (Rosli *et al.*, 2012:470). Small businesses need to implement systems of food quality and safety systems with the purpose of preventing contamination and adverse health effects (Abdul, Ismail, Mustapha & Kusuma, 2013:1492). The procedure of hazard analysis forms part of managing safe work (Kusnadi & Yudoko, 2016:3).

2.4.9.3 Risk assessment (and safe systems of work)

OHS risk assessment forms part of a successful safety management system in any Indonesian business and should focus on upstream elimination of safety risks at the source of origin through organisational and technical design (Frick, 2011:978, 982).

2.4.9.4 Access to competent advice

As Indonesian businesses need to take note of global developments, also with regard to OHS, it is important that information from other businesses as well as institutions be accessed to keep OHS efforts up to date (Rosli *et al.*, 2012:469).

2.4.9.5 Training and information

Employees of small businesses in Indonesia should have access to all relevant OHS information, and the business should strive towards continual OHS improvement *via* training opportunities (Frick, 2011:983).

2.4.9.6 Individual qualifications and experience

Training in the lean six sigma management theory (Accrediting Professional Managers Globally [APMG] International, 2016) enhances the consistent application of theory and real practice in Indonesian small businesses (Kusnadi & Yudoko, 2016:1). The effective use of standard operating procedures (SOP) by qualified employees comprises an important element of performing hazard analysis as part of planning a task (Kusnadi & Yudoko, 2016:3).

2.4.9.7 Workforce involvement

It is important that employees and employers in Indonesia work together on OHS matters in order to enhance the effectiveness of the safety management system in the business (Frick, 2011:978). The personal values of the owner/manager of small businesses positively affect working conditions by setting safety responsibilities, enhancing skills, involving employees in decision-making, presenting training and education that focus on creativity coupled with rewards and, if necessary, punishment (Sari, Mustikawati & Hum, 2016:20).

2.4.9.8 Contracting procedures (i.e. using contractors)

In negotiations with global companies, Indonesian small businesses need to focus on intensive identification and evaluation of safety work hazards that form part of permitting processes before executing work (Kusnadi & Yudoko, 2016:1).

2.4.9.9 Cooperating and coordinating with others

Proper cooperation, coordination and communication between Indonesian employers and employees are crucial for OHS efforts to be successful (Frick, 2011:978).

2.4.9.10 Accident/near-hit reporting and investigation

All OHS incidents and accidents in Indonesia should be reported and investigated in order to strengthen the OHS strategy of the business to reduce reoccurrence of such incidents and accidents, thereby lessening the amount of compensation claims (Frick, 2011:981).

2.4.9.11 First aid and emergency measures (where applicable, notably fire)

Small businesses in Indonesia need to realise the importance of making specific and correct decisions within a short time, focusing on the lowest possible risk during emergency conditions, while response decisions and processes need to commence immediately after a disaster had occurred (Kusumasari & Alam, 2012:356).

2.4.9.12 Monitoring, checking and reviewing performance

The monitoring of employees and feedback on their performance should form part of the entire safety management system of Indonesian small businesses, from its beginning through all phases (Frick, 2011:978).

2.4.10 Italy

Awareness of the core OHS criteria for small businesses in Italy is indicated below.

2.4.10.1 Health and safety policy and organisation

Management commitment in Italy affects the quality of OHS communication and the resultant goals and objectives that need to be specified in the OHS policy of the business (Cagno, Micheli & Perotti, 2011:221).

2.4.10.2 Ensuring health and safety measures

Small businesses represent a large part of Italy's economic system; however, limited evidence of OHS practices and effectiveness is available (Torre & Solari, 2011:376). Small businesses in Italy should ensure that an OHS prevention plan is developed and maintained (WHO, 2015a:1). The OHS performance of Italian small businesses pertaining to employment contracts, task descriptions, working time and the quality of procedures is affected by the size of the small business (Micheli & Cagno, 2010:733).

2.4.10.3 Risk assessment (and safe systems of work)

Risk analysis, inspections and audits have an effect on the frequency of occurrence of OHS accidents and incidents in Italian businesses (Cagno *et al.*, 2011:222). Furthermore, an increase in the size of a business requires more frequent and intensive OHS risk assessment and analysis (Cagno *et al.*, 2011:221).

2.4.10.4 Access to competent advice

An increasing awareness of the importance of safety management requirements for small businesses in Italy has led to a number of larger Italian organisations making information available to small businesses to be used as guidelines, without the intention of being prescriptive (Papadakis, Linou, Mengolini, Fatta & Papadopoulos, 2015:1). Access to competent advice *via* stable networks in relation with other businesses has a positive effect on the increase of productivity in accordance and compliance with OHS standards (Torre & Solari, 2011:375).

2.4.10.5 Training and information

The commitment of the small business owner/manager in Italy ensures that employees are trained in OHS matters. This is positively reflected in the correct use of safe working procedures (Cagno *et al.*, 2011:221). The management needs to be sensitive towards, and realise the importance of the relevance of OHS training (Micheli & Cagno, 2010:732).

2.4.10.6 Individual qualifications and experience

Education and training, both formal and informal, have a positive effect on the awareness and application of OHS elements in the small business in Italy (Valenti, Buresti, Rondinone, Persechino, Boccuni, Fortuna, & Lavicoli, 2015:2).

2.4.10.7 Workforce involvement

Consultation with, and involvement of, employees in OHS matters strengthen the OHS policy and effectiveness of OHS operations in a business (Valenti *et al.*, 2015:2).

2.4.10.8 Contracting procedures (i.e. using contractors)

Contracts with service providers need to be of such a nature that it allows easy intervention to maintain OHS standards of agreement in Italy (Cagno *et al.*, 2011:221).

2.4.10.9 Cooperating and coordinating with others

Italy has set up a discussion group on the Internet with the view to exchanging and updating information regarding OHS on an ongoing basis (WHO, 2015a:1). Partnerships with other businesses, OHS professionals, employees and other stakeholders could assist in the development of effective OHS standards and the achievement of OHS goals and objectives of the small business (Valenti *et al.*, 2015:2).

2.4.10.10 Accident/near-hit reporting and investigation

Underreporting of OHS accidents or incidents is a common feature of small businesses in Italy, just as in other parts of the world, and this leads to an increase of the loss associated with OHS accidents or incidents (Micheli & Cagno, 2010:731).

2.4.10.11 First aid and emergency measures (where applicable, notably fire)

Emergency procedures should be in place in order to prevent injuries, to mitigate the effects of the event, and to minimise harm and damage to property in Italy (Fruip, Bakkum, Johnstone, Tesolin-Gee, Vallieu & Van Gelder, 2010:2).

2.4.10.12 Monitoring, checking and reviewing performance

Inspections to monitor OHS operations in Italian small businesses create the necessary approach for OHS audits and performance measurement (Cagno *et al.*, 2011:221).

2.4.11 Japan

Awareness of the core OHS criteria for small businesses in Japan is indicated below.

2.4.11.1 Health and safety policy and organisation

Every business in Japan should ensure that they have an OHS policy in place, which clearly states their goals, strategy and action plans with regard to OHS in the business (Matsuda, 2012:45). Safety management should be included in business policies and be properly communicated to the management and employees (Kikuchi-Uehara, Kikuchi, Wada, Odagiri, Doi & Hirao, 2016:779).

2.4.11.2 Ensuring health and safety measures

OHS legislation in Japan requires employers to monitor the health and well-being of employees *via* specific health and safety measures (Matsuda, 2012:45).

2.4.11.3 Risk assessment (and safe systems of work)

Small businesses should include risk assessment in its policies (Kikuchi-Uehara *et al.*, 2016:776). Such risk assessment should allow for the quantification of the effect of processes and activities on both the environment and human health. Risk assessment in small businesses is aimed at the safety, health and the environment; both inside and outside the business (Kikuchi-Uehara *et al.*, 2016:776–777).

2.4.11.4 Access to competent advice

It is important that small business owners/managers in Japan familiarise themselves with applicable associations and institutions that can be utilised to assist in OHS matters (Matsuda, 2012:47; Nakagawa, 2012:1096).

2.4.11.5 Training and information

Employees in Japan, as in other countries in the world, should be provided with applicable OHS knowledge and skills in order to comply with applicable OHS legislation (Nakagawa, 2012:1087).

2.4.11.6 Individual qualifications and experience

Small business owners/managers should ensure that they employ, or make use of an OHS contractor with specified OHS skills, in order to assess the efficiency of OHS measures in their businesses (Matsuda, 2012:45). Small business owners/managers face particular challenges in this regard as they are sometimes restricted in their hiring of properly qualified employees (Nakagawa, 2012:1089). OHS skills, abilities, attitudes and behaviour form part of human resource management within small businesses. Enhancing such skills, abilities, attitudes and behaviour through training or other interventions leads to enhanced safety performance (Gamage, 2014:42, 44).

2.4.11.7 Workforce involvement

The involvement and training of employees in Japan with regard to OHS is limited in small businesses, even though it is recognised as being an important factor (Yang, 2013:108). Employees should be involved in OHS matters through direct commitment regarding the care and safety of employees, as well as the environment, through employee training, and through policies related to employee wellness (Haron, Ismail & Oda, 2015:83).

2.4.11.8 Contracting procedures (i.e. using contractors)

Contractors should comply with OHS measures when conducting their services. It is important that proper communication takes place with the view to ensuring such compliance (Aziz, Baruji, Abdullah, Him & Yusof, 2015:254). Japanese small businesses could assist the economy of the country through, amongst others, using and providing optimised sub-contracting services. However, sub-contractors should comply with the applicable OHS policies and procedures (Haron *et al.*, 2015:75).

2.4.11.9 Cooperating and coordinating with others

The cost of implementing health and safety in Japan is subsidised when small businesses work together, such as by conducting joint health and safety meetings on a regular basis (Aziz *et al.*, 2015:249). The communal corporation concept emphasises people within small businesses. Each employee is seen as part of the

family, thus encouraging cooperation with others. Small business cooperation is seen as a way to enhance the Japanese economy. Cooperation and coordination within common industries are also encouraged (Haron *et al.*, 2015:73, 77).

2.4.11.10 Accident/near-hit reporting and investigation

OHS should be properly managed and communicated, which also encompass safety reports. Proper reporting and investigation of accidents should be conducted with the view to enhancing compliance, as well as reducing accidents (Aziz *et al.*, 2015:250). Additionally, it should be noted that better safety climates in the workplace lead to reduced accident rates. Proper workplace housekeeping, which is based on the Japanese values of sorting, setting in order, shining, standardising, as well as sustaining, should be upheld as part of accident prevention and reduction strategies (Ikuma, Shakouri, Nahmens & Harvey, 2016:365).

2.4.11.11 First aid and emergency measures (where applicable, notably fire)

Even though limited research has been conducted on OHS in small businesses, such research is developing rapidly. Yang (2013:8) found that small business employers in Japan have limited training with regard to preventing and managing safety risks, thus resulting in limited emergency measures, being developed and implemented. An assessment of the awareness of compensation claims based on workplace injuries and diseases indicates that Japanese small business' employers and employees do not have sufficient awareness, thus reducing their claims (Yang, 2013:108).

2.4.11.12 Monitoring, checking and reviewing performance

Ethical business practices in Japanese small businesses are directly and positively related to the performance of such businesses. Therefore, the safety culture in Japanese small businesses should be monitored, with the view to enhancing performance (Haron *et al.*, 2015:73).

2.4.12 Republic of Korea

Awareness of the core OHS criteria for small businesses in the Republic of Korea is indicated below.

2.4.12.1 Health and safety policy and organisation

Korean small businesses need to recognise and prioritise the importance of OHS issues in terms of managing the business operations (Park, Jeong, Hong, Park, Kim, Kim & Kim, 2013:9). The OHS policy of the small business should express the businesses' commitment to improve its management of safety and health through a culture of safety and clear objectives (Gunduz & Laitinen, 2016:3).

2.4.12.2 Ensuring health and safety measures

Korean small businesses that receive support of a technical and financial nature regard OHS problems as very important (Park *et al.*, 2013:3). In order to deal with OHS matters effectively, the Korean small business should invest in facility development directly related to the nature of OHS preventative activities (Park *et al.*, 2013:1).

2.4.12.3 Risk assessment (and safe systems of work)

With the view to enhancing effective safety risk assessment, Korean small business owners/managers need to ensure that employees are conversant with the nature and application of appropriate safety risk assessment tools (Kim, Lee & Kim, 2014:A107).

2.4.12.4 Access to competent advice

Small business owners/managers in Korea should have access to, and make use of, technical and financial support provided by external sources such as the government and agencies (Park *et al.*, 2013:3).

2.4.12.5 Training and information

Employees of Korean small businesses should be provided with adequate and applicable OHS training and information with the view to improving awareness of OHS in the workplace (Park *et al.*, 2013:4).

2.4.12.6 Individual qualifications and experience

Formal OHS qualifications with the focus on vocational training should be regulated in order to enhance OHS practices in the Korean workplace (Jhang, 2011:18).

2.4.12.7 Workforce involvement

It is important to provide different incentives with the view to enhancing employee involvement in OHS matters in small businesses in Korea (Park *et al.*, 2013:1).

2.4.12.8 Contracting procedures (i.e. using contractors)

Korean small businesses could expand by making use of contractors or sub-contractors with the view to produce a product or service required by its customers (Lee, Song & Kwak, 2015:424).

2.4.12.9 Cooperating and coordinating with others

Collaborative efforts with other businesses could enable a small business in Korea to upgrade its products or services (Lee *et al.*, 2015:425).

2.4.12.10 Accident/near-hit reporting and investigation

Korean small businesses that experienced and reported safety accidents are more aware of OHS issues than those who were not exposed to such issues (Park *et al.*, 2013:3). The importance of investigations in the prevention of industrial accidents is significantly affected by the exposure to safety accidents and incidents (Park *et al.*, 2013:9). Many accidents and injuries occur in small businesses (Gunduz & Laitinen, 2016:1). Such events must be properly recorded and analysed with the view to identify accident factors, and to update safety management systems in order to address these (Gunduz & Laitinen, 2016:1–2).

2.4.12.11 First aid and emergency measures (where applicable, notably fire)

Disasters can cause damage to people and property and should be prepared for in advance through coordinated activities before, during as well as after such an event. Mitigation, preparedness through emergency measures, response and recovery should be addressed in Korean small businesses (Baek, Kim, Choi & Hong, 2016:416). Emergency measures should include applicable training and assessment with the view to enable employees to deal with emergencies (Haas, Hoebbel & Rost, 2014:118). A small business should follow a proactive approach to emergency situations. Emergency preparedness should include clearly identified situations, as well as to prepare all employees for such incidents. Potential emergencies include fire and explosions. Employees should know how to raise the alarm, how to fight fire with available fire-fighting equipment, and how to account for people at work. In addition, trained first aid personnel, and first aid kits must be available (Gunduz & Laitinen, 2016:3, 5).

2.4.12.12 Monitoring, checking and reviewing performance

The quality of maintenance and follow-up measures on safety accidents and incidents in Korea can be improved through revising OHS operating systems (Park *et al.*, 2013:1). Employees and employers should check and recheck each other's behaviour with the view to enhancing accountability with regard to unsafe and safe behaviour (Haas *et al.*, 2014:122).

2.4.13 Mexico

Awareness of the core OHS criteria for small businesses in Mexico is indicated below.

2.4.13.1 Health and safety policy and organisation

The OHS policy of small businesses in Mexico must demonstrate management commitment to follow safety and health rules and regulations and to provide visible support to all employees (Velázquez, Munguía, Esquer, Zavala, Ojeda, Will & Delakowitz, 2014:167).

2.4.13.2 Ensuring health and safety measures

It is important to implement an OHS programme in Mexican small businesses, but also to ensure that such a programme is valid in terms of relevance, applicability and efficiency (Velázquez *et al.*, 2014:165). Furthermore, such OHS programmes should provide for measures to ensure compliance with regulatory requirements (Velázquez *et al.*, 2014:174). It is also important that small business owners/managers focus on identification and following up on the effects of the presentation of any occupational disease whilst starting to prevent any potential complications associated with such diseases (López, Garcia, Madrid & Pérez, 2014:A108).

2.4.13.3 Risk assessment (and safe systems of work)

Small business owners/managers as well as employees in Mexico have a responsibility with regard to the prevention, elimination or reduction of safety risks (Velázquez *et al.*, 2014:164).

2.4.13.4 Access to competent advice

Small business owners/managers in Mexico should have access to business services with the view to obtaining advice on relevant matters, including OHS matters, as inexperienced entrepreneurs might experience difficulties. People offering advice to small businesses should be properly trained in order to provide for the specific needs of small business owners (Smith, 2013:30, 34).

2.4.13.5 Training and information

Employees of small businesses in Mexico should receive full instruction, information and training pertaining to all elements of the OHS programme and operations of the small business (Velázquez *et al.*, 2014:173).

2.4.13.6 Individual qualifications and experience

Applicable experience in dealing with variables enhances the ability of people to deal with issues, whether in the workplace or the environment. Knowledge and experience assist people to deal with uncertainty in Mexican small businesses

(Sievanen, 2014:16–17). This is also the case when dealing with health and safety in the workplace. Skills can be acquired through observation, interaction, and other types of informal learning processes. Such skills obtained on the job can transfer between occupations and industries. Workplace safety classes can also form part of such training (Hagan & Wassink, 2016:7).

2.4.13.7 Workforce involvement

Small business owners/managers in Mexico should involve employees in all OHS efforts, including inspecting and monitoring safety activities (Velázquez *et al.*, 2014:168).

2.4.13.8 Contracting procedures (i.e. using contractors)

Provision should be made for the use of contractors if the Mexican small business owners/managers do not have the necessary tools and expertise to develop their own OHS plans (Velázquez *et al.*, 2014:168).

2.4.13.9 Cooperating and coordinating with others

Cooperation in Mexican small businesses could be formal or informal in nature. Discussing business matters outside of work might lead to better cooperation and information sharing, also with regard to OHS matters (Smith, 2013:35). Cooperation with other small or larger businesses in Mexico could assist in working effectively (Wainer, 2013:242).

2.4.13.10 Accident/near-hit reporting and investigation

Safety hazards, accidents and incidents in Mexican small businesses should be reported and investigated with applicable record-keeping of the outcome and suggested counter-measures to prevent reoccurrence (Velázquez *et al.*, 2014:170).

2.4.13.11 First aid and emergency measures (where applicable, notably fire)

Emergency preparedness, including first aid facilities, should be in place and available at all times during business operations of small businesses in Mexico (Velázquez *et al.*, 2014:172).

2.4.13.12 Monitoring, checking and reviewing performance

Monitoring and evaluation are important elements of development programmes aimed at small businesses in Mexico (Wainer, 2013:241).

2.4.14 Russia

Awareness of the core OHS criteria for small businesses in Russia is indicated below.

2.4.14.1 Health and safety policy and organisation

Russian small businesses can create new places of work and assist in reducing unemployment. Small businesses should have policies in place which would allow them to interact with the environment effectively and not merely following changes (Gurianov, 2014:1167–1168). Work safety is of significance for small businesses in Russia and necessitates applicable policies (Niittymäki & Tenhunen, 2012:487).

2.4.14.2 Ensuring health and safety measures

Health and safety measures in Russian small businesses should assist in avoiding safety risks, or if avoidance is not possible. These measures should reduce the risk to a level that is acceptable (Ekwere, 2016:40). Working conditions in Russian small businesses is seen as important and forms part of CSR with the view to looking after employees' safety and health (Fifka & Pobizhan, 2014:193).

2.4.14.3 Risk assessment (and safe systems of work)

Small business owners as employers have a duty to ensure the safety and health of their employees in the Russian workplace. Safety risk assessment aims to identify report on and lower as far as possible the risks and hazards in the

workplace. Safety risk management forms part of human resources management, and assists the Russian small business owner/manager in dealing effectively with such risks (Ekwere, 2016:32). It is advisable that risks and responsibilities be distributed between different people or parties within or outside the Russian small business (Izmailova, Reshetova, Rukina, Seifullaeva & Yunusov, 2016:100). Risk can be costly, and therefore it is often a deterrent to small business development in Russia if not properly assessed and managed (Yukhanaev, Fallon, Baranchenko & Anisimova, 2015:318).

2.4.14.4 Access to competent advice

The government and private organisations should provide support and advice to Russian small businesses as these face particular challenges, also with regard to OHS. They do not always have the expertise and resources to deal with OHS issues (Gurianov, 2014:1168). Russian small businesses need access to competent advice from the government and other institutions. It is also important that small business owners/managers be knowledgeable of such support services (Yukhanaev *et al.*, 2015:326).

2.4.14.5 Training and information

The development of modern technologies assists in providing Russian small businesses with information. Applicable information, on OHS for example, can be accessed through various channels such as the Internet, thus allowing small businesses to access information regardless of its location (Ushakova, Safiullin & Strelnik, 2014:166). The skills levels of employees, also with regard to OHS, should be enhanced by training (Niittymäki & Tenhunen, 2012:487, 489). Russian small business employers and employees should be trained on and informed about relevant formal regulative structures, including those on health and safety (Yukhanaev *et al.*, 2015:326).

2.4.14.6 Individual qualifications and experience

It is important that Russian small businesses appoint, or have access to, qualified people when implementing projects (Ushakova *et al.*, 2014:168). Therefore, the implementation of safety management projects, aspects or policies also requires

properly qualified or experienced personnel. Qualified and experienced employees are seen as assets of the Russian small business as they can combine resources and create a sustainable competitive advantage (Shirokova, Vega & Sokolova, 2013:179).

2.4.14.7 Workforce involvement

The bond between employer and employee is important in Russian small businesses, with working conditions being regarded as important (Fifka & Pobizhan, 2014:198). Values of the business should be shared by the employees, thus ensuring that a culture is created which supports activities within the business. Involvement of the workforce or employees of the small business in Russia, also with regard to safety and health, has a positive influence on the performance of the business (Shirokova *et al.*, 2013:189–190).

2.4.14.8 Contracting procedures (i.e. using contractors)

Russian small businesses making use of contractors can implement ideas from such partners, with the view to enhancing organisational learning within the business (Shirokova *et al.*, 2013:179). Such organisational learning encompasses safety and health in the workplace.

2.4.14.9 Cooperating and coordinating with others

It is important to develop joint solutions on OHS issues in conjunction with other Russian businesses, society and other interested parties (Kosyrev, 2015:1). Cooperation between businesses as well as with the applicable governing bodies could assist in developing innovative processes and projects within a Russian small business (Izmailova *et al.*, 2016:97). Such innovative processes and projects could also be applicable to safety and health within the Russian workplace. Cooperation with the government and other organisations is relevant as part of CSR (Fifka & Pobizhan, 2014:193). Cooperation is valued in Russia, and it exerts support for institutions that can control the behaviour of both individuals and small business owners/managers (Yukhanaev *et al.*, 2015:317).

2.4.14.10 Accident/near-hit reporting and investigation

Russian small businesses should ensure that their reporting, with regard to accidents and incidents, is in line with applicable laws and regulations and that it is reliable. Reporting on safety risks and accidents should also be conducted internally with the view to keeping management informed. Risk management plans should be developed and implemented based on regular reports, including reports and investigations on accidents and incidents within Russian small businesses (Ekwere, 2016:24–35).

2.4.14.11 First aid and emergency measures (where applicable, notably fire)

Emergency planning in Russian small businesses includes contingency planning, disaster planning recovery, as well as the management of fire and life safety (Ekwere, 2016:33). It is important that the small business prepare in advance for the management of crises or emergencies, such as fire. The business should plan for recovery of business processes in the case of emergencies, with the view to keeping disruptions of business processes to a minimum (Ekwere, 2016:33, 41).

2.4.14.12 Monitoring, checking and reviewing performance

Safety performance in Russian small businesses should be monitored on an ongoing basis with the view to ensure the effectiveness of safety performance based on relevant policies and procedures in the small business. Based on the duty of employers to ensure the safety and health of employees, compliance should be managed and monitored as part of quality assurance (Ekwere, 2016:28–33). Work safety in Russian small businesses is seen as an important factor that should be monitored (Niittymäki & Tenhunen, 2012:489).

2.4.15 Saudi Arabia

Awareness of the core OHS criteria for small businesses in Saudi Arabia is indicated below.

2.4.15.1 Health and safety policy and organisation

Small businesses in Saudi Arabia strive for excellence by developing modern management policies, with ISO certification playing an important role in this regard (Al-Darrab, Gulzar & Ali, 2013:340). It was found that Saudi Arabian small business owners/managers and employees demonstrate a lack of commitment in OHS activities (Al-Darrab *et al.*, 2013:352). Saudi Arabian small businesses should also have a health and safety policy in place (Kadasah, 2015:100).

2.4.15.2 Ensuring health and safety measures

Purposeful proactive and reactive safety measures are planned well in advance to prevent most types of OHS incidents in the Saudi Arabian workplace (Al-Darrab *et al.*, 2013:345). A site safety plan, a safety information binder, and a procedures manual, should be developed as part of health and safety measures within a small business in Saudi Arabia (Kadasah, 2015:100).

2.4.15.3 Risk assessment (and safe systems of work)

Saudi Arabian small businesses are active in risk assessment to meet OHS requirements, with both ISO 9000 (which focus on quality management systems) and ISO 14000 (environmental management standards) being applied. These elements enhance the level of safety awareness and risk perception of managerial and worker-level employees (Al-Darrab *et al.*, 2013:340). Procedures for the identification of hazards and risk assessment should be available and utilised (Kadasah, 2015:102).

2.4.15.4 Access to competent advice

Small businesses in Saudi Arabia need access to professional competent advice to implement safety and other standards successfully (Mariotti, Kadasah & Abdulghaffar, 2014:1360).

2.4.15.5 Training and information

According to Al-Darrab *et al.* (2013:348), all newly appointed employees in Saudi Arabian small businesses are exposed to orientation programmes and the majority

of existing employees have to undergo orientation courses, whilst newly recruited employees are exposed to OHS and environmental information.

2.4.15.6 Individual qualifications and experience

Small business management in Saudi Arabia, as in many countries worldwide, is mainly conducted by unqualified part-time entrepreneurs, which implies that little contribution is made to the national economy with regard to employment and productivity (Al-Darrab *et al.*, 2013:340). Saudi Arabian small business owners/managers need to understand that employees with inappropriate qualifications or a lack of qualifications usually result in poor OHS management systems (Al-Darrab *et al.*, 2013:347).

2.4.15.7 Workforce involvement

It is significant that management maintains the appropriate philosophy to emphasise the involvement of all employees at the different levels in the Saudi Arabian small business with the view to obtaining the satisfaction of customers, and to improve the effectiveness of the small business (Al-Darrab *et al.*, 2013:337).

2.4.15.8 Contracting procedures (i.e. using contractors)

Relationships between small business employers and subcontractors, as well as customer relationship contracts and supplier relationship contracts need to receive attention, as they contribute to loss related to tangible assets and revenue (Momani & Fadil, 2013:103). Saudi Arabian contractors should also adhere to the procedures of hazard identification and assessment as set by the small business (Kadasah, 2015:102).

2.4.15.9 Cooperating and coordinating with others

A research study by Al-Darrab *et al.* (2013:352) on the implementation of safety, quality and environment programmes of small businesses in Saudi Arabia, found a deficiency with regard to support from management and the government.

2.4.15.10 Accident/near-hit reporting and investigation

Managers of Saudi Arabian small businesses need to understand that keeping records only of occupational incidents and injuries has a limited effect on developing a safety culture (Al-Darrab *et al.*, 2013:347).

2.4.15.11 First aid and emergency measures (where applicable, notably fire)

A limited number of small businesses have a comprehensive disaster recovery plan, which includes first aid facilities, and a small number implement crisis management contingency (Momani & Fadil, 2013:96). It is the responsibility of the Saudi Arabian government to ensure that businesses, irrespective of size, at least have first aid materials available (Kadasah, 2015:105).

2.4.15.12 Monitoring, checking and reviewing performance

The survey of Al-Darrab *et al.* (2013:347) revealed that some Saudi Arabian small businesses apply OHS programmes without appropriate managerial staff in charge. As a result of regular monitoring, checking and reviewing, managers and employees in Saudi Arabian small businesses generally are of the contention that safety, quality and environmental systems operate effectively (Al-Darrab *et al.*, 2013:351). OHS employees in Saudi Arabian small businesses are responsible for performing the function of medical surveillance because of the overall poor environmental quality that prevails in Saudi Arabia (Al-Darrab *et al.*, 2013:346). Momani and Fadil (2013:104) suggest that Saudi Arabian small businesses have to pay attention to establishing rigid internal controls to prevent and discourage fraud.

2.4.16 South Africa

As small businesses in SA are the main focus of this study, the core OHS criteria as applicable to SA small businesses will be discussed in Chapter 3.

2.4.17 Turkey

Awareness of the core OHS criteria for small businesses in Turkey is indicated below.

2.4.17.1 Health and safety policy and organisation

Small business owners/managers in Turkey should ensure that their commitment with regard to OHS is clearly stated and communicated to others and demonstrated through the development and implementation of an OHS policy (Moitinho, 2013:11).

2.4.17.2 Ensuring health and safety measures

Turkish small businesses need to raise employee OHS awareness with regard to the development and implementation of safety management systems (Delegation of the European Union to Turkey, 2012:1).

2.4.17.3 Risk assessment (and safe systems of work)

Risk assessment in Turkish small businesses should be a combined effort of employers, employees and other stakeholders in order to ensure that a valid OHS database is developed and maintained to deal effectively with safety risks (Moitinho, 2013:9). Risk assessment should be performed according to Turkish regulatory requirements (Erdogan & Ozdemir, 2013:708; Turkish Ministry of Labour and Social Security, 2014:1).

2.4.17.4 Access to competent advice

Turkish small businesses should make use of available OHS tools that are efficient and adequate for compliance assistance (Moitinho, 2013:12).

2.4.17.5 Training and information

Small business owners/managers in Turkey should ensure that they transfer their OHS knowledge and skills to employees, as such information is essential in order to advance employee competence to deal with OHS matters (Apaydin, 2012:1530). The Ministry of Development in Turkey developed an OHS training

programme in order to enhance employees' ability to deal with OHS in the workplace, and employers should familiarise themselves with the detail pertaining to this programme (Turkish Ministry of Labour and Social Security, 2014:1). Employees also have to attend training sessions as required by law and must demonstrate their application of the lessons learned during such training sessions (Erdogan & Ozdemir, 2013:708).

2.4.17.6 Individual qualifications and experience

It is important to ensure that employees have the necessary OHS qualifications and experience in order to deal with OHS issues effectively (Yilmaz, 2009:46). Turkish small businesses face particular challenges pertaining to the cost associated with OHS expenditures, owing to the lack of qualified employees (Demir, Altintas, Karababa & Demir, 2011:21; Tasci, 2012:1).

2.4.17.7 Workforce involvement

Employees should be involved in a participative OHS management model with the view to contributing to the development of effective OHS strategies and procedures in small businesses in Turkey (Yilmaz, 2009:46; Moitinho, 2013:11–12).

2.4.17.8 Contracting procedures (i.e. using contractors)

Turkish small businesses need to ensure contractor OHS compliance, as the use of contractors may lead to an increase in OHS incidents and accidents if such contractors do not adhere to OHS directives and policies (Demir *et al.*, 2011:21).

2.4.17.9 Cooperating and coordinating with others

Sufficient cooperation and coordination with similar Turkish businesses play an important role in the development and implementation of OHS measures, as well as legislative compliance (Ergun, 2011:33).

2.4.17.10 Accident/near-hit reporting and investigation

All accidents and incidents with regard to OHS need to be recorded and reported in accordance with Turkish regulatory requirements (Erdogan & Ozdemir, 2013:708).

2.4.17.11 First aid and emergency measures (where applicable, notably fire)

Emergency plans are a regulatory requirement for all Turkish businesses, including small businesses, with the view to developing the necessary resources and procedures to deal with OHS accidents and incidents (Erdogan & Ozdemir, 2013:705).

2.4.17.12 Monitoring, checking and reviewing performance

The Turkish small business owner/manager is responsible for monitoring and reviewing the quality and processes of informing, training, supervising and monitoring activities pertaining to OHS performance (Erdogan & Ozdemir, 2013:705, 707).

2.4.18 United Kingdom

Awareness of the core OHS criteria for small businesses in the United Kingdom (UK) is indicated below.

2.4.18.1 Health and safety policy and organisation

The OHS policy of small businesses in the UK should focus on pro-active and preventative OHS compliance instead of following a reactive approach (Hale, Borys & Adams, 2011:2). The small business owner/manager in the UK must ensure that the OHS policy is in line with applicable OHS regulatory requirements and is well understood by all employees to assist in advancing OHS in all business operations (Revell & Blackburn, 2007:417). In order to ensure that small businesses meet regulatory compliance, it is important that the OHS policy reflects basic understanding of such requirements, a willingness to comply and the capability to comply (Yapp & Fairman, 2006:49).

2.4.18.2 Ensuring health and safety measures

The UK government is actively trying to reduce the red tape associated with OHS compliance, especially when it comes to small businesses as the time and money spent on unnecessary and time-consuming completion of forms can be a burden to small businesses (RoSPA, 2008:3; RoSPA, 2009:1; Anon, 2012:24).

Small businesses in the UK should focus on customer care and employee wellness and relationships rather than on a traditional production-only approach, thereby shifting the focus from production only to including a safety orientated approach (Tait & Walker, 2000:96, 104). A small business should ensure that simple, yet effective OHS measures are developed and maintained (Walker & Tait, 2004:70). The values and attitude of the small business owner/manager towards OHS play a role in influencing employees' attitude and commitment towards health and safety measures (Revell, Stokes & Chen, 2010:276).

Small businesses provide employment to half of the UK's workforce and generate half of the UK's GDP (Papworth, 2015:34). It is therefore of vital importance that the costs and benefits associated with OHS should be addressed and explained in order to ensure safety in the workplace, and thereby promote economic competitiveness (Papworth, 2015:34).

2.4.18.3 Risk assessment (and safe systems of work)

Risk assessment needs to focus on both high and low risk level operations (RoSPA, 2008:3). The small business owner/manager in the UK must ensure that hazard analysis and risk assessment provides a clear basis for developing and maintaining controls to ensure the safety and health of all employees (Yapp & Fairman, 2006:49). Risk assessment performed on a continuous basis will provide the UK small business with valuable OHS information that can be used to eliminate or minimise safety risks accordingly (Herbane, 2010:51).

2.4.18.4 Access to competent advice

Small business owners/managers in the UK should access competent advice and properly implement such advice as it is easily and freely available online (Tait & Walker, 2000:70; Fidderman, 2007:6-7; RoSPA, 2008:3; IOSH, 2015:1).

2.4.18.5 Training and information

Small business owners/managers should ensure that they and their employees are properly trained and skilled in OHS issues (Gilman & Raby, 2013:381). Training should allow for opportunities to apply lessons learnt in practice (Floyde *et al.*, 2013:72). Furthermore, OHS e-learning might be a viable option for small businesses, owing to its flexibility and adaptability to daily workloads of a small number of employees (Floyde *et al.*, 2013:73).

2.5.18.6 Individual qualifications and experience

It is important that employers and employees in the UK master conceptual knowledge (facts and concepts), procedural knowledge (processes and "know how"), dispositional knowledge (all people involved) and locative knowledge (tools, resources and practices) to deal with OHS successfully (Lukic, Margaryan & Littlejohn, 2010:433-434). Small business owners/managers in the UK should also have the necessary knowledge and skills with regard to various OHS activities such as risk assessment, to pre-empt and respond to any OHS problems and challenges that may occur (Herbane, 2010:61). The necessary training and experience needed to interpret information gathered from risk assessment and incident analysis are of vital importance in order to use such information successfully in small businesses in the UK (Kelly, 2010:289).

2.4.18.7 Workforce involvement

Involvement of employees is of vital importance in developing and maintaining an OHS system in small businesses in the UK (Walker & Tait, 2004:71). In order to ensure the success of OHS initiatives, it is important to remember that employees, as well as employers, should regard OHS as a priority (Papworth, 2015:35). Involving employees in OHS decisions will demonstrate management's

commitment to improving OHS as it is seen as simply being “the right thing to do” and not only a compliance issue (Papworth, 2015:34).

2.4.18.8 Contracting procedures (i.e. using contractors)

It is important that small business owners/managers in the UK making use of contractors for OHS issues need to ensure consistently that such contractors meet OHS requirements (PayStream, 2014:1). When a small business decides to make use of an OHS contractor, such contractor should ensure that he/she complies with the needs and objectives of the owner/manager, and that the OHS contractor delivers his/her OHS services in a simple and understandable way (Tait & Walker, 2000:107; Walker & Tait, 2004:82). Furthermore, small businesses wanting to get involved in contract work themselves need to ensure that they build a reputation of high OHS standards in order to be awarded contracts (Tait & Walker, 2000:104).

2.4.18.9 Cooperating and coordinating with others

Small business owners/managers in the UK should ensure that the perception regarding OHS issues are improved to ensure employee and employer coordination and cooperation with regard to OHS (RoSPA, 2008:3). The basic focus with regard to OHS compliance should be on OHS attitude and not only on compliance (Hale *et al.*, 2011:9). Cooperation between businesses, trade associations and voluntary interest groups, as well as networking with others, plays a valuable role in enhancing OHS (Papworth, 2015:20).

2.4.18.10 Accident/near-hit reporting and investigation

All OHS incidents and accidents, including fatalities and non-fatalities, should be reported, according to UK regulatory requirements (Mendeloff & Staetsky, 2014:5). The investigation into such incidents and accidents should be used as a learning experience to prevent reoccurrences (Lukic *et al.*, 2010:429). Emphasis must be placed on reliability and clarity of data with the view to ensuring that effective controls will be developed (Walters, 1996:299).

2.4.18.11 First aid and emergency measures (where applicable, notably fire)

As it is impossible to completely eliminate all safety hazards and safety risks from the workplace, small business owners/managers in the UK should ensure that they have proper first aid procedures, responsible staff and first aid kits available at all times (Papworth, 2015:10). Small businesses in the UK should also follow a preventative approach pertaining to emergencies (such as fire) and not only focus on a reactive approach (Herbane, 2010:59).

2.4.18.12 Monitoring, checking and reviewing performance

The use of qualitative safety data enables small business owners/managers in the UK to organise their monitoring, checking and reviewing of performance observations, and categorising such information to assist with OHS endeavours (Kelly, 2010:287).

2.4.19 United States

Awareness of the core OHS criteria for small businesses in the United States (US) is indicated below.

2.4.19.1 Health and safety policy and organisation

OHS policy of small businesses in the US should comprise mutual responsibility for safety amongst employers and employees, as well as specifying, in writing, safety rules, disciplinary policies and the enforcement of such (Parker, Bejan & Brosseau, 2012:478). Furthermore, the OHS policy should provide for commitment to comply with all applicable OHS regulations (Markowitz & Gerardu, 2012:553; Maxey, 2013:12). Management commitment and involvement in OHS efforts also lead to lower incident and accident rates (Smith, Cohen, Cohen & Cleveland, 2013:93).

2.4.19.2 Ensuring health and safety measures

The attitude of small business owners/managers in the US, with regard to OHS, influences OHS decisions in the business to a great extent (Marshall, Akoorie,

Hamann & Sinha, 2010:408). Small business owners/managers should ensure that they are aware of, and comply with, all applicable safety regulations (Parker *et al.*, 2012:480). However, OHS compliance should be present under all circumstances and not due to possible enforcement or incentives only (Markowitz & Gerardu, 2012:542-543). Small business owners/managers cannot hide behind limited financial resources for non-compliance (Maxey, 2013:13).

In essence, OHS measures focus on minimising exposure to hazards in the workplace that have the potential to negatively impact the health and safety of employees (Landbergis, Grzywacz & LaMontagne, 2012:2). A good safety culture should be maintained in order to stipulate clearly who needs to do what, how it should be done, and that safety should be heeded everywhere and at all times (Hendershot, 2011:5).

2.4.19.3 Risk assessment (and safe systems of work)

Risk assessment activities in small businesses in the US related to all types of machinery and equipment must be performed timeously, and coupled with the provision of applicable PPE as last resort, to ensure the effectiveness of OHS endeavours (Clark, 2014:12). Additionally, small business owners/managers in the US need to consistently assess the impact of the relationship between working hours, coupled with poor sleeping habits on the occurrence, and frequency of injuries in the workplace (Nakata, 2012:582). Various policies and procedures that have been developed include risk assessment and the application of prescribed hierarchies of control (Manuele, 2005:33).

2.4.19.4 Access to competent advice

Small business owners/managers in the US indicate that access to online assistance with regard to OHS elements, such as templates for safety plans, factsheets and accident report forms, greatly improves OHS efforts (Parker *et al.*, 2012:481). Even in 1973, small business owners/managers in the US were required to follow OHS procedure as specified by the US Department of Labour, with the clear understanding that a safe work environment must be provided, and

that assistance would be provided in order to do so (Havens, 1973:53). Labour inspectors from this Department play the role of advisors to small business owners/managers, but should refrain from acting as police or consultants (Mendeloff, Dworsky, Gutierrez, Lytell & Connors, 2014:12).

Within small businesses in the US, various institutions have been developed in order to assist owners/managers to make compliance easier and ensure improved employee OHS protection (American Society of Safety Engineers [ASSE], 2008:1). In spite of such developments with regard to access to competent advice for small business owners/managers, they are still regarded as being “ill-equipped” to adhere to OHS compliance. This necessitates the long term commitment from various stakeholders (ASSE, 2010:1).

2.4.19.5 Training and information

OHS training can be one of the most effective ways to get information from employees regarding OHS in the US workplace, especially when such training provides interactive learning opportunities (Parker *et al.*, 2012:478). Interactive methods of safety training that enhances interactive learning provides for one of the most effective learning experiences which eventually reduces costs associated with repetitive inactive learning (Burke, Salvador, Smith-Crowe, Chan-Serafin, Smith & Sonesh, 2011:62). Furthermore, the utilisation of lead workers (on-the-job mentors) to train novice workers result in better training results (Smith *et al.*, 2013:94).

2.4.19.6 Individual qualifications and experience

Even as early as 1991, it was emphasised in the US that small business owners/managers should take care when appointing employees in order to ensure that they are in possession of applicable qualifications and experience related to the OHS responsibility that they will perform (Usry & Mosier, 1991:75). OHS training and experience must provide for deliberately planned and focused real-world application with the view to promote problem solving through opportunities to engage learning whilst working (Spector, 2008:260; Dew, Read, Sarasvathy & Wiltbank, 2009:302; Fadde & Klein, 2010:13).

Such deliberate practice and learning by doing enhances the entrepreneurial orientation of small business owners/managers and employees with regard to OHS (Ericsson, 2008:993; Sardeshmukh, Chen, Uzuegbunam, Kasthurirangan & Baron, 2010:220). Small businesses should ensure that the owner/manager as well as the employees gain the necessary knowledge and experience to deal with OHS matters effectively (Morisson, 2011:12).

2.4.19.7 Workforce involvement

Employers and employees are mutually responsible for OHS in the US workplace and communication channels should be available to ensure proper coordination (Parker *et al.*, 2012:477, 479). Involving employees in all OHS related matters will enhance their commitment and dedication towards OHS efforts (Yorio, Willmer & Moore, 2015:222). Employees should be involved in OHS efforts and must have a positive attitude towards OHS – only then will a team effort produce effective results when doing hazard identification or improved ways to manage risks (Hendershot, 2011:3). The enhancement and promotion of involvement of employees in OHS put employees at the centre of safety management systems, which is the foundational concept behind the human performance approach with regard to OHS management, leading to more efficient OHS systems (Wachter & Yorio, 2014:129).

2.4.19.8 Contracting procedures (i.e. using contractors)

Small business owners/managers in the US can make use of external safety consultants (even with their limited resources in terms of time and money), and should ensure that they follow up on the recommendations made by these consultants (Maxey 2013:12). Such consultation with contractors generally contributes to higher levels of OHS in the business (Brosseau, Bejan, Parker, Skan & Xi, 2014:361, 364).

2.4.19.9 Cooperating and coordinating with others

Small business owners/managers in the US are inclined to rely on input from informal manager networks in similar industries regarding their compliance and enforcements of OHS regulations (Marshall *et al.*, 2010:408). Cooperation and

coordination within the business follows a multilevel approach comprising: cooperation and coordination between individuals; between groups of individuals; and within sections within the business (Yorio *et al.*, 2015:223). Cooperation and coordination within the business contributes to a good safety culture which constitutes the difference between doing something, and doing something well (Hendershot, 2011:1-2).

2.4.19.10 Accident/near-hit reporting and investigation

Employers and employees of small businesses in the US need to realise the importance of reporting all OHS incidents and accidents and that the applicable incident reports, as available on various websites, should be completed (Harvard Environmental Health and Safety, 2015:1). Recording and investigating of such incidents and accidents represent the basic steps in the continual improvement of the quality of OHS in the business (RCI [Regulatory Compliance Incorporated] Safety, 2015:1). Willingness to challenge the system, and not merely accepting the existence of safety hazards but focusing on how to manage them, is a key element in good accident or incident investigation (Hendershot, 2011:4).

Furthermore, US small business owners/managers play a crucial role in effectively identifying root causes with the view to prevent reoccurrence of such incidents or accidents (Harvard Environmental Health & Safety, 2015:1). The efficiency of the effects of the accident investigation is determined by monitoring the recording and studying process (RCI Safety, 2015:1).

2.4.19.11 First aid and emergency measures (where applicable, notably fire)

In order to develop and maintain effective OHS emergency measures, it is important to access all formal and informal applicable information resources available to US small business owners/managers (Taylor & Stephenson, 2013:57).

2.4.19.12 Monitoring, checking and reviewing performance

Regular monitoring and reviewing practices in US small businesses lead to positive attitudes toward OHS initiatives which enhances compliance (Marshall *et*

al., 2010:408). Furthermore, positive effects resulting from reporting and resultant feedback regarding OHS performance enhances the safety culture and growth of the business (Baron & Tang, 2011:59). Utilising formal OHS review processes leads to lower incident and accident rates (Smith *et al.*, 2013:95). The small business owner/manager in the US should take care not to use OHS monitoring, checking and performance review as a form of employee “bullying” (Calvin, 2012:179). This process of monitoring, checking and reviewing should be used in order to enhance OHS in the workplace, and not to find fault or to victimise.

2.4.20 European Union

Member countries of the European Union (EU) are: Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK (GOV.UK, 2015:1). Due to the fact that some of these countries (France, Germany, Italy, and the UK) are members of the G20 in their own capacity, only information obtained regarding other EU member countries (Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, Greece, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden) are included in this section regarding the awareness in the EU of the core OHS criteria for small businesses.

2.4.20.1 Health and safety policy and organisation

The development and implementation of an OHS policy demonstrates management’s commitment to safety and formally indicates the principles and guidelines to follow with regard to OHS in the EU small business (Fernández-Muñiz, Montes-Peñón & Vázquez-Ordás, 2009:981; Niskanen, Naumanen & Hirvonen, 2012:1934). Management commitment as demonstrated in the OHS policy is the most significant factor in contributing to change and improvement of safety in the EU small business (Nielsen, Kines, Pedersen, Andersen & Andersen, 2015:150). Masi and Cagno (2015:231, 233) found that EU small business owners/managers are aware of the OHS policy and its importance. EU small

businesses' OHS policies frequently demonstrate the morals, values, aims and ideology of the owner/manager of such small business (European Network for Workplace Health Promotion [ENWHP], 2001:10; Cambra-Fierro, Hart & Polo-Redondo, 2008:652).

An integrated approach should be followed when an OHS policy is generated and implemented, as such policy forms the basis of all other business operations in the EU (Mohammad, Osman, Yusuff, Masood, Yahya & Jalil, 2013:897). The OHS policy and practice must be integrated into the general business strategy and operations (Nuñez & Villaneuva, 2011:58). Such integration refers to creation of a safety learning culture; acknowledgement of stakeholders; continual improvement; and synergies between OHS and other business components (Rebelo, Santos & Silva, 2014:373).

2.4.20.2 Ensuring health and safety measures

In their research, Legg, Olsen, Laird and Hasle (2015:191,193) found that arrangements and strategies for improvement for safety management and practices form part of the daily management and operations of small businesses in the EU. This contention is shared by Gervais *et al.* (2009:5-6) who also adds economic achievements to business management and operations.

Health management forms part of the strategic assets of EU small businesses (Zwetsloot, Van Scheppingen, Dijkman, Heinrich & Den Besten, 2010:145). Small businesses in the EU must ensure that their OHS measures are effective, even though they face specific challenges with regard to location, resources and business scope (ENWHP, 2001:34).

OHS measures, as part of the EU small business safety capital, should comprise competence, education and training; proactive monitoring and review; inter-firm coordination; emergency preparedness and response; risk assessment; and performance monitoring and measurement (Nuñez & Villaneuva, 2011:62-67).

2.4.20.3 Risk assessment (and safe systems of work)

EU small businesses are particularly vulnerable in terms of their OHS systems as they normally have less resources to invest in proper risk assessment and OHS systems (Arocena & Nuñez, 2010:414). It is necessary that OHS legal requirements be followed religiously with the view to performing safety risk assessment effectively (Hasle *et al.*, 2009:10). Risk assessment needs to be performed for each task and each worker with the focus on prevention of incidents (Papadopoulos, Georgiadou, Papazoglou & Michaliou, 2010:946).

Small businesses have unique characteristics, and normally experience low levels of accidents and injuries, which lead to a lower risk perception and lower management priority with regard to risk assessment (Micheli & Cagno, 2010:729). However, EU small business owners/managers should prioritise risk assessment in order to prevent accidents and injuries, as the occurrence of such accidents and injuries have a major effect on a small business (Micheli & Cagno, 2010:729; Hasle, Kvorning, Rasmussen, Smith & Flyvholm, 2012:182, 188). Risk assessment serves a dual purpose as it may assist in prevention of accidents and injuries and also enhances the image of the small business if OHS is seen as a priority (Frick & Kempa, 2011:16).

2.4.20.4 Access to competent advice

Employees should have access to competent advice with regard to OHS-related questions that they might have (Rhebergen, Lenderink, Van Dijk & Hulstof, 2012:258). EU small businesses can make use of external advisors to ensure that their OHS activities are performed effectively and that management and employees have access to the OHS advice that they need (Morillas, Rubio-Romero & Fuertes, 2013:64; Parejo-Moscoso, Rubio-Romero, Pérez-Canto & Soriano-Serrano, 2013:104). However, EU small businesses experience limited advancements owing to limited access to advice and support sources (Legg *et al.*, 2015:191).

2.4.20.5 Training and information

Personnel of small businesses in the EU should be given proper training in order to assist with the development, implementation and maintenance of an OHS system (Honkasalo, 2000:43). All employees have a legal right to be trained in OHS matters and should be provided with such training (Arocena & Nuñez, 2010:405). Training should be conducted with the view to, creating competence to perform risk assessment effectively (Papadopoulos *et al.*, 2010:947).

Safety and health training, even as early as during school education, play a positive role in eventual incident prevention (Morillas *et al.*, 2013:64). Developing the competence of employees as an antecedent of safety performance, the training of employees should focus strongly on their ability to identify safety risk, safety measures to be taken, and safety procedures that must be followed in order to prevent accidents and injuries (Starren *et al.*, 2013:44, 47).

2.4.20.6 Individual qualifications and experience

The lack of trained and skilled management and personnel can be a major barrier in achieving small business success in the EU (Micheli & Cagno, 2010:732; Masi & Cagno, 2015:234). Accidents and incidents are more likely to occur when workers lack safety awareness due to a lack of competence and experience (Santos, Barros, Mendes & Lopes, 2013:35).

As a result of the ever-increasing legal requirements and complexity regarding OHS practice in the EU, the need for academic training of OHS specialists is constantly receiving more attention (Arezes & Swuste, 2012:434).

2.4.20.7 Workforce involvement

Management commitment and the buy-in of employees into the OHS efforts of a business are of vital importance for achieving success (Pot & Koningsveld, 2009:425). EU regulations specifically state that employees should be involved in OHS efforts (Honkasalo, 2000:43). In addition, laws require the participation of workers in the OHS system (Arocena & Nuñez, 2010:406).

The use of incentives in EU small businesses with the view to enhance employee involvement in OHS is a viable option (Fernández-Muñiz *et al.*, 2009:981).

Furthermore, it is important to ensure that workforce involvement provides clear two-way communication from management to employees, as well as from employees to management in order to influence OHS positively (Frick & Kempa, 2011:10). Workforce involvement is also crucial for effective and significant OHS achievements (Frick & Kempa, 2011:23).

2.4.20.8 Contracting procedures (i.e. using contractors)

Cooperative and coordinative services from contracted service providers in terms of OHS activities are important in the EU (Arocena & Nuñez, 2010:406). Many small businesses in the EU use external contractors for various services, including emergency action plans (Parejo-Moscoso *et al.*, 2013:106). The use of professional intermediaries for the development and maintenance of OHS programmes in small businesses is common practice in the EU (Hasle & Limborg, 2006:10; Olsen & Hasle, 2015:244).

2.4.20.9 Cooperating and coordinating with others

Cooperation and coordination between small businesses in the EU are important (Arocena & Nuñez, 2010:406). Teams that cooperate report the following as important: improvement of quality, performance of tasks, enhanced intra- and inter-organisational connections, prolonged development of activities and service, as well as the capacity and opportunity to select their own leaders (Pot & Koningsveld, 2009:424). Small businesses in the EU should make use of open innovation, which is an opportunity for all stakeholders to engage proactively in meeting future challenges and opportunities, as valuable ideas can come from inside or outside the business (Saguy & Sirotinskaya, 2014:136).

2.4.20.10 Accident/near-hit reporting and investigation

Reporting and investigation of accidents, injuries and diseases in the workplace is a formal part of measuring OHS success in the EU (Honkasalo, 2000:44). Micheli and Cagno (2010:731) confirm the importance of correct incident reporting, and investigation with the view to determine OHS effectiveness efficiently. In investigating incidents and accidents, it is quite relevant to list data concerning the index of incidents, frequency and severity (Arocena & Nuñez, 2010:403).

Furthermore, a proactive approach to safety investigations in the EU should be followed as far as possible (Stoop & Dekker, 2012:1429).

2.4.20.11 First aid and emergency measures (where applicable, notably fire)

OHS initiatives in the EU need to clarify emergency plans, measures for first aid and medical care, as well as evacuation drills (Arocena & Nuñez, 2010:403). Emergency measures, as part of preventive action plans, should be in place. Such measures should include an OHS emergency prevention plan (Parejo-Moscoso *et al.*, 2013:105).

2.4.20.12 Monitoring, checking and reviewing performance

Reviews pertaining to OHS in the EU should entail issues related to performance of tasks, maintenance of technological infrastructure and functioning, working conditions, as well as worker training and risk assessment (Arocena & Nuñez, 2010:403). Quantitative safety data forms an important part of monitoring, checking and reviewing performance of the EU small business and its employees (Koskela, 2014:300).

The audit process, as review tool, creates a foundation for goal setting, development of OHS policy plans, development of values and perspectives on all elements of OHS risk assessment, and operational plans (Honkasalo, 2000:42). An effect of the monitoring and review of OHS activities is that a basis is set for continual improvement with regard to OHS (Fernández-Muñiz *et al.*, 2009:981; Fernández-Muñiz, Montes-Peñón & Vázquez-Ordás, 2012:44). Positive feedback and incentives or rewards for good OHS performance play an important role in reducing OHS accidents and incidents (Verbeek & Ivanov, 2013:81).

A comparative analysis of the awareness of the G20 countries (including European Union) with regard to essential OHS criteria that apply to small businesses in their respective countries is shown in Table 2.1.

Table 2.1: Awareness of the Group of Twenty countries regarding core occupational health and safety criteria of small businesses

Country	Core OHS criteria											
	OHS policy	OHS measures	Risk assessment	Access to competent advice	Training and information	Qualifications and experience	Workforce involvement	Contracting procedures	Cooperating and coordinating with others	Accident reporting and investigation	First aid and emergency measures	Monitoring, checking and reviewing
Argentina	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Australia	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Brazil	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Canada	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
China	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
France	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Germany	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
India	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Indonesia	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Italy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Japan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Republic of Korea	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mexico	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Russia	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Saudi Arabia	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
South Africa	Refer to Chapter 3 for details on the South African perspective on occupational health and safety in small businesses											
Turkey	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
United Kingdom	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
United States	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
European Union	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Source: Author's own compilation (2016)

Table 2.1 indicates that the G20 countries are aware of essential core OHS criteria that apply to small businesses in their respective countries. This confirms that they are in agreement about their OHS focus. The G20 countries are in a position to benchmark with each other with the emphasis on adhering to the world's best practices and consistent innovation with regard to OHS in small businesses.

In the process of dealing with OHS criteria in the G20 countries, they closely liaise with institutions that are renowned for their leading input with regard to developing high standards for OHS in the workplace, namely the International Labour Organisation (ILO), the World Health Organisation (WHO), the International Monetary Fund (IMF), and the International Organisation for Standardisation (ISO). Such endeavours apply to formal and informal economic sectors, which include small businesses. The contribution to OHS by these recognised institutions are briefly discussed.

2.5 INTERNATIONAL LABOUR ORGANISATION

The ILO is one of the international organisations with which the G20 collaborates. As such, the G20 takes note of the ILO guidelines and practices in order to advance OHS in small businesses.

The ILO was founded in 1919 to promote social justice as basis for universal and lasting peace. In order to achieve such peace, the ILO aims to promote rights at work, amongst others (ILO, 2015d:1–2). The ILO strives to give an equal voice to workers, employers and governments to ensure that the views of all three parties are incorporated in, for example, labour standards (ILO, 2015d:1). OHS in small businesses also fall under the ILO in terms of the rights of the workers employed in such entities, the owners/managers of such entities, as well as the government of the country in which the small businesses operate.

The founding mission of the ILO includes that labour peace is indispensable for prosperity. As such, the ILO assists in creating and maintaining international standards for working conditions and promoting rights at work (ILO, 2015c:1–2). In the Declaration of Philadelphia of 1944 (ILO, 1944:1-3), which forms part of the

ILO Constitution, it is stated that the ILO recognises its obligation to further world programmes that will achieve “adequate protection for the life and health of workers in all occupations” (ILO, 2015a:20).

Since the earliest times small businesses have been around as a mode of production (Glass, 2011:1). This same author, under the guidance of the ILO, indicates that small businesses are likely to have limited finances available and that they are less likely to be inspected to ensure OHS compliance. This lack of finances, with regard to OHS, leads to: poor working conditions, the use of cheap raw materials, inadequate maintenance on equipment, and a lack of adequate personal protection (Glass, 2011:1). All of the former lead to poor working environments and often to businesses closing down due to associated financial problems as a result of high injury and illness rates (Glass, 2011:2). The ILO, in collaboration with the International Finance Corporation (IFC), states that improved OHS will enhance productivity. The ILO and IFC have therefore developed a SME Toolkit to assist employers to comply with OHS requirements (SME Toolkit, 2015:1).

The ILO estimates worldwide occupational accidents at around 337 million and diseases at around 160 million each year with 2.3 million workers dying as a result of occupational accidents and diseases (Niu, 2010:744; ILO, 2015a:v). The G20 member countries, as a group, account for nearly 70% of work-related deaths due to work-related diseases and occupational accidents (ILO, 2014:1). The resulting costs associated with safety and health problems place a considerable burden on businesses and the government as the ILO estimates that around 4% of the world’s gross domestic product (GDP) is lost each year due to the direct and indirect costs owing to occupational accidents and diseases (Niu, 2010:744; ILO, 2014:3). Such direct costs include payments to employees, costs for the treatment of ill or injured employees, and the costs of health and accident insurance, while indirect costs include lost productivity and overtime charges (Burke, 2012:12). The figures mentioned above, although very high, do not indicate the pain and suffering of workers, their families and the worldwide economic losses due to occupational accidents and diseases (ILO, 2015b:v).

According to the ILO, small business owners/managers commonly have a lack of awareness regarding the cost implications related to occupational accidents and diseases, and they tend to adopt reactive rather than preventive strategies towards OHS (ILO, 2014:6). The ILO further states that workplace health and safety incidents and accidents are preventable and lessons should be learned from incidents and accidents when they do occur. Investigations should be conducted when incidents and accidents occur in order to identify how and why they happened in order to establish actions that should be taken to prevent similar occurrences. Inspectors conducting such investigations should ensure that the business complies with applicable legislation (ILO, 2015b:1). Assistance to small business owners/managers by providing advice and information regarding OHS, and awareness campaigns highlighting accidents, and how to prevent them, could have a positive effect on the attitudes and behaviour of small business owners/managers and their employees (ILO, 2014:6).

The guidelines set by the ILO to enhance OHS application and implementation can be achieved by following two major strategies (Niu, 2010:747):

- using an integrated approach to standard-related activities; and
- utilising the voluntary measures and guidelines set by the ILO in order to create a proper safety culture on international, national and individual business levels.

2.6 WORLD HEALTH ORGANISATION

The Constitution of the WHO (WHO, 2005:1) holds that health includes physical, mental and social well-being and, as such, does not focus only on the absence of disease. The WHO further contends that the highest attainable standard of health is a basic human right, and that the achievement of this standard of health is possible only when there is full cooperation between individuals and states (WHO, 2005:1). As governments have a responsibility for the health and safety of their people, they should provide for adequate health and social measures (WHO, 1994; WHO, 2005:1; WHO,2017:1). The use of available information and

knowledge of OHS must be used for the protection of the health of the working population due to the globalisation of economies (WHO, 2006:30).

The WHO has implemented a programme for occupational health since 1950 and close coordination and collaboration with the ILO has taken place (WHO, 1994:1). The majority of the world's population lives in developing or poor countries, with an increase of poverty in middle-income countries (WHO, 2007a:77; Chan, 2017:1). The exposure to workplace hazards is increasing even though important economic and technological changes have reduced such hazards in the developed countries (WHO, 2007a:77, 78). Conditions in the workplace may threaten the health, well-being and working capacity of employees, thereby affecting the quality of working life as well as the economic status of employees and their families due to the direct and indirect costs of workplace accidents and incidents (WHO, 2007a:77; WHO, 2017:1). Such workplace accidents and incidents have a profound effect on the health of the working population. Workplace accidents and incidents place an unnecessary burden and suffering on the workers' families and communities, and cause significant economic losses for businesses and countries (WHO, 2007a:77; WHO, 2017:1).

The WHO has the objective that all people attain the highest possible level of health (WHO, 2005:1-2). One of the functions of the WHO, flowing from this, refers specifically to the promotion of, and co-operation with other specialised agencies in order to prevent accidental injuries (WHO, 2005:2). The WHO emphasises the development of occupational health services, training and research, as well as providing guiding principles for health and safety legislation with regard to action in the workplace (WHO, 1994:1).

According to the WHO (1994:4), occupational health is seen as a multidisciplinary activity aimed at:

- the protection and promotion of the health of workers by the prevention and controlling of workplace diseases and accidents;
- the elimination of occupational factors and conditions hazardous to health and safety;

- the development and promotion of safe work, safe work environments and safe work organisations;
- the enhancement of the physical, mental and social well-being of workers; and
- enabling workers to conduct socially and economically productive lives in order to contribute to sustainable development.

The WHO sees occupational health as a preventative activity, which should be aimed at the identification, assessment and control of safety hazards in the workplace, including the generation of competent and effective actions to ensure a healthy work environment (WHO, 1994:2). The WHO indicates that the most successful economies have shown that workplaces that were designed according to good principles with regard to workplace safety, are the most productive and sustainable, and poor working conditions lead to difficulty with regard to high-quality products or services, as well as long-term productivity (WHO, 1994:4).

The WHO Global Plan of Action on Worker's Health sets out to devise and implement policies relating to workers' health, and deals with the following (WHO, 2007b:1, 2):

- protecting and promoting health at the workplace;
- improving the performance of, and access to occupational health services;
- providing and communicating evidence for action and practice; and
- incorporating workers' health into other policies.

As an international organisation, the WHO (1994:5) stipulates key strategic principles of international and national health and safety policies, namely:

- the elimination of hazards as the primary prevention strategy;
- safe technology;
- the optimisation of working conditions;
- the integration of health and safety activities with production;

- government's responsibility, authority and competence with regard to the development and control of working conditions (including legislation);
- the primary responsibility of the employer (or entrepreneur) regarding health and safety in the workplace;
- recognising employees' interest in health and safety activities;
- cooperation and collaboration between employers and employees regarding workplace health and safety;
- employees' right to participate in decisions regarding their work;
- recognising the right of people to know and the principle of transparency; and
- the continuous development of OHS.

From the above principles, it can be seen that the small business owner/manager should:

- be aware of applicable health and safety legislation;
- recognise that he/she is responsible for the health and safety of his/her employees;
- regulate workplace health and safety activities;
- involve employees in decisions regarding health and safety;
- cooperate and collaborate with employees regarding health and safety;
- recognise that employees have a right to know about health and safety issues in the business, and health and safety activities should be transparent; and
- recognise that health and safety activities should constantly be developed and improved.

As large amounts of money and effort is invested worldwide in OHS accreditation, regulation, and the common pursuit of standards and reliable measurement, it is important that research and experience be shared and that countries participate actively in the international community (Shaw Braithwaite, Moldovan, Nicklin, Grgic, Fortune & Whittaker, 2013:229).

As indicated (in sections 2.5 and 2.6), the Constitutions of the WHO and the ILO respectively stipulate people's right to health and safety in the workplace (WHO, 2005:1; ILO, 2015b:1). For this reason, workplace health and safety should be promoted and developed further in every country, including by small businesses. Small businesses need to be productive and sustainable in the long-term, and this can only be achieved when workplace safety and health are taken into consideration. A safe and healthy workplace can be planned, developed, organised and maintained when OHS standards are applied. The WHO indicates that international and national OHS policies should be strengthened and developed, and employees should be given active participatory roles in the development of policies to promote healthier and safer workplaces (WHO, 2006:31). Furthermore, OHS training and capacity development should be a priority in order to focus on prevention, rather than cure (WHO, 2006:34–35).

Achieving OHS is a realistic and achievable objective and should be seen as a positive investment rather than a burden (WHO, 1994:6). In order to achieve business wealth, which is not possible without workers' health, the WHO identifies the following key points to healthy workplaces (WHO, 2015b:2–3):

- leadership commitment and engagement;
- the involvement of employees and their representatives;
- focus on business ethics and compliance;
- the use of OHS processes to ensure effectiveness and continual improvement; and
- achieving sustainability and integration by ensuring that OHS forms part of the overall strategic plan and objectives of the business.

2.7 INTERNATIONAL MONETARY FUND

The IMF is responsible for the coordinated global response to events in international markets and economies (IMF, 2013:1). OHS has an effect on the lives of many people, as well as an economic effect on businesses. Two of the core values of the IMF focus on, firstly, being ethical with regard to duties carried out and, secondly, to be accountable for work both individually and collectively

(Ethics Office of the IMF, 2013:21). As such, the small business owner/manager should be aware that OHS is more than just a compliance issue; it is an ethical responsibility resting on his/her shoulders, as well as on those of his/her employees.

The IMF has established an Ethics Office (with an IMF Integrity Hotline accessible by phone or the Internet) which (Ethics Office of the IMF, 2009:4; Ethics Office of the IMF, 2013:12):

- provides independent advice to the IMF and its staff regarding ethics;
- promotes awareness of ethics through outreach and training programmes; and
- conducts preliminary enquiries and investigations when allegations of unethical behaviour and misconduct are made.

2.8 INTERNATIONAL ORGANISATION FOR STANDARDISATION

Standards provide essential communication, alignment and compatibility at international, national, industry and individual business levels (Leonard, 2013:2). International standards are accessible to everyone, and as such, enable the crossing of borders, cultures and languages by forming the basis of trust, assisting in avoiding conflicting standards, reducing technical barriers, and assisting in the achievement of regulatory compliance (Leonard, 2013:2).

An ever-increasing number of organisations across the world have adopted international management standards, such as those of the ISO pertaining to quality management (ISO 9001) and environmental management (ISO 14001), and the OHSAS 18000 standard for the prevention of occupational hazards and the provision of health and safety regulations in the workplace (Heras-Saizarbitoria & Boiral, 2013:47). Businesses with the OHSAS 18000 certification show the highest levels of safety management practices and behaviour, reduced numbers of accidents and incidents, improved productivity, as well as improvement in the safety and health of employees (Leonard, 2013:5). Even though compliance with such international standards is not compulsory, adherence to them increases the

chances of a business being sustainable in the long term (Lozano & Huisingh, 2011:99).

2.9 CONCLUSION

This chapter investigated the awareness among the G20 member countries of the core OHS criteria developed specifically for small businesses. The majority of countries are aware of the unique challenges, opportunities and characteristics with regard to OHS in small businesses. Furthermore, the countries are aware of the importance of the core OHS criteria in order to deal effectively with OHS matters in small businesses. Small business owners/managers play a vital role in implementing the core OHS criteria in the workplace. The areas of consultation between the G20 countries and renowned institutions in the field of OHS, such as the ILO, the WHO, the IMF and the ISO were also briefly overviewed in this chapter.

Chapter 3 deals with the SA situation with regard to owners/managers of small businesses that need to apply the internationally accepted core essential OHS criteria. Small business owners/managers must apply these OHS criteria within a management context in order to ensure that these criteria are applied in their businesses with the view to meeting OHS compliance requirements.

CHAPTER 3

SOUTH AFRICAN PERSPECTIVE ON OCCUPATIONAL HEALTH AND SAFETY IN SMALL BUSINESSES

3.1 INTRODUCTION

The ever-increasing intensity regarding competition and the pace at which knowledge becomes obsolete is leading to an era in which leadership, structure and occupational health and safety (OHS) control systems must increasingly focus on the management of knowledge and skills (Cross & Funk, n.d.:15). Small businesses face a unique challenge in this business environment as they often do not have the time or resources needed to keep up with the ever-increasing changes in the business environment (Cross & Funk, n.d.:15). Getting safety right is an on-going challenge since it poises employee rights against employer expectations (Phin, 2013:51). The World Health Organisation (WHO, 2007a:79; WHO, 2015b:2) indicates that developing countries, such as South Africa (SA), face higher incident and accident rates than developed countries and that the related economic costs due to compensation, working time that is lost, interruption in production, training and medical expenses are very high. Even though governments worldwide may pay for some medical services or sickness benefits, the cost to public health budgets and insurance is borne by society as a whole and high accident and incident rates can have a severe effect on national productivity (WHO, 2007a:79). The prevention of workplace injuries, illnesses and deaths is timely and relevant for individual workers and their families, businesses, the communities in which these businesses operate as well as society at large (Burke, 2012:12, 38).

Small businesses are the most prevalent form of business organisations in society, having the largest share of job creation, sales growth and employment growth in developing countries (Ayyagari, Demirguc-Kunt & Maksimovic, 2014:75, 95; Cook, n.d.:49). However, even though small businesses represent a large segment of the global economy and are affected by the government of the country in which they operate, the following are some of the problems related to research in small businesses (Cook, n.d.:49-50): a lack of information about these businesses since

many of them are privately owned and their records are therefore not publicly available; difficulty in getting access to these businesses; and the idea that small businesses' policies are merely the result of regulatory compliance, the avoidance of irresponsible acts, and the adjustment to market forces.

Regulations and regulatory compliance are one of the obstacles faced by small businesses in developing countries in terms of business growth and increased productivity (Ayyagari *et al.*, 2014:96). This chapter elaborates on the OHS core criteria, identified in Chapter 2 (see section 2.3), as it applies to small businesses in SA. The SA government is actively implementing measures that will encourage entrepreneurship and small business development as this is an important building block to growing a sustainable economy and creating employment opportunities (G20, 2014e:16, 31). One such measure that governments worldwide emphasise, including those of the G20 countries, is aimed at streamlining regulatory systems in order to enhance compliance (G20, 2014e:16). Such endeavours should include OHS compliance aimed at reducing the costs related to OHS incidents and accidents. The evaluation of OHS management system performance can be measured in terms of compensation claims related to incidents and accidents in the workplace (Çalışkan, 2014:172). Therefore, the statistics from the Compensation Fund, can be used as an indicator of the incident and accident rates in SA. As indicated in Chapter 1 (see section 1.2), the Annual Report of the Compensation Fund 2015/2016 of SA indicates that millions of Rands are paid out annually for temporary and permanent disabilities due to workplace incidents and in resultant pensions (Compensation Fund, 2016:19-20). The challenge that the SA government faces with regard to costs related to occupational injuries and diseases is evident from these figures. This predicament is confirmed in the Annual Performance Plan 2014–2015 of the DoL (2014a:10). OHS injuries and diseases pose high costs for SA businesses in terms of expenses that are wasteful and often preventable (Bowman, Stevens, Seedat & Snyman, 2010:57; Steenkamp, 2012:9072).

Figure 3.1 that follow outlines the content of this chapter.

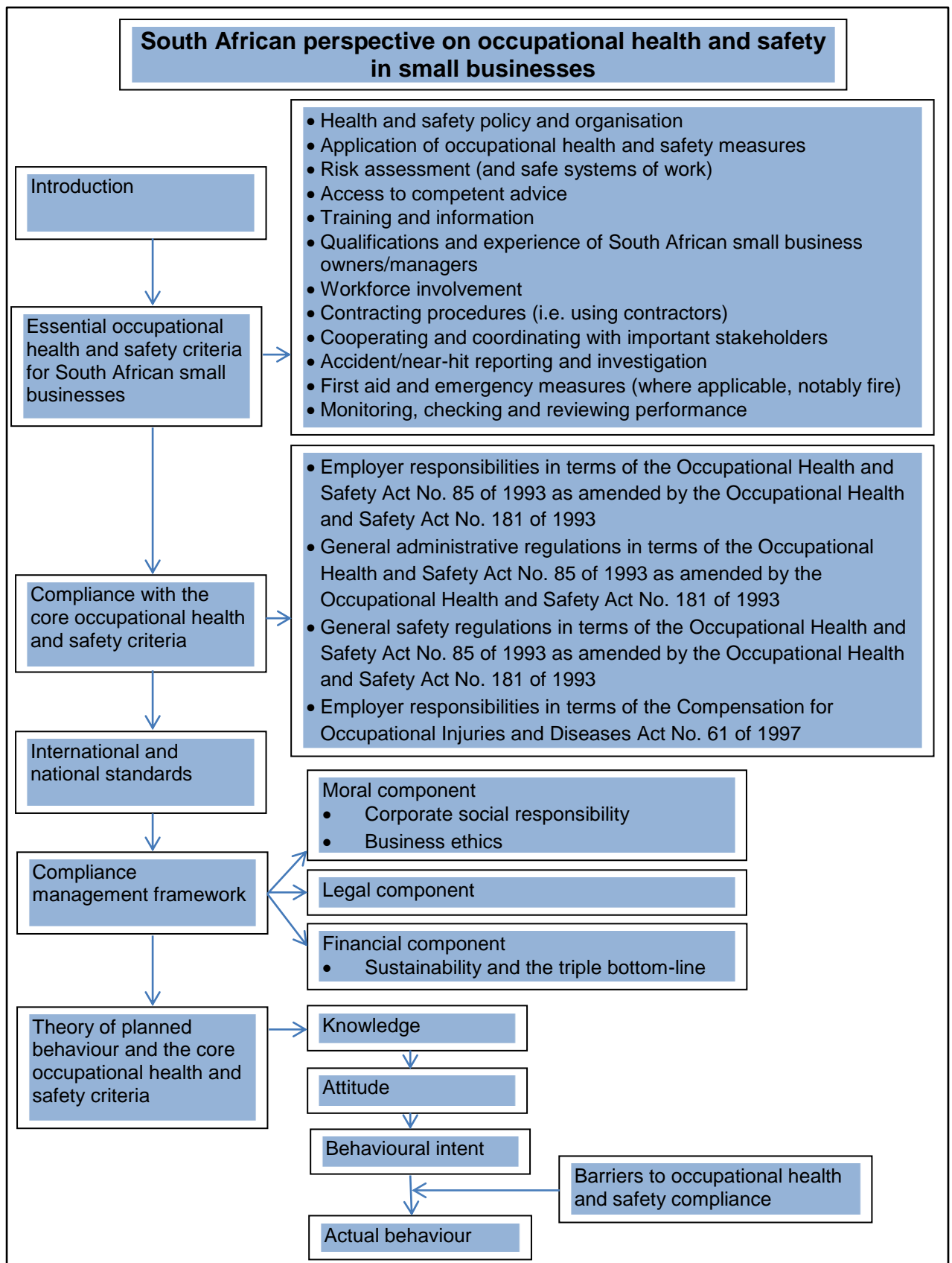


Figure 3.1: Structure of contents in Chapter 3

Source: Author's own compilation (2015)

3.2 ESSENTIAL OCCUPATIONAL HEALTH AND SAFETY CRITERIA FOR SOUTH AFRICAN SMALL BUSINESSES

As discussed in Chapter 2, certain OHS criteria that were developed specifically for small businesses by the Royal Society for the Prevention of Accidents (RoSPA) and supported by the WHO and International Labour Organisation (ILO), should be in place in order to ensure that small businesses comply with OHS legislation. Each of these criteria as applicable to SA businesses is discussed below.

3.2.1 Health and safety policy and organisation

Small businesses should ensure that they have OHS policies and procedures in place and that the application thereof is carried out consistently and in accordance with applicable legislation (Morrison-Saunders & Retief, 2012:39). However, small business owners/managers sometimes experience OHS legislation to be restrictive and an overwhelming prospect (Reiner, 2011:16).

Small business owners/managers in SA should ensure that their OHS policy clearly confirms and demonstrates their belief that such policy will assist in preventing OHS incidents and accidents in the workplace (Ferreira & Van Loggerenberg, 2012:224). Furthermore, a workplace that is not harmful to the health and safety of employees is a fundamental human right and should therefore be clearly addressed in the OHS policy of the business (Tshoose, 2014:280).

SA small business owners/managers need to understand that the formulation and implementation of an OHS policy is crucial to ensure that applicable OHS activities are integrated into business operations (Ferreira & Van Loggerenberg, 2011:32). However, the existence of an OHS policy without proper implementation and commitment does not reduce accident and incident rates in small businesses (Ferreira & Van Loggerenberg, 2011:38). Small businesses need to have a formal OHS policy, which must be aligned with its strategic objectives and targets. Mohsam and Van Brakel (2011:8) indicate that many small businesses in SA do not have such an OHS policy, which limits information and knowledge sharing between employers and employees.

3.2.2 Application of occupational health and safety measures

Owners/managers of small businesses should ensure that they fully comprehend OHS legislative requirements in order to manage, implement and communicate OHS measures in the business effectively (Reiner, 2011:17). Furthermore, Mahadea (2008:23) indicates that the management factor in any business has the greatest influence on business performance, also applying to OHS measures. Small business owners/managers should strive towards enhancing own and employee commitment to OHS in order to establish a safety culture and motivational climate for OHS compliance (Agumba & Haupt, 2009:463).

Small business owners/managers, in their line management capacity, are ultimately responsible to ensure that OHS measures are developed and maintained (Harmony, n.d:1). Good OHS performance is linked to proper OHS measures and management being in place as OHS compliance is mandatory for all businesses in SA (Meité, Baeyens & Dewil, 2009:1465, 1468). Furthermore, a lack of proper OHS measures has a negative effect on business activities, such as harm to people and damage to business property, with the unforeseen associated financial loss (Smallwood, Haupt & Shakantu, 2009:8).

3.2.3 Risk assessment (and safe systems of work)

It is the legal responsibility of small business owners/managers to ensure that the working environment in their businesses is safe and without risks to their employees. In order to ensure such a working environment, the small business owner/manager must assess and measure the safety risk exposure of employees and must ensure that they comply with the prescribed standards and steps to be taken in accordance with applicable legislation (DoL, 2012:4).

Risk assessment and risk management should be part of daily business operations and should be followed up by monitoring the effectiveness of risk assessment and risk management practices (Rossouw, 2011:23). Risk assessment refers to a programme with the intention to identify and assess safety risks associated with any hazard, and to eliminate, mitigate or substitute any such safety hazards (Department of Public Works, 2015:7). The steps associated with risk assessment should include performing risk investigation, analysing safety

risks, preparing a documented plan of counter-measures, monitoring the plan and reviewing the plan (Othman, 2012:183).

Employers (owners/managers) should conduct risk assessment pertaining to the health and well-being of employees with the view to developing applicable controls to mitigate the identified threats (Sieberhagen, Rothmann & Pienaar, 2009:7). Small business owners/managers should ensure that the outcome of the safety risk assessment is disseminated to all employees involved, with the view to enlighten their competence to deal with associated safety hazards effectively (Othman, 2012:183).

3.2.4 Access to competent advice

Small business owners/managers may decide to join or consult industry-specific OHS organisations such as the National Occupational Safety Association (NOSA) or the Automobile Association (AA) to obtain certification from such organisations in order to enhance their OHS efforts and image (Reiner, 2011:26). One of the problems faced by small businesses in SA is that access to competent advice is not always available and accessible (G20, 2014d:6). Small business owners/managers should familiarise themselves with, and access applicable OHS service providers such as NOSA and the International Organisation for Standardisation (ISO), which may assist with OHS compliance in the business (Small Business Finance Agency, 2014:44).

3.2.5 Training and information

Small business owners/managers should ensure that they, and their employees, are conversant with applicable OHS knowledge and skills *via* training, instruction, coaching, mentoring and deliberate practice with the view to ensuring OHS compliance (Sieberhagen *et al.*, 2009:7; Unger, Keith, Hilling, Gielnik & Frese, 2009:22-23, 26). However, training should provide for proper OHS competence of employees, over and above mere legal compliance (Rossouw, 2011:22).

The training of employees, as well as proper access to applicable OHS information, is necessary for OHS compliance (Mohsam & Van Brakel, 2011:5,

Ferreira & Van Loggerenberg, 2012:219). Small business owners/managers should provide information and skills development opportunities to ensure that employees are conversant with OHS requirements and meet these requirements (Semboja, Ahonen & Hussi, 2012:7).

The majority of SA small businesses do not attend proper OHS training, nor do they provide proper OHS training to their employees due to financial constraints (Ferreira & Van Loggerenberg, 2011:37; Alferts, Xulu, Dobson & Hariparsad, 2016:285). Proper OHS training should include induction training, task-specific training and training for supervisors, managers and specialists within the context of OHS training, as this is a legal requirement (Othman, 2012:187). OHS training should be central in small businesses and not conducted as an afterthought (Alfers *et al.*, 2016:283).

3.2.6 Qualifications and experience of South African small business owners/managers

SA has an under-performing education system, leading to learners being inadequately prepared for the labour market as they lack the necessary technical and managerial skills (Meyer, 2014:74; Migiro, n.d.:1). This also implies that employees of small businesses are not properly trained in OHS matters. Owing to the fact that there is a significant relationship between education and business success, it is important that small business owners/managers should endeavour to assist employees to obtain formal qualifications in OHS (Unger *et al.*, 2009:27). Small business success is directly related to the qualifications, skills and experience of the owner/manager and the employees (Brink, Cant & Ligthelm, 2003:14; Mahadea & Pillay, 2008:434; Antonites & Truter, 2010:453). Tustin (2015:85) emphasises the need for qualifications in small businesses when he postulates that the business failure of small businesses can be related to a shortage of training and education that reflects in poor management skills. The government ought to enhance the business management skills of small business owners/managers to assist them to comply with legislative directives (Tustin, 2015:85). Compliance can be enhanced by reducing the red tape procedures and practices that hurt small firms and constrain the development of new businesses

(Tustin, 2015:86). With regard to training and qualifications, Strydom (2015:466) confirms that the absence of business management skills is an important predictor for small business failure. It appears that there is a positive correlation between the education level and maturity of the owner/manager of a small business, and the successful survival of such a business.

OHS knowledge and skills of employers and employees significantly enhance competence to deal with unsafe working conditions and threatening safety hazards (Sieberhagen *et al.*, 2009:6). The development of employee OHS knowledge and skills must be reflected in the training and development policy of the business (Van Schoor, 2013:64).

3.2.7 Workforce involvement

It is important to make OHS the responsibility of a dedicated person(s) in the small business to ensure that OHS efforts are consistently and effectively implemented (Reiner, 2011:37). The small business owner/manager should ensure that employees are committed to OHS in order to prevent the adverse effects that may flow from their lack of dedication to OHS issues in the workplace (Reiner, 2011:49).

Active participation of employers and employees' decisions concerning OHS in the workplace has a positive effect on OHS compliance (Harmony, n.d:1). Small business owners/managers should actively involve employees in the formulation and application of organisational OHS policy, which includes the enhancement of employee health and well-being (Sieberhagen *et al.*, 2009:6).

3.2.8 Contracting procedures (i.e. using contractors)

It is essential that all contractors that may be used also comply with applicable OHS regulations and that small businesses make resources available for this purpose (Hermanus, 2007:538; Smallwood *et al.*, 2009:17, 34). When using contractors, it is important that each contractor performs applicable risk assessment in order to identify potential safety risks associated with the nature of the contract (Othman, 2012:183).

3.2.9 Cooperating and coordinating with important stakeholders

Proper communication regarding occupational OHS is a prerequisite to enhance OHS endeavours in the small business, and to ensure that employees and employers cooperate in combined efforts (Agumba & Haupt, 2009:469). Sound OHS management systems that include consultation between employers and employees might lead to a reduction of OHS accident and incident rates in SA (Ferreira & Van Loggerenberg, 2012:216).

Involving employees in OHS decision-making processes, and keeping them informed on the effects thereof, will enhance cohesion between employers and employees, thus contributing to the quality of OHS performance (Ferreira & Van Loggerenberg, 2012:217). It is important to value the input and contribution of employees with regard to OHS as their health and safety should be a priority in any business as they are indispensable resources (Smallwood *et al.*, 2009:37). The government, employers and employees should collaborate to secure a safe and healthy work environment based on a system of human rights, responsibilities and duties (Tshoose, 2014:295). Interaction with other small business owners/managers, for example at conferences, may assist in enhancing OHS compliance (DoL, 2012:1).

Trust between small business owners/managers and their employees is also necessary to ensure that employees commit to, and cooperate with OHS initiatives (Bischoff & Wood, 2013:577). The cooperation and coordination of employers and employees in OHS matters are essential for OHS compliance (Sieberhagen *et al.*, 2009:5).

3.2.10 Accident/near-hit reporting and investigation

SA employees have the obligation to adhere to health and safety rules and to report any situation or incident that threatens the safety or health of an employee (Sieberhagen *et al.*, 2009:5). It is important that employees have the confidence and freedom to report OHS accidents and incidents without fear of retaliation. If such freedom is not the case, the entire workforce could be put at risk (Phin, 2013:1). Employees should be given ample opportunities to report, investigate and

review OHS accidents and incidents (Agumba & Haupt, 2009:467; Ferreira & Van Loggerenberg, 2012:229; Department of Public Works, 2015:82–83).

3.2.11 First aid and emergency measures (where applicable, notably fire)

Emergency plans should be in place to minimise possible damage to people, property and the environment in the event of unforeseen and unpredictable accidents and incidents (Meité *et al.*, 2009:1468). Measures to deal with emergencies must be well-planned and effectively executed (Goetsch, 2014b:444).

3.2.12 Monitoring, checking and reviewing performance

Small business owners should ensure that OHS inspections and audits are conducted by any person who is qualified and registered as an inspection authority in terms of applicable legislation (RSA, 1993: S1; National Occupational Safety Association [NOSA], 1994:25; DoL, 2012:4). OHS inspections and audits should focus on reviewing compatibility between the quality of OHS performance and set goals and objectives. Such OHS goals and objectives must be specified in the OHS policy that every business, including small businesses, must formulate (Agumba & Haupt, 2009:468). Small businesses are legally required to develop and apply an OHS policy, and a small business who refrains from complying is liable to punishment (RSA, 1993: S7). Internal and/or external auditing and monitoring need to be based on applicable regulations and the business's own policy and standards (Van Loggerenberg, 2013:136).

The role of leadership and administration, which include planned inspections, play an important role in enhancing OHS performance in the business (Meité *et al.*, 2009:1468). The owner/manager of a small business must establish and manage the necessary measurement systems and control procedures with the view to monitoring, inspecting, checking and reviewing performance related to environmental, health and safety risks in the business (Mitchell & Hill, 2009:58).

3.3 COMPLIANCE WITH THE CORE OCCUPATIONAL HEALTH AND SAFETY CRITERIA

Inappropriate or legislative and regulatory conditions that are too restrictive are often viewed as being constraints on the access of small businesses into the business sector and/or as obstacles to their growth (Tustin, 2015:85). The SA government is conducting on-going research to improve the regulatory environment for small businesses through learning from the experiences of support agencies, business organisations and independent experts, for example the Council for Scientific and Industrial Research (CSIR) (dti, 2005:40).

Tables 1.1, 1.2 and 1.3 specify employer responsibilities pertaining to:

- the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993;
- general administrative and safety regulations in terms of such OHS Act No. 85 of 1993; and
- the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997.

Chapter 2 of this study revealed essential core OHS criteria that apply to small businesses worldwide as addressed within the context of the G20 member countries. This study also addressed the linking of essential core OHS criteria used internationally, amongst the G20 as well, with OHS responsibilities of small businesses in SA. Tables 3.1, 3.2, 3.3 and 3.4 elucidate the links between general safety legislation that applies to small businesses in SA, and the essential core OHS criteria.

Table 3.1: Employer responsibilities in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 and the corresponding occupational health and safety criteria

OHS Act section	Elements	OHS criteria
7(1)(b) (2&3)	Health and safety policy – prepare guidelines, contents and display in writing	Health and safety policy and organisation
8(1)	General duties of employers. Ensure a safe working environment without health and safety risk	Ensuring health and safety measures
8(2)(a)	Systems of work, plant and machinery safe and without risk to health and safety	Ensuring health and safety measures Risk assessment (and safe systems of work)
8(2)(b)	Eliminate or mitigate all hazards before resorting to personal protective equipment (PPE)	Risk assessment (and safe systems of work)
8(2)(c)	Absence of safety risk regarding any articles or substances	Risk assessment (and safe systems of work)
8(2)(d)	Determine any hazard present in any work processes and applicable precautionary measures	Risk assessment (and safe systems of work)
8(2)(e)	Ensure worker competence <i>via</i> information, instruction and training with supervision to ensure employee health and safety	Access to competent advice Training and information
8(2)(f)	Permit no work unless precautionary measures are in place	Ensuring health and safety measures
8(2)(g)	Ensure that all prescribed legal requirements of this Act are complied with by every person under his/her authority	Training and information Cooperating and coordinating with others
8(2)(h)	Enforce measures in the interest of health and safety	Monitoring, checking and reviewing performance
8(2)(i)	Ensure appropriate supervision by competent person/s and authority to ensure implementation of precautions	Individual qualifications and experience
8(2)(j)	Ensure all employees are informed on the scope of authority in terms of what must or ought to be done in terms of health and safety	Access to competent advice Workforce involvement

OHS Act section	Elements	OHS criteria
9(1)	Every employer to ensure that non-workers are not exposed to hazards to their health and safety	Ensuring health and safety measures Contracting procedures (i.e. using contractors)
9(2)	Self-employed persons must ensure no exposure to hazards that threaten the health and safety of any employee or non-employee	Ensuring health and safety measures Contracting procedures (i.e. using contractors)
13(a)	Ensure employee competence concerning the nature of all hazards and applicable precautionary measures	Training and information Individual qualifications and experience
13(b)	Inform health and safety representative in advance regarding inspections, investigations or formal inquiries and any exemption	Monitoring, checking and reviewing performance Cooperating and coordinating with others
13(c)	Inform health and safety representative/s of incidents as soon as required	Accident/near-hit reporting and investigation
16(1)	Employer to ensure responsibilities in terms of this Act are properly discharged	Workforce involvement
16(2)	Employer to assign any person any duty in any subsection who shall act under his authority	Workforce involvement
16(3)	Employer remains responsible and accountable in spite of delegation	Health and safety policy and organisation Ensuring health and safety measures Cooperating and coordinating with others
23	Employer may not require or permit any payment by employee for any provisions or actions regarding employee health and safety in terms of this Act	Health and safety policy and organisation Ensuring health and safety measures
24	Report incidents at work, arising out of or in connection with work activities	Accident/near-hit reporting and investigation
24(1)(a)	Report incidents that resulted in: unconsciousness, loss of limb, or part, injury, disease and likelihood to die or suffer permanent physical defect or not being able to work for 14 days in current position	Accident/near-hit reporting and investigation
24(1)(b)	Report major incidents	Accident/near-hit reporting and investigation
24(1)(c)	Report incidents that endanger health <i>via</i> : (i) Substance spill (ii) Uncontrolled release of substance under pressure	Accident/near-hit reporting and investigation

OHS Act section	Elements	OHS criteria
	(iii) Machinery/part fractured or failed, flying, falling or uncontrolled moving objects (iv) Machinery that ran out of order	
24(2)	Report incidents within prescribed period and prescribed manner. Rescue person/s from danger, but leave scene undisturbed	Accident/near-hit reporting and investigation
26(1&2)	Victimisation: no dismissal, reduction of payment or alteration of terms and conditions less favourable to the employee or in relation to colleagues to disadvantage them because of information provided	Ensuring health and safety measures Monitoring, checking and reviewing performance
34	Give full cooperation in all respects of investigations	Contracting procedures (i.e. using contractors) Cooperating and coordinating with others
35	May appeal against decision of inspector	Cooperating and coordinating with others
36	Disclosure of information	Training and information

Source: Adapted from the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (RSA, 1993)

The general administrative regulations contained in the OHS Act (RSA, 1993) that link with the core OHS criteria is contained in Table 3.2.

Table 3.2: General administrative regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 and the corresponding occupational health and safety criteria

Regulation	Elements	OHS Criteria
4	A copy of this Act must be made available if five or more employees are employed	Health and safety policy and organisation Ensuring health and safety measures
8 8(1)	Reporting of incidents within 7 days – full personal details of involved persons prescribed	Accident/near-hit reporting and investigation
9	Record and investigate incidents that have to be reported	Accident/near-hit reporting and investigation

Source: Adapted from the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (RSA, 1993)

The general safety regulations contained in the OHS Act (RSA, 1993) as linked with the core OHS criteria is described in Table 3.3.

Table 3.3: General safety regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 and the corresponding occupational health and safety criteria

Regulation	Elements	OHS Criteria
2	Personal safety equipment should be supplied if necessary	Ensuring health and safety measures
2A	Intoxicated persons should not be permitted at the workplace	Ensuring health and safety measures
2B	Display appropriate symbols and signs	Ensuring health and safety measures
2C	Do not permit persons in dangerous premises	Ensuring health and safety measures
3(1&2) 3(a)	First aid emergency equipment and procedures must be in place Minimum contents of first aid box	First aid and emergency measures (where applicable, notably fire)

Source: Adapted from the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (RSA, 1993)

The COID Act (RSA, 1997) also contains certain employer responsibilities. These responsibilities and core OHS criteria linked thereto is contained in Table 3.4.

Table 3.4: Employer responsibilities in terms of the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997 and corresponding occupational health and safety criteria

Section	Elements	OHS Criteria
39	Employer must report the accident to the Commissioner within 7 days after receiving notice of an accident	Accident/near-hit reporting and investigation
80	Employer must register with the Commissioner	First aid and emergency measures (where applicable, notably fire) Ensuring health and safety measures
86	Assessment must be paid to Commissioner	Ensuring health and safety measures First aid and emergency measures (where applicable, notably fire)

Source: Adapted from the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997 (RSA, 1997)

The Tables above clearly indicate that SA legislation make provision for all twelve of the OHS criteria as discussed above.

Details in Tables 3.1, 3.2, 3.3 and 3.4 above confirm that OHS legislation in SA focuses on OHS criteria that are essential for ensuring employee health and safety in the workplace; that legislation depicts the core essential OHS criteria; and is congruent with core essential OHS criteria which countries in the G20 member countries show awareness of (see Table 2.1).

3.4 INTERNATIONAL AND NATIONAL STANDARDS

SA is a member of the international community for standards and a full member of the International Organisation for Standardisation (ISO). The South African Bureau of Standards (SABS) is the only recognised national institution for the development, maintenance and promotion of South African National Standards (SANS) which forms the basis for all other SABS' services, such as certification and training (SABS, 2015:5, 13). The SABS ensures that the SANS is aligned with international standards for the same system/process, and updates SANS when new or updated international standards for the same system/process are published (SABS, 2015:9).

Standards contribute to the protection of human beings, property and the environment against all hazards, including safety hazards (SABS, 2015:6). The ISO 14001 (or the SANS 14001 as published by the SABS) standard provides a framework to enhance business performance and corporate responsibility (Hasan & Chan, 2014:2). SA small businesses do not always have the resources required to adhere to OHS standards (Thaba, Mbohwa & Pradhan, 2015:3). However, it is advisable that businesses, including small businesses, take note of such international and national standards as increased pressure is applied for businesses to become environmentally and socially responsible. Such pressure refers to market pressure, social pressure, financial pressure, as well as regulatory pressure, which have proved to be an improvement of employee morale, the quality of products and services, and business activities (Hasan & Chan, 2014:4). These same pressures apply to OHS in small businesses.

Benefits of standardisation for businesses, including small businesses, are that standardisation supports innovation, increases productivity, ensures interchangeability and interoperability (thus coordination with others), facilitates communication as common terminology is developed, and it provides for the achievement, assessment as well as the demonstration of quality (SABS, 2015:6). Furthermore, ISO certification and the associated activities and responsibilities comprise core OHS criteria as referring to, the training of employees, the auditing of business activities, establishing and implementing collaboration structures, and policy formulation (Hasan & Chan, 2014:10). ISO certification and implementation require resources such as time and money, which poses a challenge to small businesses (Hasan & Chan, 2014:10). Furthermore, consultants are not always competent in assisting small businesses with the implementation of simple management systems according to ISO standards (Kehbila, 2013:45). The correct application of standards and conformity assessment practices, also with regard to OHS in small businesses, could assist in reducing the regulatory burden (SABS, 2015:5).

However, the implementation of ISO standards might pose a problem for small businesses in SA as such standards sometimes fit poorly into the business culture and decision-making structure of small businesses (Kehbila, 2013:35). Auditors and certification bodies in SA are trying to cut the costs of certification for small businesses as the costs associated with implementing and maintaining ISO certification are perceived by small business owners/managers as being high (Kehbila, 2013:37, 44; Thaba *et al.*, 2015:3).

3.5 COMPLIANCE MANAGEMENT FRAMEWORK

The compliance management framework (CMF) developed by this study has a moral, legal and financial component as discussed in Chapter 1 (see section 1.3.1). This section serves to elucidate the meaning of each component in the SA small business context.

3.5.1 Moral component

The particular elements that comprise the moral component follow below.

3.5.1.1 Corporate social responsibility

Corporate social responsibility (CSR) is a concept that developed over the past few decades due to the increased scrutiny of business practices and their effect on society (Buchholtz & Carroll, 2012:29). In order to explain the principle of CSR, it is necessary to look at the four-part definition that has been developed. The definition of CSR is that it is the social responsibility of any business namely the economic, legal, ethical and discretionary (philanthropic) expectations that society has of businesses at any given point in time (Buchholtz & Carroll, 2012:37; Marín, Rubio & De Maya, 2012:365). Figure 3.2 illustrates the four parts of the definition of CSR.

Economic responsibility	Required of business by society
<ul style="list-style-type: none">The business must show profit. Sales must be maximised and costs minimised – also with regard to occupational health and safety matters.	
Legal responsibility	Required of business by society
<ul style="list-style-type: none">Comply with all laws and adhere to all regulations; including laws that protect employees, such as the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993.	
Ethical responsibility	Expected of business by society
<ul style="list-style-type: none">Stay clear of questionable practices. Do what is right, fair and just, thereby going over and above what is legally required.	
Discretionary responsibility	Desired or expected of business by society
<ul style="list-style-type: none">Be a good corporate citizen by giving back to society, supporting the community, and volunteering in the community.	

Figure 3.2: The four components of corporate social responsibility

Source: Adapted from Buchholtz and Carroll (2012:37)

The growing importance of CSR in today's highly competitive business climate is a well-known fact (García-Rodríguez, García-Rodríguez, Castilla-Gutiérrez & Major, 2013:371). CSR comprises economic and legal responsibilities of the business with the emphasis on having a positive effect on society by going beyond the interests of the business itself and mere legal compliance (Maamoun, 2013:8).

Engaging in socially responsible conduct, a business is said to be doing well by doing good; thus, the business is going over and above the legal minimum requirements in order to have a positive effect on the community in which it operates with workplace safety being amongst the aspects that should receive most attention in developing countries (Maamoun, 2013:8). The vast majority of all reported regulatory infractions and irresponsible CSR practices take place in developing or less developed countries (Duluth, 2013:21). It is important to note that even though doing business varies from one country to the next and from one culture to the next, doing business differently does not have the same meaning as doing business corruptly, including ignoring workplace safety and health (Duluth, 2013:22). The main implication for small business owners/managers is that good CSR practices should be incorporated into the business strategy, also with regard to its OHS practices (Marín *et al.*, 2012:374).

The influence of CSR on competitiveness is less significant in small businesses compared to large businesses because many small businesses (Marín *et al.*, 2012:368):

- are managed by the owner;
- are basically independent;
- are internally financed and have limited cash available;
- are largely local; and
- are based on informal relationships inside and outside the business.

However, this does not mean that CSR is only reserved for large businesses.

The SA government places emphasis on CSR with specific laws that exercise a strong influence on the establishment of social expectations. Such requirements fully apply to small businesses which are expected to structure their behavioural intent and actual behaviour with regard to OHS criteria with the view to OHS compliance (Arya & Bassi, 2011:674). OHS incidents and accidents have a social influence on society, which results in a burden on state funds that is generally

increasing as more people have to be included in the social security system (G20, 2014d:10).

3.5.1.2 Business ethics

Ethics are entrenched in what a particular society defines as “acceptable behaviour” (Louw, 2015a:133). Businesses are responsible and accountable to society with regard to their business practices and need to address human rights in their policies, training and disciplinary procedures in order to comply with the South African Constitution and other applicable legislation (Mitchell & Hill, 2009:48, 52). As society’s awareness regarding their human rights increases, it is becoming increasingly important for businesses, also small businesses, to ensure that their business practices, also regarding OHS, protect such basic human rights (Louw, 2015a:131). Part of this responsibility comprises ensuring the safety and health of employees by minimising risk, minimising possible litigation, minimising possible costs, avoiding losses and minimising or eliminating downtime due to incidents and accidents (Mitchell & Hill, 2009:57).

There is an ever-increasing emphasis on the role of businesses, including small businesses, in terms of incorporating human rights into their business practices (Hamann, Sinha, Kapfudzaruwa & Schild, 2009:469). The attention to human rights given by the small business owner/manager is a strong predictive factor on how human rights, including OHS human rights, will feature in the policy and operations of the business (Hamann *et al.*, 2009:470). The SA government influences the ethical policies and operations of businesses through legislation and regulating what businesses can and cannot do (Louw, 2015a:143).

OHS is a crucial fundamental human right of employees and, as such, it should be clearly recognised in all business activities (Tshoose, 2014:280). Small businesses should not only focus on job creation, they should also focus on creating dignified jobs in a work environment that is not harmful to the health and safety of employees (Dinerstein, 2014:1054). Many employment agreements in small businesses among low- and middle-income countries, such as SA, are precarious in nature and, as such, lead to employment conditions adversely affecting the

health and safety of employees, their families and communities (Benach, Vives, Amable, Vanroelen, Tarafa & Muntaner, 2014:230). Furthermore, professional business ethics with regard to OHS matters are receiving increased attention as the broader engagement of OHS practitioners involving moral contentions related to society as a whole is highlighted (London, Tangwa, Matchaba-Hove, Mkhize, Nwabueze, Nyika & Westerholm, 2014:49).

Some of the ethical dilemmas that can be experienced by employees and owners/managers of a small business are (Louw, 2015a:141):

- conflict of interest between what is best for the business and what is best for the client;
- deciding to act with honesty and integrity instead of compromising;
- being loyal *versus* speaking the truth; and
- deciding whether to blow the whistle on, for example, unsafe working conditions, or not.

Business ethics, with specific reference to OHS in small businesses, can be divided into the following main categories (Louw, 2015a:144):

- micro-ethics – encompasses the accountability of small business owners/managers towards the OHS policy, procedures and legislative compliance;
- market ethics – relates to the accountability towards customers, competitors and suppliers with regard to OHS matters; and
- macro-ethics – refers to the CSR of OHS specialists or people responsible for OHS in businesses regarding the economic, cultural, political and legal environment.

An African value system, which should also affect OHS matters in small businesses is “Ubuntu”. The principles of “Ubuntu” include caring for humanity, respect for other people and that our existence is dependent upon other people (Louw, 2015a:145). Unethical business practices lead to costs, such as fines and

attorney's and advocate's fees and, even though unethical behaviour, such as taking short-cuts with regard to OHS matters, may lead to an advantage over competitors. However, such advantage is only temporary (Louw, 2015a:151). Small businesses have much to gain if they have a reputation as businesses that are ethical in their conduct, including ethical OHS practices (Louw, 2015a:151). Therefore, OHS compliance should be based on moral contentions and not only on the fear of repercussions associated with legal non-compliance, as acting should be based on moral conviction and not on legal constraints (London *et al.*, 2014:50).

3.5.2 Legal component

Good OHS regulations help to ensure that the public is protected, and should ensure that OHS processes and practices are efficient, transparent and affordable (World Bank, 2013a:60). Good practices and business regulations enable small businesses to grow and to produce jobs, and enable employees to enjoy the benefits of such practices and regulations, such as safety regulations (World Bank, 2013b:v, 5). However, small businesses, especially in developing countries, sometimes experience problems with legal compliance, making it practically inapplicable (Suter & Arenas, 2014:317). Whilst ensuring workplace health and safety is not always easy and small businesses should not be burdened with excessive red tape, it is necessary to ensure employee and public safety (World Bank, 2013b:46, 47).

Legislation imposes a general duty on small business owners/managers to ensure a safe and healthy working environment for all employees (Sieberhagen *et al.*, 2009:5). Red tape is one of the main factors inhibiting small business development and growth, as onerous legal compliance acts as a deterrent for small businesses (Bischoff & Wood, 2013:571; Hart, 2015:1). The enforcement of OHS legislation and compliance in small businesses in SA needs attention as it is not up to standard (Tshoose, 2014:285). Small business owners/managers may decide to side-step OHS legislation that they regard as not important (Bischoff & Wood, 2013:573). Furthermore, research in the SA small business context indicates that small business owners/managers may not be clear on which OHS legislation

applies to their businesses, and how to comply with such legislation (Bischoff & Wood, 2013:566). Small businesses are sensitive to changes in legislation as increased employee rights may detract from competitiveness, making small businesses vulnerable (Bischoff & Wood, 2013:566–567). The ILO proposes that incentives, such as a reduction of taxes and training on risk assessment and reporting of OHS incidents, should be granted to small businesses with the view to encouraging OHS compliance (ILO, 2014:12; Tshoose, 2014:294).

In 2014 the Minister of Small Business Development in SA, Lindiwe Zulu, indicated that her department was actively trying to ascertain from small business owners which parts of legislation were making it difficult for small businesses to survive, as part of this department's initiative to support the development of small businesses in SA (Fredericks, 2014:1). However, it is not clear what this department is planning to change with regard to OHS legislation pertaining to small businesses specifically. The Department of Small Business Development (DSBD) is running a national informal business upliftment strategy that entails an action plan with strategic aims and targets to enhance the effectiveness of small businesses in SA (DSBD, 2016a:2). The active involvement of small, medium and micro enterprises (SMMEs) in the mainstream economy and the provision of improved financial assistance for the growth of SMMEs and non-financial support are important elements of the DSBD's vision and mission (DSBD, 2016b:1).

3.5.3 Financial component

OHS incidents and accidents lead to substantial financial and other losses (Gervais *et al.*, 2009:8; Compensation Fund, 2016:19-20). Furthermore, OHS incidents and accidents result in SA losing a large number of economically active workers and approximately 5% of its gross national product (GNP), with 2.01 million non-fatal and 2 643 fatal workplace accidents requiring employees to be off work (Mardon, 2010:1; Churchyard, 2014:1). The rising rate of safety incidents and accidents in the workplace is putting a burden on the SA economy (DoL, 2012:1). The cost of accidents and incidents in the workplace is difficult to calculate accurately due to its fragmented nature, highly specific orientation and limited

scope of focus on the great variety of such cost, including direct and indirect costs (Bowman, 2004:62; Haupt & Pillay, 2016:373).

Small businesses should have OHS insurance, and the premium of such insurance should be based on the following internationally accepted factors (Gervais *et al.*, 2009:16):

- the total accident frequency rate of the businesses;
- the fatal and serious accident frequency rate;
- the rate of occupational diseases; and
- the number of employees working in high-risk working conditions.

Furthermore, not all costs are covered by insurance. Certain costs will still be the responsibility of the small business, such as sick pay, fines, interruptions of production and operations, legal costs and the diminished business reputation (Gervais *et al.*, 2009:16).

Costs associated with OHS incidents and the resultant unhealthy effect on the small business can be divided into direct and indirect costs. The latter comprises insured and uninsured costs (Semboja *et al.*, 2012:8). Proper OHS measures lead to a reduction in such costs, which usually contributes to an increase in production and economic welfare (Semboja *et al.*, 2012:9).

Direct costs are costs that are directly related to an incident or accident (such as worker compensation, insurance, loss of production and damage to equipment) with indirect costs related to hidden implications, such as time wasted, re-training, social effect and diminished business reputation (Olowogbon, Jolaiya, Ahonen & Hussi, 2012:12). Furthermore, the costs associated with the treatment of injuries and the repair and replacement of damaged equipment are only the “tip of the iceberg”, whilst the hidden costs represent an even greater volume of cost effects (Bowman, 2004:57). The direct costs associated with incidents and accidents, such as medical treatment, rehabilitation and administration, run into billions of Rands, which could have been spent better on primary prevention activities with the view to reducing the number of new cases and to improve the quality of life of

employees (Bowman *et al.*, 2010:57). The ratio between direct and indirect costs of OHS accidents and incidents in SA is estimated to be at about 1:7 (Pillay, 2014:6). The “iceberg” concept is generally utilised to depict the relationship between direct and indirect (hidden) costs graphically (Germain, Arnold, Rowan & Roane, 1998:16). Figure 3.3 depicts the relationship between direct and indirect (hidden) costs.

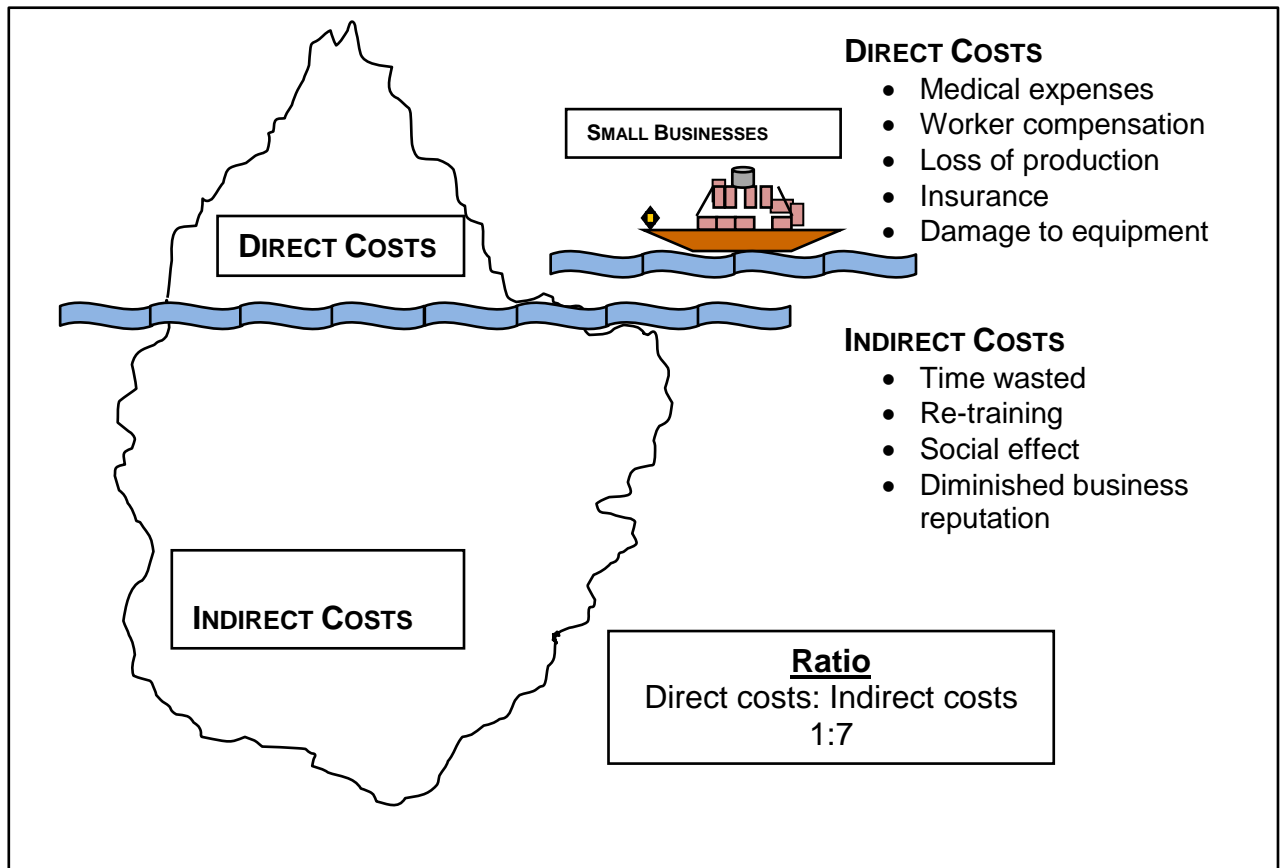


Figure 3.3: Iceberg effect of direct and indirect costs related to occupational health and safety incidents and accidents

Source: Adapted from Germain *et al.* (1998:17)

Furthermore, OHS compliance leads to a diversion of limited resources with small businesses having to spend money on compliance and therefore having less money available for business growth (Hart, 2015:1). Such costs should, however, not be used as an excuse for non-compliance as employees who adhere to safe working procedures contribute to an increase in productivity (Hart, 2015:1).

Fines for non-compliance may also be imposed. However, it is important that the fines for small businesses be smaller than those issued to larger enterprises in order to equalise the effect of such fines (Niskanen, 2013:143). Even though the study by Niskanen (2013:143) was conducted in Finland, the results can be applied to the SA context as they indicate that each OHS non-compliance case should be judged individually with the view to making the impact of fines fair.

3.5.3.1 Sustainability and the triple bottom-line

In essence, sustainability means providing for the present generation, while not compromising the ability of future generations to meet their needs (Buchholtz & Carroll, 2012:24). Sustainability is seen as the primary moral and economic imperative of the 21st century (PricewaterhouseCoopers [PwC], 2009:1; Louw, 2015b:22). The King III Report encourages businesses to adopt a long-term approach to sustainability and to take their ethical, social as well as environmental responsibilities seriously (Institute of Directors in Southern Africa [IoDSA], 2009:8).

SA legislation emphasises sustainability in businesses, including small businesses, with the view to enhancing economic growth (Morrison-Saunders & Retief, 2012:34). People and their needs are the most important factors to remember in sustainable development (Wildlife and Environment Society of South Africa [WESSA], n.d.:1). OHS compliance leads to an initial increase in costs; however, such costs should not be used as an excuse for non-compliance as employees should be valued and not victimised in order to ensure business sustainability (London *et al.*, 2014:51).

Workplace safety was not always mentioned in discussions of business sustainability, but this is changing as sustainability encompasses environmental, social and economic considerations with safety forming part of all three considerations (Buchholtz & Carroll, 2012:622). The term “triple bottom-line” (TBL) used in this regard refers to these key spheres of sustainability, as follows (Buchholtz & Carroll, 2012:57; Louw, 2015b:24; 2015b:140):

- environmental sphere – the protection and conservation of the planet;

- social sphere – the emphasis is on people (for example the quality of life); and
- economic sphere – the ability of the business to generate wealth, including financial income and assets, with the emphasis on profit.

Reporting in terms of the TBL can be viewed as a reporting device in the annual reports of the business, and as a decision-making tool to explain the implications of decisions of management (Louw, 2015b:25). The effective use of the TBL in the annual reports of any business will promote the business, market its goods and services, attract good employees, and serve to explain the reasons for the existence of a business (Louw, 2015b:25). Small business owners/managers should ensure that they take the environment, society and profits into account in all business practices, also when compiling annual reports, including OHS matters.

The theory of planned behaviour (TPB) can be used to predict human behaviour (Ajzen, 2011:1113). TPB and OHS behaviour is discussed in section 3.6 below.

3.6 THEORY OF PLANNED BEHAVIOUR AND THE CORE OCCUPATIONAL HEALTH AND SAFETY CRITERIA

Human actions mostly occur on the basis of goal-directed and well-formulated plans (Ajzen, 1985:11; Kautonen, Van Gelderen & Fink, 2015:659). Such actions comprise distinct but intensely integrated components, namely objectives, attitudes with behavioural intents and actual behaviour. Actions are being designed in advance and are being executed as the plans gradually realise. The person who wants to attain specific objectives is usually well aware of the actions that need to be engaged in with the view to achieving the personally selected or personalised objectives. Some actions may be internalised to the level of automation or requiring less conscious thought, while others require deliberate planning and preparation (Ajzen, 2011:1114-1115). All actions to fulfil personalised objectives require guidance *via* some plan. However, actual behaviour is always preceded by specific intent to achieve a specific purpose. Such intent is based on specific knowledge concerning the necessary behaviour, coupled with the will and attitude that the performance of the relevant or applicable behaviour is necessary.

Behavioural intent will result in the achievement of one or more chosen objectives and forms the basis for the actual performance of the chosen behaviour (Ajzen, 2011:1124; Kautonen *et al.*, 2015:659).

The execution of specifically intended behaviour that is based on specific knowledge and which is motivated by an attitude to perform such behaviour with the purpose to achieve particular results, sets a framework for performing the planned behaviour that will realise the intended purpose. It is self-evident that the achievement of objectives is preceded by planned behaviour, and that the performance of the actions to succeed in the actual achievement of such objectives has to be controlled (Ajzen, 2002:666). Planned behaviour implies and requires the performer to have the appropriate knowledge, attitude with behavioural intent and skill to execute the applicable performance (actual behavioural), and to control the positive outcome of performance (Ajzen, 2011:1114).

Small business owners/managers should have the appropriate OHS knowledge, a positive attitude, and the correct intent to act purposefully and to perform the correct behaviour in order to comply with OHS directives or core criteria. However, in order to move from intentional behaviour to actual behavioural barriers to working safely constitutes a possible problem (Probst, Graso, Estrada & Greer, 2013:133).

According to Ajzen and Sheikh (2013:155), TPB is of the contention that:

- the behaviour of a person affects the attitude towards behaviour;
- subjective norms are determined by expectations and behaviours of others;
- perceived behavioural control originates in beliefs of inhibiting factors; and
- the combination of attitude, norms and perceived controls provide intentions that produce behaviour, and when actual control does not exist, perceived control takes over.

These elements are all present in the actual behaviour of the owners/managers of small businesses when compliance to OHS directives is relevant. This underlying

approach to planned behaviour relates directly to the adherence of small business owners/managers to a CFM pertaining to OHS. Knowledge, attitude in terms of behavioural intent and behaviour or actions concerning OHS are applicable in connection with the planned behaviour of small business owners/managers in order to attain compliance with a CFM pertaining to OHS. In meeting the requirements of a CFM in OHS, small business owners/managers need to practice planned behaviour based on specific OHS knowledge, accompanied with appropriate attitudes and behavioural intents as well as awareness of the actual actions or performance to achieve compliance and the control of the required outcome.

The four components of the TPB, are briefly deliberated below.

3.6.1 Knowledge

Small business owners/managers need to be conversant with the appropriate knowledge about adhering to compliance with local legislative requirements and international directives, as well as own organisational standards regarding OHS in the workplace. Such small business owners/managers must also display and confirm the importance of compliance with OHS requirements, directives and own OHS standards (Smallwood *et al.*, 2009:37).

Without the necessary knowledge, no effective planned behaviour pertaining to compliance with OHS requirements can materialise. Should owners/managers of small businesses have the applicable knowledge concerning compliance with OHS prescriptive requirements, but they lack the necessary attitude and behavioural intent to execute the requirements, the process of planned behaviour cannot be concluded. Therefore, it is important that small business owners/managers do not base their planned behaviour pertaining to OHS compliance on beliefs or inaccurate knowledge and/or demonstrate negativity towards meeting such OHS requirements (Ajzen, 2011:1116).

3.6.2 Attitude

The attitude of small business owners/managers concerning OHS compliance is a barometer that demonstrates the appropriateness of commitment or the lack of commitment to the importance of compliance to OHS requirements in the work situation (Othman, 2012:188). Awareness of, and commitment (affect and emotions) to the imperatives of OHS in the workplace play a crucial role in performing the necessary steps of planned behaviour towards OHS compliance (Ajzen, 2011:1116; Kautonen *et al.*, 2015:658). Motivational leadership that enhances employee commitment to OHS compliance in OHS activities is an essential element in this regard (DoL, 2012:1).

3.6.3 Behavioural intent

The TPB states that behavioural intent determines human behaviour (McEachan, Conner, Taylor & Lawton, 2011:2). OHS compliance and enforcement requires a disciplined approach, and the small business owner/manager should clearly indicate his/her intent to behave in a responsible manner with regard to OHS in the business by making OHS part of strategic planning and business decision-making (Tshoose, 2014:296). However, it needs to be considered that behavioural intent does not confirm or verify that the actual behaviour or action will be executed to meet the OHS objectives in order to adhere to the prescriptive compliance with OHS requirements in the workplace (McEachan *et al.*, 2011:2).

3.6.4 Actual behaviour

Planned behaviour terminates in the performance of actual behaviour or actions that realise the behavioural intent that was aimed at the objectives that initiated the planned behaviour (Ajzen, 1985:11). The application of the correct or intended behaviour or actions plays an important role in the actual achievement of the intended objective that originated the planned behaviour. Such behaviour may originate *via* experience or analysis of experimentations (Ajzen, 2011:1114).

The acquisition of applicable required knowledge provides a basis for performing planned behaviour and executing or completing the process of planned behaviour (Ajzen, 2011:1114). These requirements apply to perform planned behaviour in

order to enhancing and ensuring OHS compliance in the small business. Should the small business owner/manager be conversant with the applicable knowledge, attitude and behaviours pertaining to OHS compliance, effective planned behaviour cannot take place if barriers to behaviour are present (Masi & Cagno, 2015:226).

Figure 3.4 depicts the constituting components of the TPB applicable to compliance with essential core OHS criteria (Probst *et al.*, 2013:126). Compliance with OHS criteria requires a specific knowledge about such legislative criteria, a positive attitude and accompanying motivation towards safety that forms the basis of the intent to comply and which eventually culminates in actual practical behavioural OHS compliance.

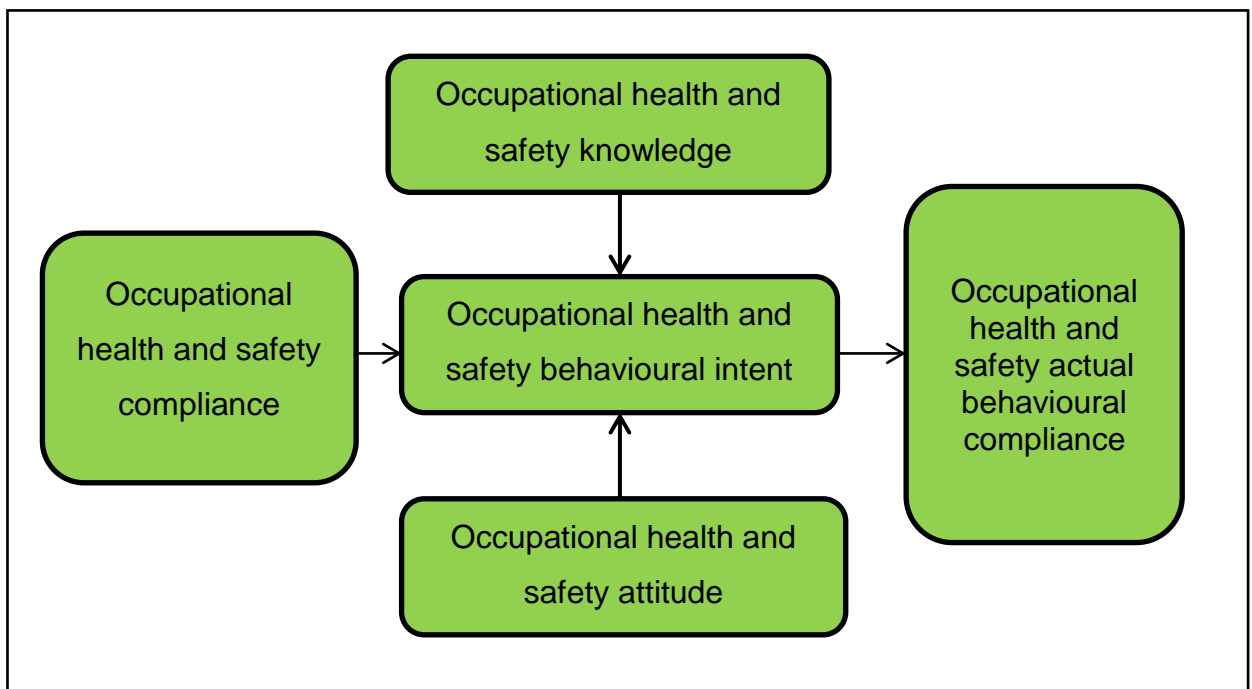


Figure 3.4: Planned behaviour with regard to occupational health and safety compliance

Source: Adapted from Probst *et al.* (2013:126)

3.7 BARRIERS TO OCCUPATIONAL HEALTH AND SAFETY COMPLIANCE

Small business owners/managers must have the knowledge, attitude and behavioural intent to comply with OHS directives. However, even though all of these factors might be in place, certain factors act as barriers to OHS compliance

in spite of small business owners/managers having the knowledge, attitude and behavioural intent to comply.

A lack of the following constitutes barriers to OHS compliance: resources, guidance and advice, a holistic approach to integration of OHS into business operations, training opportunities and development of competency, and cooperation between employers and employees (Hermanus, 2007:538). Additionally, negligence, carelessness, not adhering to safe working procedures, unskilled employees and no or unqualified supervisors may lead to non-compliance (Othman, 2012:190). The failure to report accidents or life threatening imminent dangers to a manager can also be regarded as a barrier to compliance with OHS criteria (Probst *et al.*, 2013:126). The authors (Probst *et al.*, 2013:126) also stipulate that a lack of knowledge about OHS criteria, as well as the lack of the appropriate attitude or motivation to safety, can be regarded as barriers to safety compliance. Ajzen and Sheikh (2013:156) stipulate that anticipated affect has a role to play in effective safety compliant behaviour. Anticipated affect, however, is greatly dependent on knowledge and experience. This implies that the lack of applicable knowledge and appropriate experience can serve as barriers to OHS compliance. Such lack can also be the basis of low consideration of future safety consequences (Probst *et al.*, 2013 133). Hale and Borys (2013:208) motivate that “working to rule” instead of “working safely” can be regarded as a barrier to safety. The argument is that rules are (Hale & Borys, 2013:208):

- not always practically workable;
- sometimes not practically realistic;
- too time consuming to follow; and
- frequently too numerous to maintain.

According to Hale and Borys (2013:212), a list of individual and organisational factors can serve as barriers to OHS compliance. Examples of individual factors comprise a lack of planning, self-image and status. Organisational factors that can apply are management turning a “blind eye” or oversight, and time pressure. Reason (2005:17) underscores group factors that can be regarded as barriers to compliance by listing various conditions in an organisation, for example,

production *versus* safety. Reason (2007:75, 78) also confirms various individual factors that can contribute to being barriers which can jeopardise OHS compliance, for example, ignoring safety risk and misapplication of effective working rules, or the application of ineffective rules.

It is important to ascertain the nature of barriers to OHS compliance in order to assist small business owners/managers in SA to comply with applicable OHS legislation. This study endeavoured to determine small business owner's/manager's knowledge, attitude, behavioural intent, and actual behaviour toward health and safety in the workplace. In addition, small business owner's/manager's perceived barriers to health and safety compliance were investigated.

Figure 3.5 illustrates the TPB and the potential influence of barriers to behaviour.

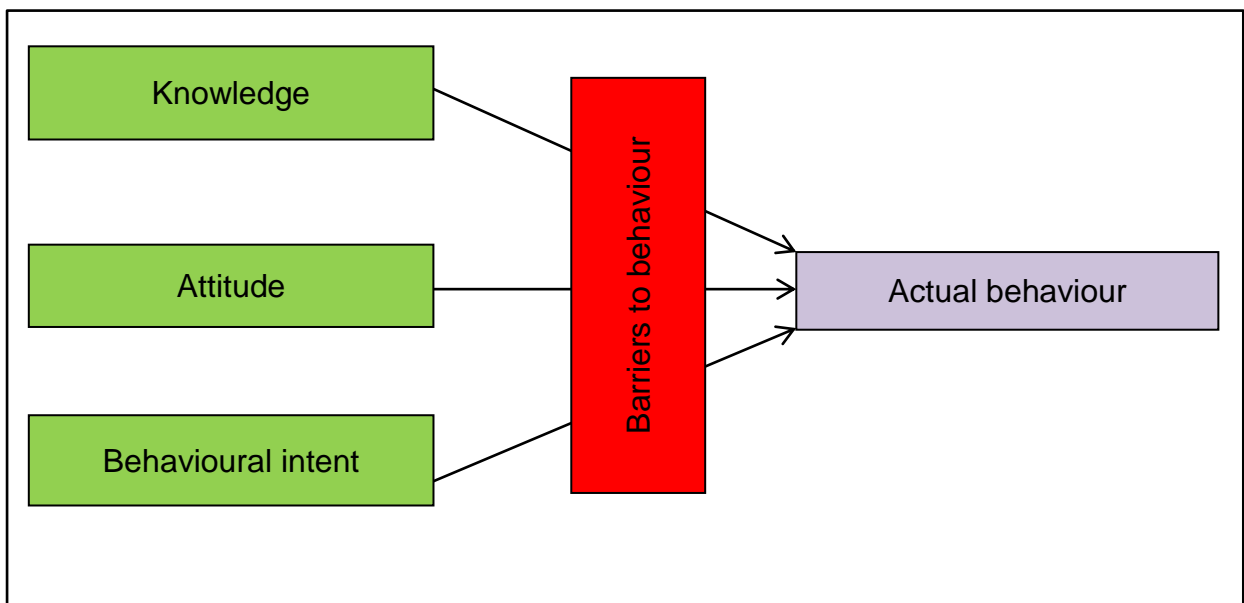


Figure 3.5: Theory of planned behaviour and influence of barriers on actual behaviour

Source: Author's own compilation (2015)

3.8 CONCLUSION

This chapter contextualised the essential OHS criteria, as developed by RoSPA and identified by the ILO and the WHO, as applicable to small businesses in SA. These criteria should be in place to ensure that small businesses comply with

applicable OHS legislation. Furthermore, this chapter indicated that these criteria are imbedded in the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (RSA, 1993) and its regulations, as well as the Compensation for Occupational Injuries and Diseases Act No 61 of 1997 (RSA, 1997).

As this study endeavoured to develop a CMF for small businesses in SA, the three components (legal, financial and moral) of the CMF, in a SA context was described in detail. In order for small business owners/managers to comply with applicable OHS directives, it is important that they have the knowledge, attitude, behavioural intent, and actual behaviour that would lead to such compliance. However, certain barriers prohibit small business owners/managers from moving from behavioural intent to actual behaviour. These barriers need to be taken into account when considering any obstacles that small businesses may experience as hindrances in the process of OHS compliance in SA.

The next chapter, Chapter 4, introduces and explains all elements of the research philosophy, research methodology, and research design that were followed and used in this study.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

This study followed the approach of primarily adopting a quantitative, correlative, cross-sectional design in a field setting with data being collected from a single source, South African (SA) small business owners/managers, using a single method of primary data collection, namely a questionnaire (Allen, Eby, O'Brien & Lentz, 2008:355). Surveys or questionnaires are good measures for identifying the existence and frequency of phenomena and variables (Allen *et al.*, 2008:346).

The study was a formal study utilising primary and secondary research, with primary data collected *via* a questionnaire and secondary data utilised for the literature review, with the following characteristics: ex post facto, cross-sectional, quantitative and qualitative (Cooper & Schindler, 2008:142). In this study, quantitative research attempted to measure perceptions of small business owners/managers with regard to their knowledge, attitude, behavioural intent, actual behaviour and barriers to occupational health and safety (OHS) compliance accurately. Simultaneously, qualitative secondary research focused on an in-depth understanding of essential OHS criteria, developed with small businesses in mind, in order to determine OHS awareness in the G20 countries with regard to these essential OHS criteria (Cooper & Schindler, 2008:164). Conclusions and results were drawn from the research, based on both the literature review and results obtained from questionnaires with the view to compile a compliance management framework (CMF) for small businesses in SA.

External literature, such as academic journals and annual reports, was utilised to develop relevant content constructs to serve as a basis for developing a measuring instrument (questionnaire) with the view to determine the knowledge, attitude, behavioural intent, actual behaviour and barriers to OHS compliance of small business owners/managers in SA. The measuring instrument was fully developed and practically validated by a statistician. This chapter elaborates on

the research methodology, research process and research ethics as indicated in Figure 4.1 below.

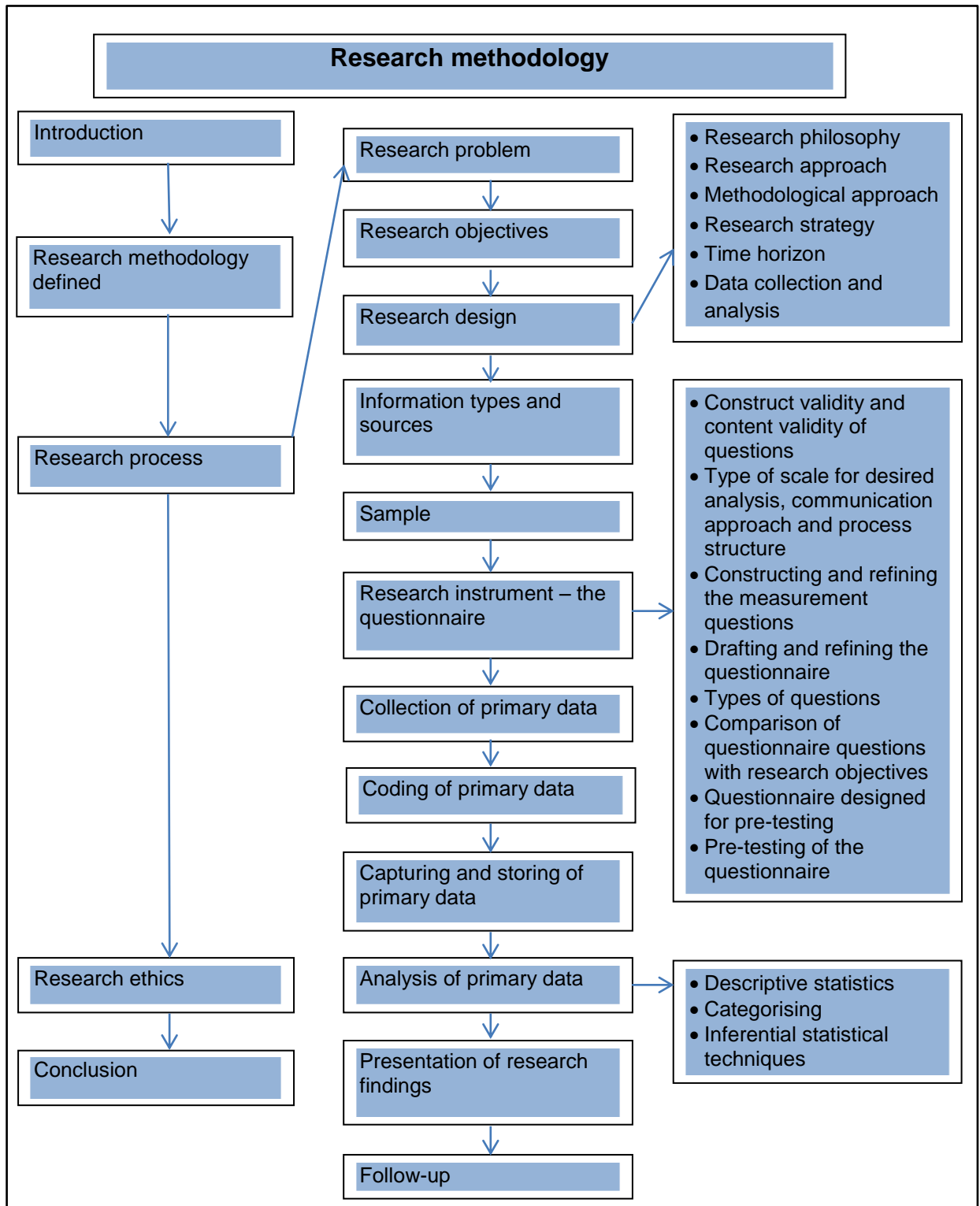


Figure 4.1: Structure of contents in Chapter 4

Source: Author's own compilation (2016)

4.2 RESEARCH METHODOLOGY DEFINED

The term "methodology" describes the process of how the research was conducted (Saunders *et al.*, 2012:4; Van Zyl, 2014:275). An explanation of the research method enables the reader to understand how the data was collected to assess the quality of the collected data and the findings of the research (Tustin, Ligthelm, Martins & Van Wyk, 2010:728). Cooper and Schindler (2011:68) reason that the scientific method sets guidelines for the research approach to problem solving during the study. This study followed a quantitative research design in order to gather primary data, by collecting data from a single source, in this instance, small business owners/managers (Allen *et al.*, 2008:353). Additionally, this study utilised secondary data in order to gain insight into the international perspective on OHS in small businesses.

By using a single measuring instrument, a questionnaire, the study limited the benefits of data and methodological triangulation by not using multiple methods to establish the knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance indicated by small business owners/managers in SA (Allen *et al.*, 2008:350). The study was also limited in terms of construct validity, as the single measuring instrument was not complemented by psychological support in the form of verifying personal attributes and capabilities empirically (Allen *et al.*, 2008:353).

The study did not apply a standardised measuring instrument as such instrument could not be found that addressed the specific objectives of this study (Ghislieri, Gatti & Quaglino, 2009:210). A questionnaire was self-developed, based on the phenomenon constructs and content resulting from the literature review conducted in this study, with the view to determining the knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance with regard to OHS of small business owners/managers in SA. Such a self-developed measuring instrument does not provide acclaimed, formal, valid and reliable data to the same extent as standardised instruments do (Allen *et al.*, 2008:344).

4.3 RESEARCH PROCESS

Any successful research project has to follow a research process, which comprises the series of steps or phases of the project (Tustin *et al.*, 2010:75). For the purpose of this study, such research process comprised the steps as indicated in Figure 4.2 with the accompanying discussion thereof.

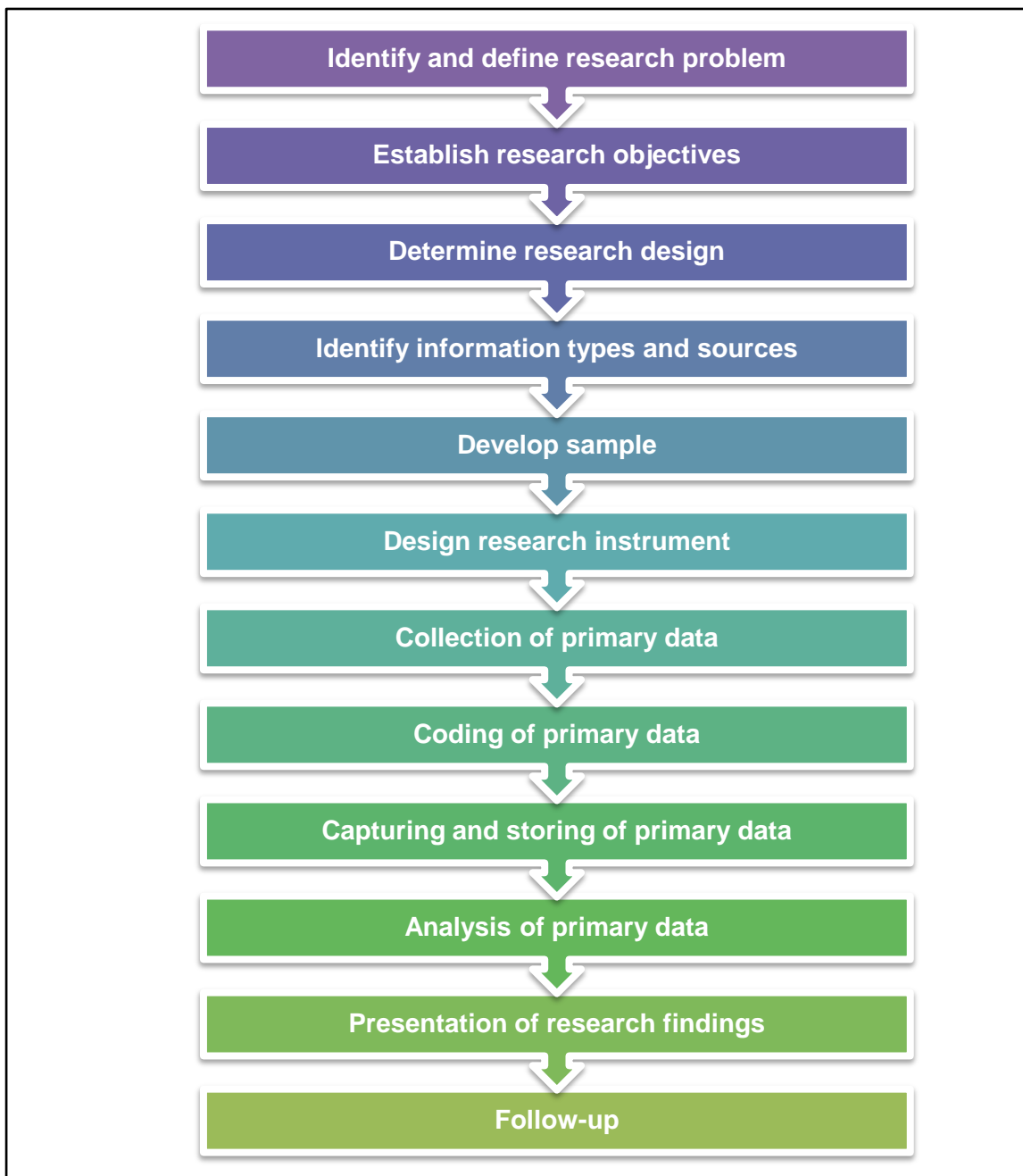


Figure 4.2: Steps in the research process

Source: Adapted from Tustin *et al.* (2010:76)

4.3.1 Research problem

As indicated in Chapter 1 (see section 1.7), the problem statement of this study was based on the statement by Kent (2013:1), managing director of SureSwipe as quoted in Fin24.com as saying, "Too many laws are killing small businesses" because legal compliance issues are the main reason why small businesses fail. Small businesses experience challenges pertaining to OHS due to, amongst others, a lack of financial resources, a lack of managerial skills and poor commitment (Floyde *et al.*, 2013:70). Mardon (2010:1) reiterates that the lack of legal compliance with OHS directives results in SA losing many economically active workers through occupational injuries and diseases and this necessitate the need to determine the knowledge, attitude, behavioural intent, actual behaviour and barriers to OHS compliance of small business owners/managers in SA.

This study endeavoured to fill the existing gap between knowledge, attitude, behavioural intent, actual behaviour and barriers to OHS compliance experienced by small business owners/managers pertaining to compliance with applicable OHS directives by compiling a CMF for small businesses in SA.

4.3.2 Research objectives

In order to address the problem stated above, the primary objective of this study was to establish a CMF pertaining to OHS directives that will guide and assist small business owners/managers to comply with applicable legal requirements. The secondary objectives, in support of the primary objective, was to determine the knowledge, attitude, behavioural intent, actual behaviour and barriers to OHS compliance of small business owners/managers in the implementation of the moral, legal and financial components of a CMF pertaining to OHS directives as constituted by:

- the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (OHS Act); as well as
- the Compensation for Occupational Injuries and Diseases Amendment Act No. 61 of 1997 (COID Act).

In reaching this objective, the study focused on the following secondary objectives:

- to determine the knowledge of small business owners/managers regarding health and safety in the workplace;
- to determine the attitude of small business owners/managers towards health and safety in the workplace;
- to determine the behavioural intent of small business owners/managers towards health and safety compliance in the workplace;
- to determine the actual behaviour of small business owners/managers with regard to health and safety compliance in the workplace; and
- to determine the barriers to health and safety compliance in the workplace as faced by small business owners/managers.

This study proposed a CMF for small businesses in SA which, when implemented, could enhance small business compliance with the relevant OHS Acts in SA.

4.3.3 Research design

The research design constitutes the framework or plan by which data was collected and analysed in order to answer the research objectives, thereby providing justification for the choice of data sources, the method of data collection, and the techniques used for the analysis of collected data (Tustin *et al.*, 2010:82; Cooper & Schindler, 2011:139; Saunders *et al.*, 2012:680). The research design for this study is as follows:

4.3.3.1 Research philosophy

Research philosophy relates to the development of knowledge as well as the nature of such knowledge, and indicates the process of the development of this knowledge and the relationship of such knowledge to the research outcomes (Saunders *et al.*, 2012:127, 680). The emphasis on setting the nature of measurement, as well as making predictions about the outcome, was already set by Hawking (1988:2) as elementary components of research philosophy. The study attempted to ascertain the knowledge, attitude, behavioural intent, actual behaviour and barriers of small business owners/managers in terms of OHS

compliance of small businesses in SA. Therefore, for the purpose of the study, a positivist research philosophy, which implied an emphasis on a structured methodology to present a replica of an end-product that describes very specific elements of the phenomena studied, was implemented (Cooper & Schindler, 2011:139; Saunders *et al.*, 2012:678).

4.3.3.2 Research approach

This study set out to determine the knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance as experienced and indicated by small business owners/managers in three provinces in SA. As this study drew conclusions from the general to the specific, a deductive approach was followed (Saunders *et al.*, 2012:144). Such approach involved the testing of a theoretical proposition by utilising a research strategy specifically designed for the purpose of its testing (Saunders *et al.*, 2012:669).

4.3.3.3 Methodological approach

Quantitative research attempts to measure something such as knowledge, attitude, behaviour and opinions (Cooper & Schindler, 2011:161). As this study set out to determine the knowledge, attitude, behavioural intent, actual behaviour, and barriers to compliance of small business owners/managers, the study utilised a quantitative research design, associated with a positivistic research approach, by generating descriptive data (Saunders *et al.*, 2012:162). Furthermore, a concurrent embedded design formed part of this study as limited use of qualitative responses were included in the measuring instrument (Saunders *et al.*, 2012:168).

4.3.3.4 Research strategy

A research strategy elucidates an overall plan, eliciting the procedure which will be followed to answer research questions (Saunders *et al.*, 2012:680). As this study followed a deductive research approach, one of the commonly used business and management research strategies, the study utilised a questionnaire in order to generate quantitative (and some qualitative) data (Saunders *et al.*, 2012:176–177). The questionnaire allowed for the collection of standardised data from a sizeable

population in an economical way in order to compare such collected data (Saunders *et al.*, 2012:177).

External literature in the form of secondary data was utilised to develop applicable content constructs that served as a basis for developing a measuring instrument (questionnaire). Constructs were designed in the form of closed and open-ended questions. Responses to closed questions (fourteen) were mostly in the form of forced-choice scale questions taking the format of a Likert-type rating scale (Likert, 1932:55; Vagias, 2006:1-2). Three open questions were analysed on the basis of utilising the practice of categorising by attaching meaning to units of data (Saunders *et al.*, 2012:666, 679).

4.3.3.5 Time horizon

This study set out to ascertain the knowledge, attitude, behavioural intent and actual behaviour, as well as barriers to OHS compliance as experienced by small business owners/managers in SA at a specific point in time. Therefore, as this study was conducted at a specific time in order to study phenomena at that particular time, a cross-sectional time horizon applied (Saunders *et al.*, 2012:190, 669). The advantage of cross-sectional studies lies in that they are carried out once, representing a "snapshot" of one point in time, thus budget and time constraints are lessened (Cooper & Schindler, 2011:142). Furthermore, some types of information cannot be collected a second time from the same source without the risk of bias (Cooper & Schindler, 2011:142).

4.3.3.6 Data collection and analysis

In order to realise the objectives of this study, data was collected and analysed. The data collection process comprised four steps: the construction of the collection form used to organise data (questionnaire), the formulation of the coding strategy that was used to represent data, the collection of the data, and the entry of data onto the data collection form (Van Zyl, 2014:155). After completing these four steps, data was analysed as explained later in this chapter (see section 4.3.10).

4.3.4 Information types and sources

Relevant information should be collected in order to reveal as much as possible about the world (Van Zyl, 2014:8). In this study, the information collected from small business owners/managers revealed relevant information regarding their knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance with regard to OHS directives. Secondary data (data originally collected for some other purpose) was collected for relevant information regarding small businesses and OHS directives to serve as basis for defining the phenomenon constructs. Primary data, which refers to data collected specifically for this study (Saunders *et al.*, 2012:678), was collected *via* a questionnaire.

4.3.5 Sample

A research population can be defined as all the elements – in this study, SA small business owners/managers – about which the researcher intends to draw inferences (Cooper & Schindler, 2008:374). The population is therefore the “totality of entities” (Diamantopoulos & Schlegelmilch, 2000:10).

As it was not possible to include all small business owners/managers in SA in this study, the only other choice was to select a sample (see section 1.10.2) of the population in order to generalise the results of this study from a sample to the population (Van Zyl, 2014:95). A sample, which is a part or sub-group of a larger population, is drawn from the population, which comprises the complete set of cases or group members (Saunders *et al.*, 2012:678). A homogeneous purposive sampling technique was used to select the sample for this study, as selective cases from a particular subgroup were the focus of this study (Saunders *et al.*, 2012:672).

The total population of this study comprised all small business owners/managers in SA (Cooper & Schindler, 2008:397). However, the extent of time and travel distance that such application of the total population would have required made it impossible to utilise the total group. Therefore, it was decided to apply a non-probability sample that was extended *via* the snowballing and referral technique as further respondents were identified through information provided by selected and

willing respondents (Saunders *et al.*, 2012:682). Tables 1.4 and 1.5 (see section 1.10.2) show the selection of small business owners/managers as candidates for this study.

The sample consisted of 350 small business owners/managers from three provinces in SA, which hosted the highest number (in total 81.8%) of active businesses, namely Gauteng, the Western Cape and KwaZulu-Natal (CIPC, 2013a:3). Two fieldworkers were sent to each of the three provinces to have questionnaires completed by small business owners/managers who fitted the criteria for this study.

Figure 4.3 below indicates the three selected provinces and the number of completed questionnaires obtained from each of the three provinces that constituted the sample for this study. The sample of 350 was made up from 215 questionnaires from Gauteng, 73 questionnaires from the Western Cape and 62 from KwaZulu-Natal.

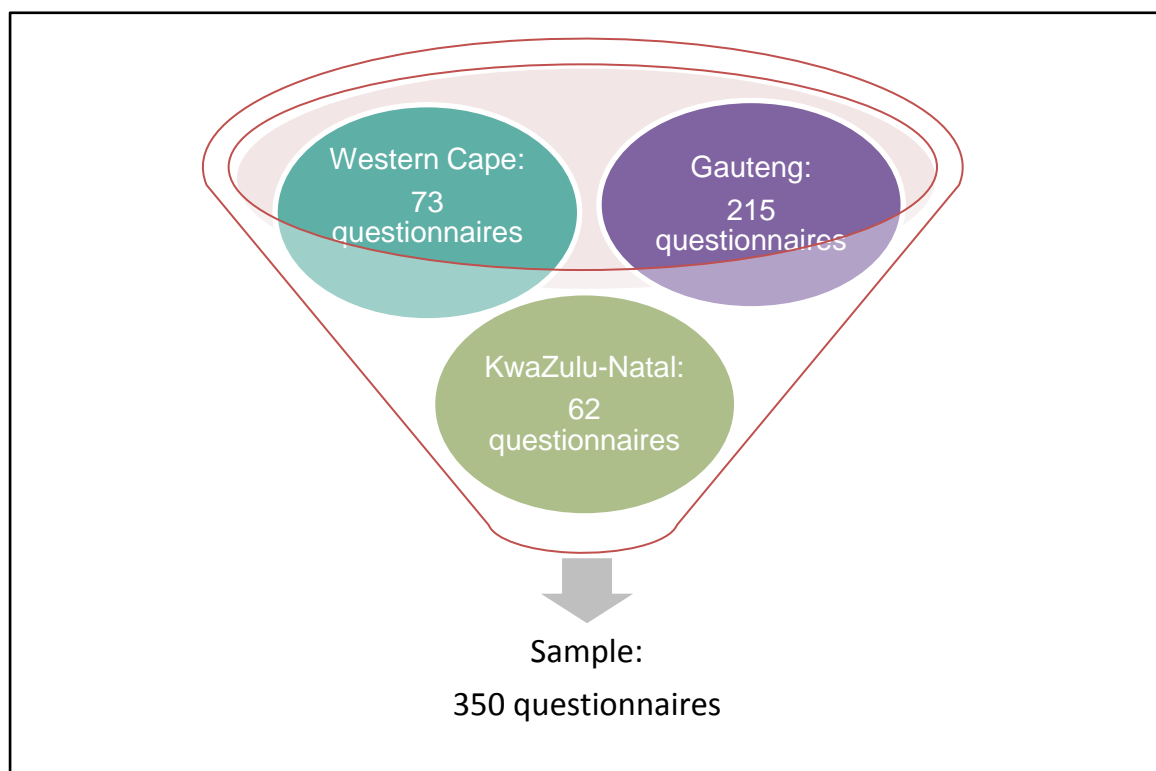


Figure 4.3: Sample – number of questionnaires

Source: Author's own compilation (2015)

The unit of analysis for this study comprised small businesses in SA and the unit of observation was owners/managers of small businesses.

4.3.6 Research instrument – the questionnaire

As indicated, relevant primary data were collected *via* a questionnaire. The questionnaire was designed and developed based on the applicable phenomenon constructs related to establishing the knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance of the small business owners/managers with regard to OHS directives. This was coupled with barriers to compliance in the implementation of the moral, legal and financial components of a CMF pertaining to OHS directives as constituted by the OHS Act (RSA, 1993) and the COID Act (RSA, 1997). These applicable phenomenon constructs were derived from the literature review conducted for this study.

Details on the design of the questionnaire are described below.

4.3.6.1 Construct validity and content validity of questions

Construct validity refers to the extent to which the measuring instrument, in this case the questionnaire, actually measures the presence of those constructs that are intended to be measured (Pallant, 2011:7). This implies that the questions in the questionnaire should measure what the researcher intends to measure. Furthermore, content validity (or face validity) refers to the agreement that the question appears logically to reflect accurately what it was intended to measure (Saunders *et al.*, 2012:670).

Construct validity and content validity were initially developed by the research design. As no specific instrument had been developed previously to test the perceived knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance with regard to OHS directives in small businesses in SA, the validity and reliability of the measurement instrument had to be validated. Content and construct validity were, as far as possible, assured by involving an expert, in this case a statistician from the University of South Africa (Unisa), in the development of the questionnaire (Cooper & Schindler, 2008:290).

The questionnaire was also analysed by the statistician from Unisa prior to applying for ethical clearance. In designing the questionnaire, guidelines for such design were followed as closely as was practically possible (Cooper & Schindler, 2008:349; Cooper & Schindler, 2011:338).

4.3.6.2 Type of scale for desired analysis, communication approach and process structure

The analytical procedures available to the researcher are determined by the scale types used in the questionnaire (Cooper & Schindler, 2011:321). Measurement scales include nominal, ordinal, interval and ratio types of scales (Cooper & Schindler, 2008:282–286). These authors continue by stating that utilising nominal scales implies collecting information on a construct that, by nature or design, can be divided into different categories that are exclusive of one another and in total exhaustive (e.g. yes or no).

Ordinal scales are an indication of order in comparative linear context (e.g. ranking oneself on a scale of one to four) (Cooper & Schindler, 2008:282-286). Ratio types of scales have the same powers that nominal and ordinal scales have, as well as an absolute point of origin (zero). This implies that ratio types of scales picture the real numbers of a construct (e.g. number of small business employees). Interval scales refer to classification or order where equality of intervals or differences is determined (Cooper & Schindler, 2008:282, 286). Table 4.1 lists and explains all optional measurement scales.

Table 4.1: Measurement scales

Type of scale	Characteristics of data	Basic empirical operation	Example
Nominal	Classification (mutually exclusive and collectively exhaustive categories), but no order, distance or natural origin	Determination of equality	Gender (male, female)
Ordinal	Classification and order, but no distance or natural origin	Determination of greater or lesser value	Life stage (young, teenager, middle-aged, elderly)
Interval	Classification, order, and distance, but no natural origin	Determination of equality of intervals or differences	Temperature in degrees
Ratio	Classification, order, distance, and natural origin	Determination of equality of ratios	Age in years

Source: Adapted from Cooper and Schindler (2008:282)

Furthermore, the study used the personal communication approach and a structured process structure. The relationship between personal communication and process structure is illustrated in Figure 4.4 below.

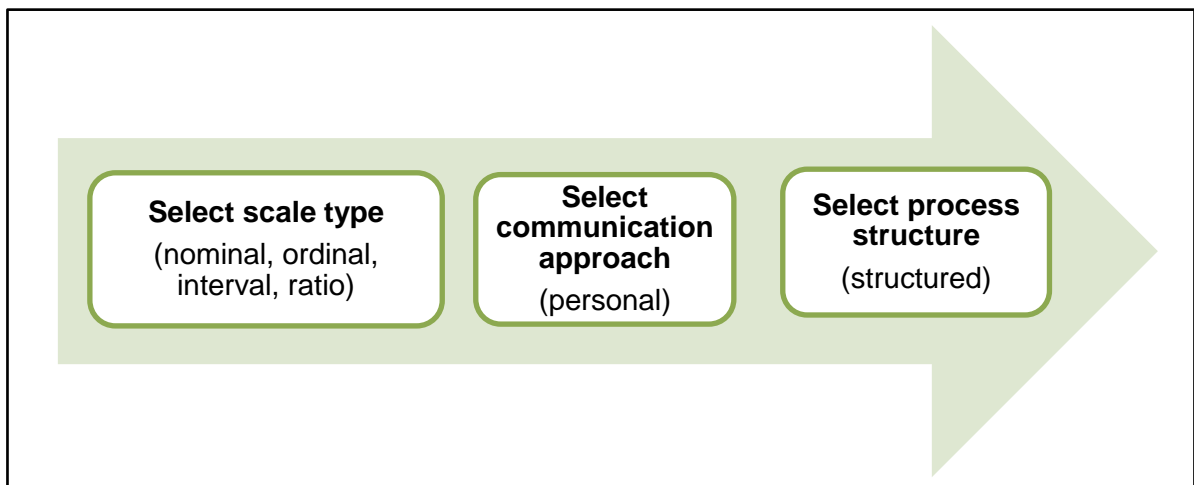


Figure 4.4: Structured process for questionnaire design

Source: Adapted from Cooper and Schindler (2011:321)

Making the decisions on the scale type, the communication approach and the process structure leads to preparing a preliminary analysis plan whereby the researcher can determine whether or not the questions will cover the topic of the research adequately (Cooper & Schindler, 2011:323).

4.3.6.3 Constructing and refining the measurement questions

The order, type and working of the questions should accomplish the following in a quality questionnaire (Cooper & Schindler, 2011:324):

- It should encourage respondents to provide accurate responses.
- It should encourage respondents to provide an adequate amount of information.
- It should discourage respondents from not answering specific questions.
- It should discourage respondents from discontinuing their answering of the questionnaire.
- It should leave the respondent with a positive attitude towards the completion of the questionnaire.

The questions of the questionnaire used in the current study were evaluated to ensure that the above-mentioned had been achieved.

4.3.6.4 Drafting and refining the questionnaire

The drafting and refining of the questionnaire comprise a process that needs to be followed. Figure 4.5 summarises the process followed in the current study.

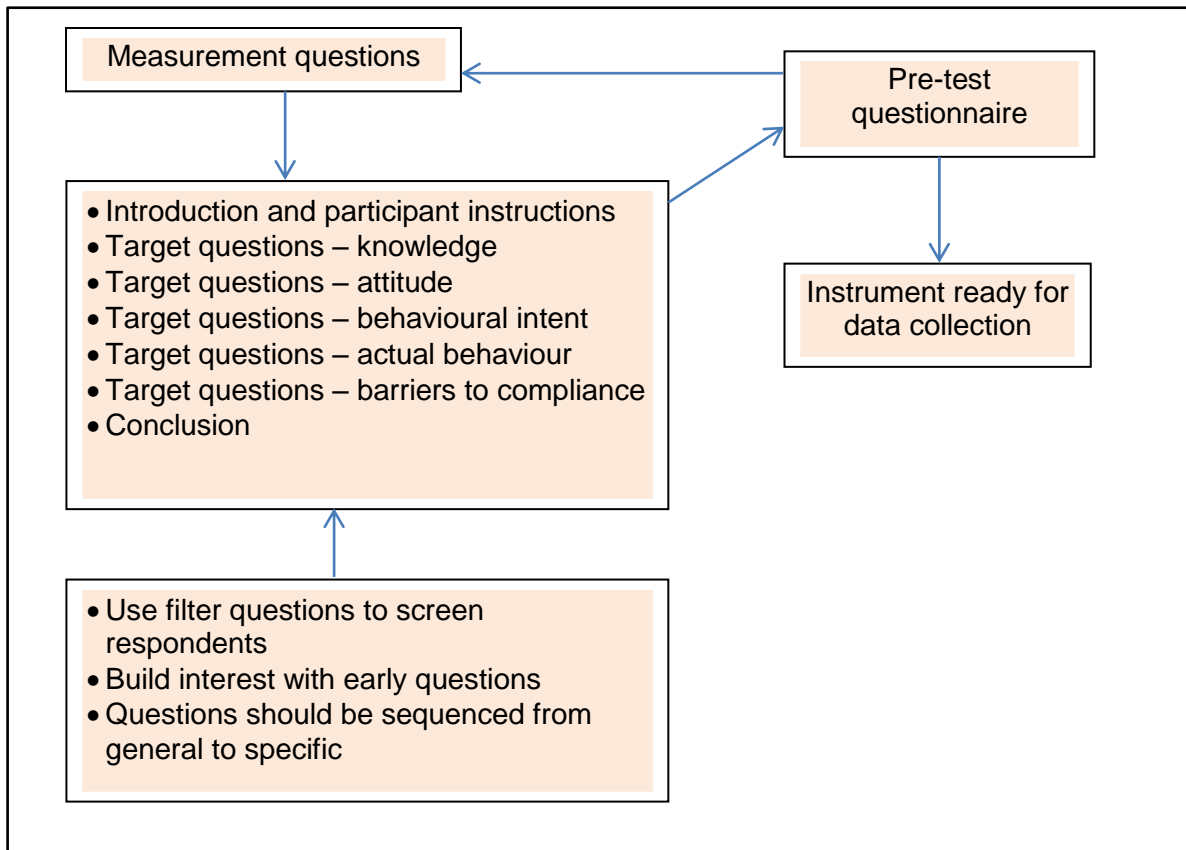


Figure 4.5: Flowchart for questionnaire design

Source: Adapted from Cooper and Schindler (2008:349;2011:338)

As indicated in Figure 4.5 above, filter questions were used to ensure that the respondents fell within the scope set for this study. The questions moved from general (such as respondents having to indicate whether they were the owner/manager of the small business), to specific compliance-related questions. Respondents were also asked to indicate the province in which their small business operated, amongst others, to enable the researcher to compare responses between different provinces. The target questions were split into knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance as these five sections corresponded with the five secondary research objectives of this study.

4.3.6.5 Types of questions

Rating questions are often used to collect data based on opinion (Saunders *et al.*, 2012:436). The types of questions used in the questionnaire for the study were

mainly those on a forced-choice scale. The respondents had to rate their knowledge, attitude, behavioural intent, actual behaviour and barriers with regard to OHS aspects and compliance on Likert-type rating scales. Table 4.2 depicts a summary of the response categories for different types of rating questions with the response being dependent on the investigative question (Saunders *et al.*, 2012:437).

Table 4.2: Response categories for different types of rating questions

Type of rating	Categories	Questions in Questionnaire
Level of effect	No effect, minor effect, moderate effect, major effect	Direct and indirect costs – Q9
Level of knowledge	Poor, fair, average, good, very good	Knowledge of occupational health and safety – Q11
Level of priority	Not a priority, low priority, medium priority, high priority, essential priority	Attitude towards occupational health and safety – Q12
Level of likelihood	Extremely unlikely, unlikely, neutral, likely, extremely likely	Behavioural intent with regard to occupational health and safety – Q13
Level of compliance	Do not comply at all, partially comply, fully comply	Actual behaviour with regard to occupational health and safety – Q14
Level of barrier	Not a barrier, somewhat of a barrier, moderate barrier, extreme barrier	Barriers to compliance with occupational health and safety directives – Q15

Source: Adapted from Saunders *et al.* (2012:437) and Vagias (2006:1-2)

Category questions designed to force respondents to choose only one option were used in the questionnaire (Saunders *et al.*, 2012:434). Such category questions were used, to determine the number of employees of the small business. List questions where the participant was offered a list of responses from which he or she could choose (Saunders *et al.*, 2012:433) were used to determine, for example, the province in which the business operated. Open-ended, unforced-choice rating scale measures were few, (three in total) but necessary to allow respondents to indicate, for example, the barriers to OHS compliance that they experienced.

4.3.6.6 Comparison of questionnaire questions with research objectives

It is important to include questions in the questionnaire that will provide answers to the research objectives of the study. Table 4.3 provides an outline of the specific research objectives with the corresponding questions used in the questionnaire to answer these.

Table 4.3: Comparison of research objectives with the questionnaire

	Questionnaire Item	Purpose
Qualifying objectives	<p>Section A:</p> <ol style="list-style-type: none"> 1. Position in the small business 2. Province in which the business is based 3. Annual turnover 4. Number of employees (full-time and part-time) 5. Primary economic sector 	<ul style="list-style-type: none"> • Question 1 was used to distinguish between small business owners (involved or not involved in the day-to-day operations of the business) and managers. • Question 2 distinguished between the three provinces used for the sample and ensured that the correct amount of data from each province was obtained. • The annual turnover and number of employees (questions 3 and 4) ensure that only owners/managers of small businesses (as defined in this study) were included in the data. • The primary economic sector (question 5) allowed the researcher to point out any differences, if any, between these sectors with regard to occupational health and safety.
Status of OHS in the small business	<p>Section B:</p> <ol style="list-style-type: none"> 6. Is a copy of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 available? 7. Why should a business comply with the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993? 8. Any occupational health and safety incidents in the business? 9. The impact of an occupational health and safety incident or accident (direct and indirect costs) 10. Registered with the Compensation Fund? 	<ul style="list-style-type: none"> • Question 6 determined the availability of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 in the business. • Question 7 was included to determine the moral, legal and financial components of compliance. • Question 8 determined occupational health and safety incidents in the business. • Question 9 measured the effect of direct and indirect costs related to occupational health and safety on the business. • Question 10 indicated the registration of the businesses with the Compensation Fund.

Research objective	Questionnaire item	Corresponding literature review section
Small business owner/manager knowledge of health and safety in the workplace	Section C: 11. Knowledge of occupational health and safety	Small business owners/managers had to rate themselves with regard to their knowledge of the identified occupational health and safety aspects.
Small business owner/manager attitude towards health and safety in the workplace	Section D: 12. Attitude towards occupational health and safety	Small business owners/managers had to rate their attitude towards identified occupational health and safety aspects.
Small business owner/manager behavioural intent towards health and safety compliance in the workplace	Section E: 13. Behavioural intent with regard to occupational health and safety	Small business owners/managers had to rate their intent to comply with the identified occupational health and safety aspects.
Small business owner/manager actual behaviour with regard to health and safety compliance in the workplace	Section F: 14. Actual behaviour of the owner/manager with regard to occupational health and safety	Small business owners/managers had to rate the business with regard to its actual compliance with the aspects of occupational health and safety according to the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 as well as the Compensation for Occupational Injuries and Diseases Amendment Act No. 61 of 1997.
Small business owner/manager perceived barriers to health and safety compliance in the workplace	Section G: 15. Barriers to compliance with occupational health and safety directives	Small business owners/managers had to rate the effect of barriers that might make it difficult to comply with OHS directives.

Source: Author's own compilation (2016)

4.3.6.7 Questionnaire designed for pre-testing

A questionnaire was designed and pretested. The pre-test group comprised two small business owners/managers, two academics and two fieldworkers for the study, as well as a statistician (see section 1.10.5). Specific attention was paid to the confirmation of reliability. Reliability constitutes the degree to which a measure provides consistent results and to what extent it is free of error (Cooper & Schindler, 2008:292; Sreejesh *et al.*, 2014:114). The validation of reliability of the different measures in the measuring instrument (questionnaire) was sought by statistical analysis of the pre-test results by the statistician from Unisa. Internal consistency was tested on the same basis.

Table 4.4 indicates the reliability estimates listed by Cooper and Schindler (2008:293) that could apply to research as implemented in this study. However, owing to time and financial constraints, and the relatively small size of the sample (N = 350), a specific technique was selected to confirm internal consistency, namely Cronbach's alpha. The statistician determined internal consistency using this technique with the view to determine the degree to which the various items grouped together in the questionnaire measure the same underlying aspects (Pallant, 2011:6).

Table 4.4: Reliability estimates

Type	Coefficient	What is measured?	Methods
Test-retest	Stability	Reliability of a test or instrument inferred from examinee scores; same test is administered twice to same subjects after an interval of less than six months.	Correlation
Parallel forms	Equivalence	Degree to which alternative forms of the same measure produce the same or similar results, administered simultaneously or with a delay. Inter-rater estimates of the similarity of judges' observations or scores.	Correlation
Cronbach's alpha	Internal consistency	Degree to which instrument items are homogeneous and reflect the same underlying construct(s).	Specialised correlational formulas

Source: Cooper and Schindler (2008:293)

4.3.6.8 Pre-testing of the questionnaire

A pre-test was conducted on the measurement instrument (questionnaire) in order to verify validity, reliability as well as user-friendliness thereof (Saunders *et al.*, 2012:677-678; Sreejesh *et al.*, 2014:116). The pre-test questionnaire did not include question 5 (see Table 4.7). This question was added in the final questionnaire.

A group comprising two small business owners/managers, two academics, two fieldworkers, as well as a statistician was involved with the purpose of establishing face validity as well as indicating the measure to which the instrument captured the interest and understanding of respondents. Pre-testing was done for various reasons, including the following (Cooper & Schindler, 2011:347):

- to determine ways to increase respondent interest;
- to increase the likelihood that respondents will stay engaged until the end of the questionnaire;
- to discover any question content, wording and sequencing problems;
- to determine question groups for which fieldworker training is needed; and
- to determine ways to improve the overall quality of data obtained from the questionnaire.

The responses from the pre-test were used to determine the content and construct validity of the questions and the questionnaire, as well as the reliability thereof *via* the statistician from Unisa. This practice was also applied in order to validate the convenience of the questionnaire in terms of user-friendliness for respondents (Cooper & Schindler, 2008:295). Where necessary, questions were adjusted upon feedback, to ensure that there were no ambiguities in the questionnaire and all questions were clear and easy to understand.

During the pre-testing of the questionnaire, it was decided to include a question to determine the primary economic sector within which the businesses operated. This was decided due to concerns raised by parties involved in the pre-testing of the

questionnaire regarding the applicability of the contents of the questionnaire to various economic sectors.

Since the OHS Act No. 85 of 1993 does not distinguish between different economic sectors and is applicable to all sectors, it is important to identify possible differences between primary economic sectors within which the businesses operated with regard to owner/manager knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance with regard to OHS elements in the respective businesses. Table 4.5 reflects the final questionnaire used to gather data. The total questionnaire remained as initially designed with the addition of question 5 as depicted in Table 4.7.

Table 4.5 below reflects all questions and the contents of the final questionnaire that was used to obtain the empirical data that applied to this study.

Table 4.5: Final questionnaire

Section A: Qualifying questions	
1. What is your position in the small business?	
Owner (involved in the day-to-day operation of the business)	1
Owner (not involved in the day-to-day operation of the business)	2
Manager	3
2. In which province is your small business based?	
Gauteng	1
KwaZulu-Natal	2
Western Cape	3
3. Is the annual turnover of your small business less than R10 million?	
Yes	1
No	2
4. How many employees do you have (excluding the owner)?	
Part-time employees	Full-time employees
5. Which do you regard as the primary economic sector that your business operates in? (Select only one)	
Manufacturing	1
Construction	2
Wholesale & Retail	3
Repair & Maintenance Services	4
Accommodation, Restaurants, Catering & Conference	5
Transport, Storage & Communication	6
Financial Intermediation & Insurance	7
Business Services – Professional (attorneys, accountants, consulting engineers, architects, quantity surveyor)	8
Business Services – Other	9
Real Estate	10
Community, Social & Personal Services – Professional (medical practitioners, dentists, psychologists, veterinarians)	11
Community, Social & Personal Services	12
Other: Please specify	13
Section B: Status of occupational health and safety in the small business	
6. Do you have a copy of the Occupational Health and Safety Act (No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993) available?	
Yes	1
No	2
7. Why should a business comply with the Occupational Health and Safety Act (No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993)?	

.....

.....

.....

.....

.....

.....

8. Have you had any occupational health and safety incidents in your business in the last two years?

Yes	1
No	2

9(a). If an occupational health and safety incident or accident should occur in your business, how would you rate the effect thereof on your business on the following aspects on a scale of 1-4 (where 1=no effect, 2=minor effect, 3=moderate effect and 4=major effect)? If you are unsure, please indicate DK=don't know.

Direct and indirect costs	Rating				
	No effect	Minor effect	Moderate effect	Major effect	DK
Medical expenses	1	2	3	4	DK
Worker compensation	1	2	3	4	DK
Loss of production or sales	1	2	3	4	DK
Insurance costs	1	2	3	4	DK
Damage to equipment	1	2	3	4	DK
Time lost or wasted	1	2	3	4	DK
Re-training of employees	1	2	3	4	DK
Social impact	1	2	3	4	DK
Reputation of the business	1	2	3	4	DK

9(b). Other than the aspects mentioned above, what other aspects might impact on your business should an occupational health and safety incident occur in your business? Please indicate the aspect and the effect thereof (where 1=no effect, 2=minor effect, 3=moderate effect and 4=major effect). If you are unsure, please indicate DK=don't know.

Aspect	Rating				
	No effect	Minor effect	Moderate effect	Major effect	DK
	1	2	3	4	DK
	1	2	3	4	DK
	1	2	3	4	DK
	1	2	3	4	DK
	1	2	3	4	DK

10. Are you registered with the Compensation Fund?

Yes	1
No	2
Don't know/unsure	3

Section C: Knowledge of occupational health and safety

11. Please rate yourself regarding your knowledge of each of the following aspects of occupational health and safety on a scale of 1-5 (where 1=poor, 2=fair, 3=average, 4=good and 5=very good).

Occupational health and safety aspect	Rating				
	Poor	Fair	Average	Good	Very good
Health and safety policy of the organisation	1	2	3	4	5
Ensuring occupational health and safety measures	1	2	3	4	5
Risk assessment (and safe systems of work)	1	2	3	4	5
Access to competent advice	1	2	3	4	5
Training and information	1	2	3	4	5
Individual qualifications and experience	1	2	3	4	5
Workforce involvement	1	2	3	4	5
Contracting procedures (i.e. using contractors)	1	2	3	4	5
Cooperating and coordinating with others	1	2	3	4	5
Accident and near hit reporting and investigation	1	2	3	4	5
First aid and emergency measures (where applicable, notably fire)	1	2	3	4	5
Monitoring, checking and reviewing performance	1	2	3	4	5

Section D: Attitude towards occupational health and safety

12. According to your own personal view as the owner/manager of the business, how would you rate the following aspects of occupational health and safety with regard to their priority in the business on a scale of 1-5 (where 1=not a priority, 2=low priority, 3=medium priority, 4=high priority and 5=essential priority)?

Occupational health and safety aspect	Rating				
	Not a priority	Low priority	Medium priority	High priority	Essential priority
Health and safety policy of the organisation	1	2	3	4	5
Ensuring health and safety measures	1	2	3	4	5
Risk assessment (and safe systems of work)	1	2	3	4	5
Access to competent advice	1	2	3	4	5
Training and information	1	2	3	4	5

Individual qualifications and experience	1	2	3	4	5
Workforce involvement	1	2	3	4	5
Contracting procedures (i.e. using contractors)	1	2	3	4	5
Cooperating and coordinating with others	1	2	3	4	5
Accident/near hit reporting and investigation	1	2	3	4	5
First aid and emergency measures (where applicable, notably fire)	1	2	3	4	5
Monitoring, checking and reviewing performance	1	2	3	4	5

Section E: Behavioural intent with regard to occupational health and safety

13. Please rate yourself regarding your intent to comply with each of the following aspects of occupational health and safety on a scale of 1-5 (where 1=extremely unlikely, 2=unlikely, 3=neutral, 4=likely and 5=extremely likely).

Occupational health and safety aspect	Rating				
	Extremely unlikely	Unlikely	Neutral	Likely	Extremely likely
Health and safety policy of the organisation	1	2	3	4	5
Ensuring health and safety measures	1	2	3	4	5
Risk assessment (and safe systems of work)	1	2	3	4	5
Access to competent advice	1	2	3	4	5
Training and information	1	2	3	4	5
Individual qualifications and experience	1	2	3	4	5
Workforce involvement	1	2	3	4	5
Contracting procedures (i.e. using contractors)	1	2	3	4	5
Cooperating and coordinating with others	1	2	3	4	5
Accident and near hit reporting and investigation	1	2	3	4	5
First aid and emergency measures (where applicable, notably fire)	1	2	3	4	5
Monitoring, checking and reviewing performance	1	2	3	4	5

Section F: Actual compliance behaviour of the business with regard to occupational health and safety

14. Please rate the business regarding its actual compliance with each of the following aspects of occupational health and safety on a scale of 1-3 (where 1=do not comply at all, 2=partially comply and 3=fully comply). Please indicate NA= if not applicable to your business and if you are unsure, please indicate DK=don't know.

Employer responsibilities in terms of the Occupational Health and Safety Act (No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993)	Rating					
	Do not comply at all	Partially comply	Fully comply	Not applicable	Don't know	
Health and safety policy – prepare guidelines, contents and display in writing	1	2	3	NA	DK	/14.1
General duties of employers. Ensure a safe working environment without health and safety risk	1	2	3	NA	DK	/14.2
Systems of work, plant and machinery safe and without risk to health and safety	1	2	3	NA	DK	/14.3
Eliminate or mitigate all hazards before resorting to personal protective equipment (PPE)	1	2	3	NA	DK	/14.4
Absence of safety risk regarding any articles or substances	1	2	3	NA	DK	/14.5
Determine any hazard present in any work processes and applicable precautionary measures	1	2	3	NA	DK	/14.6
Ensuring worker competence <i>via</i> information, instruction and training with supervision to ensure employee health and safety	1	2	3	NA	DK	/14.7
Permit no work unless precautionary measures are in place	1	2	3	NA	DK	/14.8
Ensure that all prescribed legal requirements of this Act are complied with by every person under his/her authority	1	2	3	NA	DK	/14.9
Enforce measures in the interest of health and safety	1	2	3	NA	DK	/14.10
Ensure appropriate supervision by competent person/s and authority to ensure implementation of precautions	1	2	3	NA	DK	/14.11
Ensure all employees are informed on the scope of authority in terms of what must	1	2	3	NA	DK	/14.12

or ought to be done in terms of health and safety						
Every employer to ensure that non-workers are not exposed to hazards to their health and safety	1	2	3	NA	DK	/14.13
Self-employed persons must ensure no exposure to hazards that threaten the health and safety of any employee or non-employee	1	2	3	NA	DK	/14.14
Ensure employee competence concerning the nature of all hazards and applicable precautionary measures	1	2	3	NA	DK	/14.15
Inform health and safety representative in advance regarding inspections, investigations or formal inquiries, and any exemption	1	2	3	NA	DK	/14.16
Inform health and safety representative/s of incidents as soon as required	1	2	3	NA	DK	/14.17
Employer to ensure responsibilities in terms of this Act are properly discharged	1	2	3	NA	DK	/14.18
Employer to assign any person any duty in any subsection who shall act under his/her authority	1	2	3	NA	DK	/14.19
Employer remains responsible and accountable in spite of delegation	1	2	3	NA	DK	/14.20
Employer may not require or permit any payment by employee for any provisions or action regarding employee health and safety in terms of this Act	1	2	3	NA	DK	/14.21
Report incidents at work, arising out of, or in connection with work activities	1	2	3	NA	DK	/14.22
Report incidents that resulted in: unconsciousness, loss of limb, or part, injury, disease and likelihood to die or suffer permanent physical defects or not being able to work for 14 days in current position	1	2	3	NA	DK	/14.23
Report major incidents	1	2	3	NA	DK	/14.24
Report incidents that endanger health <i>via</i> (that could include): (i) Substance spill	1	2	3	NA	DK	/14.25

(ii) Uncontrolled release of substance under pressure, (iii) Machinery/part fractured or failed, flying, falling or uncontrolled moving objects (iv) Machinery that ran out of order						
Report incidents within prescribed period and prescribed manner. Rescue person/s from danger, but leave scene undisturbed	1	2	3	NA	DK	/14.26
Victimisation: no dismissal, reduce of payment or alteration of terms and conditions less favourable to the employee or in relation to colleagues to disadvantage them because of information provided	1	2	3	NA	DK	/14.27
Give full cooperation in all respects of investigations	1	2	3	NA	DK	/14.28
May appeal against decision of inspector	1	2	3	NA	DK	/14.29
Disclosure of information	1	2	3	NA	DK	/14.30
General administrative regulations in terms of the Occupational Health and Safety Act (No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993)	Rating					
	Do not comply at all	Partially comply	Fully comply	Not applicable	Don't know	
Reporting of incidents within 7 days - full personal details of involved persons prescribed	1	2	3	NA	DK	/14.31
Record and investigate incidents that have to be reported	1	2	3	NA	DK	/14.32
General safety regulations in terms of the Occupational Health and Safety Act (No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993)	Rating					
	Do not comply at all	Partially comply	Fully comply	Not applicable	Don't know	
Personal safety equipment should be supplied if necessary	1	2	3	NA	DK	/14.33
Intoxicated persons should not be permitted at the workplace	1	2	3	NA	DK	/14.34
Display appropriate symbols and signs	1	2	3	NA	DK	/14.35

Do not permit persons in dangerous premises	1	2	3	NA	DK	/14.36
First aid emergency equipment and procedures must be in place with minimum contents of first aid box	1	2	3	NA	DK	/14.37

Employer responsibilities in terms of the Compensation for Occupational Injuries and Diseases Act (No. 61 of 1997)	Rating					
	Do not comply at all	Partially comply	Fully comply	Not applicable	Don't know	
Employer must report the accident to the Commissioner within seven days after receiving notice of an accident	1	2	3	NA	DK	/14.38
Employer must register with the Commissioner	1	2	3	NA	DK	/14.39
Assessment must be paid to Commissioner	1	2	3	NA	DK	/14.40

Section G: Barriers to compliance with occupational health and safety directives

15a. Please rate the effect of the following barriers that might make it difficult to comply with occupational health and safety directives or legislation on a scale of 1-4 (with 1=not a barrier, 2=somewhat of a barrier, 3=moderate barrier and 4=extreme barrier). If you are unsure, please indicate DK=don't know.

Barrier to compliance	Rating				
	Not a barrier	Somewhat of a barrier	Moderate barrier	Extreme barrier	Don't know
Lack of time	1	2	3	4	DK
Lack of money	1	2	3	4	DK
Laws are too complicated	1	2	3	4	DK
Lack of guidance and advice	1	2	3	4	DK
Lack of training opportunities	1	2	3	4	DK
Lack of cooperation between employers and employees	1	2	3	4	DK
Negligence	1	2	3	4	DK
Carelessness	1	2	3	4	DK
Not adhering to safe working procedures	1	2	3	4	DK
Unskilled employees	1	2	3	4	DK
Unqualified supervisors	1	2	3	4	DK

15b. Other than the barriers mentioned above, what other barriers make it difficult for you to comply with occupational health and safety directives or legislation? Please indicate the barrier and its effect on a scale of 1-4 (with 1=not a barrier, 2=somewhat of a barrier, 3=moderate barrier and 4=extreme barrier). If you are unsure, please indicate DK=don't know.

Barrier to compliance	Rating				
	Not a barrier	Somewhat of a barrier	Moderate barrier	Extreme barrier	Don't know
	1	2	3	4	DK
	1	2	3	4	DK
	1	2	3	4	DK
	1	2	3	4	DK
	1	2	3	4	DK

Thank you for taking the time to complete this questionnaire. Your input is greatly appreciated.
Please provide your email address in the space below if you would like to receive the research findings.
Email address:

Source: Author's own compilation (2015)

A comparison between the questions used in the initial questionnaire during the pre-test and the final questionnaire used during the empirical research of this study appears in Table 4.6.

Table 4.6: Comparative usage of questions on initial and final questionnaires

Sections	Questions in questionnaires	
	Original questionnaire	Final questionnaire
A: Qualifying questions	1,2 3,4,	1,2,3,4,5*,
B: Status of occupational health and safety in the small business	5,6,7,8,(a),8(b),9	6,7,8,9(a),9(b),10
C: Knowledge of occupational health and safety	10	11
D: Attitude towards occupational health and safety	11	12
E: Behavioural intent with regard to occupational health and safety	12	13
F: Actual behaviour of the business with regard to occupational health and safety	13	14
G: Barriers to compliance with occupational health and safety directives	14 (a),14(b)	15 (a),15(b)

*New question added to final questionnaire

Source: Author's own compilation (2015)

A new question, question 5 as indicated in Table 4.7, was added to the final questionnaire. The primary economic sectors used to compile this question was based on the economic sectors as identified by the National Treasury and the South African Revenue Service (SARS) as well as the Standard Industrial Classification (SIC) of economic activities (National Treasury & SARS, 2012:54; Statistics South Africa, 2012:26).

Table 4.7 Contents of question 5 in final questionnaire added to initial questionnaire

Which do you regard as the primary economic sector that your business operates in? (Select only one)	
Manufacturing	
Construction	
Wholesale & Retail	
Repair & Maintenance Services	
Accommodation, Restaurants, Catering & Conference	
Transport, Storage & Communication	
Financial Intermediation & Insurance	
Business Services – Professional (attorneys, accountants, consulting engineers, architects, quantity surveyor)	
Business Services – Other	
Real Estate	
Community, Social & Personal Services – Professional (medical practitioners, dentists, psychologists, veterinarians)	
Community, Social & Personal Services	
Other: Please specify	

Source: Author’s own compilation (2015)

4.3.7 Collection of primary data

After deciding which information to obtain (as derived from secondary research and indicated on the questionnaire) and where to get it (from small business owners/managers in Gauteng, KwaZulu-Natal and the Western Cape), this primary data was collected *via* a questionnaire (Van Zyl, 2014:156). Fieldworkers distributed the questionnaire to SA small business owners/managers who fell within the criteria for this study. Such criteria comprised that the small business had to have an annual turnover of less than R10 million, fewer than 50 employees, and be situated within Gauteng, KwaZulu-Natal or the Western Cape.

According to Van Zyl (2014:160–161), there are ten “commandments” of data collection. These were addressed in this study and comprised the following:

- Permission had to be obtained from Unisa through the ethical clearance process, for the primary data to be collected. The Unisa ethical clearance certificate is included in Annexure A.
- The type of data to be collected had to be decided upon. This was done in consultation with a statistician from Unisa.
- A decision had to be made about where the data was to be collected. This aspect was decided upon based on the literature review and in consultation with the supervisor of this study.
- The data collection form, the questionnaire in the case of this study, had to be clear and easy to use. The questionnaire used in this study was reviewed by a statistician from Unisa and pre-tested.
- The data file had to be duplicated and kept safe. The questionnaires were kept at a safe location during and after data collection, and the coded data, as entered into a computer programme, is kept on a password-protected computer and external hard drive by the researcher.
- If people, other than the researcher, were involved in collecting data, they had to be trained by the researcher in order to ensure that they understood the data collection process. This was ensured by the researcher through training of the fieldworkers prior to data collection.
- A detailed schedule of when and where to collect data had to be in place. As this was a cross-sectional study, all data had to be collected at a certain point in time. Data was collected within 32 days in the three identified provinces.
- Possible sources for the “participation pool” had to be cultivated. Small businesses were identified prior to the commencement of the data collection. However, no owner/manager of any business was contacted prior to data collection.
- Follow-up visits to respondents who did not complete the questionnaire. Fieldworkers were requested and trained to ensure that questionnaires were fully completed and to motivate small business owners/managers to

complete the questionnaire by explaining the importance of the study to them.

- No original data will ever be discarded. As indicated, completed questionnaires as well as coded data will be kept at a safe location.

The services of two fieldworkers were utilised in order to ensure that the total sample was reached and that fully completed questionnaires were received. These fieldworkers were trained, assessed and declared competent by the researcher prior to conducting the fieldwork. Incomplete questionnaires were excluded from the data analysis, and questionnaires that were handed out and not completed were returned to the researcher.

4.3.8 Coding of primary data

Data is coded when it is transferred from the original collection form (in this case the questionnaire) into a format that lends itself to data analysis (Van Zyl, 2014:159). Since primary data collected by the questionnaires was analysed by computer, the responses to questions needed to be coded prior to entry (Saunders *et al.*, 2012:443). Coding is the process of assigning numbers to answers on the questionnaire in order to group responses into a limited number of categories (Cooper & Schindler, 2011:405). A coding scheme was developed for this study, in conjunction with the assistance of a statistician, containing each variable and the application of coding rules to the variable (Cooper & Schindler, 2011:405).

The responses to both closed- and open-ended questions had to be coded in order to enter it into the statistical software programme IBM Statistical Package for the Social Science (IBM SPSS), Version 23 (Pallant, 2011:VII). The responses for numerical questions could be entered as is, as they contained numbers (such as the number of employees). Closed-ended questions were awarded numbers as indicated on the questionnaire (thus pre-coded) prior to collecting the data. Three open-ended questions (such as reasons for non-compliance) were categorised and then awarded a code which could be electronically captured for analysis.

4.3.9 Capturing and storing of primary data

Data was captured by the statistician and stored by the statistician. A copy of the data was given to the researcher who saved one copy on the computer and an additional copy on an external hard drive. It is important to make a copy (or more) of the data and keep it in a safe location (Van Zyl, 2014:157). As indicated in the section on ethics previously in this study (see section 1.13), all people involved with gathering and capturing or analysing the data had to sign a confidentiality agreement regarding this data. The computer on which the data is stored is also password protected.

4.3.10 Analysis of primary data

Conclusions and results were drawn from the research based on both the literature review and results that were obtained from questionnaires. Informed consent from respondents was obtained prior to collecting data by informing them of the intent of the research as well as ensuring their anonymity.

Analysis of data includes breaking down the collected data, in this case from questionnaires, into groups or elements that are examined separately and then translated into integrated and meaningful inferences and findings (Tustin *et al.*, 2010:696). Meaningful inferences and findings mean that the findings must be relevant to the identified objectives of the specific study. Conclusions and recommendations were based on the analysis of data utilising the following:

- **Descriptive statistics**

Quantitative and qualitative data were analysed. The questionnaire was electronically coded in consultation with a statistician from Unisa. Completeness of all the questionnaires was confirmed by the trained fieldworkers.

Data was analysed by focusing on statistical frequencies, measurement of central tendency, measures of variability and measures of shape, taking into account different types of measurement scales as well as parametric and nonparametric tests for significance (Cooper & Schindler, 2008:438–440). Descriptive statistics include measures of central tendency (mean, median and mode), standard

deviation (SD), skewness and kurtosis. The mean indicates average values, the median refers to the middle value of ratings when arranged in rank order (the 50th percentile), and the mode to the value occurring most frequently (Saunders *et al.*, 2012:674-675). The extent of spread of data values around the mean score is indicated as the SD (Saunders *et al.*, 2012:682). Skewness refers to the symmetry of the distribution and kurtosis to the “peakedness” of the distribution (Pallant, 2011:157). These descriptive statistics and results are discussed in detail in Chapter 5.

- **Categorising**

Responses to open-ended questions were categorised in accordance with theoretically based criteria with the view to purposeful analysis (Saunders *et al.*, 2012:666). Cooper and Schindler (2011:408) indicate rules for categorising, such as:

- contents must be appropriate to the study;
- categories must be mutually exclusive;
- all responses must be exhausted in the process; and
- only one dimension should apply in creating categories.

- **Inferential statistical techniques**

Inferential statistical techniques (bivariate analysis, Exploratory Factor Analysis, and Pearson Product-moment Correlation) were used in the analysis of data. The purpose was to reflect the significance of different variables (such as number of employees) pertaining to establishing the knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance of the small business owners/managers. Such information is depicted in the implementation of the moral, legal and financial components of a CMF pertaining to OHS directives as constituted by the OHS Act (RSA, 1993) and the COID Act (RSA, 1997). A statistician from Unisa assisted in the analysis of the data.

Bivariate analysis for this study included measuring internal consistency to determine the degree to which criteria measured the same underlying attribute

(such as knowledge, attitude, behavioural intent and actual behaviour) by using Cronbach's coefficient alpha (Pallant, 2011:6). Independent-samples t-tests were used to compare the mean scores of two different groups of people, such as owners and managers (Pallant, 2011:105, 239). The results of these t-tests are presented in Chapter 5. One-way between-groups Analysis of Variance (ANOVA) was used with the view to exploring the likelihood of difference between groups (Saunders *et al.*, 2012:665). The *F*-ratio is the statistical test for Analysis of Variance, generally referred to as ANOVA (Cooper & Schindler, 2008:493–494; Sreejesh *et al.*, 2014:183). ANOVA measures the variability of values that deviate from its mean within a group. In this particular study, ANOVA focused on partitioning into between-groups variance and within-groups variance. The effect of factors is presented by the between-groups variance. Deviations of the data points compared with the sample mean within each group are described by using the within-groups variance.

The formula for applying this test is (Cooper & Schindler, 2011:478):

$$F = \frac{\text{between-groups variance}}{\text{within-groups variance}} = \frac{\text{mean square}_{\text{between}}}{\text{mean square}_{\text{within}}}$$

where

$$\text{Mean square}_{\text{between}} = \frac{\text{sum of squares}_{\text{between}}}{\text{degrees of freedom}_{\text{between}}}$$

$$\text{Mean square}_{\text{within}} = \frac{\text{sum of squares}_{\text{within}}}{\text{degrees of freedom}_{\text{within}}}$$

Results of the application of ANOVA in this study appear in Chapter 5 with the view to indicate the difference between specified groups. The use of ANOVA analysis is argued from the basis of assuming the central limit theorem given the sample size (that is: with large samples it is assumed that the underlying sampling distribution of the measures will be normally distributed). Assessment of the various distributions did not reveal issues of extreme outliers.

Exploratory Factor Analysis (EFA) provides the opportunity to find latent variables or factors among observed variables in order to reduce the number of variables and to study the interrelationships between them (Tustin *et al.*, 2010:668). An EFA was utilised in order to generate a correlation matrix for all the barriers to OHS compliance, extracting factors based on the correlation coefficients of the

variables, and to maximise the relationship between variables and some of the factors (Tustin *et al.*, 2010:668–669). Eigenvalues present the total or the sum of the variances of the factor values (Cooper & Schindler, 2008:564; Cooper & Schindler, 2011:547). As such, an Eigenvalue presents an estimate of the total amount of variance which a factor explains. In this regard, the Eigenvalue presented the proportion of the total variance that was accounted for in the variables by a factor (Cooper & Schindler, 2008:703; Cooper & Schindler, 2011:547). The EFA was done with the assistance of the statistician from Unisa with the view to reduce or summarise data into clusters in the inter-correlations of a specific set of variables (Pallant, 2011:181).

Pearson Product-moment Correlation was used to explore the relationship between continuous variables (SA small business OHS knowledge, attitude, behavioural intent, actual behaviour, and barriers to compliance) to obtain the direction and strength of these relationships (Pallant, 2011:103). These constructs and their assumed hypothetical relationships were explained as part of the literature review

Data were interpreted and the results are presented in Chapter 5 of this study. Nominal, ordinal and ratio types of scales applied, as defined above. Such an approach provided opportunities in that numbers that had no numerical value (nominal scales) were used for identification plus classification; and ordinal scales were used for rating participant knowledge, attitude, behavioural intent, actual behaviour, and barriers to compliance regarding OHS aspects. Ratio scales were used to compare data pertaining to actual behaviour with regard to OHS directives (Diamantopoulos & Schlegelmilch, 2000:14-16).

4.3.11 Presentation of research findings

Once all data has been collected and analysed, decisions were made on the placement of graphics, tables and charts to illustrate and explain research findings (Cooper & Schindler, 2011:573). The presentation of research findings can be found in Chapter 5.

4.3.12 Follow-up

The questionnaire used for this study provided respondents with the option to provide the researcher with their email addresses if they wanted to receive the results of this study. The researcher will send the final results to those who provided their contact details on completion of the study. Since the respondents' details were kept confidential and their anonymity assured, no follow-up visits regarding the respondents will be executed, unless they specifically indicated that they would like to receive the research findings.

4.4 RESEARCH ETHICS

Ethical concerns in research emerge from designing or planning the research through access to individuals, as well as when collecting, analysing, managing and reporting of data (Saunders *et al.*, 2012:226). Humans served as respondents in this study and they had to be treated in such a way that their dignity was maintained in spite of the research process and the outcomes of such research. Human respondents, in the case of this study, had to be prevented from any physical or psychological harm during and after the study period (Van Zyl, 2014:85) by standards of behaviour of the researcher and the fieldworkers, in relation to the right of research respondents and those affected by the research (Saunders *et al.*, 2012:226). Table 4.8 reflects the ethical principles of research, the rationale for such principles and the development of each principle (Saunders *et al.*, 2012:231–232).

Table 4.8: Ethical research principles and the rationale for and development of each principle

Ethical principle	Rationale for and development of the principle
Integrity and objectivity of the researcher	The integrity and objectivity of the researcher affect the quality of research. The researcher should act openly and truthfully and should promote accuracy.
Respect for others	Social responsibility and obligations to respondents and other affected parties should be taken into account. Trust and respect should be developed between the researcher and respondents.
Avoidance of harm	Respondents may not be harmed. Such harm takes many forms, such as embarrassment, stress or conflict. Violating assurances about anonymity and confidentiality and harassment or discrimination are also included.
Privacy of respondents	Privacy of respondents must be ensured at all times. This principle links to other principles such as respect for others, avoidance of harm, voluntary participation, informed consent, confidentiality and anonymity, responsibility in data analysis and reporting of findings as well as compliance in terms of data management.
Voluntary participation and right to withdraw	People may not be harassed to participate and even if they decide to participate, they have the right to withdraw or refuse to answer any question.
Informed consent of respondents	Respondents should understand the implications of participation and should reach a fully informed, considered and freely given decision to participate or not.
Confidentiality of data and maintenance of anonymity of respondents	Research questions should be answered in terms of "who", "what", "where", "how", and "why", as applicable. It should not focus on the people providing the answers to these questions. Reliability of data is enhanced when anonymity and confidentiality are assured.
Responsibility in data analysis and reporting of findings	Privacy, anonymity and confidentiality must be upheld when collecting, analysing and reporting data. Primary data should not be altered or made up and results should be reported fully and accurately, despite possible contradictions with expected outcomes of the research.
Compliance in data management	Personal data is protected by law and it is essential that the researcher understand and comply with legal restrictions and regulations regarding such information.
Ensuring the safety of the researcher, fieldworkers and respondents	The research design should consider the risks to the researcher, the fieldworkers and the respondents. No physical risk, psychological trauma or compromising situations should be present during the research process.

Source: Adapted from Saunders *et al.* (2012:231–232)

Therefore, research ethics can be summarised as including (Van Zyl, 2014:85–89):

- protecting human respondents from harm;

- maintaining the privacy of respondents;
- not using coercion to get people to participate;
- ensuring informed consent of respondents;
- maintaining confidentiality; and
- sharing benefits if respondents indicated that they would like to receive the research results.

Informed consent, as part of research ethics, is the position that is achieved when respondents are fully informed about the nature, purpose and use of the research that is being undertaken as well as about their role within such research, and their consent to participate is given out of their free will (Saunders *et al.*, 2012:672). This was ensured by having all respondents sign an informed consent document prior to completing the questionnaire. The anonymity of the respondents was also ensured during this process and research results will be sent to respondents who indicated that they would like to have it.

4.5 CONCLUSION

This chapter described the endeavour to validate the application of a scientific research design and methodology meticulously. Care was taken to ensure that all applicable measurements were validated effectively, as measured by a questionnaire based on a thorough study of relevant theoretical literature.

The primary objective of this study was to establish a CMF pertaining to OHS directives that will guide and assist small business owners/managers to comply with applicable legal requirements. In support of this primary objective of this study, the secondary objectives was to determine the knowledge, attitude, behavioural intent, actual behaviour and barriers to OHS compliance of a selected group of SA small business owners/managers to compile a compliance management framework (CMF).

A self-developed measuring instrument (questionnaire) was completed by 350 South African small business owners/managers in Gauteng, KwaZulu-Natal and

the Western Cape. A small business implied a business with an annual turnover of less than R10 million, and fewer than 50 employees.

Basic statistical calculations such as the mean and standard deviation applied. Cronbach's alpha was used to determine internal consistency of the measuring instrument. ANOVA indicated the variability between perceptions of different selected groups with regard to knowledge, attitude, behavioural intent, actual behaviour as well as barriers to compliance in terms of OHS. The findings of this study are presented in Chapter 5, which contains the data analysis for the three provinces focused on in this study, namely Gauteng, KwaZulu-Natal and Western Cape.

CHAPTER 5

RESEARCH RESULTS AND FINDINGS

5.1 INTRODUCTION

This chapter provides the results and findings of the data collected by the questionnaire. The results depict the details about the general contentions of small business owners and managers with regard to occupational health and safety (OHS) elements as directed in the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (OHS Act) and the Compensation for Occupational Injuries and Diseases Amendment Act No. 61 of 1997 (COID Act). The results, based on a range of OHS aspects and requirements that small businesses provided *via* a questionnaire, form the first part of this chapter. The extent to which research objectives were achieved comprises the second part of this chapter. The results of the data were interpreted within the context of the basic aim of the study to elucidate the process of compliance as directed by the theory of planned behaviour (TPB).

5.2 AIM AND SIGNIFICANCE OF STUDY

This study set out to determine the small business owner/manager knowledge, attitude, behavioural intent, actual behaviour and barriers to OHS compliance in the implementation of the moral, legal and financial components of a compliance management framework (CMF) pertaining to OHS directives as constituted by:

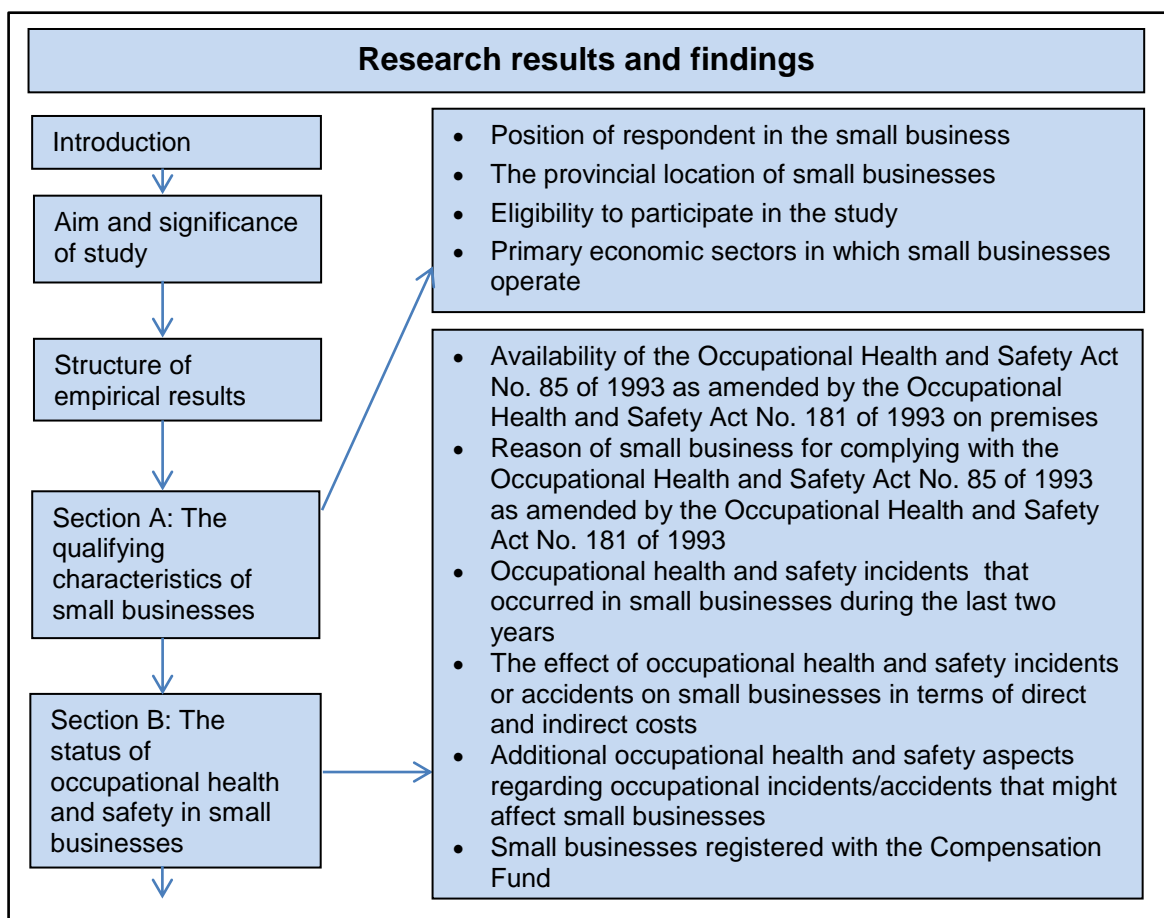
- the OHS Act; and
- the COID Act.

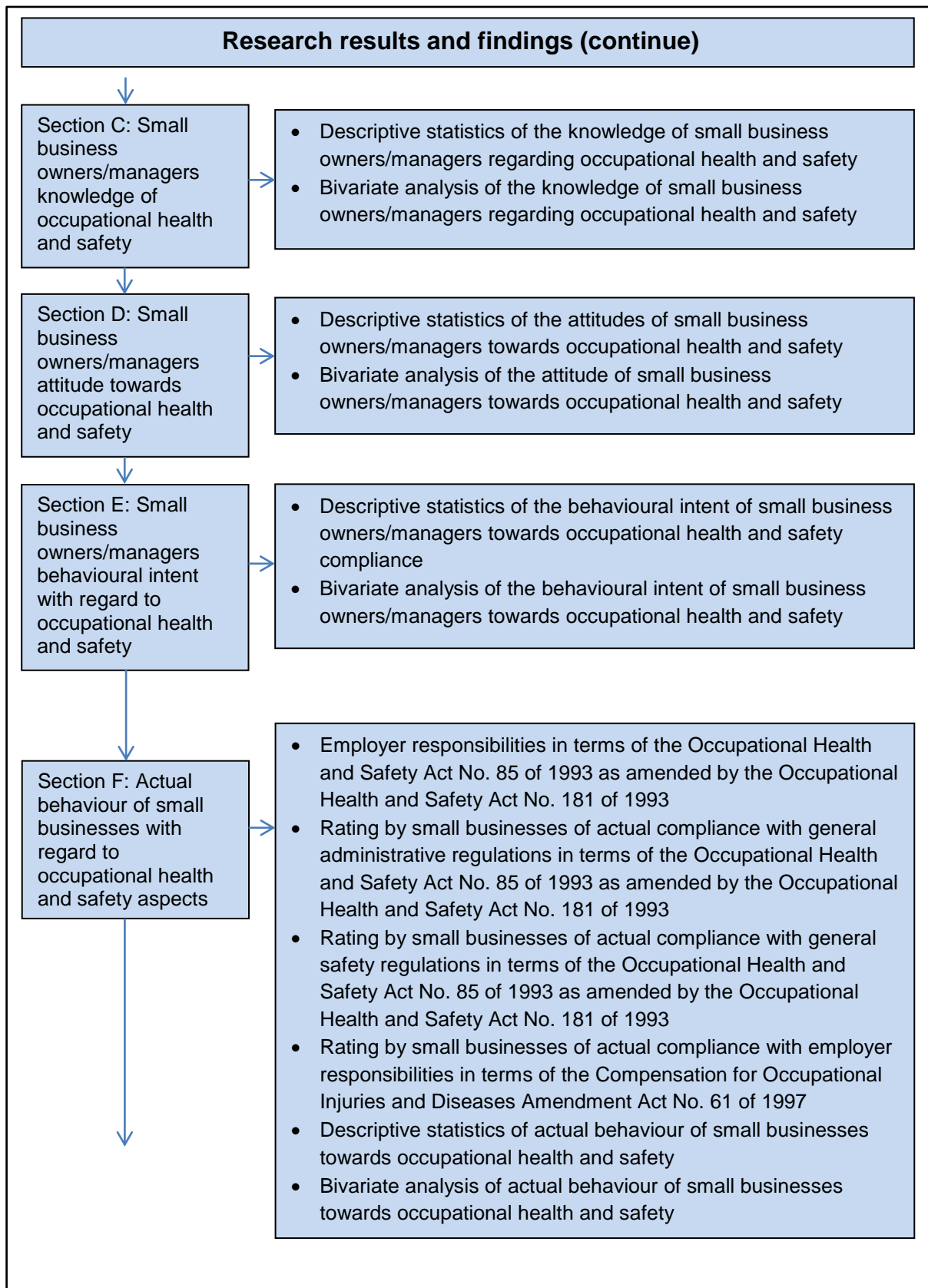
In the first section of this chapter, the focus is on presenting:

- characteristics of small businesses that participated in the study;
- small business owner/manager perceived knowledge of health and safety in the workplace;

- small business owner/manager attitude towards health and safety in the workplace;
- small business owner/manager behavioural intent towards health and safety compliance in the workplace;
- small business owner/manager actual behaviour with regard to health and safety compliance in the workplace; and
- small business owner/manager rating of barriers to health and safety compliance in the workplace.

This study proposes a compliance management framework (CMF), as indicated in Chapter 6, based on the literature review and confirmed by the data for small businesses in South Africa (SA) which, when implemented, could enhance small business compliance with the relevant OHS directives. Figure 5.1 below graphically depicts the outline of Chapter 5.





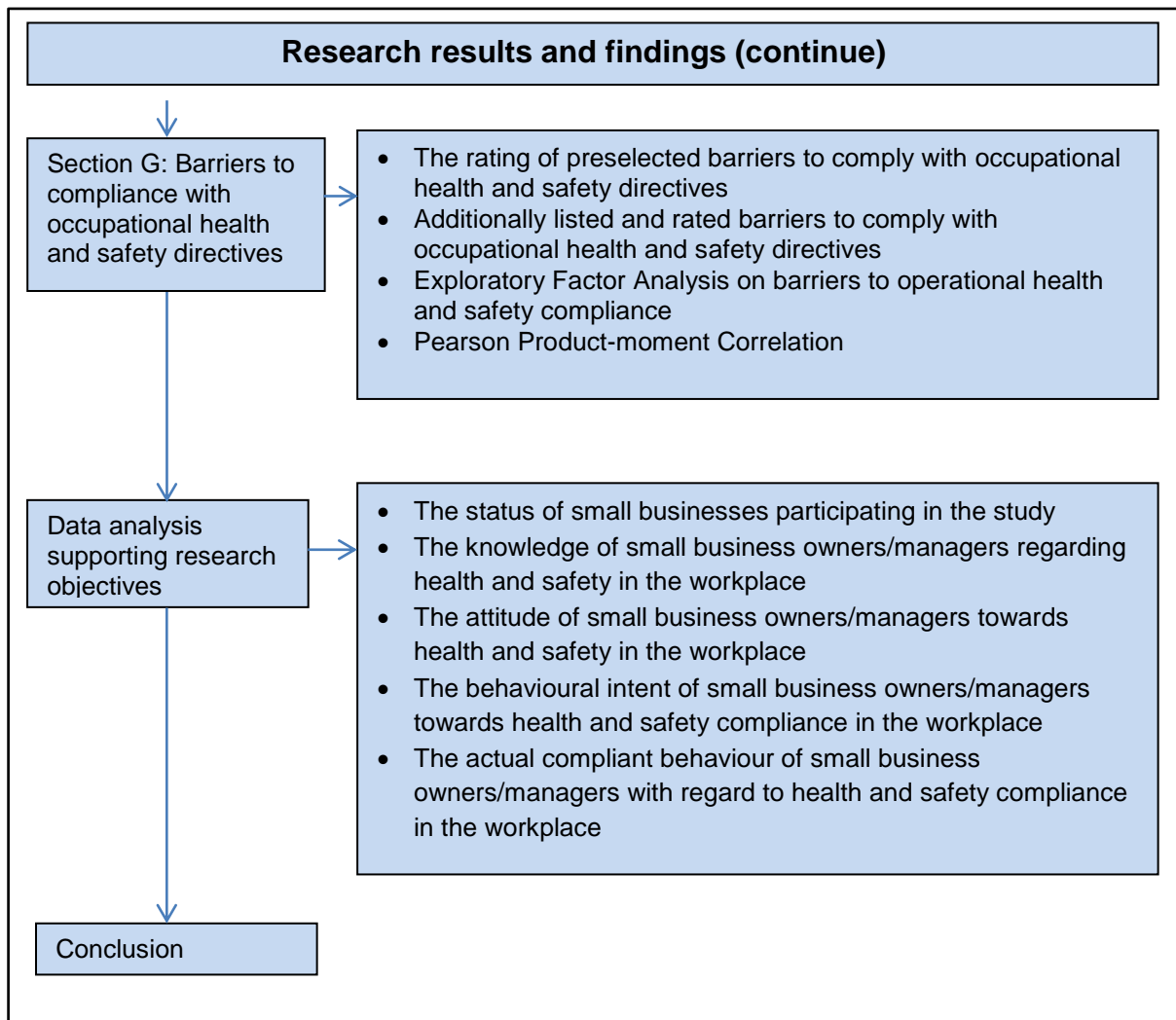


Figure 5.1: Structure of contents in Chapter 5

Source: Author's own compilation (2016)

5.3 STRUCTURE OF EMPIRICAL RESULTS

In order to achieve the results within the context of the aim and significance of the study, the empirical research focused on different sections pertaining to the directives that are applicable to the CMF.

The different sections of the questionnaire that applied were the following:

- the qualifying questions in section A determined whether the respondent matched the requirement to be eligible for participating in the study;
- section B concentrated on the status of OHS in the small businesses;

- section C reported on the knowledge of small business owners/managers pertaining to OHS issues;
- section D determined the attitudes of small business owners/managers towards OHS issues;
- section E specified the behavioural intent of small business owners/managers with regard to OHS;
- section F established details of actual behaviour of small businesses concerning OHS; and
- section G listed barriers to compliance by small businesses with OHS.

The empirical data that was collected with the questionnaire will be explained within the contexts of these different sections. The questionnaire was issued to, and collected manually from all small businesses that were willing to participate. Before issuing a questionnaire, it was confirmed by the respondents (small business owners/managers) that the small business did qualify in terms of the criteria that were set for participation, namely:

- the annual turnover of the small business did not exceed R10 million; and
- the number of employees, excluding the owner, did not exceed 50 in total.

A total of 500 questionnaires were distributed to small business owners/managers in order to collect the 350 required questionnaires, thus resulting in a response rate of approximately 70%. Questionnaires that were not completed were returned to the researcher. Incomplete questionnaires were excluded from the final analysis.

The following details were obtained with regard to sample characteristics as well as respondent attributes and firmographics (i.e. firm demographics). The report of the findings will focus on the main results of the study.

5.4 SECTION A: THE QUALIFYING CHARACTERISTICS OF SMALL BUSINESSES

The characteristics of the sample showed the following:

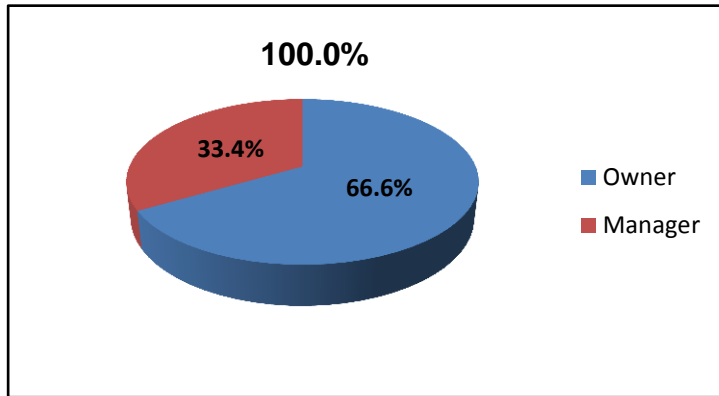


Figure 5.2: Position in small businesses

5.4.1 Position of respondent in the small business

The positions of the respondents in the small business that completed the questionnaire appear in Figure 5.2.

The data in Figure 5.2 indicates that most (66.6%) of the respondents held a position as owner of the small business. Only 8 of the 233 small business owners that completed the questionnaire indicated that they were not involved in the day-to-day operation of the business; therefore, it was decided not to differentiate between owners involved in the day-to-day operation of the business and those not involved. Owners and managers were therefore the only two categories used for the analysis of the data.

5.4.2 The provincial location of small businesses

The majority of small businesses operated in Gauteng. Figure 5.3 indicates that the provinces in which the small businesses (n=350) operated were 61.4% (215) in Gauteng, 20.9% (73) in the Western Cape and 17.7% (62) in KwaZulu-Natal. These numbers of small businesses included in the study correlated with the requirements of the sample as set in Table 1.5.

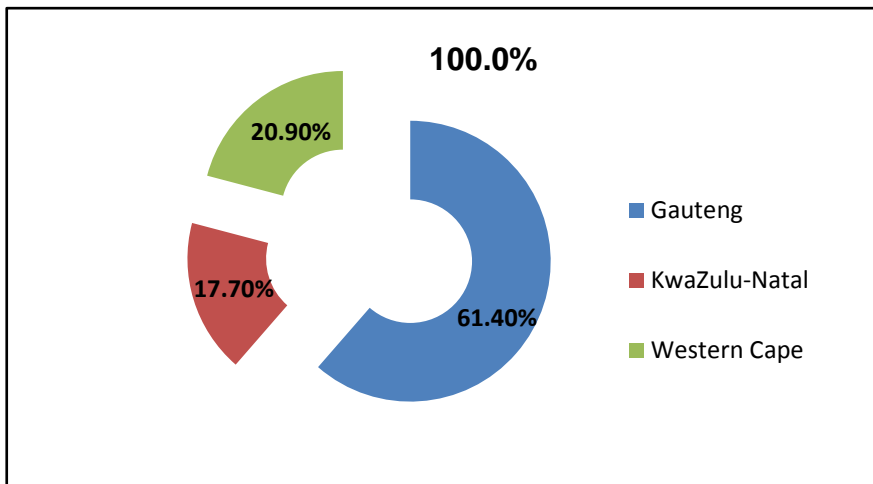


Figure 5.3: Provincial location of small businesses

A comparative analysis was not conducted between the different provinces, as this was not the focus of the study. However, it should be considered for future research as indicated in Chapter 7 (see section 7.11).

5.4.3 Eligibility to participate in the study

Three related criteria served as bases for small businesses to participate in the study. The criteria were:

- The respondent had to be the owner/manager of a small business;
- the annual turnover of the small business needed to be less than R10 million and fewer than 50 employees should have been employed;
- the number of employees was to be fewer than 50 employees (excluding the owner); and
- the small business had to be based in Gauteng, KwaZulu-Natal or the Western Cape.

Should a small business not comply with any one of the criteria, such small business was not allowed to participate and no questionnaire was handed out to the business.

Table 5.1 and Figure 5.4 provide information with regard to participating small businesses meeting the qualifying criteria.

Table 5.1: Annual turnover of small businesses

Less than R10 million per year						
Confirmation	Yes		No		Total	
Frequencies of total sample	n	%	n	%	n	%
		350	100	0	0.0	350

It is clear from Table 5.1 that all the small businesses had a turnover of less than R10 million per annum. This implied that the small businesses that were selected to participate all met the criterion related to the annual turnover.

The data depicted in Figure 5.4 specifies that most of the respondents (53.5%) employed between 1 and 5 employees, excluding the owner. It is important to state that the OHS Act does not differentiate between employer responsibilities pertaining to full-time and part-time employees with regard to OHS aspects in the workplace (RSA, 1993). Therefore, the focus was on the number of employees per small business, irrespective of whether they were full-time or part-time workers. Almost a quarter (11.4% + 11.1% = 22.5%) of the small businesses employed more than 10 employees, excluding the owner. All the small businesses (n=350) that participated in this study employed fewer than 50 employees (therefore a maximum of 49), as required.

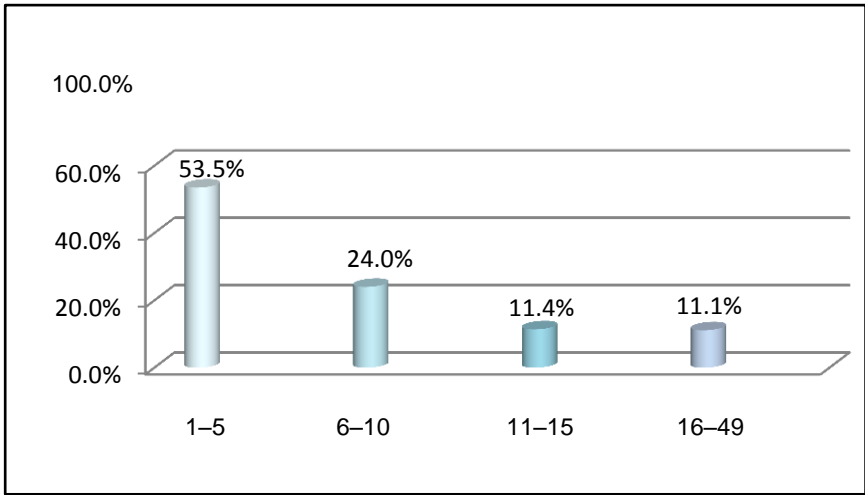


Figure 5.4: Number of employees in participating small businesses

The number of employees was used for statistical analysis to determine statistically significant differences as applicable to different factors (knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance).

5.4.4 Primary economic sectors in which small businesses operate

Table 5.2 indicates the primary economic sectors in which the small businesses operated. The identification of the primary economic sectors that applied to this study was qualified in Chapter 4 (see section 4.3.6).

Table 5.2: Primary economic sectors in which small businesses operated

Primary economic sectors	Total sample	
	n	%
Wholesale and retail	106	30.29
Repair and maintenance services	96	27.43
Manufacturing	57	16.29
Other (such as agriculture, education, tourism, recreation and pharmacy)	22	6.29
Construction	20	5.71
Accommodation, restaurants, catering and conference	20	5.71
Business services – other	10	2.86
Community, social and personal services – professional	6	1.71
Financial intermediation and insurance	5	1.43
Transport, storage and communication	3	0.86
Community, social and personal services – other	3	0.86
Business services – professional	2	0.57
Real estate	0	0.00
Total (n)	350	100

Particulars in Table 5.2 show that most of the respondents operated in the primary economic sectors of wholesale and retail (30.29%), with repair and maintenance services second (27.43%) and manufacturing (16.29%) third. These three primary economic sectors represented almost three quarters (74.0%) of the total of small businesses that participated in the study. Less than 10% operated in each of the remaining economic sectors. None of the participating small businesses operated in the real estate sector.

In order to allow for further statistical data analysis based on the primary economic sectors in which the participating small businesses operated, the primary economic sectors were combined into four groups as indicated in Table 5.3, with “other” representing all primary economic sectors besides wholesale and retail, repair and maintenance, and manufacturing and construction (as indicated in Table 5.2).

Table 5.3: Categorized primary economic sectors in which participating small businesses operated

Primary economic sectors	Total sample	
	n	%
Manufacturing and construction	77	22.00
Wholesale and retail	106	30.29
Repair and maintenance	96	27.43
Other	71	20.29
Total (n)	350	100

The data pertaining to the questions that were set to determine whether small businesses qualified to participate in the survey revealed that:

- all the small businesses met the basic requirements of being a small business in terms of annual turnover (< R10 million per year) and number of employees (< 50 employees) hired;
- owners were in charge of most of the small businesses that participated in this study;
- most of the respondents (53.5%) employed fewer than six employees (excluding the owner); and
- most of the small businesses (30.29%) operated in the primary economic sector of wholesale and retail, with the second most (27.43%) in repair and maintenance services.

5.5 SECTION B: THE STATUS OF OCCUPATIONAL HEALTH AND SAFETY IN SMALL BUSINESSES

This section of the questionnaire focused on specific concerns related to the availability of the OHS Act on the premises of small businesses as a legal requirement. The survey tested the moral judgment of small businesses on the reason or reasons for complying with such Act. It was also surveyed whether small businesses kept the moral and financial responsibility to register with the Compensation Fund to provide for employee needs in case of occupational accidents or incidents. Leading up to the reply of small businesses in this regard, it

was surveyed whether the small businesses experienced any OHS incidents during the previous two years. The effects pertaining to direct and indirect costs associated with OHS incidents and accidents on the small business were also surveyed. Respondents rated the effects of direct and indirect costs related to specific aspects of a small business.

5.5.1 Availability of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 on premises

It is a legal requirement that every business must have a copy of the OHS Act as amended available on the premises of the business (RSA, 1993). This applies to all businesses irrespective of the nature and size of the business, thus to small businesses as well. Details in Figure 5.5 demonstrate whether the small business in the sample complied with such legal directive.

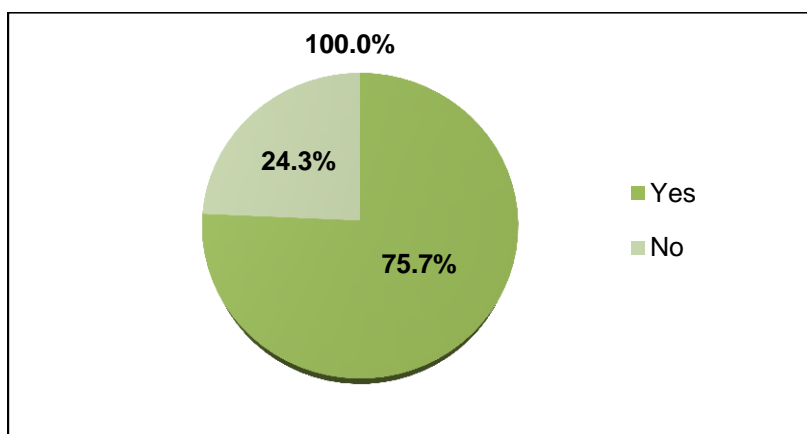


Figure 5.5: Availability of a copy of the Occupational Health and Safety Act at small businesses

From details in Figure 5.5, it is clear that most of the respondents (75.7%) had a copy of the OHS Act available on their premises. However, by implication this meant that almost one out of four (a quarter) of the small businesses did not comply morally and legally with the judicial requirements of having a copy of the OHS Act available on their premises.

5.5.2 Reason of small business for complying with the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993

Small businesses were required to state, in response to an open-ended question, their reasons for complying with the OHS Act. The focus of the question was to determine whether the three legs of safety played a role in advancing safety through compliance with the Act listed. The three legs on which a safety programme in a business is driven are moral, legal and financial considerations.

A total of 327 out of the 350 (93%) respondents listed reasons for their compliance with the listed Act. Many of the small business owners/managers listed more than one reason for their compliance.

The reasons were analysed and grouped in terms of the three legs of a safety programme in a business, namely moral, legal and financial reasons. The reasons were categorised in accordance with the foci that the reasons upheld for complying with the listed Act. Guidelines in this regard were:

- every reason that could be linked to a specific category was plotted in such category;
- reasons were listed in terms of the main words used or the main meaning of the statements;
- categorisation occurred on the basis of exclusion, should the meaning not be congruent with the meaning of a specific category; and
- overlapping in more than one category was eliminated as far as possible.

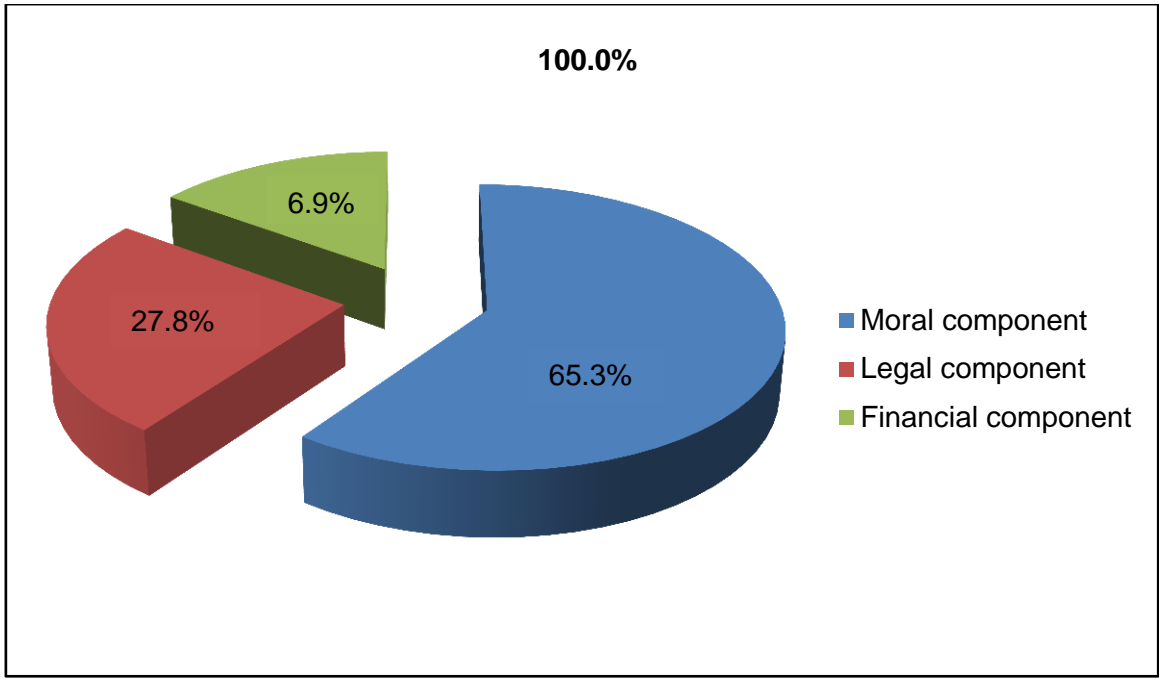


Figure 5.6: Reasons for compliance with the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993

Details about the reasons why participating small businesses complied with the OHS Act, as indicated in Figure 5.6, after the data had been quantified appear in Table 5.4 below.

Table 5.4: Reasons why participating small businesses complied with the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993

Category	Reasons for compliance with Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993	Frequencies	
		n	%
Moral considerations	<ul style="list-style-type: none"> • for safety and protection; • prevention of injuries and illnesses; and • damage to employees, employers, customers, visitors, public, equipment, property and environment. 	265	65.27
Legal considerations	<ul style="list-style-type: none"> • legal requirement (it is law); • prevents prosecution; • compulsory; • taking accountability; • establish advisory safety council; • protects against inspectors; • disciplines employees to adhere to rules and regulations; and • involves everybody in business. 	113	27.83
Financial considerations	<ul style="list-style-type: none"> • accidents very expensive; • protects against claims; • prevents losses and damage; • financial effects; • assists growth of business financially; • saves costs; • gives security of compensation; • improves business activities; • decreases worker's compensation and other expenses; • covers workers when they get sick; • helps to pay medical expenses; • benefits financially in case of accidents; • prevents prosecution; • severe effects on business; and • maximises productivity. 	28	6.90
Total		406	100

Figure 5.5 and Table 5.4 indicate that 406 reasons were stated for small businesses to comply with the OHS Act. From the details in Table 5.4, it is concluded that:

- The main reason why small businesses comply with the OHS Act is moral considerations as most of the respondents (65.27%) listed a moral reason for their compliance with the Act. Such reasons mainly focused on

enhancing safety or prevention of unsafety of any person or different groups of persons, equipment, property and environment.

- A little more than a quarter (27.83%) of small businesses listed legal reasons for complying with the OHS Act.
- The smallest percentage (6.90%) of small businesses listed financial reasons for complying with the OHS Act.

The listing of reasons for complying with the OHS Act indicated that a moral reason was the main motivation of the majority (65.27%) of small businesses to comply with the Occupational Health and Safety Act. Concern was expressed about the safety and well-being of different groups of people who may be involved in their businesses as well as equipment, elements of the plant and the environment. Motivation with regard to compliance with legal directives and financial benefits received substantially less concern.

5.5.3 Occupational health and safety incidents that occurred in small businesses during the last two years

Small business owners/managers were asked to indicate whether they had any OHS incidents in their businesses during the previous two years. Data in Figure 5.7 indicates the number of small businesses in the total sample (n=350) that experienced OHS incidents during the previous two years.

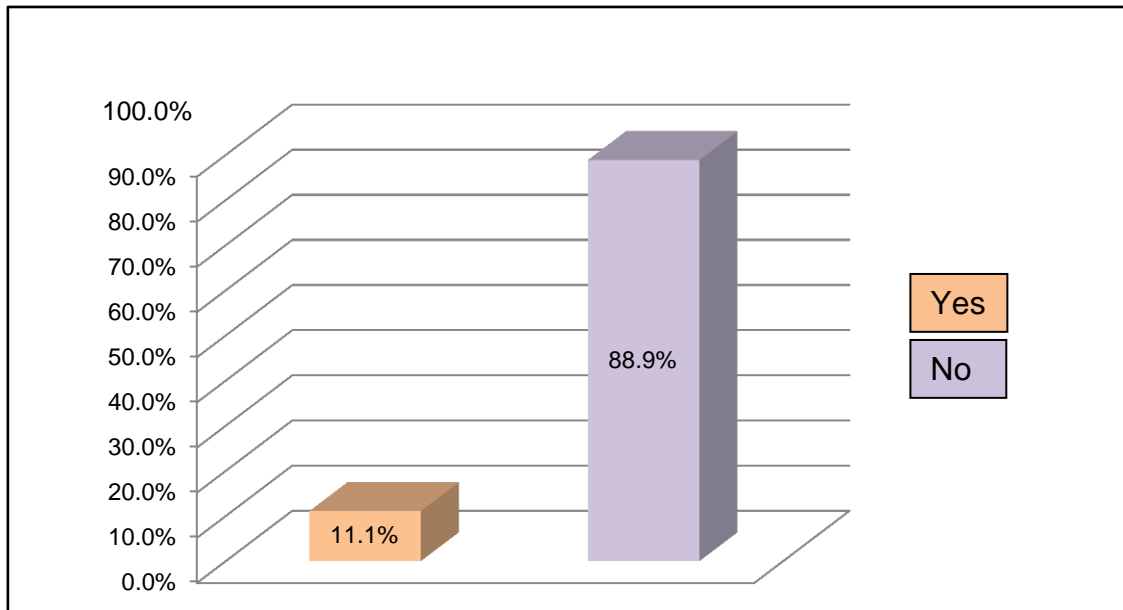


Figure 5.7: Occurrence of occupational health and safety incidents during the previous two years

Figure 5.7 shows that most (88.9%) of small businesses did not have any OHS incidents during the previous two years. This confirmation hinted at the possibility of not reporting safety incidents, or that small businesses may be inclined not to be registered with the Compensation Commissioner to refrain from paying their dues to the Compensation Fund in SA. This aspect of OHS incidents might be a topic for further investigation in future studies.

5.5.4 The effect of occupational health and safety incidents or accidents on small businesses in terms of direct and indirect costs

Small business owners/managers rated the effect of OHS incidents or accidents on the business in terms of direct and indirect costs. Confirmation in this regard appears in Table 5.5 below. Most of the respondents were of the opinion that OHS incidents and accidents have a bearing on the small business in terms of direct and indirect costs. Almost a quarter (23.0%) of the respondents were not familiar (did not know) whether OHS incidents and accidents had an effect on direct and indirect costs relating to aspects of the small businesses.

However, the details in general show that the effects of OHS incidents and accidents on small businesses in terms of direct and indirect costs varied greatly.

No specific OHS aspect was singled out or identified as being prominently affected by OHS incidents and accidents in terms of direct and indirect costs.

Based on average weight, time lost or wasted was seen to have the highest effect (2.8 out of 4.0) on the costs associated with OHS incidents and accidents. The effect of the indirect costs of OHS incidents and accidents on social effect (2.2) scored the lowest weight. However, direct and indirect costs have more than a minor effect (2.0) on the small businesses with scores ranging between 2.2 and 2.8. Table 5.5 shows the average weights for all identified direct and indirect costs.

Table 5.5: Effect of occupational health and safety incidents on small businesses in terms of direct and indirect costs

Effects of incidents on OHS aspects			Direct costs							Indirect costs		Total
			Medical expenses	Worker compensation	Loss of production or sales	Insurance costs	Damage to equipment	Time lost or wasted	Re-training of employees	Social effect	Reputation of the business	Average weight (%)
1	No effect	n	61	70	55	79	55	35	59	75	85	
		%	17.4	20.0	15.5	22.6	15.7	10.0	6.9	21.4	24.3	18.2
2	Minor effect	n	72	69	67	71	82	68	87	102	59	
		%	20.6	19.7	19.1	20.3	23.4	19.4	24.9	29.1	16.9	21.5
3	Moderate effect	n	85	74	88	74	71	79	65	56	68	
		%	24.3	21.2	25.1	21.1	20.3	22.6	18.5	16.0	19.4	21.0
4	Major effect	n	49	49	73	36	62	93	61	30	61	
		%	14.0	14.0	20.9	10.3	17.7	26.6	17.4	8.6	17.4	16.3
5	Don't know	n	83	88	67	90	80	75	78	87	77	
		%	23.7	25.1	19.4	25.7	22.9	21.4	22.3	24.9	22.0	23.0
	Total	n	350	350	350	350	350	350	350	350	350	
		%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
Average weight			2.4	2.4	2.6	2.3	2.5	2.8	2.5	2.2	2.4	

5.5.5 Additional occupational health and safety aspects regarding occupational incidents/accidents that might affect small businesses

Small businesses were given the opportunity to list additional aspects regarding occupational incidents and accidents that might affect their small businesses. The respondents had the opportunity to identify and to rate such aspects together with their effect on a “decide-for-yourself” basis using an open-ended question. The listing and rating of such aspects and their effects appear in Table 5.6. The following OHS aspects were listed and rated:

- Financial issues, owner without income and less profit (in the form of limited funds), as a result of occupational incidents and accidents were rated at 19.0% as the major effect that had the worst influence on a business.
- Small businesses rated a diverse list of OHS aspects (see Table 5.6) that might have an effect on a business.
- Most of the responses (21 out of 25 = 84.0%) about the aspects that were listed were rated as having a major effect on a business, whether negative or positive.
- None of the listed OHS aspects was rated as having no effect on a small business.
- As in the case with OHS aspects listed in Table 5.5, most of the aspects that small businesses listed as having an effect on a business related to finance, and such effects were in most cases rated as major effects.

Table 5.6: Additional occupational health and safety aspects that might affect small businesses

Aspect	Rating							
	No effect		Minor effect		Moderate effect		Major effect	
	n	%	n	%	n	%	n	%
Visitors	-	-	-	-	-	-	1	4.8
Loss of production time or income	-	-	-	-	-	-	3	14.2
Financial issues, such as owner without income or making less profit	-	-	-	-	-	-	4	19.0
Morale of employees	-	-	-	-	1	33.4	1	4.8
Clients	-	-	-	-	-	-	1	4.8
Corruption or theft	-	-	1	100	-	-	2	9.4
Work load, a lot of administration	-	-	-	-	-	-	2	9.4
Fire	-	-	-	-	-	-	1	4.8
Worker enthusiasm	-	-	-	-	-	-	1	4.8
Not able to contact the authorities	-	-	-	-	-	-	1	4.8
Key employee not available	-	-	-	-	-	-	1	4.8
Product not delivered	-	-	-	-	1	33.3	-	-
Owner and worker relationship	-	-	-	-	-	-	1	4.8
Damage to name or reputation of the business	-	-	-	-	-	-	1	4.8
Damage and control of infrastructure	-	-	-	-	1	33.3	-	-
Fatality	-	-	-	-	-	-	1	4.8
Total	-	-	1	100	3	100	21	100

Respondents listed 16 additional aspects that had an effect on small businesses and the influence of most of these aspects were rated as major effects. It was challenging to decide on specific categorisation of aspects listed. The challenge originated in the fact that small businesses listed some aspects by using a single word only without any descriptive addition and more specific meaning. The rating of OHS aspects that might affect a small business did not identify any dominating aspect due to the small number (n=21) of responses to the open-ended question.

5.5.6 Small businesses registered with the Compensation Fund

It is a legal directive in SA that every business with one or more employees should be registered with the Compensation Fund. When a small business refrains from

registering with the Compensation Fund, such business is not complying morally and legally with legislative requirements. Registering with the Compensation Fund demonstrates the acceptance of the moral responsibility of a small business to assist in providing in the needs of an employee whose income is negatively affected by an OHS incident. Legally, such registration by the small business demonstrates the acceptance of legal responsibilities for safety in the workplace.

Figure 5.8 indicates to what extent small businesses in the sample were registered with the Compensation Fund.

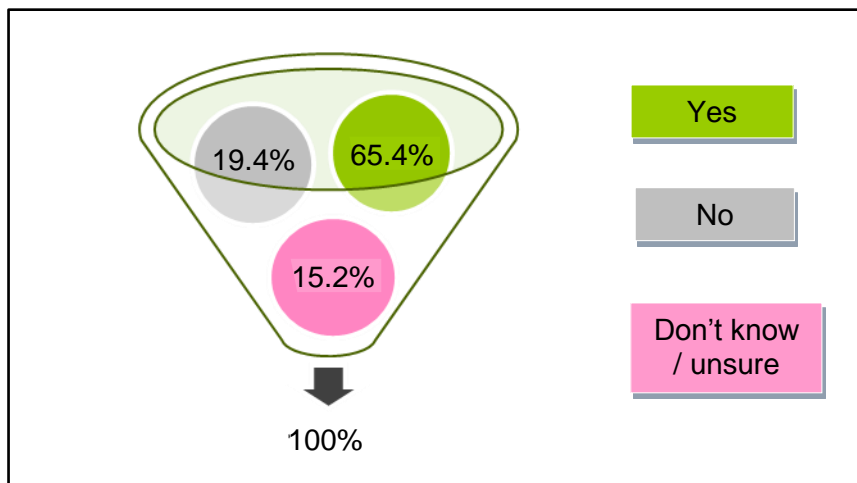


Figure 5.8: Small businesses registered with the Compensation Fund

The information in Figure 5.8 indicates that only 65.4% of small business owners/managers confirmed that their respective small businesses were registered with the Compensation Fund in South Africa, with 19.4% not being registered. It is concerning that one in six (15.2%) was not sure or did not know whether they were registered with the Compensation Fund.

Results for sections C, D and E of the questionnaire are presented below based on univariate and bivariate analysis. Univariate analysis comprises descriptive statistics, including the mean, median, skewness and kurtosis, as well as the individual scores of the various items. Bivariate analysis consists of reliability analysis, t-tests and Analysis of Variance (ANOVA).

5.6 SECTION C: SMALL BUSINESS OWNER/MANAGER KNOWLEDGE OF OCCUPATIONAL HEALTH AND SAFETY

One of the secondary research objectives of this study focused on determining the knowledge of the small business owner/manager regarding OHS in the workplace. The knowledge of respondents about OHS was surveyed because knowledge forms the basis for attitude towards OHS, behavioural intent with regard to implementing OHS requirements, and actual behaviour toward OHS compliance based on moral, legal and financial grounds.

5.6.1 Descriptive statistics of the knowledge of small business owners/managers regarding occupational health and safety

Table 5.7 stipulates the outcome of the rating of respondents about their knowledge concerning particular OHS aspects (as identified and discussed in Chapters 2 and 3) in the workplace. Details in Table 5.7 show that the respondents perceived themselves to be knowledgeable about a range of OHS aspects. The aspect that received the highest number of "good" ratings with regard to perceived knowledge of small business owners/managers was first aid and emergency measures with 42.9%.

Table 5.7: Rating by small businesses of knowledge regarding occupational health and safety core criteria

Rating by owner/manager			Health and safety policy of the organisation	Ensuring health and safety measures	Risk assessment (and safe systems of work)	Access to competent advice	Training and information	Individual qualifications and experience	Workforce involvement	Contracting procedures (i.e. using contractors)	Cooperating and coordinating with others	Accident and near-hit reporting and investigation	First aid and emergency measures (where applicable, notably fire)	Monitoring, checking and reviewing performance	Average weight
1	Poor	n	27	18	15	23	27	29	25	103	39	48	20	19	
		%	7.7	5.1	4.3	6.6	7.7	8.3	7.1	29.4	11.1	13.7	5.7	5.4	9.4
2	Fair	n	43	40	39	36	58	75	52	59	34	47	33	37	
		%	12.3	11.4	11.1	10.3	16.6	21.4	14.9	16.9	9.7	13.4	9.4	10.6	13.2
3	Average	n	124	113	106	98	97	91	114	78	90	102	77	104	
		%	35.4	32.3	30.3	28.0	27.7	26.0	32.6	22.3	25.7	29.1	22.0	29.7	28.4
4	Good	n	104	133	136	115	102	99	110	77	128	100	150	122	
		%	29.7	38.0	38.9	32.9	29.1	28.3	31.4	22.0	36.6	28.6	42.9	34.9	32.7
5	Very good	n	52	46	54	78	66	56	49	33	59	53	70	68	
		%	14.9	13.1	15.4	22.3	18.9	16.0	14.0	9.4	16.9	15.1	20.0	19.4	16.3
	Total	n	350	350	350	350	350	350	350	350	350	350	350	350	100
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
	Average		3.3	3.4	3.5	3.5	3.3	3.2	3.3	2.7	3.4	3.2	3.4	3.5	100

Respondents that rated their knowledge about the OHS criteria as “average” or “good” amounted to 61.1% (28.4% and 32.7% respectively). These “average” and “good” ratings for the specific OHS criteria comprised:

- Health and safety policy of the organisation (35.4% and 29.7%);

- Ensuring health and safety measures (32.3% and 38.0%);
- Risk assessment (and safe systems of work) (30.3% and 38.9%);
- Access to competent advice (28.0% and 32.9%);
- Training and information (27.7% and 29.1%);
- Individual qualifications and experience (26.0% and 28.3%);
- Workforce involvement (32.6% and 31.4%);
- Cooperating and coordinating with others (25.7% and 36.6%);
- Accident/near-hit reporting and investigation (29.1.0% and 28.6%);
- First aid and emergency measures (where applicable, notably fire) (22.0% and 42.9%); as well as
- Monitoring, checking and reviewing performance (29.7% and 34.9%).

On average, approximately one quarter (22.6%) of the respondents rated their knowledge about the listed OHS aspects as “poor” or “fair”. Based on the average rating of OHS knowledge about the listed OHS aspects in small businesses, the respondents appeared to be fairly confident about their knowledge of OHS aspects in the small business because all average ratings scored more than 2.7 out of 5.0. However, in most cases, less than 20.0% rated their knowledge concerning the listed OHS aspects as “very good”. In general, approximately one third of the respondents listed their knowledge about health and safety issues in the workplace as “average” (28.4%) or “good” (32.7%).

Table 5.8 depicts the mean, median, mode, standard deviation (SD), skewness and kurtosis of the perceived knowledge of the small business owners/managers regarding OHS aspects.

Table 5.8: Descriptive statistics on the knowledge of small business owners/managers regarding occupational health and safety

	N	Mean	Median	Mode	SD	Skewness	Kurtosis
Health and safety policy of the organisation	350	3.31	3.00	3	1.11	0.13	-0.43
Ensuring health and safety measures	350	3.43	4.00	4	1.02	-0.48	-0.13
Risk assessment (and safe systems of work)	350	3.50	4.00	4	1.02	-0.49	-0.15
Access to competent advice	350	3.54	4.00	4	1.14	-0.53	-0.38
Training and information	350	3.35	3.00	4	1.18	-0.30	-0.77
Individual qualifications and experience	350	3.22	3.00	4	1.19	-0.16	-0.91
Workforce involvement	350	3.30	3.00	3	1.11	-0.31	-0.51
Contracting procedures (i.e. using contractors)	350	2.65	3.00	1	1.36	0.16	-1.25
Cooperating and coordinating with others	350	3.38	4.00	4	1.20	-0.57	-0.50
Accident/near-hit reporting and investigation	350	3.18	3.00	3	1.24	-0.30	-0.83
First aid and emergency measures (where applicable, notably fire)	350	3.62	4.00	4	1.08	-0.74	0.03
Monitoring, checking and reviewing performance	350	3.52	4.00	4	1.09	-0.50	-0.28

Three measures of central tendency are often used in business research. These measures comprise the mode, median and mean (Saunders *et al.*, 2012:503).

The mean indicates the value obtained when adding all the values for the variable and then dividing it by the number of responses to obtain the average value (Saunders *et al.*, 2012:674). The perceived knowledge of small business owners/managers with regard to OHS was rated from "poor" to "very good", with an average rating of 3. From Table 5.8, it can be seen that all the OHS aspects had a mean score of more than 3; thus, indicating the perceived knowledge of small business owners/managers of OHS as being slightly more than "average" (a rating of 3), leaning towards "good". However, contracting procedures (i.e. using contractors) with a mean score of 2.65 indicated that the perceived knowledge of small business owners/managers regarding this specific OHS aspect was less than average, leaning towards "fair".

The median (or 50th percentile) indicates the middle value of the ratings when arranged in rank order (Saunders *et al.*, 2012:674). The median for all the OHS aspects used to determine perceived knowledge of small business owners comprised scores of 3 or 4, thus being “average” or “good”.

The mode is the value that occurs most frequently (Saunders *et al.*, 2012:675). A rating of 4 (good) was given for most of the OHS aspects (8 out of 12), with a rating of 3 (average) for another three of the OHS aspects. However, the most frequent value for contracting procedures (i.e. using contractors) was only 1, which indicated that perceived knowledge on this aspect was most frequently rated as being poor.

SD indicates the extent of the spread of data values around the mean score (Saunders *et al.*, 2012:682). The respective SD scores for the different OHS aspects were slightly more than 1, thus indicating that the ratings with regard to perceived knowledge of these OHS aspects were spread around the mean scores for each OHS aspect with differing ratings in either way (towards 1 or “poor” or 5 being “very good”) by slightly more than 1.

Skewness gives an indication of the symmetry of the distribution with kurtosis providing an indication of the “peakedness” of the distribution. A perfectly normal distribution will give a skewness and kurtosis value of zero (Pallant, 2011:57). As can be seen from the values indicated in Table 5.8, both the skewness and kurtosis values were slightly below or above zero, thus indicating that the distribution of the values was not perfectly normal. Figure 5.9 depicts graphically, in the form of a histogram, the skewness of the perceived knowledge ratings of small business owners/managers.

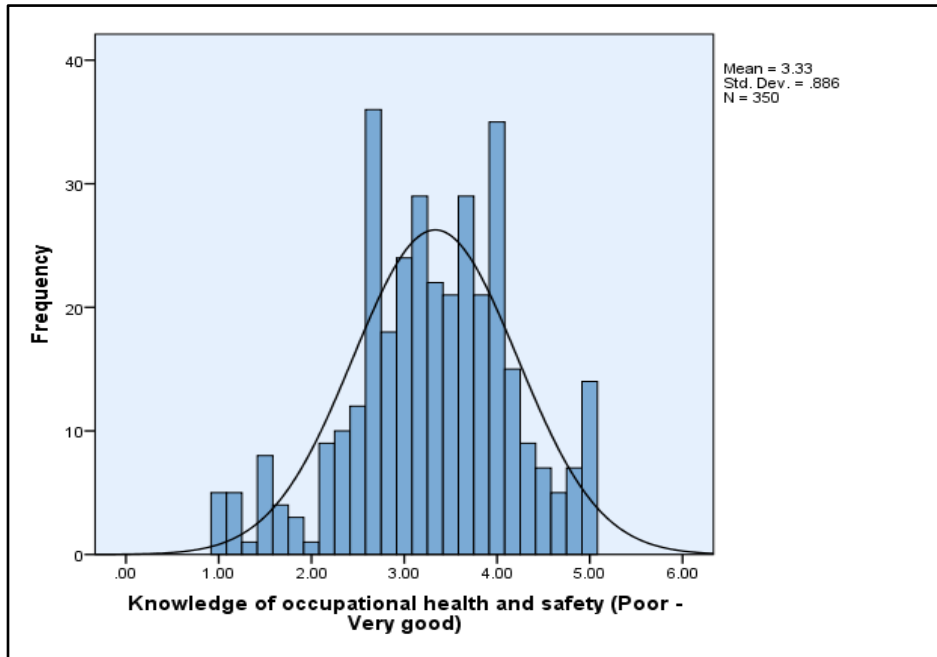


Figure 5.9: Histogram of the knowledge of small business owners/managers regarding occupational health and safety

This histogram indicates a reasonably normal distribution, although slightly skewed, of the perceived knowledge of small business owners/managers with ratings being slightly more than the average score of 3.

5.6.2 Bivariate analysis of the knowledge of small business owners/managers regarding occupational health and safety

Cronbach’s coefficient alpha was used to measure the internal consistency, or the degree to which the above-mentioned 12 core OHS criteria all measured the same underlying attribute (Pallant, 2011:6). The Cronbach’s alpha for this factor (knowledge) had a value of .95 (95%), indicating a high average correlation.

An independent-samples t-test was conducted to compare the mean scores of two different groups of people (Pallant, 2011:239). In this study, the independent-samples t-test was used to determine whether there was a significant difference between the mean perceived knowledge scores for small business owners and managers. There was no significant difference in the scores for owners ($M = 3.33$, $SD = .87$) and managers ($M = 3.35$, $SD = .93$; $t(348) = -.17$, $p = .87$, two-tailed).

A one-way between-groups Analysis of Variance was conducted to explore the effect of the primary economic sectors on perceived knowledge scores. Respondents were divided into four groups according to their primary economic sector (Group 1: manufacturing and construction, Group 2: wholesale and retail, Group 3: repair and maintenance services, and Group 4: other). There was no statistically significant difference in the scores of perceived knowledge between the different groups of primary economic sectors with $p = .19$, thus being greater than $.05$.

Furthermore, a one-way between-groups Analysis of Variance was conducted to determine the effect of the number of employees on perceived knowledge scores. Respondents were divided into four groups according to the number of employees of the small business (Group 1: 1–5 employees, Group 2: 6–10 employees, Group 3: 11–15 employees, and Group 4: 16–49 employees). There was no statistically significant difference in the scores of perceived knowledge between the different groups based on the number of employees with $p = .24$, thus being greater than $.05$.

Based on the statistical analysis indicated above, one can conclude that neither the primary economic sector in which the small business operated nor the number of employees, or being a manager or owner, constituted a significant difference in the perceived knowledge of small business owners/managers with regard to OHS. Providing small businesses with a CMF that is generic in nature, implying that it can be used in any small business, could therefore prove useful.

5.7 SECTION D: SMALL BUSINESS OWNER/MANAGER ATTITUDE TOWARDS OCCUPATIONAL HEALTH AND SAFETY

Another secondary research objective of this study focused on determining the attitude of small business owners/managers towards OHS aspects in the workplace. Respondents rated their attitude pertaining to the list of identified OHS aspects. The purpose was to establish reciprocal links between knowledge and attitude, which depicted a basis for intent to comply with occupational health and safety in the workplace on moral, legislative and financial points of departure. The

focus on attitude was to determine predispositions of small business owners/managers towards applying legal safety requirements in the business to the advantage of all persons involved in the business in some way or another. The respondents were required to rate their attitudinal priority pertaining to specific OHS aspects in the small business. Such priority forms a basis for the intent to comply with legal OHS directives by applying OHS aspects in the small business.

5.7.1 Descriptive statistics of the attitudes of small business owners/managers towards occupational health and safety

Table 5.9 indicates the ratings of respondents with regard to their attitudinal prioritising of occupational OHS in the workplace. In general, the following issues surfaced:

- On average, most (more than 90%) of the small businesses revealed an attitude that all the OHS aspects listed was a priority.
- The ratings of attitudes towards OHS aspects were greatly diversified between a low and an essential priority.
- The OHS aspects that were attitudinally rated as a “high priority” received the highest rating scores, namely:
 - First aid and emergency measures (where applicable, notably fire) (42.3%);
 - Ensuring health and safety measures (41.7%);
 - Health and safety policy of the organisation (40.6%); and
 - Based on the average, the attitudinal rating of “high priority” was allocated to most (35.5%) of the OHS aspects.

Table 5.9: The rating of the attitudes of owners/managers of small businesses towards occupational health and safety in the workplace

Rating of owner/manager		Health and safety policy of the organisation	Ensuring health and safety measures	Risk assessment/systems of work	Access to competent advice	Training and information	Individual qualifications and experience	Workforce involvement	Contracting procedures (using contractors)	Cooperating and coordinating with others	Accident/near-hit reporting and investigation	First aid and emergency measures (where applicable, notably fire)	Monitoring, checking and reviewing performance	Average weight (%)	
1	Not a priority	n	8	9	8	14	16	17	18	98	26	26	11	16	
		%	2.3	2.6	2.3	4.0	4.6	4.9	5.1	28.0	7.4	7.4	3.1	4.6	6.4
2	Low priority	n	29	25	32	46	48	42	34	65	31	39	19	29	
		%	8.3	7.1	9.1	13.1	13.7	12.0	9.7	18.6	8.9	11.1	5.4	8.3	10.5
3	Medium priority	n	105	93	95	84	95	114	112	76	99	94	70	102	
		%	30.0	26.6	27.1	24.0	27.1	32.6	32.0	21.7	28.3	26.9	20.0	29.1	27.1
4	High priority	n	142	146	133	121	113	112	122	73	126	121	148	137	
		%	40.6	41.7	38.0	34.6	32.3	32.0	34.9	20.9	36.0	34.6	42.3	39.1	35.5
5	Essential priority	n	66	77	82	85	78	65	64	38	68	70	102	66	
		%	18.9	22.0	23.4	24.3	22.3	18.6	18.3	10.9	19.4	20.0	29.1	18.9	20.5
Total		n	350	350	350	350	350	350	350	350	350	350	350	350	
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
Average			3.7	3.7	3.7	3.4	3.5	3.4	3.5	2.7	3.5	3.4	3.9	3.4	

Details in Table 5.9 reveal how the respondents rated their attitude with regard to OHS in the workplace.

- It was quite interesting that 6.4% of the respondents rated some of the OHS aspects as not being a priority.
- Almost a third (28.0%) of the respondents rated the OHS aspect of contracting procedures (using contractors) as not a priority, which could be based on the premise that besides hiring employees, they did not involve contractors in their small business.

- The average weight (> 3.4 out of 5.0) of the attitudinal ratings of OHS aspects in the small businesses by the respondents indicated that most of the aspects were regarded as priority, but with diversified emphases.
- No specific aspect of OHS was rated of particular priority amongst the total spectrum of OHS issues.

Owners/managers of small businesses demonstrated an attitude that most of the OHS aspects in the workplace were a priority and that the extent of priority with regard to the wide variety of aspects differed greatly among businesses. Considering that most of the OHS aspects in the small businesses received an acceptable attitudinal rating of priority, it can be concluded that the respondents had acceptable moral judgment about the importance of dealing with such OHS aspects according to applicable legal directives.

Table 5.10: Descriptive statistics on the attitude of small business owners/managers

	N	Mean	Median	Mode	SD	Skewness	Kurtosis
Health and safety policy of the organisation	350	3.66	4.00	4	0.95	-0.48	-0.02
Ensuring health and safety measures	350	3.73	4.00	4	0.97	-0.61	0.16
Risk assessment (and safe systems of work)	350	3.71	4.00	4	1.00	-0.51	-0.21
Access to competent advice	350	3.62	4.00	4	1.11	-0.50	-0.51
Training and information	350	3.54	4.00	4	1.12	-0.41	-0.58
Individual qualifications and experience	350	3.47	4.00	3	1.08	-0.37	-0.40
Workforce involvement	350	3.51	4.00	4	1.06	-0.48	-0.19
Contracting procedures (i.e. using contractors)	350	2.68	3.00	1	1.36	0.18	-1.23
Cooperating and coordinating with others	350	3.51	4.00	4	1.13	-0.60	-0.21
Accident/near-hit reporting and investigation	350	3.49	4.00	4	1.15	-0.53	-0.42
First aid and emergency measures (where applicable, notably fire)	350	3.89	4.00	4	0.99	-0.90	0.62
Monitoring, checking and reviewing performance	350	3.59	4.00	4	1.03	-0.60	0.04

The mean scores for the attitudes of small business owners/managers regarding the 12 identified OHS aspects were all above 3, which was a "medium priority" rating, except for contracting procedures (i.e. using contractors) where the mean score was 2.68, which leaned towards a "low priority" rating for the attitudes of owners/managers. The median scores for attitude were all at a rating of "medium priority" or "high priority". The mode, which is the middle score value of the ratings (Saunders *et al.*, 2012:675), was at a rating of 4, which is a "high priority", except in the case of attitude towards contracting procedures (i.e. using contractors), which was rated as "not a priority". The spread of data around the mean scores, which is the SD, was around 1, which indicated that the scores were not that far from the mean scores.

The skewness, indicating the symmetry of the distribution (Pallant, 2011:57), as well as the kurtosis, or "peakedness" of the scores, for small business owners/managers were slightly above or below a value of zero (which would be a perfectly normal distribution).

Figure 5.10 indicates the skewness relating to the ratings of the attitudes of the small business owners/managers towards OHS in the form of a histogram.

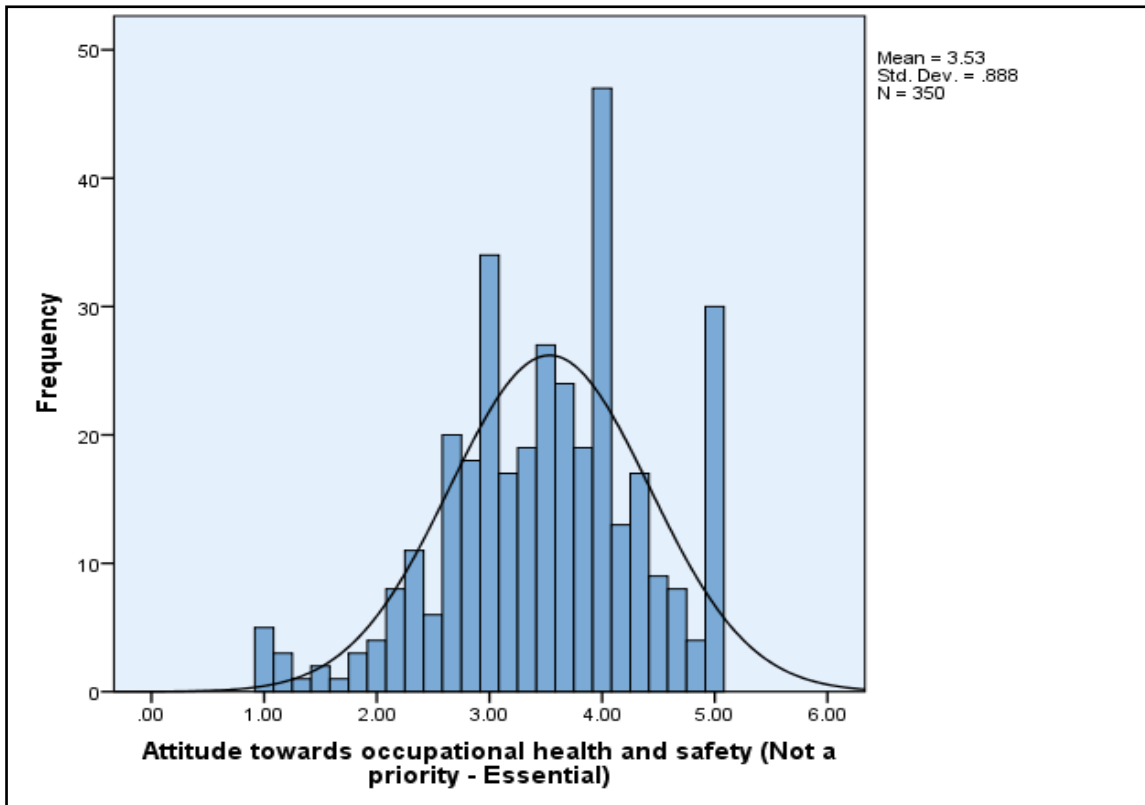


Figure 5.10: Histogram depicting the attitudes of small business owners/managers

This histogram indicates a reasonably normal distribution, although slightly skewed towards the higher ratings, thus showing that the attitudes of small business owners/managers with regard to OHS were slightly higher than a medium priority.

5.7.2 Bivariate analysis of the attitude of small business owners/managers towards occupational health and safety

Cronbach's coefficient alpha was used to measure the internal consistency or the degree to which the above-mentioned 12 core OHS criteria all measured the same underlying attribute (Pallant, 2011:6). The Cronbach's alpha for this factor (attitude) had a value of .96 (96%), indicating a high average correlation.

An independent-samples t-test was conducted to compare the mean scores of two different groups of people (Pallant, 2011:239). In this study, the independent-samples t-test was used to determine whether there is a significant difference

between the mean attitude scores for small business owners and managers. There was a significant difference in the scores for owners ($M = 3.46$, $SD = .85$) and managers ($M = 3.68$, $SD = .96$; $t(348) = -2.12$, $p = .04$, two-tailed). The magnitude of the differences in the means (mean difference = $-.21$, 95% Confidence Interval [CI]: $-.41$ to $-.02$) had a small effect (eta squared = $.01$). CI means that if a sample of the same population is done on numerous occasions, and interval estimates conducted on such occasions, the intervals would contain true population parameters in a certain percentage of the cases, such as 95% in this case (Nist/Sematech, 2012:1). The difference between the mean scores of owners (3.46) and managers (3.68) was 0.22, with an eta squared of $.01$ (1%). This indicated that the attitudes of owners towards OHS directives were slightly lower compared to the attitudes of managers. However, only 1% of the variance in attitude was explained by the position in the business.

A one-way between-groups Analysis of Variance was conducted to explore the effect of the primary economic sectors on attitude scores. Respondents were divided into four groups according to their primary economic sector (Group 1: manufacturing and construction, Group 2: wholesale and retail, Group 3: repair and maintenance services, and Group 4: other). There was a statistically significant difference in the scores of perceived knowledge between the different primary economic sectors with $p = .04$, thus being less than $.05$. The mean scores between the groups of economic sectors with regard to their attitude towards OHS were 3.58, 3.33, 3.64 and 3.64 respectively. This indicated that the attitude of the wholesale and retail group was slightly lower than the scores of the other groups.

Furthermore, a one-way between-groups Analysis of Variance was conducted to determine the effect of the number of employees on attitude scores. Respondents were divided into four groups according to the number of employees of the small business (Group 1: 1–5 employees, Group 2: 6–10 employees, Group 3: 11–15 employees, and Group 4: 16–49 employees). There was no statistically significant difference in the scores of attitude between the different groups based on the number of employees with $p = .1$, thus being more than $.05$.

Based on the statistical analysis indicated above, one can conclude that being an owner or a manager of a small business as well as the economic sector in which the business operates, constitute a statistically significant difference in the attitude towards OHS. However, due to the small difference indicated by these variables, a CMF that is generic in nature could still be used in these small businesses.

5.8 SECTION E: SMALL BUSINESS OWNER/MANAGERS BEHAVIOURAL INTENT WITH REGARD TO OCCUPATIONAL HEALTH AND SAFETY

The study furthermore endeavoured to determine the behavioural intent of small business owners/managers towards OHS compliance in the workplace. Respondents were requested to indicate their behavioural intent to comply with the list of identified OHS aspects. The behavioural intent of the respondents indicated their intent, which implied their willingness and inclination to apply their knowledge with regard to OHS aspects in the small business in accordance with their attitudinal rating preference. Such behaviour demonstrated their moral basis for enhancing OHS in the workplace, with due recognition of legal requirements and financial considerations.

5.8.1 Descriptive statistics of the behavioural intent of small business owners/managers towards occupational health and safety compliance

Table 5.11 depicts the rating of respondents in respect of their behavioural intent towards OHS compliance. The details in Table 5.11 reveal that the small business owners/managers indicated their behavioural intent to comply as “likely” with the following OHS aspects:

- Health and safety policy of the organisation (45.4%);
- Ensuring health and safety measures (47.7%);
- Risk assessment/systems of work (44.6%);
- Access to competent advice (39.7%);
- Training and information (41.1%);
- Workforce involvement (41.1%);
- Cooperating and coordinating with others (39.4%);

- Accident/near-hit reporting and investigation (40.9%);
- First aid and emergency measures (where applicable, notably fire) (43.7%);
and
- Monitoring, checking and reviewing performance (42.6%).

Most (on average more than 40.0%) of the small businesses indicated the likely behavioural intent to comply with arrangements for ensuring OHS measures. On average, approximately 15.0% indicated an extremely unlikely and unlikely behavioural intent, while almost a quarter (24.3%) indicated a neutral intent towards complying with OHS aspects. No significant portion of the small businesses revealed an extremely likely behavioural intent to comply with OHS aspects.

Table 5.11: Rating of behavioural intent with regard to complying with occupational health and safety aspects

Rating of owner/manager		Health and safety policy of the organisation	Ensuring health and safety measures	Risk assessment/systems of work	Access to competent advice	Training and information	Individual qualifications and experience	Workforce involvement	Contracting procedures (i.e. using contractors)	Cooperating and coordinating with others	Accident/near-hit reporting and investigation	First aid and emergency measures (where applicable, notably fire)	Monitoring, checking and reviewing performance	Average weight (%)	
1	Extremely unlikely	n	8	6	7	11	11	9	12	77	15	16	9	12	
		%	2.3	1.7	2.0	3.1	3.1	2.6	3.4	22.0	4.3	4.6	2.6	3.4	4.6
2	Unlikely	n	14	11	20	32	35	34	25	53	28	27	14	23	
		%	4.0	3.1	5.7	9.1	10.0	9.7	7.1	15.1	8.0	7.7	4.0	6.6	7.5
3	Neutral	n	74	76	79	90	85	108	100	80	93	86	60	90	
		%	21.1	21.7	22.6	25.7	24.3	30.9	28.6	22.9	26.6	24.6	17.1	25.7	24.3
4	Likely	n	159	167	156	139	144	131	144	89	138	143	153	149	
		%	45.4	47.7	44.6	39.7	41.1	37.4	41.1	25.4	39.4	40.9	43.7	42.6	40.8
5	Extremely likely	n	95	90	88	78	75	68	69	51	76	78	114	76	
		%	27.1	25.7	25.1	22.3	21.4	19.4	19.7	14.6	21.7	22.3	32.6	21.7	22.8
Total		n	350	350	350	350	350	350	350	350	350	350	350	350	
		%	100	100	100	100	100	100	100	100	100	100	100	100	100
Average			3.9	3.9	3.9	3.7	3.7	3.4	3.7	3.0	3.7	3.7	4.0	3.7	

Additionally, on average, the small businesses generally rated their behavioural intent to comply with all the listed aspects of OHS at least at 3.0 out of 5.0. This indicated a general fortunate behavioural intent to comply with OHS aspects in the workplace.

Table 5.12: Descriptive statistics on behavioural intent of small business owners/managers

	N	Mean	Median	Mode	SD	Skewness	Kurtosis
Health and safety policy of the organisation	350	3.91	4.00	4	0.92	-0.85	0.85
Ensuring health and safety measures	350	3.93	4.00	4	0.87	-0.79	0.94
Risk assessment (and safe systems of work)	350	3.85	4.00	4	0.93	-0.73	0.44
Access to competent advice	350	3.69	4.00	4	1.02	-0.60	-0.07
Training and information	350	3.68	4.00	4	1.02	-0.61	-0.08
Individual qualifications and experience	350	3.61	4.00	4	0.99	-0.42	-0.22
Workforce involvement	350	3.67	4.00	4	0.98	-0.61	0.20
Contracting procedures (i.e. using contractors)	350	2.95	3.00	4	1.37	-0.09	-1.22
Cooperating and coordinating with others	350	3.66	4.00	4	1.04	-0.65	0.06
Accident/near-hit reporting and investigation	350	3.69	4.00	4	1.05	-0.72	0.16
First aid and emergency measures (where applicable, notably fire)	350	4.00	4.00	4	0.94	-1.02	1.10
Monitoring, checking and reviewing performance	350	3.73	4.00	4	0.99	-0.71	0.34

The mean score values for the behavioural intent of small business owners/managers with regard to OHS compliance were all at above a rating of 3, which indicated a “neutral” rating, with first aid and emergency measures having a mean score of 4 or “likely” but contracting procedures (i.e. using contractors) had a score of 2.95, which leaned toward an “unlikely” rating. The median of the ratings for the various OHS aspects were all at a rating of “likely”, with contracting procedures (i.e. using contractors) once again receiving a lower rating.

The modes for the behavioural intent of small business owners/managers were all rated as “likely”, thus indicating that “likely” was the rating most often chosen by respondents. The SDs were all at just below or just above 1, thus indicating that the ratings were quite close to the mean scores. The skewness and kurtosis of the ratings on the behavioural intent of small business owners/managers were also quite small, but not at zero, which would have indicated a perfectly normal distribution of the different ratings.

Figure 5.11 indicates the skewness of the behavioural intent of small business owners/managers with regard to OHS compliance by making use of a histogram.

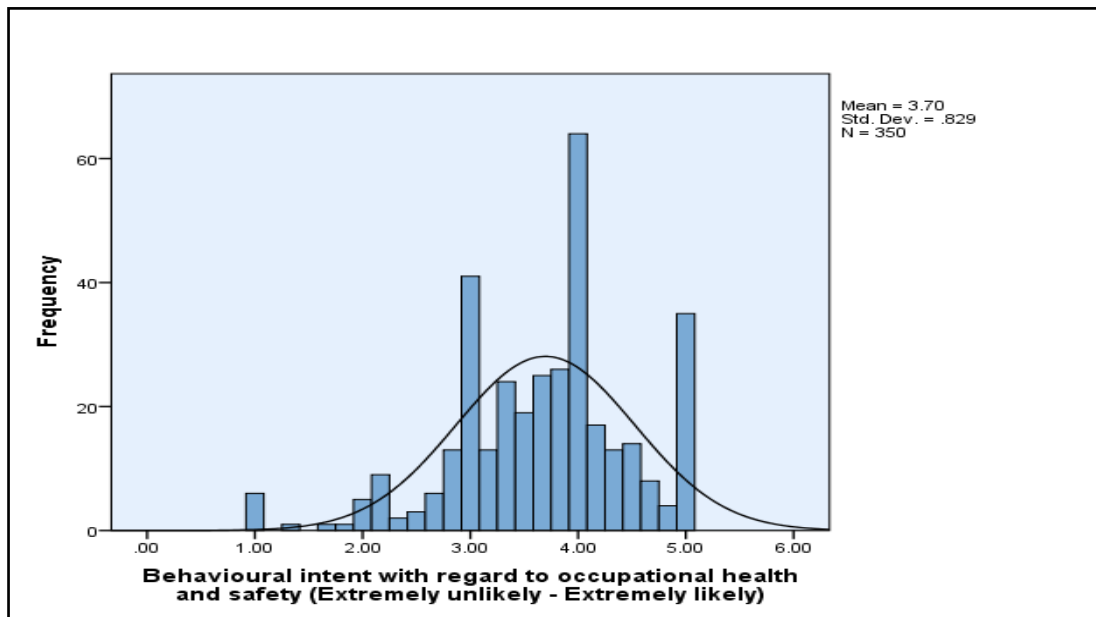


Figure 5.11: Histogram showing the behavioural intent of small business owners/managers

A reasonably normal distribution can be seen in this histogram, though being slightly skewed towards higher ratings, thus indicating that the behavioural intent of small business owners/managers with regard to OHS compliance was slightly more than a neutral rating towards a rating of likely.

5.8.2 Bivariate analysis of the behavioural intent of small business owners/managers towards occupational health and safety

Once again, Cronbach's coefficient alpha was used to measure the internal consistency or the degree to which the above-mentioned 12 core OHS criteria all measured the same underlying attribute (Pallant, 2011:6). The Cronbach's alpha for this factor (behavioural intent) had a value of .95 (95%), indicating a high average correlation.

An independent-samples t-test was conducted to compare the mean scores of two different groups of people (Pallant, 2011:239). In this study, the independent-samples t-test was used to determine whether there was a significant difference

between the mean behavioural intent scores for small business owners and managers. There was no significant difference in the scores for owners ($M = 3.65$, $SD = .80$) and managers ($M = 3.79$, $SD = .87$; $t(348) = -1.48$, $p = .14$, two-tailed). The magnitude of the differences in the means (mean difference = $-.02$, 95% CI: $-.22$ to $.18$) had a small effect ($\eta^2 = 0.01$).

A one-way between-groups Analysis of Variance was conducted to explore the effect of the primary economic sectors on behavioural intent scores. Respondents were divided into four groups according to their primary economic sector (Group 1: manufacturing and construction, Group 2: wholesale and retail, Group 3: repair and maintenance services, and Group 4: other). There was a statistically significant difference in the scores of behavioural intent between the different groups of primary economic sectors with $p = .004$, thus being less than $.05$. The mean scores between the groups of economic sectors with regard to their behavioural intent towards OHS were 3.86, 3.46, 3.81 and 3.72 respectively. This indicates that the behavioural intent of the wholesale and retail group was slightly lower than the scores of the other groups.

Furthermore, a one-way between-groups Analysis of Variance was conducted to determine the effect of the number of employees on behavioural intent. Respondents were divided into four groups according to the number of employees of the small business (Group 1: 1–5 employees, Group 2: 6–10 employees, Group 3: 11–15 employees, and Group 4: 16–49 employees). There was a statistically significant difference in the scores of perceived knowledge between the different groups based on the number of employees with $p = .04$, thus less than $.05$. The mean scores between the groups based on the number of employees with regard to behavioural intent were 3.59, 3.78, 3.79 and 3.95 respectively, indicating a slightly lower behavioural intent in small businesses with 1 to 5 employees.

Based on the statistical analysis indicated above, one can conclude that there was no significant difference between small business owners and managers, but that small differences were evident regarding the behavioural intent between primary economic sectors as well as the number of employees of the small business.

However, the differences in mean scores were quite small, once again confirming the usefulness of a generic CMF for use in small businesses.

5.9 SECTION F: ACTUAL BEHAVIOUR OF SMALL BUSINESSES WITH REGARD TO OCCUPATIONAL HEALTH AND SAFETY ASPECTS

This study intended to stipulate the actual behaviour of small business owners/managers with regard to OHS compliance in the workplace. In order to establish such compliance, small businesses were asked to rate the compliance of their businesses with OHS aspects that were preselected from the OHS Act and the COID Act. Results pertaining to actual compliance behaviour towards OHS aspects are presented in the discussion below, owing to the diverse range and number of aspects listed. The range of aspects comprised:

- employer responsibilities in terms of the OHS Act;
- general administrative regulations in terms of the OHS Act;
- general safety regulations in terms of the OHS Act; and
- employer responsibilities in terms of the COID Act.

Results pertaining to each of these aspects of OHS are explained below.

5.9.1 Employer responsibilities in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993

The results pertaining to employer responsibilities in terms of compliance with the OHS Act are presented in Table 5.13. Details in Table 5.13 specify that:

- Very few (on average 4.2%) of the small businesses indicated that they did not comply.
- Most of the small businesses (between 52.9% and 73.7%) rated their actual compliance with regard to all the OHS aspects listed as “fully comply”, with exclusion of “Inform health and safety representative/s of incidents as soon as required” (28.0%), “Inform health and safety representative in advance regarding inspections, investigations or formal inquiries and any exemption”

(38.6%), and “Report incidents that endanger health” (44.6%). Lower full compliance percentages may be related to the fact that most small businesses operated in economic sectors where working activities did not expose employees to health risks as such, and where health and safety representatives were not required due to the number of employees.

- The average weight compliance with the listed OHS aspects ranged from 2.5 and higher out of a maximum of 3.0.
- A small group (on average 11.8%) of small businesses judged that the lists of aspects did not apply to their businesses, while a small group (5.6% on average) did not know whether they complied with the OHS directives or responsibilities.
- On average almost 19% (19.3%) of the small businesses rated their actual compliance with all the listed OHS aspects as “partially comply”.
- Approximately 39% (39.1%) of the small businesses indicated that the aspects of informing health and safety representatives were not applicable, which can be related to the large percentage of small businesses which did not utilise such system owing to the small number of employees that they hired (see Figure 5.4).

In general, the rating by small businesses of their actual compliance with the employer responsibilities in terms of the total list of OHS aspects indicated specific tendencies. Firstly, most (on average almost 60.0%) indicated that they fully complied with the majority of the OHS aspects that were listed. A small percentage (4.2%) of the group rated that they did not comply at all. Likewise, small groups did not know whether they complied or were of the opinion that the OHS aspects were not applicable to their small businesses.

Table 5.13: Rating of small business with regard to actual compliance with the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993

Rating criteria	Do not comply at all		Partially comply		Fully comply		Not applicable		Don't know		Total		Average
	n	%	n	%	n	%	n	%	n	%	n	%	
Health and safety policy (prepare guidelines, contents and display in writing)	24	6.9	102	29.1	185	52.9	14	4.0	25	7.1	350	100	2.5
General duties of employers. Ensure a safe working environment without health and safety risk	5	1.4	81	23.1	251	71.8	8	2.3	5	1.4	350	100	2.7
Systems of work, plant and machinery safe and without risk to health and safety	11	3.1	67	19.1	228	65.2	37	10.6	7	2.0	350	100	2.7
Eliminate or mitigate all hazards before resorting to personal protective equipment (PPE)	8	2.3	81	23.1	204	58.3	43	12.3	14	4.0	350	100	2.7
Absence of safety risk regarding any articles or substances	12	3.4	80	22.9	189	54.0	42	12.0	27	7.7	350	100	2.6
Determine any hazard present in any work processes and applicable precautionary measures	11	3.1	92	26.3	208	59.5	27	7.7	12	3.4	350	100	2.6
Ensure worker competence via information, instruction and training with supervision to ensure employee health and safety	12	3.4	95	27.2	217	62.0	20	5.7	6	1.7	350	100	2.6
Permit no work unless precautionary measures are in place	21	6.0	83	23.7	210	60.0	29	8.3	7	2.0	350	100	2.6
Ensure that all prescribed legal requirements of this Act are complied with by every person under his or her authority	21	6.0	107	30.6	189	54.0	19	5.4	14	4.0	350	100	2.5
Enforce measures in the interest of health and safety	11	3.1	89	25.4	230	65.8	14	4.0	6	1.7	350	100	2.7
Ensure appropriate supervision by competent person/s and authority to ensure implementation of precautions	17	4.9	100	28.6	204	58.3	22	6.3	7	2.0	350	100	2.6

Rating criteria	Do not comply at all		Partially comply		Fully comply		Not applicable		Don't know		Total		Average
	n	%	n	%	n	%	n	%	n	%	n	%	
Self-employed persons must ensure no exposure to hazards that threaten the health and safety of any employee or non-employee	10	2.9	68	19.4	199	56.9	60	17.1	13	3.7	350	100	2.7
Ensure employee competence concerning the nature of all hazards and applicable precautionary measures	12	3.4	99	28.3	208	59.4	24	6.9	7	2.0	350	100	2.6
Inform health and safety representative in advance regarding inspections, investigations or formal inquiries and any exemption	24	6.9	42	12.0	135	38.6	132	37.7	17	4.8	350	100	2.6
Inform health and safety representative/s of incidents as soon as required	32	9.1	59	16.9	98	28.0	137	39.1	24	6.9	350	100	2.2
Employer to ensure responsibilities in terms of this Act are properly discharged	20	5.7	74	21.1	205	58.6	24	6.9	27	7.7	350	100	2.6
Employer to assign any person any duty in any subsection who shall act under his or her authority	21	8.0	75	21.4	196	56.0	30	8.8	28	8.0	350	100	2.6
Employer remains responsible and accountable in spite of delegation	16	4.6	60	17.1	228	65.1	22	6.3	24	6.9	350	100	2.7
Employer may not require or permit any payment by employee for any provisions or action regarding employee health and safety in terms of this Act	15	4.3	35	10.0	223	63.7	47	13.4	30	8.6	350	100	2.8
Report incidents at work, arising out of or in connection with work activities	12	3.4	31	8.9	258	73.7	28	8.0	21	6.0	350	100	2.8
Report incidents that resulted in: unconsciousness, loss of limb, or part, injury, disease and likelihood to die or suffer permanent physical defect or not being able to work for 14 days in current position	7	2.0	53	15.1	204	58.3	44	12.6	42	12.0	350	100	2.7

Rating criteria	Do not comply at all		Partially comply		Fully comply		Not applicable		Don't know		Total		Average
	n	%	n	%	n	%	n	%	n	%	n	%	
Report major incidents	11	3.2	42	12.0	231	66.0	33	9.4	33	9.4	350	100	2.8
Report incidents within prescribed period and prescribed manner. Rescue person or persons from danger, but leave scene undisturbed	12	3.4	29	8.3	210	60.0	72	20.6	27	7.7	350	100	2.8
Victimisation: no dismissal, reduce of payment or alteration of terms and conditions less favourable to the employee or in relation to colleagues to disadvantage them because of information provided	15	4.3	35	10.0	223	63.7	47	13.4	30	8.6	350	100	2.8
Give full cooperation in all respects of investigations	12	3.4	31	8.9	258	73.7	28	8.0	21	6.0	350	100	2.8
May appeal against decision of inspector	7	2.0	53	15.1	204	58.3	44	12.6	42	12.0	350	100	2.7
Disclosure of information	11	3.2	42	12	231	66.0	33	9.4	33	9.4	350	100	2.8
Average of complete table		4.2		19.3		59.2		11.8		5.6	350	100	

5.9.2 Rating by small businesses of actual compliance with general administrative regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993

Small business owners/managers were required to rate their actual compliance with specific general administrative regulations in terms of the OHS Act. Their replies are reflected in Table 5.14.

Most (67.3%) of the small business owners/managers indicated that they fully complied with the OHS regulations listed, with an average score of 2.8 out of a possible 3.0.

Small groups of the small businesses indicated that:

- they did not comply (3.7%) or partially complied (12.3%) with the listed regulation; or
- they did not know whether they complied (5.3%); or
- the regulations were not applicable to their businesses (11.4%).

Table 5.14: Small businesses' rating of actual compliance with selected general administrative regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993

Rating criteria			Reporting of incidents within 7 days – full personal details of involved persons prescribed	Record and investigate incidents that have to be reported	Average weight (%)
1	Do not comply at all	n	14	12	
		%	4.0	3.4	3.7
2	Partially comply	n	39	47	
		%	11.2	13.5	12.3
3	Fully comply	n	239	232	
		%	68.3	66.3	67.3
4	Not applicable	n	40	40	
		%	11.4	11.4	11.4
5	Don't know	n	18	19	
		%	5.1	5.4	5.3
Total		n	350	350	
		%	100.0	100.0	100.0
Average			2.8	2.8	

5.9.3 Rating by small businesses of actual compliance with general safety regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993

Small businesses had to rate their actual compliance with selected general safety regulations in terms of the OHS Act. The ratings of the small businesses are presented in Table 5.15. Details in this regard are:

- On average 74.1% of the small businesses rated their actual compliance with the listed general safety regulations as fully complied. The actual compliance, on average, was rated at 2.7 or more out of 3.0.

- The groups of small businesses that did not comply, or did not know whether they complied or were complying was not applicable to their businesses, were rather small.
- A small group of small businesses rated that they partially complied.

Table 5.15: Rating by small businesses of actual compliance with general safety regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993

Rating criteria			Personal safety equipment should be supplied if necessary	Intoxicated persons should not be permitted at the workplace	Display appropriate symbols and signs	Do not permit persons in dangerous premises	First aid emergency equipment and procedures must be in place with minimum contents of first aid box	Average weight
1	Do not comply at all	n	5	9	18	8	22	
		%	1.4	2.6	5.1	2.3	6.3	3.5
2	Partially comply	n	49	21	70	37	54	
		%	14.0	6.0	20.0	10.6	15.4	13.2
3	Fully comply	n	263	294	232	260	247	
		%	75.2	84.0	66.3	74.3	70.6	74.1
4	Not applicable	n	26	19	20	34	16	
		%	7.4	5.4	5.7	9.7	4.6	6.6
5	Don't know	n	7	7	10	11	11	
		%	2.0	2.0	2.9	3.1	3.1	2.6
	Total	n	350	350	350	350	350	
		%	100.0	100.0	100.0	100.0	100.0	100.0
	Average		2.8	2.9	2.7	2.8	2.7	

5.9.4 Rating by small businesses of actual compliance with employer responsibilities in terms of the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997

It was surveyed to what extent small businesses rated their actual compliance with employer responsibilities in terms of the COID Act. The outcome of the survey is reflected in Table 5.16.

Most respondents (60.0%–65.7%) rated their compliance with all the aspects listed as “fully comply”. Approximately 10.0% of small businesses did not know whether they complied with the OHS aspects or whether the aspects were applicable to their businesses. A small percentage (7.2%) indicated that they did not comply at all with the OHS aspects listed.

Table 5.16: Rating of actual compliance with employer responsibilities in terms of the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997

Rating criteria			Employer must report the accident to the Commissioner within seven days after receiving notice of an accident	Employer must register with the Commissioner	Assessment must be paid to Commissioner	Average weight (%)
1	Do not comply at all	n	16	28	31	
		%	4.6	8.0	8.9	7.2
2	Partially comply	n	40	29	33	
		%	11.4	8.3	9.4	9.7
3	Fully comply	n	230	230	210	
		%	65.7	65.7	60.0	63.8
4	Not applicable	n	35	31	33	
		%	10.0	8.9	9.4	9.4
5	Don't know	n	29	32	43	
		%	8.3	9.1	12.3	9.9
6	Total	n	350	350	350	
		%	100.0	100.0	100.0	100.0
Average			2.7	2.7	2.7	

In presenting statistical results for the actual compliance behaviour of small businesses with OHS directives, the options for “not applicable” as well as “don’t know” were not taken into consideration. These two options were indicated as missing values with no value assigned to them as the statistical software programme, IBM Statistical Package for the Social Science (IBM SPSS), recognises any blank cell as missing data (Pallant, 2011:33, 211).

5.9.5 Descriptive statistics of actual behaviour of small businesses towards occupational health and safety

Table 5.17 contains the descriptive statistics for:

- employer responsibilities in terms of the OHS Act;
- general administrative regulations in terms of the OHS Act;

- general safety regulations in terms of the OHS Act; and
- employer responsibilities in terms of the COID Act.

For the purpose of this analysis, ratings of “not applicable” and “don’t know” were omitted to obtain a better picture of the actual behaviour of small business owners/managers with regard to OHS compliance. Responses indicating that the specific aspect is “applicable” or that the respondents “don’t know” might be an indication of the lack of compliant behaviour as all of these aspects are specified in the OHS Act or the COID Act, and are applicable to almost all businesses and should therefore form part of the knowledge of small business owners/managers. Tables 5.13, 5.14, 5.15 and 5.16 contain details about the specific OHS aspects as specified in legislation.

The number of responses (n) for the different aspects in Table 5.17 below therefore indicates the number of responses received that indicated either “do not comply at all”, “partially comply” or “fully comply” as indicated in Section F of the Questionnaire.

Table 5.17: Descriptive statistics on actual behaviour of small business owners/managers

	n	Mean	Median	Mode	SD	Skewness	Kurtosis
Employer responsibilities in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993							
Health and safety policy – prepare guidelines, contents and display in writing	311	2.52	3.00	3	0.64	-0.97	-0.13
General duties of employers. Ensure a safe working environment without health and safety risk	337	2.73	3.00	3	0.48	-1.45	1.02
Systems of work, plant and machinery safe and without risk to health and safety	306	2.71	3.00	3	0.53	-1.64	1.80
Eliminate or mitigate all hazards before resorting to personal protective equipment (PPE)	293	2.67	3.00	3	0.57	-1.24	0.57
Absence of safety risk regarding any articles or substances	281	2.63	3.00	3	0.57	-1.24	0.57
Determine any hazard present in any work processes and applicable precautionary measures	311	2.63	3.00	3	0.55	-1.18	0.42
Ensure worker competence <i>via</i> information, instruction and training with supervision to ensure employee health and safety	324	2.63	3.00	3	0.55	-1.20	0.46
Permit no work unless precautionary measures are in place	314	2.60	3.00	3	0.61	-1.28	0.56
Ensure that all prescribed legal requirements of this Act are complied with by every person under his or her authority	317	2.53	3.00	3	0.62	-1.96	-0.11
Enforce measures in the interest of health and safety	330	2.66	3.00	3	0.60	-1.32	0.80
Ensure appropriate supervision by competent person or persons and authority to ensure implementation of precautions	321	2.58	3.00	3	0.60	-1.10	0.20

	n	Mean	Median	Mode	SD	Skewness	Kurtosis
Ensure all employees are informed on the scope of authority in terms of what must or ought to be done in terms of health and safety	326	2.57	3.00	3	0.61	-1.09	0.15
Every employer to ensure that non-workers are not exposed to hazards to their health and safety	313	2.67	3.00	3	0.56	-1.51	1.31
Self-employed persons must ensure no exposure to hazards that threaten the health and safety of any employee or non-employee	277	2.68	3.00	3	0.54	-1.47	1.23
Ensure employee competence concerning the nature of all hazards and applicable precautionary measures	319	2.61	3.00	3	0.56	-1.11	0.25
Inform health and safety representative in advance regarding inspections, investigations or formal inquiries and any exemption	189	2.35	3.00	3	0.75	-0.68	-0.94
Inform health and safety representative or representatives of incidents as soon as required	201	2.55	3.00	3	0.70	-1.25	0.16
Employer to ensure responsibilities in terms of this Act are properly discharged	299	2.62	3.00	3	0.61	-1.36	0.77
Employer to assign any person any duty in any subsection who shall act under his or her authority	292	2.60	3.00	3	0.62	-1.29	0.56
Employer remains responsible and accountable in spite of delegation	304	2.70	3.00	3	0.56	-1.72	1.95
Employer may not require or permit any payment by employee for any provisions or action regarding employee health and safety in terms of this Act	274	2.73	3.00	3	0.54	-1.88	2.6
Report incidents at work, arising out of or in connection with work activities	304	2.66	3.00	3	0.58	-1.48	1.18

	n	Mean	Median	Mode	SD	Skewness	Kurtosis
Report incidents that resulted in: unconsciousness, loss of limb, or part, injury, disease and likelihood to die or suffer permanent physical defect or not being able to work for 14 days in current position	237	2.77	3.00	3	0.50	-2.12	3.72
Report major incidents	246	2.76	3.00	3	0.52	-2.12	3.66
Report incidents that endanger health	212	2.67	3.00	3	0.59	-1.63	1.61
Report incidents within prescribed period and prescribed manner. Rescue person or persons from danger, but leave scene undisturbed	251	2.79	3.00	3	0.51	-2.42	4.92
Victimisation: no dismissal, reduction of payment or alteration of terms and conditions less favourable to the employee or in relation to colleagues to disadvantage them because of information provided	273	2.76	3.00	3	0.54	-2.21	3.87
Give full cooperation in all respects of investigations	301	2.82	3.00	3	0.48	-2.66	6.30
May appeal against decision of inspector	264	2.75	3.00	3	0.50	-1.79	2.38
Disclosure of information	284	2.77	3.00	3	0.50	-2.19	4.01
General administrative regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993							
Reporting of incidents within 7 days – full personal details of involved persons prescribed	292	2.77	3.00	3	0.52	-2.24	4.09
Record and investigate incidents that have to be reported	291	2.76	3.00	3	0.52	-2.05	3.36
General safety regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993							
Personal safety equipment should be supplied if necessary	317	2.81	3.00	3	0.43	-2.21	4.24

	n	Mean	Median	Mode	SD	Skewness	Kurtosis
Intoxicated persons should not be permitted at the workplace	324	2.88	3.00	3	0.40	-3.52	12.00
Display appropriate symbols and signs	320	2.67	3.00	3	0.58	-1.56	1.42
Do not permit persons in dangerous premises	305	2.83	3.00	3	0.44	-2.60	6.20
First aid emergency equipment and procedures must be in place with minimum contents of first aid box	323	2.70	3.00	3	0.60	-1.8	2.10
Employer responsibilities in terms of the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997							
Employer must report the accident to the Commissioner within seven days after receiving notice of an accident	286	2.75	3.00	3	0.55	-2.11	3.40
Employer must register with the Commissioner	287	2.70	3.00	3	0.64	-1.95	2.30
Assessment must be paid to Commissioner	274	2.65	3.00	3	0.67	-1.69	1.33

The mean scores for all of these aspects with regard to actual behaviour in terms of OHS were more than 2, thus indicating ratings of between “partially comply” and “fully comply”. The median for all of the aspects was 3, which indicated “fully comply”, thus indicating that a rating of “fully comply” was the middle value when all the ratings were arranged in ranking order. The value that occurred most, which was the mode, was also 3 which indicated “fully comply”. The SD for all of these aspects was below 1, thus indicating that the small business owners/managers did not deviate significantly from the mean scores (which were more than 2 or “partially comply”).

The skewness and kurtosis for most values were more or less than 1, thus indicating that this was not a perfectly normal distribution. Figure 5.12 graphically indicates, by way of a histogram, the skewness of the actual behaviour of small business owners/managers towards OHS compliance.

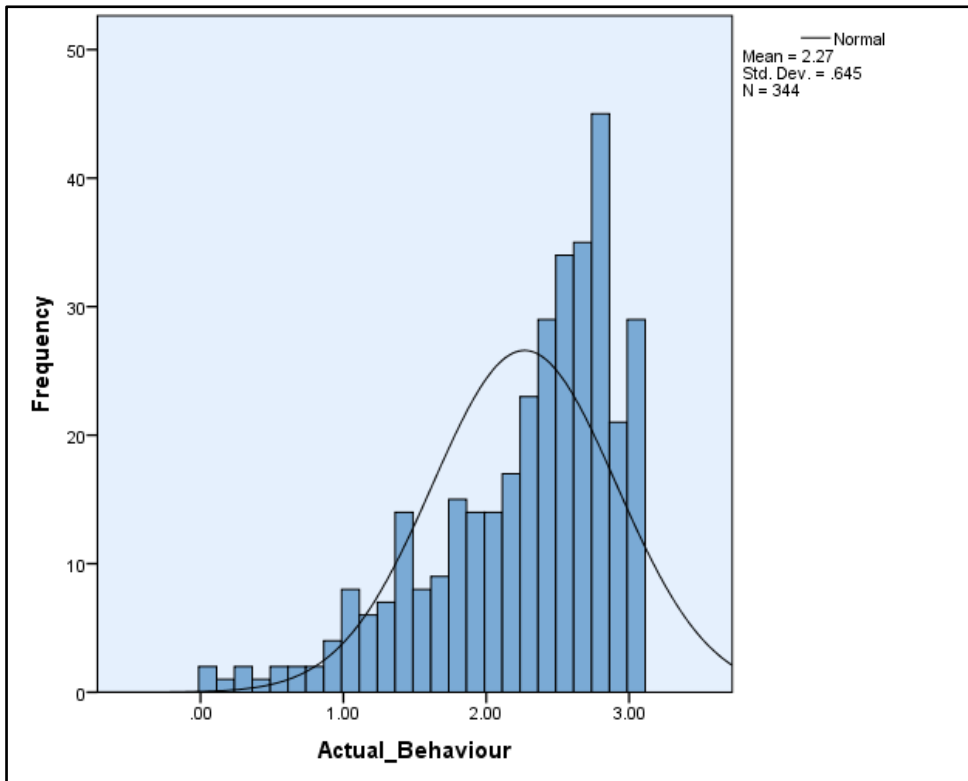


Figure 5.12: Histogram of actual behaviour of small businesses towards occupational health and safety

A reasonably normal distribution can be seen in this histogram, although slightly skewed towards higher ratings, thus indicating that the actual behaviour of small business owners/managers with regard to OHS compliance was indicated as being slightly more than partial compliance towards a rating of “fully compliant”.

5.9.6 Bivariate analysis of actual behaviour of small businesses towards occupational health and safety

Once again, Cronbach’s coefficient alpha was used to measure the internal consistency, or the degree to which the actual behaviour components all measured the same underlying attribute (Pallant, 2011:6). The Cronbach’s alpha for this factor (actual behavioural) had a value of .97 (97%), indicating a high average correlation.

An independent-samples t-test was conducted to compare the mean scores of two different groups of people (Pallant, 2011:239). In this study, the independent-

samples t-test was used to determine whether there was a significant difference between the mean actual behaviour scores for small business owners and managers. There was no significant difference in the scores for owners ($M = 2.28$, $SD = .63$) and managers ($M = 2.24$, $SD = .67$; $t(342) = -.61$, $p = .55$, two-tailed).

A one-way between-groups Analysis of Variance was conducted to explore the effect of the primary economic sectors on actual behaviour scores. Respondents were divided into four groups according to their primary economic sector (Group 1: manufacturing and construction, Group 2: wholesale and retail, Group 3: repair and maintenance services, and Group 4: other). There was a statistically significant difference in the scores of actual behaviour between the different groups of primary economic sectors with $p = .00$, thus being less than $.05$. The mean scores between the groups of economic sectors with regard to their actual behaviour in terms of OHS were 2.48, 2.04, 2.14 and 2.27 respectively. This indicated that the actual behaviour regarding OHS compliance of the wholesale and retail group was slightly lower than the scores of the other groups.

Furthermore, a one-way between-groups Analysis of Variance was conducted to determine the effect of the number of employees on actual behaviour. Respondents were divided into four groups according to the number of employees of the small business (Group 1: 1–5 employees, Group 2: 6–10 employees, Group 3: 11–15 employees, and Group 4: 16–49 employees). There was a statistically significant difference in the scores of actual behaviour between the different groups based on the number of employees with $p = .01$, thus less than $.05$. The mean scores between the groups based on the number of employees with regard to actual behaviour were 2.18, 2.29, 2.52 and 2.27 respectively, indicating a slightly lower actual behaviour score in small businesses with 1 to 5 employees.

Based on the statistical analysis indicated above, one can conclude that there was no significant difference between small business owners and managers, but that small differences were evident between primary economic sectors as well as the number of employees of the small business. However, the differences in mean scores were quite small, once again confirming the usefulness of a generic CMF for use in small businesses.

5.10 SECTION G: BARRIERS TO COMPLIANCE WITH OCCUPATIONAL HEALTH AND SAFETY DIRECTIVES

The small businesses gave their opinions about specific barriers that might make it difficult to comply with OHS directives. Small businesses were requested to rate the effects of the barriers on a scale of 1 to 4 with a fifth option of “don’t know”. Small businesses had two opportunities in this regard. They firstly rated a list of possible barriers that were provided by the researcher. Secondly, they were requested to list and rate their own list of barriers to comply with OHS directives or requirements.

5.10.1 The rating of preselected barriers to comply with occupational health and safety directives

The results of the rating of predetermined barriers, based on the literature review, by small businesses appear in Table 5.18. No particular barrier that could make it difficult to comply with OHS directives was rated as an extreme barrier. “Laws are too complicated” was rated the most extreme barrier by only 14.6% of the participating small businesses. A total of 30%–56.3% of small businesses rated 9 out of the total of 11 barriers as not a barrier. On average, a little more than a quarter (26.0%) of small businesses rated most of the barriers as somewhat barriers.

Table 5.18: The effect of barriers to compliance with occupational health and safety directives

Rating criteria of barriers			Lack of time	Lack of money	Laws are too complicated	Lack of guidance and advice	Lack of training opportunities	Lack of cooperation between employers and employees	Negligence	Carelessness	Not adhering to safe working procedures	Unskilled employees	Unqualified supervisors	Average weight
1	Not a barrier	n	97	94	105	112	120	164	139	136	129	160	197	
		%	27.7	26.9	30.0	32.0	34.3	46.9	39.7	38.9	36.9	45.7	56.3	37.7
2	Somewhat a barrier	n	113	92	77	90	100	82	98	100	92	88	68	
		%	32.3	26.3	22.0	25.7	28.6	23.4	28.0	28.6	26.3	25.2	19.4	26.0
3	Moderate barrier	n	83	90	85	83	69	54	49	48	66	39	27	
		%	23.7	25.7	24.3	23.7	19.7	15.4	14.0	13.7	18.9	11.1	7.7	18.0
4	Extreme barrier	n	31	42	51	37	31	22	38	39	39	34	27	
		%	8.9	12.0	14.6	10.6	8.9	6.3	10.9	11.1	11.1	9.7	7.7	10.2
5	Don't know	n	26	32	32	28	30	28	26	27	24	29	31	
		%	7.4	9.1	9.1	8.0	8.5	8.0	7.4	7.7	6.8	8.3	8.9	8.1
	Total	n	100	100	100	100	100	100	100	100	100	100	100	
		%	350	350	350	350	350	350	350	350	350	350	350	100
	Average		2.1	2.3	2.3	2.1	2.0	1.8	2.0	2.0	2.0	1.8	1.6	

- A total of 8.1% of small businesses indicated that they did not know whether certain barriers made it difficult to comply with OHS directives.
- On average, slightly more than 10.0% (10.2%) of the small businesses rated any of the listed OHS directives as an extreme barrier to comply with OHS aspects.
- No particular OHS aspect was listed significantly high as a barrier to comply with OHS directives, as all rates were below 30.0%, which applied to somewhat a barrier (26.0%), a moderate barrier (18.0%), and an extreme barrier (10.2%).

The general rating of barriers ranged from 1.6 to 2.3 out of a possible 4.0 (excluding "Don't know"), which was indicative of the overall contention of small businesses that no specific aspect made it extremely difficult to comply with OHS directives.

It appeared that small businesses did not experience any one of the listed barriers as making it difficult to comply with OHS directives.

5.10.2 Additionally listed and rated barriers to comply with occupational health and safety directives

Small businesses were allowed to list barriers, which affected their compliance with OHS directives. Open-ended questions were used to survey such information. The results of the survey are depicted in Table 5.19. It was challenging to decide on specific categorisation of the barriers listed. The challenge originated in the fact that small businesses listed some barriers by using a single word only without any descriptive addition on more specific meaning. Small businesses were free to list and explain barriers to their own convenience or liking.

The following details were relevant:

- The listing and rating of barriers, which affected compliance with OHS directives did not reveal any dominant barrier at any specific level of effect (somewhat of a barrier through to an extreme barrier).
- Small businesses listed a variety of 23 barriers (38 responses), some of interrelated nature, which affected the compliance of small businesses with OHS directives.
- Almost three quarters (29 out of 38 = 76.3%) of the list provided by the small businesses were regarded as extreme barriers.
- Factors related to employee behaviour and difficulty to contact the Compensation Commissioner was regarded as the most extreme barriers, namely 13.8% and 10.6%.
- The diverse range and rating of barriers seemed to be related to personal experience and choice.
- Very few (only 5 out of 38 = 13.1%) barriers were rated at more than one level of effect ("somewhat of a barrier" through to an "extreme barrier").

Table 5.19: Additionally listed barriers, which affect compliance with occupational health and safety directives

Barrier to compliance	Rating							
	Not a barrier		Some-what of a barrier		Moderate barrier		Extreme barrier	
	n	%	n	%	n	%	n	%
Claims are painful	–	–	–	–	–	–	1	3.4
Lack of knowledge/Unskilled employees	–	–	1	25.0	1	20.0	1	3.4
Creating or maintaining safety file	–	–	–	–	–	–	1	3.4
Generating, updating and keeping records; paperwork	–	–	–	–	1	20.0	2	7.1
Compensation Commissioner (inaccessible)	–	–	–	–	–	–	3	10.6
Lack of time – hours; time constraints	–	–	1	25.0	–	–	2	7.1
Language	–	–	–	–	2	40.0	–	–
Stress	–	–	–	–	–	–	1	3.4
Flood – natural disaster	–	–	–	–	–	–	1	3.4
Lack of information	–	–	–	–	–	–	1	3.4
Lack of management and supervision	–	–	–	–	–	–	1	3.4
No communication from Department of Labour	–	–	–	–	1	20.0	1	3.4
Employee unwillingness to comply, a lack of interest, negative attitude, negligence of employees	–	–	–	–	–	–	4	13.8
Registration with authorities	–	–	–	–	–	–	1	3.4
Non-workers insist on being in workshop	–	–	–	–	–	–	1	3.4
Time off for training	–	–	1	25.0	–	–	1	3.4
Laws are complicated	–	–	1	25.0	–	–	1	3.4
Difficulty sending incident report to Compensation Commissioner	–	–	–	–	–	–	1	3.4
Abuse of sick leave	–	–	–	–	–	–	2	7.1
Assessment of employees is time consuming	–	–	–	–	–	–	1	3.4
Resignation of trained employees	–	–	–	–	–	–	1	3.4
Unqualified employees	–	–	–	–	–	–	1	3.4
Training fees extremely exorbitant	–	–	–	–	–	–	1	3.4
Total	–	–	4	100	5	100	29	100

In general, it appeared that respondents were of the opinion that no specific additional barrier seemed to jeopardise their compliance with OHS directives.

5.10.3 Exploratory Factor Analysis on barriers to occupational health and safety compliance

The intercorrelation of the barriers to OHS compliance (see Question 15a of questionnaire) indicated that the data was suitable for factor analysis. Bartlett's test of sphericity $X^2 = 2386.63$ ($df = 55$; $p \leq .05$) and the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO MSA) (at .88, which is more than .6, thus indicating that the data was suitable for factor analysis) indicated the overall significance of correlation within each of the two identified factors (Pallant, 2011:192). The chi-square value from Bartlett's test of sphericity was statistically significant ($p \leq .05$) for the barriers to OHS compliance.

The initial eigenvalues for the barriers to OHS compliance are indicated in Table 5.20 below.

Table 5.20: Table of total variance explained

Items		Initial eigenvalues		
		Total	% of variance	Cumulative %
1	Lack of time	6.021	54.740	54.740
2	Lack of money	1.594	14.490	69.230
3	Laws are too complicated	0.875	7.952	77.182
4	Lack of guidance and advice	0.655	5.959	83.141
5	Lack of training opportunities	0.470	4.274	87.415
6	Lack of cooperation between employers and employees	0.407	3.699	91.114
7	Negligence	0.299	2.714	93.828
8	Carelessness	0.218	1.981	95.809
9	Not adhering to safe working procedures	0.210	1.908	97.717
10	Unskilled employees	0.176	1.601	99.319
11	Unqualified supervisors	0.075	0.681	100.000

All eleven barriers to OHS compliance items were used, with two factor loadings proposed based on the number of eigenvalues larger than unity. The percentage of variance explained was 69.23 on two factors, namely human factors and lack of resources.

Factor analysis is used to reduce a set of variables to more manageable dimensions or factors based on closely related items (Pallant, 2011:104). An Exploratory Factor Analysis (EFA) was conducted on the barriers of compliance identified in this study to ascertain the grouping ability of these barriers. The information is indicated in Table 5.21 below.

Table 5.21: Exploratory Factor Analysis on barriers to occupational health and safety compliance

Barriers to compliance	Identified factors	
	Factor 1	Factor 2
	Human factors	Lack of resources
	Factor loading	Factor loading
Negligence	.92	
Not adhering to safe working procedures	.90	
Carelessness	.89	
Lack of cooperation between employers and employees	.75	
Unqualified supervisors	.74	
Unskilled employees	.70	
Lack of guidance and advice		.87
Laws are too complicated		.82
Lack of training opportunities		.71
Lack of money		.64
Lack of time		.55

The Cronbach’s alpha for the human factors was .94 (94) and for lack of resources .95 (95), thus indicating reliability. Figure 5.13 below indicates the relationship between these two identified groups of barriers.

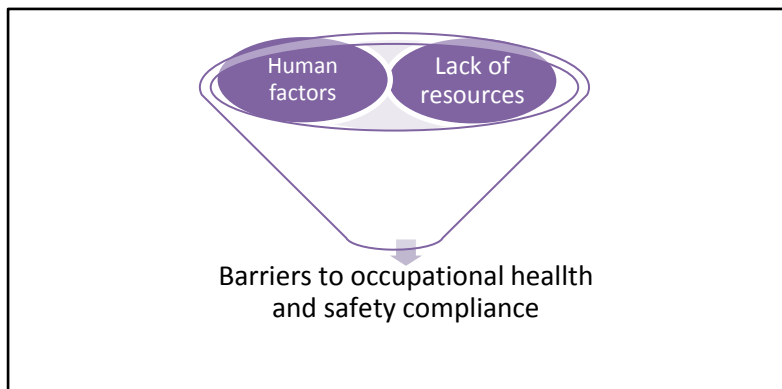


Figure 5.13: Barriers to OHS compliance

5.10.4 Pearson Product-moment Correlation

Based on the discussions of Sections C, D, E, F and G of the questionnaire (knowledge, attitude, behavioural intent, actual behaviour as well as barriers to OHS compliance) another bivariate analysis was conducted by means of a Pearson Product-moment Correlation to indicate the relationship between knowledge, attitude, behavioural intent, actual behaviour, as well as barriers to OHS compliance (resource and human factors), which lay the foundation for the multivariate analysis.

Pearson Product-moment Correlation can be used to explore the relationship between continuous variables to obtain an indication of the direction (indicated with r being positive or negative), as well as the strength of the relationship (Pallant, 2011:103; Field, 2013:56). Pearson product-moment correlation indicates the effect size (r) of variables as a value between 0 (indicating no effect) and 1 (indicating a perfect effect). Effect size (r) is indicated as having a small effect when $r = .10$ to $.29$ (which explains 1% of total variance), medium when $r = .30$ to $.49$ (accounting for 9% of the variance), and large when $r = .50$ to 1.0 (explaining 25% of the variance) (Pallant, 2011: 134; Field, 2013:57).

Table 5.22: Pearson Product-moment Correlation

Factors		Knowledge of occupational health and safety	Attitude towards occupational health and safety	Behavioural intent with regard to occupational health and safety	Resource barriers	Human factor barriers	Actual behaviour related to occupational health and safety
Knowledge of occupational health and safety	Pearson correlation	1	.67**	.53**	-.22**	-.26**	.46**
Attitude towards occupational health and safety	Pearson correlation	.67**	1	.71**	-.22**	-.25**	.45**
Behavioural intent with regard to occupational health and safety	Pearson correlation	.53**	.71**	1	-.12*	-.20**	.43**
Resource barriers	Pearson correlation	-.22**	-.22**	-.12*	1	.74**	-.21**
Human factor barriers	Pearson correlation	-.26**	-.25**	-.20**	.74**	1	-.32**
Actual behaviour related to occupational health and safety	Pearson correlation	.46**	.45**	.43**	-.21**	-.32**	1

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

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

From Table 5.21, it can be deduced that significant relationships existed between the various factors:

- There was a strong positive relationship between knowledge and attitude, $r = .67$, $n = 350$, $p \leq .05$, with high levels of perceived knowledge being associated with high levels of attitude towards OHS compliance.
- There was a strong positive relationship between knowledge and behavioural intent, $r = .53$, $n = 350$, $p \leq .05$, with high levels of perceived knowledge being associated with high levels of behavioural intent with regard to OHS compliance.
- There was a small negative relationship between knowledge and resource barriers, $r = -.22$, $p \leq .05$, with resource barriers negatively affecting knowledge of OHS.

- There was a small negative relationship between knowledge and human factor barriers, $r = -.26$, $p \leq .05$, with human factors barriers negatively affecting knowledge of occupational health and safety.
- There was a medium positive relationship between knowledge and actual behaviour, $r = .46$, $n = 350$, $p \leq .05$, with knowledge positively affecting actual behaviour related to OHS compliance.
- There was a strong positive relationship between attitude and behavioural intent, $r = .71$, $n = 350$, $p \leq .05$, with high levels of attitude towards OHS being associated with high levels of behavioural intent with regard to OHS.
- There was a small negative relationship between attitude and resource barriers, $r = -.22$, $n = 350$, $p \leq .05$, with resource barriers negatively affecting attitude towards OHS.
- There was a small negative relationship between attitude and human factor barriers, $r = -.25$, $n = 350$, $p \leq .05$, with human factor barriers negatively affecting attitude towards OHS.
- There was a medium positive relationship between attitude and actual behaviour, $r = .45$, $n = 350$, $p \leq .05$, with attitude towards OHS positively affecting actual behaviour related to OHS.
- There was a small negative relationship between behavioural intent and resource barriers, $r = -.12$, $n = 350$, $p \leq .05$, with resource barriers negatively affecting behavioural intent with regard to OHS.
- There was a small negative relationship between behavioural intent and human factor barriers, $r = -.20$, $n = 350$, $p \leq .05$, with human factor barriers negatively affecting behavioural intent with regard to OHS.
- There was a medium positive relationship between behavioural intent and actual behaviour, $r = .43$, $n = 350$, $p \leq .05$, with behavioural intent positively affecting actual behaviour related to OHS.
- There was a strong positive relationship between resource barriers and human barriers, $r = .74$, $n = 350$, $p \leq .05$, with high levels of resource barriers being associated with high levels of human factor barriers.
- There was a medium negative relationship between resource barriers and actual behaviour, $r = -.21$, $n = 350$, $p \leq .05$, with actual behaviour related to OHS negatively affecting resource barriers.

- There was a medium negative relationship between human factor barriers and actual behaviour, $r = -.32$, $n = 350$, $p \leq .05$, with actual behaviour related to OHS negatively affecting human factor barriers.

Based on the correlations indicated, it can be deduced that all these factors were positively or negatively (indicating the direction of the relationship) related in various degrees (small, $r = .10$ to $.29$; medium, $r = .30$ to $.49$ or large, $r = .50$ to 1.0) to one another (Pallant, 2011:103).

5.11 DATA ANALYSIS SUPPORTING RESEARCH OBJECTIVES

As indicated in Chapter 1, the problem statement of this study was based on the statement by Kent (2013:1), managing director of SureSwipe as quoted on Fin24.com as saying, "Too many laws are killing small businesses" because legal compliance issues is the main reason why small businesses fail. Small businesses experience challenges pertaining to OHS due to, a lack of financial resources, a lack of managerial skills and poor commitment (Floyde *et al.*, 2013:70). Mardon (2010:1) reiterates that the lack of legal compliance with OHS directives results in South Africa losing many economically active workers through occupational injuries and diseases, and this necessitated the need to identify the knowledge, attitude, behavioural intent, actual behaviour and barriers to OHS compliance of small business owners/managers in South Africa.

This study endeavoured to fill the existing gap between knowledge, attitude, behavioural intent, actual behaviour and barriers to OHS compliance experienced by small businesses. In order to address the problem stated above. The primary objective of this study was to establish a CMF pertaining to OHS directives that will guide and assist small business owners/managers to comply with applicable legal requirements as constituted by:

- the OHS Act; and
- the COID Act.

In reaching this primary objective, the study focused on the following secondary objectives:

- small business owner/manager knowledge of health and safety in the workplace;
- small business owner/manager attitude towards health and safety in the workplace;
- small business owner/manager behavioural intent towards health and safety compliance in the workplace;
- small business owner/manager actual behaviour with regard to health and safety compliance in the workplace; and
- small business owner/manager barriers to health and safety compliance in the workplace.

This study proposes a CMF for small businesses in South Africa which, when implemented, could enhance small business compliance with the relevant OHS Acts in South Africa.

5.11.1 The status of small businesses participating in the study

In order to understand the achievement of the research objectives, such results should be put into context with regard to the status of the small businesses that were involved in the survey. Important contextual characteristics concerning the small business are the following:

5.11.1.1 Locality of small businesses

A total of 350 small businesses comprised the sample of the study. A sample proportionately localised in Gauteng (61.4%), the Western Cape (20.9%) and KwaZulu-Natal (17.7%) participated in the study. The majority of the small businesses were situated in Gauteng, where the largest population of the Republic of South Africa (RSA) is resident and in which most of the small businesses in the RSA operate. The total size of the sample, as well as the selection of provinces and proportionate selection of numbers per province was decided by the

researcher for the purpose of the study and as discussed in Chapter 1 (see section 1.9.2).

5.11.1.2 Eligibility to participate

In order to participate in the study, the small businesses had to meet two main criteria for qualifying as a small business, namely:

- the turnover of the small business should not have exceeded R10 million per annum; and
- the employees of the small business should not have been more than 49 employees, excluding the owner.

All of the small businesses that were part of the study met both the criteria. None had a turnover of more than R10 million per annum. Most (77.5%) of the small businesses employed ten or fewer employees, excluding the owner.

5.11.1.3 Managing authority within the small businesses

The majority (66.6%) of the respondents who completed the survey questionnaire were owners of the small businesses. Managers represented only one third (33.4%) of the total. This overriding representation of owners implied that the information that was provided by way of the instrument came mostly directly from the knowledge and practical experiences of the persons who held the managing authority in the businesses, and who were responsible for making the businesses work.

5.11.1.4 Primary economic sectors in which participating small businesses operated

Three economic sectors were listed in which the largest groups of small businesses operated, namely:

- wholesale and retail (30.3%);
- repair and maintenance services (27.4%); and

- manufacturing and construction (16.3%).

These three sectors represented almost 75% of the total sample. This group of small businesses operated in economic sectors of which the nature of activities (business) could be associated with the likely occurrence of OHS incidents and accidents.

5.11.1.5 Availability of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993

It is a legal requirement that small businesses have the OHS Act available on the premises of the business. The majority (75.7%) of the small businesses had the Act readily available on their premises. This implied that the owners, managers and employees/workers could consult the Act as necessary. This situation could have laid the basis for the responses of the respondents concerning elements pertaining to questions on the OHS Act in the questionnaire used by this study.

5.11.1.6 Reasons for complying with the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993

Legal directives prescribe that small businesses must comply with the OHS Act. There are three main reasons why a business has to follow the directives that appear in safety regulations. Such reasons find their origins in moral judgment, legal or judicial considerations in case of disregard, and financial implications in the form of monetary loss and disrepute. The responses of the small businesses were categorised according to these three legs on which the safety programme of a business stands.

The following results were found pertaining to small businesses' compliance with the OHS Act:

- the total sample listed 406 reasons for complying;

- most of the respondents (65.3%) indicated that their compliance was based on moral considerations;
- legal considerations were indicated as the reason for compliance in more than a quarter (27.8%) of the responses; and
- financial implications were rated as a fairly insignificant (6.9%) reason for compliance.

The general reasons provided by the respondents for complying with the OHS Act concerned moral considerations pertaining to the safety of people, property and the environment.

5.11.1.7 Incidents during the previous two years and registration with the Compensation Fund

Information about OHS incidents during the previous two years and registration with the Compensation Fund constructed a situation where small businesses had to consider a range of OHS aspects related to direct and indirect financial implications for the businesses. Fortunately, the vast majority of small businesses (88.9%) had no incident during the previous two years. A smaller group of the small businesses (65.4%) was registered with the Compensation Fund. This situation implied that very few small businesses experienced financial and/or other losses associated with OHS incidents. Legal compliance with regard to registration with the Compensation Fund did not concern a significant group of small businesses (19.4%). Once again, legal and financial concerns for compliance with safety directive were not regarded as important.

5.11.1.8 The effect of direct and indirect costs of occupational health and safety incidents on small businesses

Small businesses selected a variety of aspects from the closed question list of aspects that had an effect on their businesses. They rated the effects of such outcomes differentially from “no effect” to a “major effect”. Some listed that they did not know whether the listed aspects had any effect on their small businesses. No particular aspect was rated to have had a major effect on the small businesses. On average, almost a quarter (23.0%) of the small businesses was not

knowledgeable about whether some of the aspects had an effect or influence on their businesses. This situation may be associated with the large percentage ($\pm 90.0\%$) of small businesses that had no OHS incidents during the previous two years. Generally, the small businesses identified a mix of elements related to OHS incidents that had different levels of direct and indirect costs effect on OHS aspects in small businesses.

5.11.2 The knowledge of small business owners/managers regarding health and safety in the workplace

One of the secondary research objectives of this study focused on determining the knowledge about health and safety of small business owners/managers in the workplace. It was found that:

- most of the owners/managers rated their knowledge about first aid as the highest of the OHS aspects (42.9%);
- in general, the owners/managers rated their knowledge about the listed range of OHS aspects in the workplace as good with an average of almost 33%;
- some owners/managers rated their knowledge in this regard as poor or fair (on average approximately 12%); and
- only one out of 6 of the respondents rated their knowledge about OHS aspects on the average as very good (approximately 16%).

In reality, the knowledge base of small business owners/managers about specific important OHS aspects in the workplace seemed to be fairly limited.

5.11.3 The attitude of small business owners/managers towards health and safety in the workplace

Small business owners/managers' attitudinal rating of OHS aspects in the workplace differentiated between "not a priority" and a "high priority". The higher ratings slanted towards a high and extreme priority. On average, a little more than one third of the owners/managers of small businesses (35.5%) rated their attitudes towards the range or mix of OHS aspects in the workplace as a "high priority",

while one out of five (20.5%) rated their attitude as an “essential priority”. Judged in perspective, it seemed that the rating of small business owners/managers on the whole or as a group did not demonstrate a high level of concern for the importance of the listed OHS aspects in the workplace.

5.11.4 The behavioural intent of small business owners/managers towards health and safety compliance in the workplace

Within the context of their knowledge and attitude with regard to specific OHS aspects in the workplace, small business owners/managers rated their behavioural intent towards OHS compliance in the workplace at different levels, from “extremely unlikely” to “extremely likely”.

Judged on average, the behavioural intent of almost two out of five (40.0%) small business owners/managers to comply with OHS in the workplace, varied between “extremely unlikely” and “neutral”. The majority ($\pm 60.0\%$) of the owners/managers of small businesses indicated an intent that varied between “likely” and “extremely likely”. In essence, it appeared that most of the small business owners/managers confirmed the behavioural intent to comply with OHS aspects in the workplace.

5.11.5 The actual compliant behaviour of small business owners/managers with regard to health and safety compliance in the workplace

In determining the actual behavioural compliance of small business owners/managers with OHS aspects in the workplace, the following aspects were the points of focus:

5.11.5.1 Employer responsibilities in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993

Small business owners/managers rated their compliance with 30 different responsibilities in the workplace in terms of the OHS Act. On average, three out of five ($\pm 59.2\%$) complied fully with most of the listed employer responsibilities in terms of this Act. On average, a very small percentage ($\leq 5.0\%$) did not comply at

all, while more than 10.0% of the respondents were of the opinion that responsibilities were not applicable, or they did not know whether they complied. It can be concluded that the majority of small business owners/managers rated their compliance with employer responsibilities in terms of the OHS Act as fully, and therefore acceptable.

5.11.5.2 Compliance with selected general administrative regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993

The majority ($\pm 67.3\%$) of small business owners/manager rated their compliance with general administrative regulations in terms of the OHS Act as fully. A small percentage indicated that they did not comply (3.7%), or that they complied partially (12.3%).

5.11.5.3 Compliance with selected general safety regulations in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993

The rating of the small business owners/managers with regard to compliance with specific listed general safety regulations in terms of the OHS Act was favourable. Most respondents ($\pm 74.1\%$) rated their compliance with the general safety regulations as fully. A small percentage indicated that they did not comply at all (3.5%), or only complied partially (13.2).

5.11.5.4 Compliance with the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997

With regard to employer responsibilities in terms of the COID Act, the majority (63.8%) of small business owners/managers rated their behavioural compliance as fully.

It can be concluded that the small business owners/managers rated their behavioural compliance with employer responsibilities, the general administrative regulations, as well as general safety regulations of the OHS Act, and the

employer responsibilities in terms of the COID Act, as favourable, as the majority (59.2%, 67.3%, 74.1 & 63.8% respectively) rated their compliance as fully.

5.11.5.5 Barriers to health and safety compliance in the workplace named by small business owners/managers

Small business owners/managers in general rated the effects of a selected and self-provided group of OHS aspects as barriers to comply with OHS directives. The owners/managers rated the effect of the range (or mix) of OHS aspects as barriers to compliance with OHS directives at different levels. No specific OHS aspect received any high rating as a barrier at any particular level from not a barrier to an extreme barrier.

5.12 CONCLUSION

Chapter 5 presented and explained the results of the empirical research about the small businesses that were involved in determining compliance with a range of OHS responsibilities of employers, and related regulations and legislative directives, in the workplace in terms of the OHS Act and the COID Act. Specific conclusions were reached about achieving the research objectives of the study.

The statistical analysis indicated in this chapter supports the necessity of the CMF as practical framework, discussed in Chapter 6, to assist South African small business owners/managers to move from knowledge to implementation.

CHAPTER 6

COMPLIANCE MANAGEMENT FRAMEWORK

6.1 INTRODUCTION

Following upon the conclusions reported on in Chapter 5, this chapter focuses on presenting a proposed compliance management framework (CMF) for small businesses in South Africa (SA). Such CMF serves as a guideline and reference for the implementation of safety measures.

The safety measures that are stipulated to assist small business owners/managers in practicing occupational health and safety (OHS) effectively, directly relate to the essential core OHS criteria depicted by the National Occupational Safety and Health Committee (NOSHC) of the Royal Society for the Prevention of Accidents (RoSPA). The CMF comprises two elements, namely structural contents and functioning operation. The structural elements are presented in the form of matrices. The OHS responsibilities of owners/managers and employees are structured in detail and appear in the matrices.

The functioning of the CMF specifies the application of the matrices in order to guide and confirm OHS practices. These two elements are discussed in section 6.2 after a presentation of the outline of this chapter (Chapter 6), which appears in Figure 6.1.

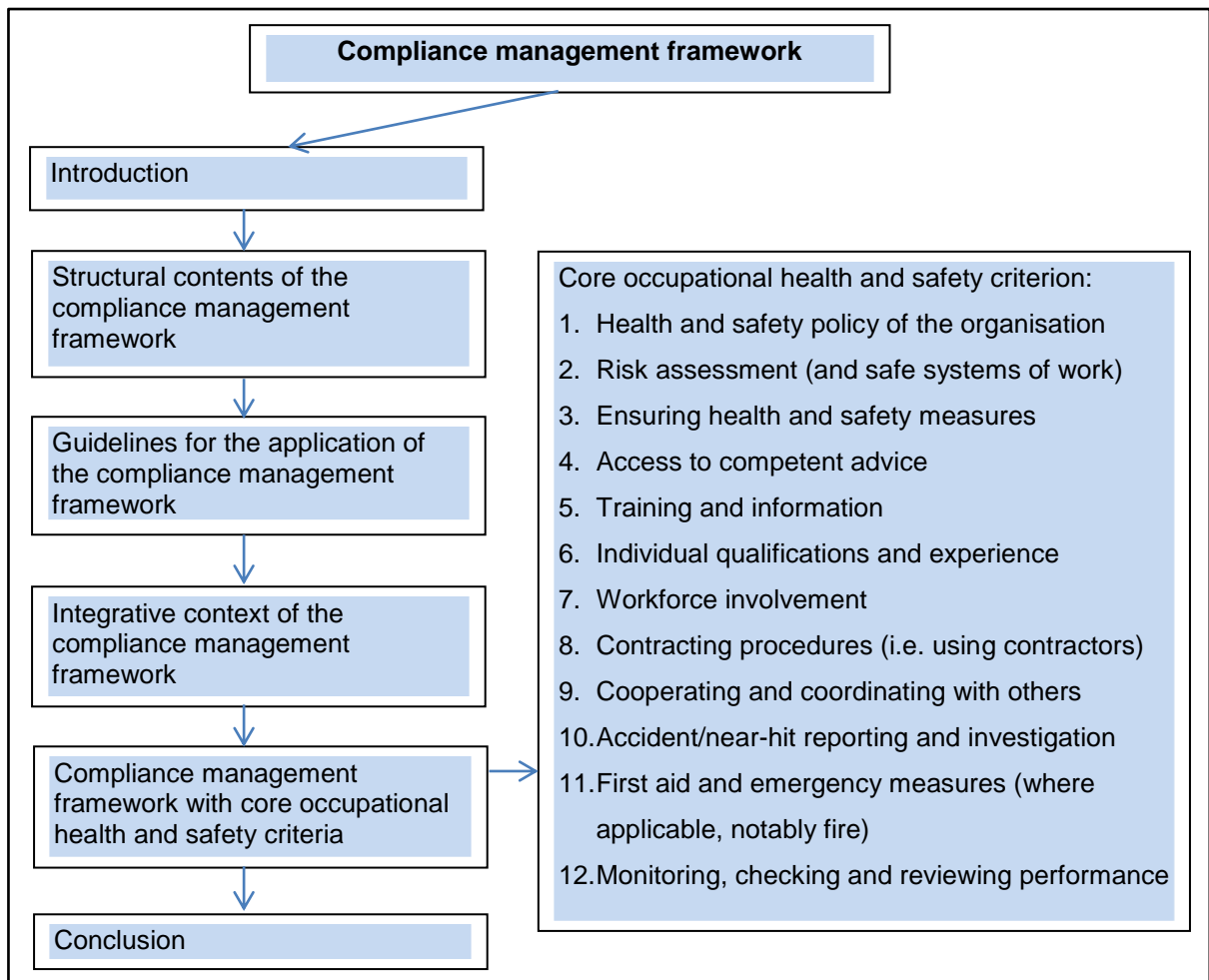


Figure 6.1: Structure of contents in Chapter 6

Source: Author’s own compilation (2016)

6.2 STRUCTURAL CONTENTS OF THE COMPLIANCE MANAGEMENT FRAMEWORK

The research results and findings presented in Chapter 5 necessitated the compilation and implementation of a CMF specifically for small businesses. The perceived knowledge of small business owners/managers of OHS in the workplace was found to be slightly more than average (with a score of just more than 3 out of 5), and could be improved. The attitude of small business owners/managers towards OHS seems to be a priority in most cases, but differ with regard to the extent of such priority.

The CMF is based on legislation, which encompasses all twelve identified OHS aspects, as presented at the end of this section, which should be seen as essential priorities in small businesses. The behavioural intent of small business

owners/managers towards OHS compliance was rated towards “likely to comply”. The behavioural intent should ideally be situated close to “extremely likely” since compliance is a legal, financial and moral contention. “Actual compliance” of small business owners/managers towards OHS directives mostly indicated ratings towards “partial compliance”, thus indicating that “full compliance” was not achieved in all cases. Ratings with regard to compliance should ideally be at “full compliance”. Barriers to compliance were also highlighted in the previous chapter (see section 5.10), with barriers being divided between human factors (see section 5.10.3) and a lack of resources (see section 5.10.3). The CMF aims to provide information that might alleviate the effect of such barriers to OHS compliance.

The CMF is based on applicable legislation regarding OHS, specifically the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (OHS Act) as well as the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997 (COID Act). The structural contents of the CMF relate to the essential core OHS criteria that are listed by NOSHC and RoSPA, explained in this study, and depicted in the OHS focus and activities of the Group of Twenty (G20) countries (see section 2.3). Chapters 2 and 3 of this study contained details with regard to the different countries of the G20 (see sections 2.4 and 3.2) as related to these core OHS criteria. The essential core OHS criteria comprise the following:

- Health and safety policy of the organisation;
- Risk assessment (and safe systems of work);
- Ensuring health and safety measures;
- Access to competent advice;
- Training and information;
- Individual qualifications and experience;
- Workforce involvement;
- Contracting procedures (i.e. using contractors);
- Cooperating and coordinating with others;
- Accident/near-hit reporting and investigation;
- First aid and emergency measures (where applicable, notably fire); and

- Monitoring, checking and reviewing performance.

Each of the essential core OHS criteria is broken down into different elements that require careful and continuous consideration in applying the CMF. Some of the criteria lead to a list of elements that apply to each of these criteria, with different numbers of elements being applicable. The rating matrix provides room for small business owners/managers to indicate compliance by their businesses with each of the elements.

6.3 GUIDELINES FOR THE APPLICATION OF THE COMPLIANCE MANAGEMENT FRAMEWORK

The essential core OHS criteria are detailed in different matrices that represent different responsibilities or functions with which a small business owner/manager must comply in order to run business operations effectively and safely. Such responsibilities are based on the results of this study, which are simplified with the view to practicable application. The matrices function on the basis that small business owners/managers must apply all the OHS criteria that are listed to run the business effectively and safely. The small business owner/manager could rate to what extent they were applying the core OHS criteria by indicating:

- “Yes”, which implied full or complete compliance;
- “Partial”, indicated in the CMF as “Part”, which implied that compliance was in process; and
- “No”, which implied that no effort had been made or the criterion did not apply.

Small business owners/managers need to understand that the optimum OHS requirement is full compliance, which reaches beyond legal compliance, encompassing moral, as well as financial considerations. Legal compliance, or legal considerations, represent only minimum requirements as indicated by law.

6.4 INTEGRATIVE CONTEXT OF THE COMPLIANCE MANAGEMENT FRAMEWORK

The CMF should continuously operate within a given context. Such context is defined by the three basic components of OHS, namely the moral, legal, and financial components. These three components inevitably form an integrated basis for developing and practising the essential core OHS criteria. Irrespective of the nature and focus of the essential core OHS criteria, which a small business applies in the process of making the CMF practicable, must consistently take heed of the three components on a joint and integrated basis.

Legal requirements play an important role in the application of the CMF as the CMF is based on the OHS Act as well as the COID Act. These requirements must be considered in the implementation of all core OHS criteria. Although moral, legal and financial components are always involved in the application of the CMF, this does not mean that all three components are implied equally when applying each of the essential core OHS criteria individually. Figure 6.2 depicts the integrated involvement of the three basic OHS components in applying the CMF.



Figure 6.2: Integrated nature of the compliance management framework with occupational health and safety criteria and components

Source: Author's own compilation (2016)

6.5 COMPLIANCE MANAGEMENT FRAMEWORK WITH CORE OCCUPATIONAL HEALTH AND SAFETY CRITERIA

Applying the CMF depicts the extent to which a small business strives for OHS success. Such success can be determined by rating the successful application of different elements within each essential core criterion. The following depiction of

the CMF presents the opportunity for small business owners/managers to rate the extent to which they adhere to the essential core OHS criteria.

The following core OHS criteria, with their related elements below, should be completed by small business owners/managers based on their compliance with each element (from 6.5.1 to 6.5.12). As indicated previously, “Yes” should be circled for full or complete compliance, “Part” (Partial) for compliance still in process, and “No” when no effort towards compliance has commenced yet, or if the element is not applicable.

6.5.1 Core occupational health and safety criterion no. 1: Health and safety policy of the organisation

Occupational health and safety requirements and status of compliance											
Basic philosophy			Directives provided to apply policy			Guidelines with regard to contents			Consultation with stakeholders		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Buy-in obtained from employees			Basic occupational health and safety values			Aims and objectives including occupational health and safety			Management commitments		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Written policy			Policy displayed			Responsibilities of management			Continual improvement directives		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Principles and priorities listed			Critical business activities listed			Policy signed			Guidelines for occupational health and safety activities		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Black Economic Empowerment policy specified			Directives for hiring contractors			Responsibilities of employees			Entrepreneurial orientation		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Multi-cultural management			Dealing with differences			Cooperation with authorities			Acknowledge employee right to refuse to engage in dangerous activities		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No

Occupational health and safety requirements and status of compliance											
Acknowledge employee right to information			Stipulate means for communicating OHS information			Indicate means for the protection of environment			Set parameters for emergency response actions		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No

6.5.2 Core occupational health and safety criterion no. 2: Risk assessment (and safe systems of work)

Occupational health and safety requirements and status of compliance											
Complete baseline safety risk assessment in workplace			Assess all safety risk with regard to machines			Assess all safety risk pertaining to equipment			Assess all safety risk related to work processes (safe operating procedures)		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Safety risk assessment regarding safety hazards			Assess all safety risk concerning work systems			Assess all safety risk concerning employee tasks			Daily pre-trip vehicle safety risk assessment in place		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Assess all safety risk pertaining to utilising personal protective equipment			Safety risk assessment regarding listed work			Safety risk assessment through behaviour-based safety			Suitable and sufficient safety risk assessment performed		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Apply material safety data sheets based on safety risk assessment			Method statements based on safety risk assessment			Assess occupational health and safety risk through medical pre- and post-examination			Assess safety risk concerning human inconsistency		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Assess safety risk via medical surveillance and biological monitoring			Apply congruency: human competence and acceptable safety risk			Apply congruency: threshold limits and acceptable safety risk			Determine levels of safety risk prior to all business operations		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Assess occupational health and safety risk via incident and accident analysis			Conduct continuous occupational health and safety risk assessment			Assess hazardous energies in business operations			Set integration with ISO 9000, ISO 14000 and OHSAS 18001		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No

Occupational health and safety requirements and status of compliance			
Utilise cross-functional teams in all safety risk assessment			
Yes	Part	No	

6.5.3 Core occupational health and safety criterion no. 3: Ensuring health and safety measures

Occupational health and safety requirements and status of compliance											
All occupational health and safety measures based on safety risk assessment			Identified all control measures for safety risk in the workplace			Apply safe systems of work for all operations			Provide appropriate supervision via competent persons		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Non-workers not exposed to unacceptable occupational health and safety risk			Apply correct controls for safety risk regarding machines			Apply correct controls for safety risk regarding work processes			Apply correct control for safety risk regarding employee tasks		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Perform visibly felt leadership supervision regularly			Mitigate all safety risk associated with human involvement			Ensure employee competence for business operations			Ensure that health and safety representatives are nominated and selected correctly		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Ensure correct appointment of health and safety representatives			Enforce regular health and safety committee meetings			All critical safety behaviour listed			Enforce measures in the interest of employee occupational health and safety		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Regular meetings with management steering committee			Regular meetings with employee trade unions			Identification and elimination of barriers to occupational health and safety issues			No employee exposure to unacceptable safety risk		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No

Occupational health and safety requirements and status of compliance											
Medical surveillance and biological monitoring in place			Pre-trip inspections consistently controlled			Apply directives for working at heights or in confined spaces			Housekeeping consistently applied		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Display appropriate occupational health and safety symbols and signs			Stacking/storage directives in place			Adhere to material safety data sheet directives			Personal protective equipment provided to employees at no charge		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Incentive and disciplinary systems in place			Method statements precede all work operations			Apply access control			Implement behaviour-based safety programme		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Liaise with resources for transfer of occupational health and safety risks			Apply occupational health and safety system of workplace inspections								
Yes	Part	No	Yes	Part	No						

6.5.4 Core occupational health and safety criterion no. 4: Access to competent advice

Occupational health and safety requirements and status of compliance											
Establish cross-functional teams for all safety risk assessment obligations			Establish and consult executive advisory committee			Establish and consult working group with Department of Labour			Consult accountant regarding business finances		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Establish and consult with environmental working group			Consult and cooperate with occupational health and safety inspectors of Department of Labour								
Yes	Part	No	Yes	Part	No						

6.5.5 Core occupational health and safety criterion no. 5: Training and information

Occupational health and safety requirements and status of compliance												
Identify all occupational health and safety information employees need to know			Design and apply occupational health and safety courses for induction training			Design and apply all occupational health and safety courses for in-service training			Design and apply all occupational health and safety courses for job safety training			
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No	
Design and apply occupational health and safety courses for re-training			Design and apply occupational health and safety courses for contractor training			Assess and improve occupational health and safety training through benchmarking			Allocate funds for dedicated higher occupational health and safety education			
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No	
Design and apply training courses on near-hit reporting			Design and apply occupational health and safety courses on emergency response			Design and apply courses on incident analysis			Design and apply courses on business management			
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No	
Design and apply courses on employee involvement and behaviour-based safety			Design and apply systems of effective communication			Design and apply courses on entrepreneurial orientation			Design and apply courses on workplace inspection			
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No	
Make available all occupational health and safety information in all sections of the business as necessary			Design and apply courses on effective functioning as health and safety representative and health and safety committee			Design and apply courses on effective performance appraisal						
Yes	Part	No	Yes	Part	No	Yes	Part	No				

6.5.6 Core occupational health and safety criterion no. 6: Individual qualifications and experience

Occupational health and safety requirements and status of compliance											
Establish a portfolio for each position in the business			Set directives for promotion for all positions in the business			Set possibilities to acquire academic/technical qualifications			Set opportunities to acquire practical skills and experience		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Create and apply internal mentorship system			Advance qualifications with a loan or bursary scheme			Design and apply an effective performance appraisal system			Design and apply an appreciative recognition system		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No

6.5.7 Core occupational health and safety criterion no. 7: Workforce involvement

Occupational health and safety requirements and status of compliance											
Select and appoint health and safety representatives legally and correctly			Establish a health and safety committee			Set directives for health and safety committee operations in consultation with such committee			Consult health and safety representatives and the health and safety committee in all safety risk assessments		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Consult health and safety representatives and health and safety committees in all incident analyses											
Yes	Part	No									

6.5.8 Core occupational health and safety criterion no. 8: Contracting procedures (i.e. using contractors)

Occupational health and safety requirements and status of compliance											
Design an occupational health and safety operational system for contractors			Set directives for selecting and appointing occupational health and safety contractors			Select contractors and determine level of occupational health and safety status			Apply occupational health and safety inductive course for contractors		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Conduct occupational health and safety meetings with contractors regularly (specify frequency)			Appoint a competent supervisor to manage contractor system								
Yes	Part	No	Yes	Part	No						

6.5.9 Core occupational health and safety criterion no. 9: Cooperating and coordinating with others

Occupational health and safety requirements and status of compliance					
Inform health and safety representatives and health and safety committee of inspections			Inform health and safety representatives and health and safety committee of incidents		
Yes	Part	No	Yes	Part	No

**6.5.10 Core occupational health and safety criterion no. 10:
Accident/near-hit reporting and investigation**

Occupational health and safety requirements and status of compliance											
Design emergency response plan			Appoint and train emergency response team			Enhance reporting and analysis of near-hit incidents			Report major incidents		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Utilise cross-functional teams in incident and accident analysis			Report all incidents arising out of/in connection with work activities			Report all incidents related to machinery that ran out of order			Report incidents within prescribed period and manner to Compensation Commissioner		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Report all incidents that resulted in unconsciousness/likely to die/suffer permanent physical defect/not able to work within 14 days in current position			Report all incidents that resulted in loss of limb/suffer permanent physical defect/not able to work within 14 days in current position			Report all incidents that resulted in injury likely to die/suffer permanent physical defect/not able to work within 4 days in current position			Report all incidents that resulted in disease likely to die/suffer permanent physical defect/not able to work within 14 days in current position		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Report all incidents related to spills of substances			Report all incidents related to uncontrolled release of substance under pressure			Report all incidents related to machinery/part fractured/failed			Report all incidents related to falling or uncontrolled moving objects		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Rescue persons from danger but leave scene undisturbed			Record and investigate reportable incidents			Give full cooperation in total investigation			Disclose all information to inspector		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Appeal against decision of inspector			Register with Compensation Commissioner and pay assessment fee			Report incident within 7 days with full personal details of person(s) involved					
Yes	Part	No	Yes	Part	No	Yes	Part	No			

6.5.11 Core occupational health and safety criterion no. 11: First aid and emergency measures (where applicable, notably fire)

Occupational health and safety requirements and status of compliance											
Compile contents and positions of first aid/emergency equipment			Design emergency response plans			Implement system of emergency response			Stipulate point of assembly during emergency response		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Set directives for drill during emergency response and exercise regularly			Design and apply occupational health and safety courses for emergency response team			Provide ablution and toilet facilities to employees as required by business operations			Design and apply occupational health and safety courses in fire-fighting		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Design and apply occupational health and safety courses in first aid			Liaise with community to assist in recovery of disaster								
Yes	Part	No	Yes	Part	No						

6.5.12 Core occupational health and safety criterion no. 12: Monitoring, checking and reviewing performance

Occupational health and safety requirements and status of compliance											
Design internal auditing system			Apply internal auditing systems			Apply the outcome of internal auditing			Set criteria for external auditing		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Negotiate external auditing contract			Apply external auditing			Apply the outcome of external auditing			Review integration of ISO 9000 and ISO 14000		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Review integration of OHSAS 18001			Review contents and outcomes of training programmes			Design systems to monitor behaviour-based safety programmes			Review outcomes and assess behaviour-based safety programmes		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Review the effect of vehicle pre-trip systems			Monitor and review systems of involvement of employees			Review systems of incentives or discipline			Review effect of the health and safety representatives system		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Review influence of health and safety committees			Apply systems to acquire customer feedback			Apply customer feedback			Review all processes of safety risk assessment		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Monitor and review access systems			Monitor medical surveillance and biological monitoring			Review impact of incident/accident analysis			Monitor and review emergency response plans		
Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
Monitor pre- and post-medical examination programmes			Review the quality of occupational health and safety measures through benchmarking			Monitor and assess performance of emergency response teams					
Yes	Part	No	Yes	Part	No	Yes	Part	No			

6.6 CONCLUSION

This chapter reflected the proposed CMF with regard to OHS, which SA small business owners/managers could apply. The twelve core OHS criteria identified in this study were used as the basis for the CMF in conjunction with applicable legislation. Financial, legal and moral considerations form part of all core OHS criteria. Even though this CMF does not claim to provide a complete or all-

encompassing CMF, it is generic in nature and can be used as a basis for compliance in any small business, irrespective of the primary economic sector in which the small business operates. Chapter 7 summarises the study, provides recommendations for further research, and highlights limitations of this study.

Chapter 7 provides an overview, and significance, of the study. Furthermore, the problem statement and research objectives are revisited. The research methodology is reviewed and the research results and findings summarised. The limitations of the study are highlighted and recommendations indicated. Areas for further research are postulated.

CHAPTER 7

CONCLUSION AND RECOMMENDATIONS

7.1 INTRODUCTION

This study set out to determine various contentions of small business owners/managers related to occupational health and safety (OHS) regulatory compliance in their businesses. Figure 7.1 provides an outline of this chapter.

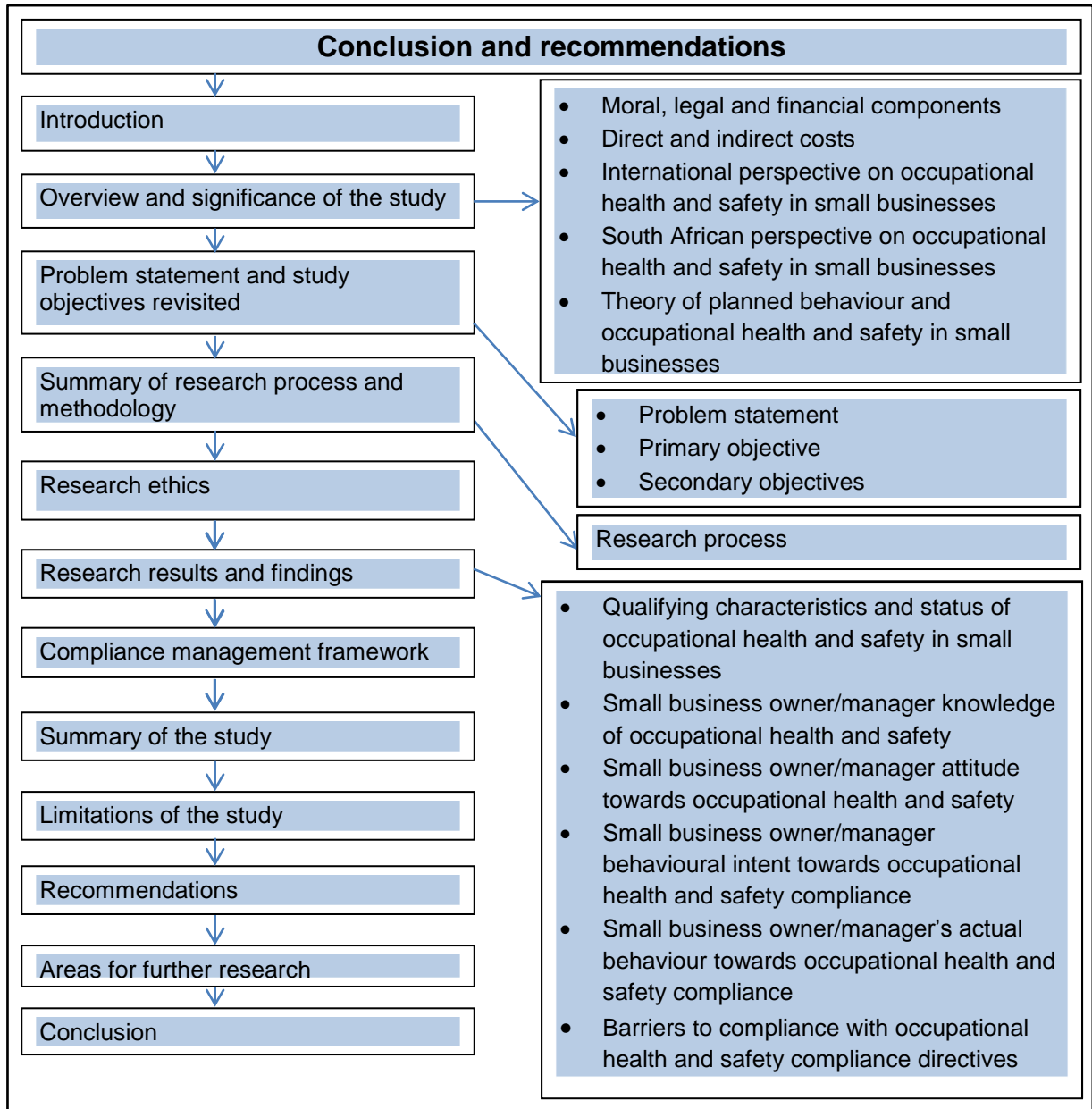


Figure 7.1: Structure of contents in Chapter 7

Source: Author's own compilation (2016)

The South African (SA) government emphasises the development and growth of small businesses in order to alleviate unemployment and to enhance economic sustainability (DoL, 2014b). Due to direct and indirect costs being involved in OHS incidents, associated social as well as economic costs receive increased attention (Hermanus, 2007:531). Small business owners/managers play an indispensable role in compliance related to OHS to enhance sustainable development (Markowitz & Gerardu, 2012:553).

7.2 OVERVIEW AND SIGNIFICANCE OF THE STUDY

Small businesses often lack the necessary resources, such as knowledge and experience, to manage OHS properly since it is a complex, time-consuming and cost-intensive process (Reiner, 2011:49). Due to the important role that small businesses play in the growth and sustainability of the SA economy (G20, 2014e:21), financial security of such businesses should be ensured, and this encompasses the prevention of losses due to OHS incidents. This study contributes to the field of OHS by providing small business owners/managers with a compliance management framework (CMF) to assist with the management of OHS in their respective businesses. It was necessary to extrapolate certain applicable key concepts, as presented below, to develop a CMF.

7.2.1 Moral, legal and financial components

Small business owners/managers have a moral obligation to ensure the health and safety of their employees, which is incorporated in corporate social responsibility (CSR), as well as business ethics (Duluth, 2013:22; Louw, 2015a:131–133). This moral consideration necessitates that small business owners/managers endeavour to develop, implement and maintain an effective safety management programme. Certain legislative requirements are aimed specifically at health and safety in the workplace and small business owners/managers should ensure that they comply with all relevant and applicable legislation (Heinrich, 1959:43; Arya & Bassi, 2011:674; Maamoun, 2013:8; Goetsch, 2014a:642). Furthermore, the success of any business, including small businesses, relies in part on the ability of the business to deliver quality products and services, while ensuring the health and safety of its employees (Fuller &

Vassie, 2004:127). Managing OHS in a small business necessitates financial decisions, which inevitably form part of proper management practices. Limited financial resources must be effectively utilised to allow for OHS compliance whilst not inhibiting business growth (Valsamakis *et al.*, 1992:245; Hart, 2015:1).

7.2.2 Direct and indirect costs

Direct costs associated with OHS refer to costs such as damage to equipment, medical costs due to injuries and diseases, and loss in production. Indirect costs refer to, amongst others, damage to the reputation of the business (Hermanus, 2007:531). Small business owners/managers should be aware of both these costs as non-compliance with OHS regulatory directives can amount to additional costs and penalties.

7.2.3 International perspective on occupational health and safety in small businesses

The costs associated with poor health and safety in the workplace is globally recognised to be quite substantial (Gervais *et al.*, 2009:7–8; Arocena & Nuñez, 2010:398; Micheli & Cagno, 2010:729). Small businesses do not operate in isolation and form part of the global business world. This necessitates that small businesses, also in SA, should take note of global awareness as related to OHS. The Group of Twenty (G20) highlights OHS as part of promoting sustainable growth (G20, 2014c:7). SA forms part of the G20 countries, and therefore the awareness of OHS in these countries was explored through a literature study.

The Royal Society for the Prevention of Accidents (RoSPA) and the National Occupational Safety and Health Committee (NOSHC) studied OHS in small businesses to determine core criteria to deal with OHS effectively. These twelve core OHS criteria comprise (RoSPA, 2015b:1):

- Health and safety policy and organisation;
- Ensuring health and safety measures;
- Risk assessment (and safe systems of work);
- Access to competent advice;

- Training and information;
- Individual qualifications and experience;
- Workforce involvement;
- Contracting procedures (i.e. using contractors);
- Cooperating and coordinating with others;
- Accident/near-hit reporting and investigation;
- First aid and emergency measures (where applicable, notably fire); and
- Monitoring, checking and reviewing performance.

All twelve these core OHS criteria were studied in all G20 member countries to determine awareness with regard to the core OHS criteria. It was found that the G20 member countries are aware of these criteria as applicable to small businesses (see section 2.4). The contributions in terms of OHS by the International Labour Organisation (ILO), the International Organisation for Standardisation (ISO), the International Monetary Fund (IMF), and the World Health Organisation (WHO) were also recognised.

7.2.4 South African perspective on occupational health and safety in small businesses

Small businesses play a vital role in reducing unemployment in SA (Meyer, 2014:68). Successfully managing such small businesses requires that OHS directives contained in applicable legislation be recognised and implemented (Okoye & Okolie, 2014:21). The highest law in the Republic of South Africa (RSA), the Constitution of South Africa Act No. 108 of 1996, indicates in section 24(a) that every person has the right to be in an environment that is not harmful to his or her health or to his or her well-being, as well as to social security related to OHS (Compensation Fund, 2013:6). Unfortunately, an unacceptably high amount of money is being paid out annually due to accidents and diseases in the workplace (Compensation Fund, 2013:6; Compensation Fund, 2016:19-20). As member country of the G20, the core OHS criteria mentioned above (section 7.2.3) was used as guideline to determine the SA perspective on OHS in small businesses as these twelve OHS criteria are provided for in SA legislation.

Employers, including small business owners/managers, have certain responsibilities in terms of the Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Act No. 181 of 1993 (OHS Act), as well as the Compensation for Occupational Injuries and Diseases Act No. 61 of 1997 (COID Act). Furthermore, certain general administrative and safety regulations are applicable to small businesses in terms of the OHS Act. Keeping this in mind, this study determined the contention of small business owners/managers with regard to OHS. However, it has been found in an earlier study (Tustin, 2015:85), that SA small businesses experience compliance with regulatory elements as challenging and constrictive. The role of international and national standards, the ISO and the South African Bureau of Standards (SABS) was also indicated (see section 3.4 for the benefits of standardisation). However, the implementation of standards sometimes poses problems for small businesses due to the culture and decision-making structure of small businesses, as well as the perceived cost of certification (Kehbila, 2013:35, 37, 44).

Moral, legal and financial components of a CMF in the SA context were discussed (section 3.5). CSR, as part of moral considerations, indicates that businesses, including small businesses, have an economic, legal, ethical, as well as philanthropic responsibility (Buchholtz & Carroll, 2012:37). Going over and above mere legal compliance is seen to have a positive effect on society (Maamoun, 2013:8). Acceptable behaviour in terms of what a specific society requires forms part of business ethics as moral component (Louw, 2015a:133). Legal considerations in terms of the CMF refer to the general duty that is imposed on small business owners/managers by legislation to ensure a healthy and safe workplace (Sieberhagen *et al.*, 2009:5). Even though red tape is a burden to small businesses, certain initiatives are being undertaken to make compliance easier for small businesses, such as by the Department of Small Business Development (DSBD) (Fredericks, 2014:1). Financial considerations in the SA context refer to, the financial losses that are suffered as part of OHS incidents. SA loses economically active workers due to OHS incidents, as well as approximately 5% of its annual gross national product (GNP) (Mardon, 2010:1). Direct and indirect costs associated with OHS incidents must be taken into consideration (Olowogbon *et al.*, 2012:12) with indirect costs exceeding direct costs. Sustainability (providing

for the current generation while allowing for future generations to meet their needs), as well as the triple bottom-line (TBL), which encompass environmental, social and economic aspects, also forms part of financial considerations (Buchholtz & Carroll, 2012:24, 57).

7.2.5 Theory of planned behaviour and occupational health and safety in small businesses

To understand the application of OHS in SA small businesses properly, an integrated approach was followed based on OHS legislation, as well as the principles of the theory of planned behaviour (TPB). The TPB is based on knowledge, attitude, behavioural intent and actual behaviour towards an aspect and associated achievement of related goals and objectives (Ajzen, 2002:666). This theory therefore implies that a small business owner/manager should have appropriate OHS knowledge, a positive attitude towards OHS, a behavioural intent to act in an appropriate way in terms of OHS, as well as appropriate actual behaviour towards OHS. Barriers, such as a lack of resources, might prohibit behavioural intent moving towards actual behaviour (Probst *et al.*, 2013:133). TPB, with possible barriers to OHS compliance, was therefore used to determine relevant OHS knowledge, attitude and behaviour (both intent and actual) in small businesses with the view to compiling a CMF (see section 3.6).

7.3 PROBLEM STATEMENT AND STUDY OBJECTIVES REVISITED

This study was conducted to address the compliance issues of small businesses in the SA context. The gap between knowledge, attitude, behavioural intent and actual behaviour was addressed whilst being mindful of possible barriers to compliance with the view to compiling a CMF for small businesses in SA.

7.3.1 Problem statement

Legal compliance issues comprise one of the main reasons for the failure of small businesses as indicated by Kent, the managing director of SureSwipe (Kent, 2013:1). Furthermore, Floyde *et al.* (2013:70) have found that small businesses lack the necessary resources and commitment to deal effectively with OHS. To

address the problem of legal compliance issues related to OHS, research objectives were set for this study.

7.3.2 Primary objective

This study set out to compile a CMF for SA small businesses. Therefore, the context of OHS knowledge, attitude, behavioural intent, and actual behaviour of SA small business owners/managers had to be determined. Furthermore, their contention with regard to actual compliance, as well as barriers to OHS compliance had to be ascertained.

7.3.3 Secondary objectives

The following secondary objectives were set to support the primary objective of the study, namely to:

- determine small business owner/manager knowledge of health and safety in the workplace;
- determine small business owner/manager attitude towards health and safety in the workplace;
- determine small business owner/manager behavioural intent towards health and safety compliance in the workplace;
- determine small business owner/manager actual behaviour with regard to health and safety compliance in the workplace; and
- investigate small business owner/manager perceived barriers to health and safety compliance in the workplace.

All set objectives, both primary and secondary, of this study have been met.

7.4 SUMMARY OF RESEARCH PROCESS AND METHODOLOGY

The research design of this study comprised a positivistic research philosophy with a deductive research approach (see section 1.10.1). A quantitative, correlative, cross-sectional design was followed with the use of a questionnaire (designed and developed based on secondary research) to gather data from a single source, namely SA small business owners/managers, for analysis. Both primary data (from

the questionnaires) and secondary data (from the literature study) were used in this study. Ethical clearance was obtained from the University of South Africa (Unisa) before commencing with primary data collection due to human respondents (small business owners/managers) being involved.

7.4.1 Research process

The process followed for this study comprised the steps as indicated below.

7.4.1.1 Identify and define research problem

Small businesses experience problems with legal compliance. This study aimed to fill the gap between knowledge, attitude, behavioural intent, actual behaviour and barriers to OHS compliance experienced by SA small business owners/managers related to applicable OHS directives through a CMF.

7.4.1.2 Establish research objectives

The research objectives of the study, as indicated previously in this chapter (see sections 7.3.2 and 7.3.3), aimed to establish the knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance as experienced by SA small business owners/managers with regard to OHS compliance.

7.4.1.3 Determine research design

The research design comprised the framework of data collection and analysis to reach the research objectives. The research philosophy of this study comprised a positivistic philosophy with the emphasis on a structured methodology (see section 4.3.3) to present an end product describing specific elements of the phenomenon that was studied (Saunders *et al.*, 2012:678). A deductive research approach was followed as conclusions were made from the general to the specific (Saunders *et al.*, 2012:144).

The methodological approach was quantitative in nature as the study set out to measure the knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance of small business owners/managers. Three qualitative (open-ended) questions were included in the questionnaire as a concurrent embedded design.

The responses to these questions were quantified for analysis. The research strategy or procedure followed to answer the research questions included making use of a questionnaire to generate quantitative descriptive data. The secondary data obtained through the literature study allowed for the development of applicable content constructs to be used in the development of the measuring instrument, the questionnaire.

The time horizon for this study was cross-sectional as it ascertained the knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance of SA small business owners/managers at a specific point in time. The collected data was analysed to realise the objectives of this study (see section 1.8). The data collection process included the construction of the questionnaire, the formulation of the coding strategy, the collection of data, and the entry of data onto the data collection form (Van Zyl, 2014:8).

7.4.1.4 Identify information types and sources

The data collected from small business owners/managers by way of the questionnaire was used to determine their knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance related to OHS in their respective businesses. Secondary data, obtained through the literature study, was used as basis for defining phenomenon constructs and to design the questionnaire.

7.4.1.5 Develop the sample

A sample of the population, i.e. all SA small business owners/managers, was employed in order to generalise the results from this study to the population. This sample was obtained by making use of a homogeneous purposive sampling technique. A non-probability sample was extended through snowballing and referral (Saunders *et al.*, 2012:672, 682). The sample used for this study comprised 350 small business owners/managers from three provinces in SA with the highest number of active businesses. The sample was thus made up of 215 small business owners/managers from Gauteng, 62 from KwaZulu-Natal and 73 from the Western Cape (see section 1.10.2).

7.4.1.6 Design the research instrument (questionnaire)

The questionnaire was designed using secondary data from the literature review as basis for the phenomenon constructs. The questionnaire was designed to obtain data pertaining to the knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance of SA small business owners/managers. Construct validity (measuring what is meant to be measured [see section 4.3.6]), as well as content validity (the agreement that the questions appear to logically and accurately reflect what it should measure [see section 4.3.6]) was ensured before commencing with data collection (Saunders *et al.*, 2012:670). A statistician from the University of South Africa (Unisa) assisted in this regard.

Nominal, ordinal, interval and ratio measurement scales, coupled with a personal communication approach and a structured process were used to obtain data that could be analysed as required (Cooper & Schindler, 2011:321). The measurement questions were constructed and refined to ensure a quality questionnaire. The questionnaire was drafted and refined according to a flowchart for questionnaire design that included an introduction and instructions to respondents, filter questions (to screen respondents) and target questions (Cooper & Schindler, 2011:324, 349), as addressed in section 4.3.6.

The types of questions used in the questionnaire included rating questions to collect the opinion of small business owners/managers on various aspects. Category questions were used to force respondents to choose one option, for example, the number of employees of the small business. List questions, where respondents were offered a list of options, were used to determine, for example, the province in which the business operated. Three open-ended questions were included to allow respondents the opportunity to indicate unforced choices on, for example, barriers to OHS compliance. The questions in the questionnaire were compared with the research objectives to obtain relevant data.

The questionnaire was pre-tested before commencing with data collection (see section 4.3.6). Small business owners/managers, academics, fieldworkers and the statistician were included in this process to determine the reliability (being error-

free) and user-friendliness of the questionnaire. Based on feedback from the pre-testing of the questionnaire, it was decided to include the primary economic sector in which the small businesses operated in the questionnaire.

7.4.1.7 Primary data collection

Two fieldworkers were used to collect the primary data from 350 small business owners/managers, using the questionnaire. Respondents had to fall within the set criteria for this study, namely:

- The respondent had to be the owner/manager of a small business.
- A small business had to have an annual turnover of less than R10 million and fewer than 50 employees.
- The small business had to be situated in Gauteng, KwaZulu-Natal or the Western Cape.

7.4.1.8 Coding, capturing and storing of primary data

Coding of data encompasses that data from the questionnaire be assigned numbers in order to group responses into categories (Cooper & Schindler, 2011:405). Coded data was entered into a computer software program, SPSS, to analyse the data. The data was captured and stored by the statistician. The researcher was provided with a copy of the data for safekeeping. All members involved with the gathering, capturing and analysis of the data signed a confidentiality agreement in accordance with the ethical policy of Unisa.

7.4.1.9 Analysis of primary data

The data was broken down into groups or elements that were examined separately in order to translate it into integrated inferences and findings (Tustin *et al.*, 2015:296). This means that the findings were relevant to the research objectives of the study. The analysis of the data with SPSS allowed for conclusions and recommendations based on descriptive and inferential statistics (both uni- and bivariate analysis) (see sections 5.6 to 5.9). Factor analysis, Analysis of Variance (ANOVA), and Pearson Product-moment Correlations were utilised (see sections 5.6 to 5.10).

7.4.1.10 Presentation of research findings and follow-up

Figures and tables were used to illustrate and explain the research findings as applicable to the research objectives of the study. Respondents were given the option to include their email addresses on the questionnaire to receive the results of the study. The results of this study will be sent to respondents who provided their email addresses. No follow-up besides sending the results to respondents who indicated that they would like to receive the results will be conducted due to the confidentiality and anonymity of respondents.

7.5 RESEARCH ETHICS

Ethical considerations applied during the planning stages of the research as well as during the collection, analysis, management and reporting of data. The dignity of human respondents, small business owners/managers, was maintained and no physical or psychological harm inflicted. Ethical research principles, as well as the rationale for, and the development of each principle, were considered throughout this study.

These research principles, as applicable to this study comprised (Saunders *et al.*, 2012:231-232):

- integrity and objectivity of the researcher;
- respect for others;
- avoidance of harm;
- privacy of respondents;
- voluntary participation and the right to withdraw;
- informed consent of the respondents;
- confidentiality of data and maintenance of anonymity of respondents;
- responsibility in data analysis and reporting of findings;
- compliance in data management; and
- ensuring the safety of the researcher, fieldworkers and respondents.

Ethical clearance was obtained from the University of South Africa's (Unisa's) Research Ethics Review Committee of the College of Economic and Management

Sciences. This study was categorised as involving negligible risk, with appropriate measures taken to ensure the anonymity of respondents. Respondents were provided with an information sheet and required to consent to participate in this study. Confidentiality agreements were signed by the statistician and the fieldworkers.

7.6 RESEARCH RESULTS AND FINDINGS

To reach the research objectives of the study, the questionnaire was divided into sections as applicable to the CMF. Sections A and B of the questionnaire focused on the eligibility of respondents to form part of the study based on the requirements for participation, and the status of OHS in the small businesses. Sections C, D, E, F and G of the questionnaire matched the specific research objectives of the study.

7.6.1 Qualifying characteristics and status of occupational health and safety in South African small businesses

One of the requirements for participation in the study stated that the person completing the questionnaire had to be the owner or manager of the small business. Of the respondents, 33.4% (n=117) were owners of a small business and 66.6% (n=233) managers. The provincial locations of the small businesses were Gauteng (61.4%, n=215), KwaZulu-Natal (17.7%, n=62) and the Western Cape (20.9%, n=73). All small businesses (100%, n=350) had a turnover of less than R10 million per annum). Of the small businesses, there were:

- 187 (53.5%) with between one and five employees;
- 84 (24.0%) with between 6 and 10 employees;
- 40 (11.4%) with between 11 and 15 employees; and
- 39 (11.1%) with between 16 to 49 employees.

All small businesses thus employed fewer than 50 employees (question 4 of the questionnaire). The three primary economic sectors in which most of the small businesses operated were:

- wholesale and retail (30.3%, n=106);
- repair and maintenance (27.4%, n=96); and
- manufacturing (22.0%, n=77).

All other primary economic sectors ([1] construction; [2] accommodation; restaurants, catering and conference; [3] transport, storage and communication; [4] financial intermediation and insurance; [5] business services – professional; [6] business services – other; [7] real estate; [8] community, social and personal services – professional; [9] community, social and personal services – other; and [10] other – specify) (20.3%, n=71) were grouped together.

Therefore, all 350 respondents qualified to participate in the study based on the qualifying questions in Section A of the questionnaire:

- his or her position in the business (question 1);
- the province in which the business was based (question 2);
- the annual turnover of the business (question 3);
- the number of employees (question 4); as well as
- the primary economic sector (question 5).

It is compulsory for a business, including a small business, to have available a copy of the OHS Act. Most respondents (75.7%, n=265) indicated that they had a copy of the OHS Act available, but 85 (24.3%) did not have a copy of the OHS Act available (question 6). This means that almost one out of four small businesses did not comply with the legal directive of having a copy of the OHS Act available. Respondents were required to indicate why a business should comply with the OHS Act (question 7). Responses indicated moral, legal and financial reasons for compliance, which was in line with the aspects indicated in the CMF. Moral components were indicated more (65.3%, n=265) than legal components (27.8%, n=113) or financial components (6.9%, n=28).

In response to the question regarding the occurrence of OHS incidents in small businesses in the previous two years (question 8), only 11.1 % (n=39) indicated

that they had an occurrence, with the majority (88.9%, n=311) indicating no OHS incidents. This may be due to various reasons, including not reporting OHS incidents, which warrants further investigation in future studies. The literature study revealed that both direct and indirect costs are associated with OHS incidents (see sections 1.3.1.3, 1.3.3 & 3.5.3). Respondents were required to indicate the effect of such previously identified direct and indirect costs (question 9a). The average weight (on a scale from 1 to 4) for all direct and indirect costs were rated between 2 and 3; thus, indicating that these costs had more than a minor effect and rather a moderate effect on small businesses. Respondents were also given the opportunity to add additional aspects that might have an effect on the small business should OHS incidents occur (question 9b). Of these additionally listed aspects, financial issues, as well as loss of income, were most prevalent with n=4 and n=3 respectively.

The final question in Section B related to the status of OHS in small businesses (question 10), which focused on the registration of small businesses with the Compensation Fund, which is a legal obligation when employing 1 or more employees (RSA, 1997). Only 65.4% (n=229) of the respondents indicated that their businesses were registered with the Compensation Fund, 19.4% (n=68) indicated that they were not registered, and 15.2% (n=53) indicated that they did not know whether their businesses were registered or not. It is suggested that more research be conducted to determine the reasons why small businesses are not registered with the Compensation Fund, as such registration is a legal requirement.

7.6.2 Small business owner/manager knowledge of occupational health and safety

Respondents were asked to indicate their knowledge of OHS based on the twelve core OHS criteria for small businesses as determined by the literature review (question 11). Descriptive statistics regarding this perceived knowledge of SA small business owners/managers indicated that almost 30.0% of the respondents rated their knowledge as "average" or "good". However, almost one quarter (22.6%) of the respondents indicated their knowledge as "poor" or "fair". The mean

score, as one of the measures for central tendency, for the knowledge ratings (on a scale of 1 to 5) was more than 3 (which was just above a score of "average") for all of the core OHS criteria, except for the mean score for "contracting procedures (i.e. using contractors)" which was less than 3.

Bivariate analysis of small business owners/managers' knowledge confirmed internal consistency (through Cronbach's alpha) of the twelve core OHS criteria. An independent-samples t-test was used to compare the mean scores of owners and managers and indicated no significant difference. One-way between-groups Analysis of Variance (ANOVA) was conducted to explore the effect of primary economic sectors and the number of employees on perceived knowledge scores, and indicated no statistically significant difference for either.

It was found that the OHS knowledge of small business owners/managers should be improved. However, it was concluded that neither the position in the business (owner or manager), the primary economic sector in which the small business operated, nor the number of employees, constituted a statistically significant difference in the perceived knowledge of SA small business owners/managers regarding OHS. The CMF, which is generic in nature, can therefore be useful for SA small business owners/managers to enhance their knowledge of OHS.

7.6.3 Small business owner/manager attitude towards occupational health and safety

The questionnaire required respondents to rate OHS aspects in terms of their priority in the respective small businesses. The twelve core OHS criteria were once again used for this section (section D, question 12) of the questionnaire with a range of priorities from "not a priority" (a rating of 1) to "essential priority" (a rating of 5). Descriptive statistics revealed that more than 90% of small business owners/managers indicated that these core OHS criteria was a priority, but on various ratings. Even though all these OHS aspects are legally applicable, a number of respondents (6.4%) indicated some aspects as not being a priority. Measures of central tendency indicated that the overall attitude of small business

owners/managers towards OHS was slightly more than a score of 3, which indicated a medium priority.

Cronbach's alpha indicated a high average correlation between the twelve OHS criteria as related to the attitude of small business owners/managers towards OHS. An independent samples t-test indicated a statistically significant difference between the mean scores for attitude of owners and managers, even though the position in the business had a small effect on attitude towards OHS. The attitude of small business owners towards OHS was slightly lower (with a mean score of 3.46) than the attitude of small business managers (with a mean score of 3.68). However, only 1% of the variance in attitude was explained by the position in the small business ($\eta^2 = 0.1$). An ANOVA indicated that there was a statistically significant difference between primary economic sectors, with the attitude of the "wholesale and retail" group being slightly lower when compared to the other groups ("manufacturing and construction", "repair and maintenance services", and "other"). The effect of the number of employees on attitude towards OHS, as determined by ANOVA, indicated no statistically significant difference.

The attitude of small business owners/managers could be improved as the ratings for all the OHS core criteria should ideally be at "essential priority" as the OHS core criteria form part of legal requirements. Even though the position in the small business as well as the primary economic sector within which the small business operates indicates statistically significant differences, the variance is relatively low and a generic CMF could assist in enhancing attitude towards OHS.

7.6.4 Small business owners/manager behavioural intent towards occupational health and safety compliance

In order to determine the behavioural intent of small business owners/managers towards OHS compliance, they were asked to rate their behavioural intent on a scale of 1 to 5, with 1 being "extremely unlikely" and 5 being "extremely likely" (question 13). The twelve core OHS criteria were once again used in this section of the questionnaire. The descriptive statistics for this section indicated that the behavioural intent of small business owners/managers on all the OHS criteria was

higher than 3 (“neutral”), and more towards 4, which was “likely” to comply. The measures of central tendency also confirmed the ratings to be more than “neutral” towards “likely”. However, legal compliance should always be adhered to thus indicating that the small business owners/managers should ideally have indicated “extremely likely” for all the aspects.

The bivariate analysis for this section (section E, question 13) regarding the behavioural intent of small business owners/managers towards OHS compliance included the use of Cronbach’s alpha to confirm the underlying attribute for behavioural intent as having a high average correlation. An independent-samples t-test indicated no statistically significant difference between the mean behavioural intent scores for small business owners and managers. By using ANOVA, a statistically significant difference was confirmed between the primary economic sectors, with the behavioural intent scores of the “wholesale and retail” groups being slightly lower than the scores of the other groups. ANOVA also indicated a statistically significant difference between the scores of the different groups based on the number of employees, with small businesses with between one and five employees indicating slightly lower behavioural intent towards OHS compliance.

Even though a small statistically significant difference was indicated based on primary economic sectors and the number of employees, a generic CMF could still assist in enhancing the behavioural intent of SA small business owners/managers towards OHS compliance.

7.6.5 Small business owner/manager actual behaviour towards occupational health and safety compliance

The actual behaviour of small business owners/managers towards OHS compliance was established in the questionnaire based on pre-selected OHS aspects obtained from the OHS Act (in terms of employer responsibilities, general administrative regulations, as well as general safety regulations) and the COID Act (employer responsibilities) (question 14). Respondents generally (90%) indicated that they fully complied with the OHS aspects (on a scale of 1 to 3, from “do not comply at all” to “partially comply” or “fully comply”). However, 4.2% of the

respondents indicated that they did not comply at all. Some of the respondents also indicated that the OHS aspects were “not applicable” or that they “don’t know”, which was also not desirable. In order to analyse the responses, only scores from 1 to 3, or “do not comply at all” to “fully comply” were used. In general, the rating of actual compliance with the listed employer responsibilities, the general administrative regulations, as well as the general safety regulations in terms of the OHS Act and the COID Act (as applicable), was more than 2 (ranging from 2.35 to 2.88), thus indicating values of slightly more than partial compliance towards ratings of full compliance. However, all aspects should be at full compliance.

Cronbach’s alpha indicated a high average correlation between the actual behaviour components measuring the same underlying attribute (question 14). An independent-samples t-test indicated no statistically significant difference between the mean scores for small business owners and small business managers in terms of actual behaviour towards OHS compliance. ANOVA was used to determine the effect of the primary economic sectors on actual behaviour scores. It was determined that the actual behaviour towards OHS compliance of the wholesale and retail group was slightly lower than the scores of the other groups. In addition, ANOVA also indicated that the actual behaviour scores in small businesses with between one and five employees were slightly lower than the scores of the other groups.

Even though small statistically significant differences were found in the scores of primary economic sectors and the number of employees, a generic CMF could prove useful in assisting small business owners/managers to move towards full compliance on all applicable OHS aspects.

7.6.6 Barriers to compliance with occupational health and safety directives

Respondents were asked to indicate their opinion of pre-determined barriers to OHS compliance that was identified through the literature review (section G, questions 15a and 15b). Respondents had to indicate the effect of these barriers

on a scale of 1 to 4, with 1 indicating “not a barrier” and 4 an “extreme barrier”. Furthermore, respondents were given the opportunity to add additional barriers to those identified, in order to obtain the perceived effect of such additional barriers. No barrier was rated as being an “extreme barrier”, with “laws that are too complicated” being rated as the most extreme barrier. Even though a few additional barriers to compliance were indicated, no specific additional barrier seemed to impair OHS compliance severely.

Based on the inter-correlation of the barriers to OHS compliance, an Exploratory Factor Analysis was performed to reduce the set of variables. Two factor loadings were proposed based on the number of eigenvalues that were larger than unity. The barriers to OHS compliance were reduced to “human factors” and “resources”. Pearson’s product-moment correlation was used to explore the relationships between knowledge about OHS, attitude towards OHS, behavioural intent with regard to OHS, resource barriers, human factor barriers, and actual behaviour in terms of OHS. It was deduced that all these factors were either positively or negatively related to one another in various degrees (sections C, D, E, F and G of the questionnaire).

7.7 COMPLIANCE MANAGEMENT FRAMEWORK

Based on the results of the primary and secondary research conducted for this study, the necessity for a CMF was established. The knowledge of small business owners/managers with regard to OHS was established as only a bit more than average (a cumulative 77.4% of respondents indicated ratings of “average”, “good” and “very good”), thus indicating that the OHS knowledge of small business owners/managers should be improved. Even though the attitude of small business owners/managers indicated that they saw OHS as a priority in most cases (93.6% of respondents indicating a “low priority” to an “essential priority”), the extent of such priority differed between aspects which should be improved. The behavioural intent of small business owners/managers towards OHS compliance leaned towards a likelihood of compliance (63.6% of respondents indicating “likely” or “extremely likely” to comply), but it would ideally be inclined to lean towards “extremely likely” as OHS compliance is a legal, financial and moral obligation.

Furthermore, actual compliance of small business owners/managers towards OHS compliance indicated ratings slightly more than partial compliance (with 82% of respondents indicating “partially comply” or “fully comply”), but which should be at full compliance. The barriers to compliance, both human factors and lack of resources, should be addressed and information contained in the CMF might lessen the effect of such barriers, due to the relationship between these barriers and knowledge, attitude, behavioural intent and actual behaviour.

The structural contents of the CMF relate to the twelve core OHS criteria (based on applicable SA legislation) with moral, legal and financial components to be considered (as indicated in Chapter 6). Even though the CMF is not all encompassing due to changing legislation and additional legal directives being applicable in some cases, it is generic in nature and can therefore be used in any small business, irrespective of the primary economic sector within which it operates.

7.8 SUMMARY OF THE STUDY

Workplace accidents lead to direct and indirect costs which impacts on any business, including small businesses. OHS awareness in the G20 countries, based on the twelve core OHS criteria was determined through secondary research. Small businesses in SA, as one of the G20 member countries, were the unit of analysis for this study and the unit of observation was owners/managers of such small businesses.

All aspects of the study, identified through secondary research (the literature review) and confirmed by the primary research (questionnaire) were used for the CMF. Figure 7.2 below provides a graphical overview of the study to indicate the interrelatedness of the various aspects that were addressed in this study.

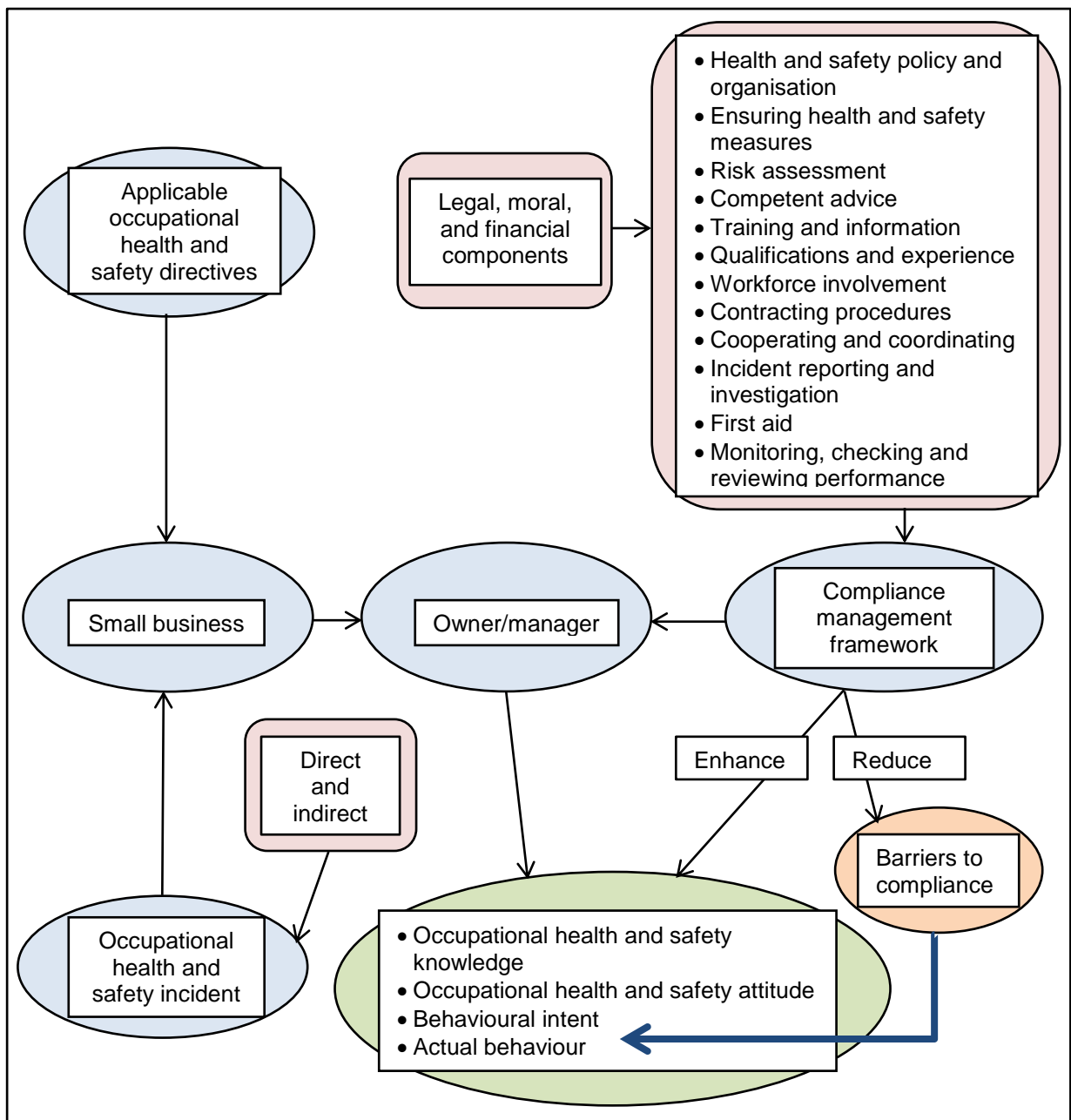


Figure 7.2: Overview of study on occupational health and safety in South African small businesses

Source: Author's own compilation (2016)

7.9 LIMITATIONS OF THE STUDY

Even though this study met all applicable criteria for scientifically validated research, some limitations reduce the application of findings in a generalised context. Specific limitations relate to the following:

- Only 350 respondents were included in this study, thus reducing the number of statistical analysis techniques that could be utilised. A larger sample might increase the generalisability of the findings and conclusions.
- Only small business owners/managers participated in this study, therefore only questions related to employer responsibilities and other employer-related aspects could be included in the study.
- Time, financial and travel distance constraints limited the number of respondents that could be included in the study. Only three provinces (Gauteng, KwaZulu-Natal and the Western Cape) formed part of this study.
- Limited availability of literature (secondary data through the literature review) specifically focussed on OHS in small businesses in some of the G20 member countries, and did not allow for a complete comparative analysis between member countries.
- A single measuring instrument, the questionnaire, was used. Data and methodological triangulation could therefore not be used as multiple methods (instruments) are needed to do so effectively. The perceived knowledge, attitude, behavioural intent, actual behaviour and barriers to compliance could therefore not be confirmed with other measuring instruments.
- The questionnaire was self-developed, based on the literature review, and not standardised. It was also not complemented by psychological support to verify personal attributes or attitudes.
- Even though small business owners/managers should be familiar with all of the OHS terms used in the questionnaire and the CMF, a lack of understanding of some of the questions might have influenced responses.
- The limited, non-probability sample was not representative of the total population and therefore results do not fully allow for generalisation.

7.10 RECOMMENDATIONS

The literature study and the primary research conducted confirmed the relatedness of knowledge, attitude, behavioural intent, actual behaviour and barriers (human factors and lack of resources) to compliance. Based on these

findings, it is recommended that the OHS knowledge of small business owners/managers in SA be enhanced in order to get to an overall rating of "very good" on all OHS aspects. The proposed CMF provides a simplified version of OHS directives (divided according to core OHS criteria with embedded legal, moral and financial considerations), which could be used to increase the OHS knowledge of small business owners/managers in SA. The strong positive relationship between OHS knowledge and attitude towards OHS means that an increase in knowledge will lead to an increase in positive attitude towards OHS to view all OHS aspects as "essential priorities".

The strong positive relationships between OHS knowledge and behavioural intent of SA small business owners/managers, as well as between attitude and behavioural intent, further increases the need to increase the knowledge of OHS as such increases will lead to an increase in behavioural intent towards OHS compliance. It is recommended that OHS training, designed specifically for small businesses, be implored to enhance OHS knowledge.

The recommended use of the proposed CMF could therefore also lead to an increase in behavioural intent towards all OHS aspects. The proven small negative relationships between OHS knowledge, attitude and behavioural intent towards both resource and human barriers to OHS compliance indicate that an increase in knowledge, attitude and behavioural intent will lead to a decrease in the perceived effect of these barriers. The use of the CMF is recommended to decrease the effect of barriers to OHS compliance as perceived by SA small business owners/managers.

Actual behaviour of SA small business owners/managers with regard to OHS compliance is negatively related to both human and resource barriers. Therefore, a decrease in the perceived effect of human and resource barriers (which can be achieved by the recommended use of the CMF) would lead to an increase in actual behaviour towards OHS compliance by SA small business owners/managers. It is recommended that training be provided to small business owners/managers on the use of the CMF in order to determine the increase in OHS knowledge, attitude, behavioural intent and actual behaviour and the

resultant decrease in the perceived effect of human and resource barriers to OHS compliance.

It is recommended that the direct and indirect costs of OHS incidents or accidents on SA small businesses be considered in the proposed training designed specifically for SA small business owners/managers. Awareness of the effect of these costs should be emphasised as a lack of understanding, as indicated in this research study, which could have disastrous consequences for a small business. Such consequences could be both directly (such as loss of production and damage to equipment), and indirectly (such as a diminished reputation and social influence).

7.11 AREAS FOR FURTHER RESEARCH

Further areas for research that could follow on this study include the following:

- Accurate figures of OHS incidents in small businesses in South Africa could be determined in order to enhance the SA OHS body of knowledge and to propose ways to reduce these rates.
- Reasons for not reporting or under-reporting OHS incidents in small businesses could be investigated.
- A comparative analysis between OHS in small businesses in all nine provinces of South Africa could be conducted.
- A comparative analysis of OHS in small businesses of the G20 member countries could be concluded through primary research endeavours.
- More research could be conducted to determine the reasons why small businesses are not registered with, and not paying their dues to, the Compensation Fund as legally required by SA legislative directives.
- A study to ascertain the OHS knowledge, attitude, behavioural intent and actual behaviour of employees in small businesses could be conducted.

- Pre- and post-testing of the questionnaire to ascertain the increase in OHS knowledge, attitude, behavioural intent and actual behaviour, as well as a reduction in perceived barriers, by using the CMF, could be undertaken.
- Applicable OHS training could be developed and applied specifically for SA small business owners/managers, and the effectiveness of such training could be determined.
- The difference in knowledge, attitude, behavioural intent, actual behaviour, and barriers to compliance between owners involved in the day-to-day operations of the small business, and those not involved could be investigated.

7.12 CONCLUSION

The problem statement of this study indicated that too many laws are making survival difficult for SA small businesses. The CMF will reduce the complexity of OHS laws by breaking it down into manageable core OHS criteria specifically developed for small businesses, whilst including moral, legal and financial components. The primary objective set for this study, to establish a CMF pertaining to OHS directives that will guide and assist small business owners/managers to comply with applicable legal requirements, was therefore achieved.

All of the secondary research objectives for this study were achieved by determining the OHS knowledge, attitude, behavioural intent and actual behaviour of small business owners/managers towards occupational health and safety, whilst also investigating the barriers to OHS compliance. This study indicated that SA small business owners/managers have more than an average knowledge of occupational health and safety. SA small business owners/managers also indicated OHS is slightly more than a medium priority, but not an essential priority, which is the preferred attitude. The behavioural intent of SA small business owners/managers is inclined toward complying with OHS directives, with actual behaviour leaning towards full compliance. However, human and resource barriers to compliance hamper full compliance by SA small business owners/managers with all OHS aspects. Even though a slightly positive image of occupational health

and safety in SA small businesses was found in terms of these aspects, all should be improved.

The proposed CMF will assist in enhancing the knowledge, attitude, behavioural intent as well as the actual behaviour of SA small business owners/managers whilst reducing the effect of human and resource barriers to enhance total OHS compliance.

REFERENCES

- Abdul, M., Ismail, H., Mustapha, M. & Kusuma, H. 2013. Indonesian small medium enterprises (SMEs) and perceptions on Halal food certification. *African Journal of Business Management*, 7(16):1492–1500.
- Agumba, J.N. & Haupt, T. 2009. *Construction health and safety culture in South African small and medium enterprises*. Retrieved from: <https://ujdigispace.uj.ac.za/handle/10210/5293> [Accessed 01 September 2015].
- Ahonen, G. & Hussi, T. 2012. Economics of occupational health and safety. *African Newsletter on Occupational Health and Safety*, 22(1):4–5.
- Ajzen, I. 1985. *From intentions to actions: A theory of planned behaviour*. Retrieved from: http://link.springer.com/chapter/10.1007%2F978-3-642-69746-3_2#page-1 [Accessed 02 September 2015].
- Ajzen, I. 1985. From intentions to actions: A theory of planned behaviour. In: Kuhl, J. & Beckmann, J. (Eds.). *Action Control: From Cognition to Behaviour*. Berlin, Heidelberg: Springer, 11-39.
- Ajzen, I. 2002. Perceived behavioural control, self-efficacy, locus of control, and the theory of planned behaviour. *Journal of Applied Psychology*, 32(4):665–683.
- Ajzen, I. 2011. The theory of planned behaviour: Reactions and reflections. *Psychology and Health*, 26(9):1113–1127.
- Ajzen, I. & Sheikh, S. 2013. Action versus inaction: Anticipated affect in the theory of planned behaviour. *Journal of Applied Social Psychology*, 43:155–162.
- Al-Darrab, I.A., Gulzar, W.A. & Ali, K.S. 2013. Status of implementation of safety, quality and environmental management systems in Saudi Arabian industries. *Total Quality Management and Business Excellence*, 24(3):336–354.
- Alfers, L., Xulu, P., Dobson, R. & Hariparsad, S. 2016. Extending occupational health and safety to urban street vendors: reflections from a project in Durban, South Africa. *New Solutions: A Journal of Environmental and Occupational Health Policy*, 26(2):271-288.

- Allen, T.D., Eby, L.T., O'Brien, K.E. & Lentz, E. 2008. The state of mentoring research: A qualitative review of current research methods and future research implications. *Journal of Vocational Behavior*, 73:343-357.
- Anon. 2012. Forum of private business welcomes "red-tape cuts". *Builder's Merchants Journal*, January:24.
- Antonites, A.J. & Truter, M. 2010. SMME procurement issues in local government: A Gauteng Metropolitan study. *Journal of Public Administration*, 45(3):447–466.
- Apaydin, F. 2012. Partisan preferences and skill formation policies: New evidence from Turkey and Argentina. *World Development*, 40(8):1522–1533.
- APMG International. 2016. *Lean Six Sigma Certification*. Retrieved from: <http://www.apmg-international.com/lean-six-sigma.aspx> [Accessed 28 December 2016].
- Arezes, P.M. & Swuste, P. 2012. Occupational health and safety post-graduation courses in Europe: A general overview. *Safety Science*, 50:433–442.
- Arocena, P. & Nuñez, I. 2010. An empirical analysis of the effectiveness of occupational health and safety management systems in SMEs. *International Small Business Journal*, 28(4):398–419.
- Arya, B. & Bassi, B. 2011. Corporate social responsibility and Broad-Based Black Economic Empowerment legislation in South Africa: Codes of good practice. *Business and Society*, 50(4):674–695.
- ASSE (American Society of Safety Engineers). 2008. *SBA recognises OSHA for service to small business*. Retrieved from: <http://www.asse.org/sba-recognizes-osha-for-service-to-small-business/> [Accessed 17 August 2015].
- ASSE (American Society of Safety Engineers). 2010. *ASSE member testifies at district of Columbia regulatory flexibility hearing*. Retrieved from: <http://www.asse.org/asse-member-testifies-at-dc-regulatory-flexibility-hearing/> [Accessed 17 August 2015].
- Audiffren, T., Rallo, J., Guarnieri, F. & Martin, C. 2013. A quantitative analysis of health, safety and environment policy in France. *Paper presented at the 22nd European Safety and Reliability Conference, ESREL, Amsterdam, 29 September to 02 October*.
- Ayyagari, M., Demircuc-Kunt, A. & Maksimovic, V. 2014. Who creates jobs in developing countries? *Small Business Economics*, 43:75–99.

- Aziz, A.A., Baruji, M.E., Abdullah, M.S., Him, N.F.N. & Yusof, N.M. 2015. An initial study on accident rate in the workplace through occupational safety and health management in sewerage services. *International Journal of Business and Social Science*, 6(6):249–255.
- Badri, A., Gbodossou, A. & Nadeau, S. 2012a. Occupational health and safety risks: Towards the integration into project management. *Safety Science*, 50:190–198.
- Badri, A., Nadeau, S. & Gbodossou, A. 2012b. Proposal of a risk-factor-based analytical approach for integrating occupational health and safety into project risk evaluation. *Accident Analysis and Prevention*, 48:223–234.
- Baek, S.C., Kim, Y.C., Choi, J.H. & Hong, W.H. 2016. Determination of the essential activity elements of an asbestos management system in the event of a disaster and their prioritisation. *Journal of Cleaner Production*, 137:414–426.
- Baptista, P., Tito, R., Felli, V., Silva, F. & Silva, S. 2014. The shift work and the burnout syndrome. *Occupational Environmental Medicine*, 71:A108-A108.
- Baron, R.A. & Tang, J. 2011. The role of entrepreneurs in firm-level innovation: Joint effects of positive affect, creativity, and environmental dynamism. *Journal of Business Venturing*, 26:49–60.
- Bastian, S. 2012. *Drug regulation in Latin America : A guide for small business*. Retrieved from: http://consulting-for-pharma.com/fileadmin/user_upload/documents/RA_in_LATAM_cfp.pdf [Accessed 11 August 2015].
- Battaglia, M., Testa, F., Bianchi, L., Iraldo, F. & Frey, M. 2014. Corporate social responsibility and competitiveness within SMEs of the fashion industry: Evidence from Italy and France. *Sustainability*, 6:872–893.
- Beck, D., Lenhardt, U., Schmitt, B. & Sommer, S. 2015. Patterns and predictors of workplace health promotion: Cross-sectional findings from a company survey in Germany. *BioMed Central Public Health*, 15:343–352.
- Benach, J., Vives, A., Amable, M., Vanroelen, C., Tarafa, G. & Muntaner, C. 2014. Precarious employment: Understanding an emerging social determinant of health. *The Annual Review of Public Health*, 35:229–253.

- Berger-Douce, S. 2014. *Sustainable management and performance in SMEs: A French case study*. Retrieved from: http://en.ifm-bonn.org/uploads/tx_ifmstudiesengl/workingpaper-04-14.pdf [Accessed 03 October 2016].
- Bergh, Z.C. & Theron, A.L. 2004. *Psychology in the work context*, 6th ed. Oxford: Oxford University Press.
- Beriha, G.S., Parnaik, B. & Mahapatra, S.S. 2011a. Measuring the perception of safety officers on occupational health in Indian industries. *International Journal of Indian Culture and Business Management*, 4(1):30–47.
- Beriha, G.S., Parnaik, B. & Mahapatra, S.S. 2011b. Occupational health and safety management using grey relational analysis: An Indian perspective. *International Journal of Indian Culture and Business Management*, 4(3):298–324.
- Berrone, P., Gertel, H., Giuliadori, R., Bernard, L. & Meiners, E. 2014. Determinants of performance in microenterprises: Preliminary evidence from Argentina. *Journal of Small Business Management*, 52(3):477–500.
- Bertranou, F. 2014. *Mechanisms for the formulation and implementation of employment policy in Argentina*. Retrieved from: <https://mpr.ub.uni-muenchen.de/53342/> [Accessed 03 October 2016].
- Bever, D.L. 1984. *Safety: A personal focus*. St Louis, MO: Times Miro/Mosby College.
- Bischoff, C. & Wood, G. 2013. Micro and small enterprises and employment creation: A case study of manufacturing micro and small enterprises in South Africa. *Development Southern Africa*, 30(4):564–579.
- Boitnott, J. 2015. *6 policies your small business should put in writing today*. Retrieved from: <http://www.inc.com/john-boitnott/6-policies-your-small-business-should-put-in-writing-today.html> [Accessed 17 August 2015].
- Bowman, B. 2004. *Towards a South African Injury Costing Model: A review of the literature for the development of a process path*. Retrieved from: <http://www.ajol.info/index.php/asp/article/view/31538> [Accessed 02 September 2015].
- Bowman, B., Stevens, G., Seedat, M. & Snyman, R. 2010. Costing injuries in South Africa: Preliminary results and challenges from a pilot study. *African Journal of Health Sciences*, 17(3/4):57–63.

- Breslin, F.C., Kyle, N., Bigelow, P., Irvin, E., Morassaei, S., MacEachen, E., Mahood, Q., Couban, R., Shannon, H. & Amick, B.C. III. 2010. Effectiveness of health and safety in small enterprises: A systematic review of qualitative evaluations of interventions. *Journal of Occupational Rehabilitation*, 20:163–179.
- Brink, A., Cant, M. & Ligthelm, A. 2003. Problems experienced by small businesses in South Africa. *Paper presented at the 16th Annual Conference of Small Enterprise Association of Australia and New Zealand, Ballarat, 28 September – 1 October.*
- Brosseau, L.M., Bejan, A., Parker, D.L., Skan, M. & Xi, M. 2014. Workplace safety and health programs, practices, and conditions in auto collision repair businesses. *Journal of Occupational and Environmental Hygiene*, 11:354–365.
- Buchholtz, A.K. & Carroll, A.B. 2012. *Business and society: Ethics and stakeholder management*, 8th ed. Toronto, ON: South Western Cengage Learning.
- Burke, M.J., Salvador, R.O., Smith-Crowe, K., Chan-Serafin, S., Smith, A. & Sonesh, S. 2011. The dread factor: How hazards and safety training influence learning and performance. *Journal of Applied Psychology*, 96(1):46–70.
- Burke, R.J. 2012. Building a safe and healthy workplace. In Burke, R.J. Clarke S. & Cooper, C.L. (Eds.). *Occupational health and safety*. Retrieved from: <http://www.ashgate.com/isbn/9781409486633> [Accessed 01 August 2015].
- Cagno, E., Micheli, G.J.L. & Perotti, S. 2011. Identification of OHS-related factors and interactions among those and occupational health and safety performance in SMEs. *Safety Science*, 49:216–225.
- Çalışkan, B.Ö.Ö. 2014. Occupational health and safety in SMEs: Overview as a part of management system. In Machado, C. & Melo, P. (Eds.). *Effective human resources management in small and medium enterprises: Global perspectives*. Hershey, PA: Business Science Reference, 167-182.
- Calvin, D. 2012. *Workplace bullying statutes and the potential effect on small business*. Retrieved from: <http://moritzlaw.osu.edu/students/groups/oseblj/files/2012/08/11-Calvin.pdf> [Accessed 11 August 2015].

- Cambra-Fierro, J., Hart, S. & Polo-Redondo, Y. 2008. Environmental respect: Ethics or simply business? A study in the small and medium enterprise (SME) context. *Journal of Business Ethics*, 82:645–656.
- Campos, L.M.S. 2012. Environmental management systems (EMS) for small companies: A study in Southern Brazil. *Journal of Cleaner Production*, 32:141–148.
- Champoux, D. & Brun, J.P. 2003. Occupational health and safety management in small size enterprises: An overview of the situation and avenues for intervention and research. *Safety Science*, 41:301–318.
- Chan, M. 2017. *Grand challenges for the next decade in global health policy and programmes*. Retrieved from: <http://www.who.int/dg/speeches/2017/address-university-washington/en/> [Accessed 15 February 2017].
- Chen, J.K.C. & Zorigt, D. 2013. Managing occupational health and safety in the mining industry. *Journal of Business Research*, 66:2321–2331.
- Churchyard, A. 2014. *Beware South Africa's 'big 5' of health and safety so your employees don't become a fatality statistic*. Retrieved from: <http://fspbusiness.co.za/articles/workplace-safety/infographic-beware-south-africas-big-5-of-health-and-safety-so-your-employees-dont-become-a-fatality-statistic-6454.html> [Accessed 25 January 2017].
- CIPC (Companies and Intellectual Property Commission). 2013a. *Annual Report 2012/2013*. Retrieved from: http://www.cipc.co.za/files/9513/9989/7347/CIPC_ANNUAL_REPORT_2013.pdf [Accessed 17 October 2014].
- CIPC (Companies and Intellectual Property Commission). 2013b. *Re-instating a company*. Retrieved from: <http://www.cipc.co.za/index.php/manage-your-business/manage-your-company/private-company/changing-status-your-company/re-instating-company/> [Accessed 17 October 2014].
- CIPC (Companies and Intellectual Property Commission). 2013c. *Total active entities per region*. Retrieved from: http://www.cipc.co.za/stats_files/july2013.pdf [Accessed 14 October 2013].
- Clark, P. 2014. *A Florida factory death reminds us why regulations exist*. Retrieved from: <http://www.bloomberg.com/bw/articles/2014-02-19/a-florida-factory-death-reminds-us-why-regulations-exist> [Accessed 19 March 2014].

- Clusel, S., Guarnieri, F., Martin, C. & Lagarde, L. 2011a. *Reducing the risks faced by small businesses: A lifecycle concept. Paper presented at the European Safety and Reliability Conference: Advances in Safety, Reliability and Risk Management. Troyes, 18-22 September.*
- Clusel, S., Lagarde, D., Guarnieri, F. & Martin, C. 2011b. The contribution of the life cycle concept to reduced vulnerabilities in small business. *Managing Occupational Health and Safety in Small, Culturally Diverse Workplaces: Issues and Solutions*, Sophia Antipolis, 1–20 September:1–11.
- Clusel, S., Guarnieri, F., Martin, C. & Lagarde, D. 2012. *Reducing the risks faced by small businesses: The lifecycle concept. Paper presented at the European Safety and Reliability Conference: Advances in Safety, Reliability and Risk Management. Helsinki, 25-29 June.*
- Compensation Fund. 2013. *Annual report of the Compensation Fund for the year ended 31 March 2013*. Retrieved from: <http://www.labour.gov.za/DOL/documents/annual-reports/compensation-for-occupational-injuries-and-diseases/2013/compensation-fund-annual-report-2013> [Accessed 28 October 2013].
- Compensation Fund. 2016. *Annual Report of the Compensation Fund 2015/2016*. Retrieved from: <http://www.labour.gov.za/DOL/documents/annual-reports/compensation-for-occupational-injuries-and-diseases/2016/compensation-fund-annual-report-2016> [Accessed 25 January 2017].
- Cook, R.G. N.d. *Influencing government: What do small firms do?* Retrieved from: <http://libjournals.mtsu.edu/index.php/jsbs/article/viewFile/329/307> [Accessed 21 August 2015].
- Cooper, D.R. & Schindler, P.S. 2008. *Business research methods*. International edition. Boston, MA: McGraw-Hill.
- Cooper, D.R. & Schindler, P.S. 2011. *Business research methods*, 11th ed. Boston, MA: McGraw-Hill.
- Cornelio, C., Sapoznik, M.M., Esteban, A., Alberto, M., Contreras, A., Covaro, B., Gerke, J. & Iñiguez, M.J. 2014. Worker's health outcomes, work organisation and violence factors: Argentina 2012. *Occupational Environmental Medicine*, 71:A107-A107.

- Cross, R.L. & Funk, F.L. n.d. *Leveraging intellect in a small business: Designing an infrastructure to support today's knowledge worker*. Retrieved from: <http://libjournals.mtsu.edu/index.php/jsbs/article/viewFile/356/334>
[Accessed 21 August 2015].
- Darnall, N., Henriques, I. & Sadowsky, P. 2010. Adopting proactive environmental strategy: The influence of stakeholders and firm size. *Journal of Management Studies*, 47(6):1072–1094.
- Day, D.V. 2010. The difficulties of learning from experience and the need for deliberate practice. *Industrial and Organisational Psychology*, 3:41–44.
- De Arruda, M.C.C. 2010. *Latin America: Ethics and corporate social responsibility in Latin American small and medium sized enterprises: Challenging development*. Retrieved from: <http://ajobe.journals.ac.za/pub/article/view/65>
[Accessed 11 August 2015].
- De Arruda, M.C.C. & Granado, L. 2013. Small-sized suppliers entering large markets: An ethical initiative of the Caras do Brasil Program. *Journal of Business Ethics*, 112:685–696.
- Dechy, N., Dien, Y., Funnemark, E., Roed-Larsen, S., Stoop, J., Valvisto, T. & Arellano, A.L.V. 2012. Results and lessons learned from the ESReDA's accident investigation working group: Introducing article to Safety Science special issue on Industrial Events Investigation. *Safety Science*, 50:1380–1381.
- De Gobbi, M.S. 2013. *Gender and the environment: Increasing enterprise productivity and improving occupational safety and health conditions*. Retrieved from: <http://factsreports.revues.org/2388> [Accessed 11 August 2015].
- Delegation of the European Union to Turkey. 2012. *Improving occupational health and safety in the workplace*. Retrieved from: <http://avrupa.info.tr/eu-projects-at-a-glance/social-policy-education-health-culture-employment/improving-occupational-health-and-safety-in-the-workplace.html>
[Accessed 21 August 2015].
- Demir, C., Altintas, N., Karababa, A.O. & Demir, N. 2011. Occupational health and safety in Turkey: Problems and solutions. *International Journal of Contemporary Economics and Administrative Sciences*, 1(1):17–24.

- Department of Public Works. 2015. *Occupational health and safety: Health and safety specifications*. Retrieved from: www.publicworks.gov.za/.../Health_Safety_Specification_Generic.doc [Accessed 01 September 2015].
- Dew, N., Read, S., Sarasvathy, S.D. & Wiltbank, R. 2009. Effectual versus predictive logics in entrepreneurial decision-making: Differences between experts and novices. *Journal of Business Venturing*, 24:287–309.
- Diamantopoulos, A. & Schlegelmilch, B.B. 2000. *Taking the fear out of data analysis: A step-by-step approach*. London: Thomson Learning.
- Dinerstein, A.C. 2014. The dream of dignified work: On good and bad utopias. *Development and Change*, 45(5):1037–1058.
- DoL (Department of Labour). 2012. *DoL host conference to highlight the state of occupational health and safety (OHS) interventions to reduce injuries and diseases in South Africa*. Retrieved from: <http://www.labour.gov.za/DOL/media-desk/media-statements/2012/dol-host-stakeholders-on-the-state-of-occupational-health-and-safety-ohs-in-south-africa> [Accessed 02 September 2015].
- DoL (Department of Labour). 2013. *Let's make compliance with OHS a norm to save resources for job creation on 27 March 2013*. Retrieved from: <http://www.labour.gov.za/DOL/media-desk/media-statements/2013/let2019s-make-compliance-with-ohs-a-norm-to-save-resources-for-job-creation-labour> [Accessed 08 October 2014].
- DoL (Department of Labour). 2014a. *Annual Performance Plan 2014–2015*. Pretoria: Government Printing Works.
- DoL (Department of Labour). 2014b. *Job opportunities and unemployment in the South African labour market, 2012–2013*. Pretoria: Government Printing Works.
- Doumbia, J. 2015. *Targeting occupational health and safety*. Retrieved from: <http://siteresources.worldbank.org/INTRANETENVIRONMENT/Resources/244351-1279901011064/OccupationalHealth.pdf> [Accessed 15 April 2015].
- DSBD (Department of Small Business Development). 2016a. *The National Informal Business Upliftment Strategy*. Retrieved from: <http://www.dsbd.gov.za/about-dsbd.html> [Accessed 01 September 2016].

- DSBD (Department of Small Business Development). 2016b. *Vision and mission of DSBD*. Retrieved from: <http://www.dsbd.gov.za/index.html> [Accessed 01 September 2016].
- dti (Department of Trade and Industry). 2005. *Integrated Strategy on the Promotion of Entrepreneurship and Small Enterprises*. Retrieved from: http://www.dti.gov.za/sme_development/docs/strategy.pdf [Accessed 26 August 2015].
- dti (Department of Trade and Industry). 2014a. *The dti Annual Performance Plan (APP) 2014/17*. Pretoria: Government Printing Works.
- dti (Department of Trade and Industry). 2014b. *The dti Strategic Plan 2014/19*. Pretoria: Government Printing Works.
- Duluth, A.M. 2013. Corporate social responsibility and the developing world: Commitment or duplicity? *Business Studies Journal*, 5(2):7–26.
- Eakin, J. 2010. The big picture: Solving the “problem” of OHS in small business. *At Work*, (59):1–2.
- Ekwere, N. 2016. Framework of effective risk management in small and medium enterprises (SMEs): A literature review. *Bina Ekonomi*, 20(1):23–46.
- ENWHP (European Network for Workplace Health Promotion). 2001. *Small, healthy and competitive: New strategies for improved health in small and medium enterprises. Report on the current status of workplace health promotion in small and medium-sized enterprises (SMEs)*. Essen: Federal Association of Company Health Insurance Funds.
- Erdogan, E. & Ozdemir, M.C. 2013. Assessment of occupational safety and health law in Turkish relations. *Academic Journal of Interdisciplinary Studies*, 2(8):703–711.
- Ergun, A.L. 2011. *OHS regulations in Turkey*. Retrieved from: http://www.oicvet.org/files/pilot-OHS_Regulations_in_Turkey.ppt [Accessed 21 August 2015].
- Ericsson, K.A. 2008. Deliberate practice and acquisition of expert performance: A general overview. *Academic Emergency Medicine*, 15(11):988–994.
- Ethics Office of the IMF (International Monetary Fund). 2009. *Annual Report 2009: The ethics perspective*. Retrieved from: <http://www.imf.org/external/hrd/eo/ar/2009/etoar09.pdf> [Accessed 17 August 2015].

- Ethics Office of the IMF (International Monetary Fund). 2013. *Annual Report 2013: Core values: Taking action*. Retrieved from: <http://www.imf.org/external/hrd/eo/ar/2013.pdf> [Accessed 17 August 2015].
- Fadde, P.J. & Klein, G.A. 2010. Deliberate performance: Accelerating expertise in natural settings. *Performance Improvement*, 49(9):5–14.
- Ferenhof, H.A., Vignochi, L., Selig, P.M., Lezana, A.G.R. & Campos, L.M.S. 2014. Environmental management systems in small and medium-sized enterprises: An analysis and systematic review. *Journal of Cleaner Production*, 74:44–53.
- Fernández-Muñiz, B., Montes-Peñón, J.M. & Vázquez-Ordás, C.J. 2009. Relation between occupational safety management and firm performance. *Safety Science*, 47:980–991.
- Fernández-Muñiz, B., Montes-Peñón, J.M. & Vázquez-Ordás, C.J. 2012. Occupational risk management under the OHSAS 18001 standard: Analysis of perceptions and attitudes of certified firms. *Journal of Cleaner Production*, 24:36–47.
- Ferreira, E.J. & Van Loggerenberg, N.J.F. 2011. Perceptions on safety management within South African small and medium enterprises (SMEs). *African Safety Promotion Journal*, 9(2):25–42.
- Ferreira, E.J. & Van Loggerenberg, N.J.F. 2012. Incident rates of small and medium enterprises in South Africa. *Journal of Contemporary Management*, 9:212–233.
- Fidderman, H. 2007. *RoSPA NOSHC inquiry into OSH assistance to SMEs: A map*. Retrieved from: <http://www.rospa.com/rospaweb/docs/advice-services/occupational-safety/noshc/osh-map.pdf> [Accessed 01 May 2015].
- Field, A. 2013. *Discovering statistics using SPSS*. 4th ed. London: Sage Publications Ltd.
- Fifka, M.S. & Pobizhan, M. 2014. An institutional approach to corporate social responsibility in Russia. *Journal of Cleaner Production*, 82:192–201.
- Floyde, A., Lawson, G., Shalloe, S. Eastgate, R. & D’Cruz, M. 2013. The design and implementation of knowledge management systems and e-learning for improved occupational health and safety in small to medium sized enterprises. *Safety Science*, 60:69–76.

- Fredericks, N. 2014. Red tape to ease up? *Small Business Connect*, September: 1-3.
- Frick, K. 2011. Worker influence on voluntary OHS management systems: A review of its ends and means. *Safety Science*, 49:974–987.
- Frick, K. & Kempa, V. 2011. *Occupational health and safety management systems – when are they good for your health?* Retrieved from: <https://www.etui.org/content/download/4967/49850/file/report-119-EN.pdf> [Accessed 18 August 2015].
- Fruip, D., Bakkum, K., Johnstone, H., Tesolin-Gee, A., Vallieu, B. & Van Gelder, K. 2010. Reactive chemicals emergency response and post-event calometric testing. *Process Safety Progress*, 29(1):2–10.
- Fu, C., Zhu, M., Yu, T.S.I. & He, Y. 2013. Effectiveness of participatory training on improving occupational health in small and medium enterprises in China. *International Journal of Occupational and Environmental Health*, 19(2):85–90.
- Fuller, C.W. & Vassie, L.H. 2004. *Health and safety management*. London: Prentice Hall.
- G20 (Group of Twenty). 2013. *G20 5th anniversary vision statement*. Retrieved from: https://g20.org/wp-content/uploads/2014/12/G20_5th_Anniversary_Vision_Statement.pdf [Accessed 14 August 2015].
- G20 (Group of Twenty). 2014a. *Comprehensive growth strategy: South Africa*. Retrieved from: http://g20.org.tr/wp-content/uploads/2014/12/g20_comprehensive_growth_strategy_south_africa.pdf [Accessed 29 April 2015].
- G20 (Group of Twenty). 2014b. *Employment Plan 2014: South Africa*. Retrieved from: https://g20.org/wp-content/uploads/2014/12/g20_employment_plan_south_africa.pdf [Accessed 29 April 2015].
- G20 (Group of Twenty). 2014c. *G20 labour and employment ministerial declaration*. Retrieved from: <https://g20.org/wp-content/uploads/2014/12/2014%20LEMM%20Declaration.pdf> [Accessed 19 August 2015].
- G20 (Group of Twenty). 2014d. *G20 members*. Retrieved from: https://www.g20.org/about_g20/g20_members [Accessed 15 August 2014].
- G20 (Group of Twenty). 2014e. *G20 priorities*. Retrieved from: https://www.g20.org/g20_priorities [Accessed 15 August 2014].

- G20 (Group of Twenty). 2015. *G20 Turkish presidency priorities for 2015*. Retrieved from: <https://g20.org/wp-content/uploads/2014/12/2015-TURKEY-G-20-PRESIDENCY-FINAL.pdf> [Accessed 15 April 2015].
- Gallagher, C. & Underhill, E. 2012. Managing work health and safety: Recent developments and future directions. *Asia Pacific Journal of Human Resources*, 50:227–244.
- Gamage, A.S. 2014. Recruitment and selection practices in manufacturing SMEs in Japan: An analysis of the link with business performance. *Ruhuna Journal of Management and Finance*, 1(1):37–52.
- García-Rodríguez, F.J., García-Rodríguez, J.L., Castilla-Gutiérrez, C. & Major, S.A. 2013. Corporate social responsibility of oil companies in developing countries: From altruism to business strategy. *Corporate Social Responsibility and Environmental Management*, 20:371–384.
- Germain, L.G., Arnold, R.A., Rowan, J.R. & Roane, J.R. 1998. *Safety, health, environment and quality management: A practitioner's guide*. Loganville, GA: Georgia International Risk Control America.
- Gervais, R.L., Pawlowska, Z., Bajonowski, R., Kouvonen, A., Karanika-Murray, M., Van den Broek, K. & De Greef, M. 2009. *Occupational safety and health and economic performance in small and medium-sized enterprises: A review*. Retrieved from: https://osha.europa.eu/en/publications/reports/TE-80-09-640-ENN_occupational_safety_health_economic_performance_small_medium_sized_enterprises_review [Accessed 15 April 2015].
- Ghislieri, C., Gatti, P. & Quaglino, G.P. 2009. Factors influencing willingness to mentor. *International Journal for Educational and Vocational Guidance*, 9(3):205-219.
- Gilman, M. & Raby, S. 2013. National context as a predictor of high-performance work system effectiveness in small-to-medium-sized enterprises (SMEs): A UK-French comparative analysis. *The International Journal of Human Resource Management*, 24(2):372–390.
- Glass, W.I. 2011. *Small enterprises and occupational health and safety – ILO*. Retrieved from: <http://www.ilo.org/iloenc/part-iii/development-technology-and-trade/item/341-small-enterprises-and-occupational-health-and-safety> [Accessed 1 May 2015].

- Glückler, J. 2014. How controversial innovation succeeds in the periphery? A network perspective of BASF Argentina. *Journal of Economic Geography*, 14:903–927.
- Goetsch, D.L. 2014a. *Occupational safety and health for technologists, engineers and managers*, 7th ed. Harlow: Pearson.
- Goetsch, D.L. 2014b. *The basics of occupational safety: A guide for safety management*. London: Pearson.
- GOV.UK. 2015. *Countries in the EU and EEA*. Retrieved from: <https://www.gov.uk/eu-eea> [Accessed 30 April 2015].
- Gravel, S., Rhéaume, J. & Legendre, G. 2011. Strategies to develop and maintain occupational health and safety measures in small businesses employing immigrant workers in metropolitan Montreal. *International Journal of Workplace Health Management*, 4(2):164–178.
- Grimaldi, J.V. & Simonds, R.H. 1989. *Safety management*, 5th ed. Homewood, IL, Irwin.
- Gunduz, M. & Laitinen, H. 2016. A 10-step management framework for construction small and medium-sized enterprises. *International Journal of Occupational Safety and Ergonomics*, July:1–7.
- Gurianov, P.A. 2014. Small business in Russian Federation: State, potential threads, barriers and medium-term development perspectives. *World Applied Sciences Journal*, 30(9):1166–1169.
- Haas, E.J., Hoebbel, C.L. & Rost, K.A. 2014. An analysis of trainers' perspectives within an ecological framework: Factors that influence mine safety training processes. *Safety and Health at Work*, 5:118–124.
- Hagan, J.M. & Wassink, J. 2016. New skills, new jobs: Return migration, skill transfers, and business formation in Mexico. *Social Problems*, 63(4):1–21.
- Hale, A. & Borys, D. 2013. Working to rule, or working safely? Part 1: A state of the art review. *Safety Science*, 55:207–221.
- Hale, A., Borys, D. & Adams, M. 2011. *Regulatory overload: A behavioural analysis of regulatory compliance*. Retrieved from: http://mercatus.org/sites/default/files/publication/Reg_Overload_HaleBorys_Adams_WP1147.pdf [Accessed 18 August 2015].

- Hamann, R., Sinha, P., Kapfudzaruwa, F. & Schild, C. 2009. Business and human rights in South Africa: An analysis of antecedents of human rights due diligence. *Journal of Business Ethics*, 87:453–473.
- Harmony. n.d. *Safety in South Africa*. Retrieved from: www.harmony.co.za/sd/so_safety_sa.asp [Accessed 27 August 2015].
- Haron, H., Ismail, I. & Oda, S. 2015. Ethics, corporate social responsibility and the use of advisory services provided by SMEs: Lessons learned from Japan. *Asian Academy of Management Journal*, 20(1):71–100.
- Hart, C. 2015. *Red tape hampered small business development and growth*. Retrieved from: http://www.thenewage.co.za/158991-9-53-Red_tape_hampered_small_business_development_and_growth_Economist#.VW7HZkny5DU.email [Accessed 07 September 2015].
- Harvard Environmental Health and Safety. 2015. *Accident reporting and investigation*. Retrieved from: <https://www.ehs.harvard.edu/programs/accident-reporting-investigation> [Accessed 15 August 2015].
- Hasan, M. & Chan, C.K. 2014. ISO 14000 and its perceived impact on corporate performance. *Business and Management Horizons*, 2(2):1–14.
- Hasle, P., Kines, P. & Andersen, L.P. 2009. Small enterprise owners' accident causation attribution and prevention. *Safety Science*, 47:9–19.
- Hasle, P., Kvorning, L.V., Rasmussen, C.D.N., Smith, L.H. & Flyvholm, M. 2012. A model for design of tailored working environment intervention programmes for small enterprises. *Safety and Health at Work*, 3:181–191.
- Hasle, P. & Limborg, H.J. 2006. A review of the literature on preventive occupational health and safety activities in small enterprises. *Industrial Health*, 44:6–12.
- Haupt, T.C. & Pillay, K. 2016. Investigating the true costs of construction accidents. *Journal of Engineering, Design and Technology*, 14(2):373-419.
- Havens, R.W. 1973. *What OSHA can mean to small business*. Paper presented at the Annual Meeting of the NCSBMD, Morgantown, WV, 26 June.
- Hawking, S.W. 1988. *A brief history of time: From the Big Bang to black holes*. London: Bantam Press.

- Health and Safety Executive. 2015. *The small business approach*. Retrieved from: <http://www.hse.gov.uk/SIMPLIFICATION/business.htm>
[Accessed 15 April 2015].
- Heinrich, H.W. 1959. *Industrial accident prevention*, 4th ed. New York, NY: McGraw-Hill.
- Hendershot, D.C. 2011. *Process safety management – You can't get it right without a good safety culture*. Retrieved from: <http://onlinelibrary.wiley.com/doi/10.1002/prs.10501/pdf> [Accessed 21 August 2015].
- Heras-Saizarbitoria, I. & Boiral, O. 2013. ISO 9001 and ISO 14001: Towards a research agenda on management system standards. *International Journal of Management Reviews*, 15:47–65.
- Herbane, B. 2010. Small business research: Time for a crisis-based view. *International Small Business Journal*, 28(1):43–64.
- Hermanus, M.A. 2007. Occupational health and safety in mining – status, new developments, and concerns. *The Journal of the Southern African Institute of Mining and Metallurgy*, 107, August:531–538.
- Herrington, M., Kew, J. & Kew, P. 2009. *Tracking entrepreneurship in South Africa: A GEM perspective*. Cape Town: UCT Graduate School of Business.
- Hong, O. 2012. Exploring occupational health nursing in South America through Brazilian experience. *Workplace Health and Safety*, 60(3):115–121.
- Honkasalo, A. 2000. Occupational health and safety and environmental management systems. *Environmental Science and Policy*, 3:39–45.
- Idris, M.A., Dollard, M.F., Coward, J. & Dormann, C. 2012. Psychosocial safety climate: Conceptual distinctiveness and effect on job demands and worker psychological health. *Safety Science*, 50:19–28.
- Ikuma, L.H., Shakouri, M., Nahmens, I. & Harvey, C. 2016. 5S impact on safety climate of manufacturing workers. *Journal of Manufacturing Technology Management*, 27(3):364–378.
- ILO (International Labour Organisation). 1944. *Declaration of Philadelphia*. Retrieved from: http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-islamabad/documents/policy/wcms_142941.pdf
[Accessed 28 December 2016].

- ILO (International Labour Organisation). 2014. *Creating safe and healthy workplaces for all*. Retrieved from: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/scms_305423.pdf [Accessed 14 August 2015].
- ILO (International Labour Organisation). 2015a. *About the ILO*. Retrieved from: <http://www.ilo.org/global/about-the-ilo/lang--en/index.htm> [Accessed 30 April 2015].
- ILO (International Labour Organisation). 2015b. *ILO Constitution*. Retrieved from: http://www.ilo.org/dyn/normlex/en/f?p=1000:62:0::NO:62:P62_LIST_ENTRIE_ID:2453907:NO#declaration [Accessed 30 April 2015].
- ILO (International Labour Organisation). 2015c. *ILO investigation of occupational accidents and diseases: A practical guide for labour inspectors*. Retrieved from: http://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---lab_admin/documents/publication/wcms_346714.pdf [Accessed 01 May 2015].
- ILO (International Labour Organisation). 2015d. *ILO mission and objectives*. Retrieved from: <http://www.ilo.org/global/about-the-ilo/mission-and-objectives/lang--en/index.htm> [Accessed 30 April 2015].
- ILO (International Labour Organisation). 2016a. *National labour law profile: Republic of Argentina*. Retrieved from: http://www.ilo.org/ifpdial/information-resources/national-labour-law-profiles/WCMS_158890/lang--en/index.htm [Accessed 27 December 2016].
- ILO (International Labour Organisation). 2016b. *ILO decent work country programme in the People's Republic of China*. Retrieved from: <http://www.ilo.org/public/english/bureau/program/dwcp/download/china.pdf> [Accessed 28 December 2016].
- IMF (International Monetary Fund). 2013. *International Monetary Fund factsheet*. Retrieved from: <http://www.imf.org/external/np/exr/facts/groups.htm> [Accessed 15 April 2015].
- IoDSA (Institute of Directors in Southern Africa). 2009. *King Report on Governance for South Africa*. Retrieved from: <http://www.iodsa.co.za/?page=KingIII> [Accessed 09 September 2015].
- IOSH (Institution of Occupational Safety and Health). 2015. *IOSH SME's policy*. Retrieved from: <http://www.ioash.co.uk/Books-and-resources/SMEs.aspx> [Accessed 15 April 2015].

- IWH (Institute for Work and Health). 2008. *Effectiveness and implementation of health and safety in small enterprises: A systematic review of quantitative and qualitative literature*. Retrieved from: http://www.iwh.on.ca/system/files/documents/sys_review_small_business_2008.pdf [Accessed 17 August 2015].
- Izmailova, M.A., Reshetova, T.Y., Rukina, I.M., Seifullaeva, M.E. & Yunusov, I.A. 2016. Problems and prospects of innovative and investment development of modern Russia. *International Journal of Economics and Financial Issues*, 6(S2):95–102.
- Jhang, W.G. 2011. Changes in labour regulations during economic crises: Does regulation favour health and safety? *Journal of Preventive Medicine and Public Health*, 44(1):14–21.
- Kadam, P. & Bhalerao, S. 2010. *Sample size calculation*. Retrieved from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2876926/> [Accessed 19 October 2014].
- Kadasah, N.A. 2015. An assessment of the occupational health and safety environment among organisations in the light of OHSAS 18001: The case of Saudi Arabia. *International Journal of Business and Social Science*, 6(4):98–106.
- Kanerva, R. 2009. Safety management in Finland. In O. Manninen & A. Kimura (Eds.). *Paper presented at the Twelfth International Conference on Combined Actions and Combined Effects of Environmental Factors ICCEF, Hakuskan, 9–11 September*.
- Kautonen, T., Van Gelderen, M & Fink, M. 2015. Robustness of theory of planned behaviour predicting entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 39(3):655–675.
- Kehbila, A.G. 2013. Auditing and communicating business sustainability: A South African perspective. *International Journal of Energy, Environment, and Economics*, 21(1):35–50.
- Kelbitsch, N. & Kenny, P. 2003. *Developing an occupational health and safety plan for small businesses and organisations*. Graz: Omega Health Care Centre.
- Kelly, B.D. 2011. Why process safety programs sometimes fail. *Process Safety Progress*, 30(4):307–309.

- Kelly, M. 2010. The role of theory in qualitative health research. *Family Practice*, 27:285–290.
- Kent, P. 2013. *SureSwipe MD: Laws kill small businesses*. Retrieved from: <http://www.fin24.com/Entrepreneurs/News/SureSwipe-MD-Laws-kill-small-businesses-20130604> [Accessed 19 March 2014].
- Kheni, N.A., Gibb, A.G. & Dainty, A.R.J. 2010. Health and safety management within small- and medium-sized enterprises (SMEs) in developing countries: Study of contextual influences. *Journal of Construction Engineering and Management*, 136:1104–1115.
- Kikuchi-Uehara, E., Kikuchi, Y., Wada, T., Odagiri, T., Doi, J. & Hirao, M. 2016. Design support for VOC control in SMEs by simulation-based life-cycle engineering Part 1: Framework. *Journal of Chemical Engineering of Japan*, 49(8):776–784.
- Kim, K., Lee, D. & Kim, D.S. 2014. Biomechanical comparison of lumbar risk assessment in manual material handling work. *Occupational Environmental Medicine*, 71:A107-A107.
- Koskela, M. 2014. Occupational health and safety in corporate social responsibility reports. *Safety Science*, 68:294–308.
- Kosyrev, P. 2015. *Introduction to Russia Health and Safety Week 2015*. Retrieved from: <https://www.linkedin.com/grp/home?gid=8236478> [Accessed 17 August 2015].
- Kusnadi, A. & Yudoko, G. 2016. Contractor work preparation process improvement using lean six sigma. *The South East Asian Journal of Management*, 10(1):1–29.
- Kusumasari, B. & Alam, Q. 2012. Local wisdom-based disaster recovery model in Indonesia. *Disaster Prevention and Management*, 21(3):351–369.
- Laberge, M., MacEachen, E. & Calvet, B. 2014. Why are occupational health and safety training approaches not effective? Understanding young worker learning processes using an ergonomic lens. *Safety Science*, 68:250–257.
- Ladzani, W. & Netswera, G. 2009. Support for rural small businesses in Limpopo province, South Africa. *Development Southern Africa*, 26(2):225–239.
- Landbergis, P.A., Grzywacz, J.G. & LaMontagne, A.D. 2012. Work organisation, job insecurity and occupational health disparities. *American Journal of Industrial Medicine*, 57(5):495-515.

- Lee, K., Song, J. & Kwak, J. 2015. An exploratory study on the transition from original equipment manufacturing to original brand manufacturing: Case studies of SMEs in Korea. *Industry and Innovation*, 22(5):423–442.
- Legg, S.J. Olsen, K.B., Laird, I.S. & Hasle, P. 2015. Managing safety in small and medium enterprises. *Safety Science*, 71:189–196.
- Lenhardt, U. & Beck, D. 2016. Prevalence of quality of workplace risk assessments – findings from a representative company survey in Germany. *Safety Science*, 86:48–56.
- Leonard, D. 2013. The efficiency impact of international standards on global trade, national industries, and individual organisations: The influence of quality and risk management. *The Journal of the Society for Standards Professionals*, January/February:2–20.
- Lerner, J.E.C., Sanchez, E.Y., Sambeth, J.E. & Porta, A.A. 2012. Characterisation and health risk assessment of VOCs in occupational environments in Buenos Aires, Argentina. *Atmospheric Environment*, 55:440–447.
- Likert, R. 1932. A technique for the measurement of attitudes. *Archives of Psychology*, 22(140):1–55.
- London, L., Tangwa, G., Matchaba-Hove, R., Mkhize, N., Nwabueze, R., Nyika, A. & Westerholm, P. 2014. Ethics in occupational health: Deliberations of an international workgroup addressing challenges in an African context. *BioMed Central Medical Ethics*, 15:48–58.
- López, L.F.D., Garcia, L.C.H., Madrid, G.A. & Pérez, C.A.J. 2014. Erythrocytosis and neuropsychological alterations by chronic exposure to low concentrations of carbon monoxide in highway workers in Mexico. *Occupational Environmental Medicine*, 71:A107–A108.
- Louw, J.H.W. 2015a. Ethics of environmental management. In: Smit, S.J. (Ed.). *Environmental management: A business management approach*. Cape Town: Juta and Company Ltd, 131-155.
- Louw, J.H.W. 2015b. Sustainability and triple bottom line. In: Smit, S.J. (Ed.). *Environmental management: A business management approach*. Cape Town: Juta and Company Ltd, 19-32.
- Lozano, R. & Huisingh, D. 2011. Inter-linking issues and dimensions in sustainability reporting. *Journal of Cleaner Production*, 19:99–107.

- Lukic, D., Margaryan, A. & Littlejohn, A. 2010. How organisations learn from safety incidents: A multifaceted problem. *The Journal of Workplace Learning*, 22(7):428–450.
- Maamoun, A. 2013. Corporate social responsibility and the developing world: Commitment or duplicity. *Business Studies Journal*, 5(2):7–26.
- MacDonald, W., Driscoll, T., Stuckey, R. & Oakman, J. 2012. Occupational health and safety in Australia. *Industrial Health*, 50:172–179.
- Mahadea, D. 2008. *The environmental context for SMME entrepreneurship in Kwazulu-Natal*. Retrieved from:
<http://www.smmeresearch.co.za/SMME%20Research%20General/Reports/SMME%20entrepreneurship%20in%20Kwazulu-Natal.pdf>
[Accessed 01 September 2015].
- Mahadea, D. & Pillay, M.K. 2008. Environmental conditions for SMME development in a South African province. *South African Journal of Economic and Management Sciences*, 11(4):431–448.
- Mahmood, R. & Hanafi, N. 2013. Entrepreneurial orientation and business performance of women-owned small and medium enterprises in Malaysia: Competitive advantage as a mediator. *International Journal of Business and Social Science*, 4(1):82–90.
- Manuele, F.A. 2005. Risk assessment and hierarchies of control: Their growing importance to the safety, health and environment profession. *Professional Safety*, May:33–38.
- Mardon, P. 2010. *Occupational injuries crippling the economy*. Retrieved from:
<http://www.moneyweb.co.za/moneyweb-south-africa/occupational-injuries-crippling-the-economy> [Accessed 08 October 2014].
- Marín, L., Rubio, A. & De Maya, S.R. 2012. Competitiveness as a strategic outcome of corporate social responsibility. *Corporate Social Responsibility and Environmental Management*, 19:364–376.
- Mariotti, F., Kadasah, N. & Abdulghaffar, N. 2014. Motivations and barriers affecting the implementation of ISO 14001 in Saudi Arabia: An empirical investigation. *Total Quality and Business Excellence*, 25(12):1352–1364.
- Markowitz, K.J. & Gerardu, J.A. 2012. The importance of the judiciary in environmental compliance and enforcement. *Pace Environmental Law Review*, 29(2):537–554.

- Marshall, R.S., Akoorie, M.E.M., Hamann, R. & Sinha, P. 2010. Environmental practices in the wine industry: An empirical application of the theory of reasoned action and stakeholder theory in the United States and New Zealand. *Journal of World Business*, 24:405–414.
- Masi, D. & Cagno, E. 2015. Barriers to OHS interventions in small and medium-sized enterprises. *Safety Science*, 71:226–241.
- Matsuda, S. 2012. A review of the French occupational health system: From the viewpoint of international comparison between France and Japan. *Asian Pacific Journal of Disease Management*, 6(2):45–49.
- Maxey, H. 2013. *Safety and small business*. Chicago, IL: The Compass – American Society for Safety Engineers:12-13.
- Mayson, S., Barrett, R. & Bahn, S. 2014. *Competitive advantage through safety compliance: Smaller firm responses to changes in the Australian occupational health and safety regulatory context*. Paper presented at the 28th Australian and New Zealand Academy of Management Conference: *Reshaping Management for Impact*, University of Technology, Sydney, 3–5 December. Retrieved from: <http://eprints.qut.edu.au/80110> [Accessed 17 April 2015].
- McCallum, R., Schofield, T. & Reeve, B. 2012. The role of the judiciary in occupational health and safety prosecutions: Institutional processes and the production of deterrence. *Journal of Industrial Relations*, November:688–706.
- McEachan, R.R.C., Conner, M., Taylor, N.T. & Lawton, R.J. 2011. Prospective prediction of health-related behaviours with the theory of planned behaviour: A meta-analysis. *Health Psychology Review*, October:1–48.
- Meité, V., Baeyens, J. & Dewil, R. 2009. Towards safety, hygiene and environmental (SHE) management in African small and medium companies. *Journal of Environmental Management*, 90:1463–1468.
- Mendeloff, J., Dworsky, M., Gutierrez, C.I., Lytell, M.C. & Connors, M. 2014. *Human resource practices for labour inspectorates in developing countries*. Retrieved from: <http://www.dol.gov.edgekey-staging.net/ilab/reports/pdf/FY13-RAND-Final.pdf> [Accessed 11 August 2015].
- Mendeloff, J. & Staetsky, L. 2014. Occupational fatality risks in the United States and United Kingdom. *American Journal of Industrial Medicine*, 57:4–14.

- Meyer, D.F. 2014. Job creation, a mission impossible? The South African case. *Mediterranean Journal of Social Science*, 5(16):65–77.
- Michael, Z. & Patrick, D. n.d. *Lost and found: Social innovation and occupational health and safety in organisations*. Retrieved from: <http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1539&context=commpapers> [Accessed 06 August 2015].
- Micheli, G.J.L. & Cagno, E. 2010. Dealing with SMEs as a whole in OHS issues: Warnings from empirical evidence. *Safety Science*, (48):729–733.
- Migiro, S.O. n.d. *SMEs and black economic empowerment in the construction industry: The case of Gauteng Provincial Housing Department*. Retrieved from: <http://www.ippa.org/IPPC4/Proceedings/13ProcurementPreferences/Paper13-5.pdf> [Accessed 27 August 2015].
- Mirzanti, I.R., Simatupang, T.M. & Larso, D. 2015. Entrepreneurship policy implementation model in Indonesia. *International Journal of Entrepreneurship and Small Business*, 26(4):1–20.
- Mitchell, C.G. & Hill, T. 2009. Corporate social and environmental reporting and the impact of internal environmental policy in South Africa. *Corporate Social Responsibility and Environmental Management*, 16:48–60.
- Mohammad, M., Osman, M.R., Yusuff, R.M., Masood, I., Yahya, M.S. & Jalil, M.A.S.M. 2013. Strategies for integrating quality, environmental, safety and health management systems. *Applied Mechanics and Materials*, 315:894–898.
- Mohsam, F. & Van Brakel, P.A. 2011. *Information and knowledge sharing trends of small and medium-sized enterprises in the Western Cape, South Africa*. Retrieved from: <http://www.sajim.co.za/index.php/SAJIM/article/view/462> [Accessed 02 September 2015].
- Moitinho, T. 2013. *The application of OSH legislation to small business: Meet the challenges, seize the opportunities*. Retrieved from: http://www.hsa.ie/eng/Topics/EU_Presidency/Small_Business_Challenges_and_Oppportunities_from_legislation_-_Teresa_Moitinho_European_Commission_.ppt [Accessed 21 August 2015].
- Momani, N.M. & Fadil, A.S. 2013. Risk management practices in the Saudi business organisations: A case of the City of Jeddah. *Journal of Business and Retail Management Research*, 7(2):96–105.

- Morisson, K.W. 2011. *Small business, big problems*. Retrieved from: <http://www.safetyandhealthmagazine.com/articles/small-business-big-problems-2> [Accessed 19 March 2014].
- Morrillas, R.M., Rubio-Romero, J.C. & Fuertes, A. 2013. A comparative analysis of occupational health and safety risk prevention practices in Sweden and Spain. *Journal of Safety Research*, 47:57–65.
- Morrison-Saunders, A. & Retief, F. 2012. Walking the sustainability assessment talk: Progressing the practice of environmental impact assessment (EIA). *Environmental Impact Assessment Review*, 36:34–41.
- Motta, V. 2016. The impact of crime on the performance of small and medium-sized enterprises: Evidence from the service and hospitality sectors in Latin America. *Tourism Economics*, July:1–18.
- Nakagawa, R. 2012. The policy approach in promoting small and medium sized enterprises in Japan. *International Business and Economics Research Journal*, October:1087–1098.
- Nakata, A. 2012. Effects of long hours and poor sleep characteristics on workplace injury among full-time male employees of small- and medium-scale businesses. *Journal of Sleep Research*, 20:576–584.
- National Treasury & South African Revenue Service (SARS). 2012. *2012 Tax Statistics: A joint publication between National Treasury and the South African Revenue Service*. Retrieved from: <http://www.treasury.gov.za/publications/tax%20statistics/2012/2012%20Tax%20Statistics.pdf> [Accessed 21 August 2015].
- Nielsen, K.J., Kines, P., Pedersen, L.M., Andersen, L.P. & Andersen, D.R. 2015. A multi-case study of the implementation of an integrated approach to safety in small enterprises. *Safety Science*, 71:142–150.
- Niittymäki, S.E. & Tenhunen, L.J. 2012. Managing and measuring business networks in Russia. *Chinese Business Review*, 11(5):483–490.
- Niskanen, T. 2013. The effects of the enforcement legislation in the Finnish occupational safety and health inspectorate. *Safety Science*, 55:135–148.
- Niskanen, T., Naumanen, P. & Hirvonen, M.L. 2012. Safety compliance climate concerning risk assessment and preventive measures in European Union legislation: A Finnish survey. *Safety Science*, 50:1929–1937.

- Nist/Sematech. 2012. *Engineering statistics handbook*. Retrieved from: <http://www.itl.nist.gov/div898/handbook/prc/section1/prc14.htm> [Accessed 25 January 2017].
- Niu, S. 2010. Ergonomics and occupational safety and health: An ILO perspective. *Applied Ergonomics*, 41(6):744–753.
- NOSA (National Occupational Safety Association). 1994. *SAMTRAC Module 3: Training and development for health, safety and environment programmes*. Pretoria: NOSA.
- NPC (National Planning Commission). 2014. *National Development Plan 2030*. Pretoria: Government Printer.
- Nuñez, I. & Villaneuva, M. 2011. Safety capital: The management of organisational knowledge on occupational health and safety. *Journal of Workplace Learning*, 23(1):56–71.
- Okoye, P.U. & Okolie, K.C. 2014. Exploratory study of the cost of health and safety performance of building contractors in South East Nigeria. *British Journal of Environmental Sciences*, 2(1):21–33.
- Olowogbon, S.T., Jolaiya, A.J., Ahonen, G. & Hussi, T. 2012. Economics in occupational health and safety: The agricultural perspective. *African Newsletter on Occupational Health and Safety*, 22(1):10–12.
- Olsen, K.B. & Hasle, P. 2015. The role of intermediaries in delivering an occupational health and safety programme designed for small businesses: A case study of an insurance incentive programme in the agriculture sector. *Safety Science*, 71:242–252.
- Oosthuizen, T.F.J. 2014. General management and leadership. In G. Nieman & A. Bennett (Eds.). *Business management: A value chain approach*. Revised 2nd ed. Pretoria: Van Schaik, 85-116.
- Othman, A.A.E. 2012. A study of the causes and effects of contractor's non-compliance with the health and safety regulations in the South African construction industry. *Architectural Engineering and Design Management*, 8:180–191.
- Pallant, J. 2011. *SPSS survival manual: A step by step guide to data analysis using SPSS*, 4th ed. Crows Nest, NSW: Allen and Unwin.

- Papadakis, G., Linou, N., Mengolini, A., Fatta, D. & Papadopoulos, A. 2015. *Guidance on safety management requirements for smaller sized dangerous chemical enterprises: The SMMARTEN project*. Retrieved from: https://scholar.google.co.za/scholar?hl=en&q=sme+italy+safety&btnG=&as_sdt=1%2C5&as_sdtp [Accessed 25 August 2015].
- Papadopoulos, G., Georgiadou, P., Papazoglou, C. & Michaliou, K. 2010. Occupational and public health and safety in a changing work environment: An integrated approach for risk assessment and prevention. *Safety Science*, 48:943–949.
- Papworth, T. 2015. *SMEs and health and safety*. Retrieved from: <http://www.centreforum.org/assets/pubs/smes-and-health-and-safety.pdf> [Accessed 15 April 2015].
- Parejo-Moscoso, J.M., Rubio-Romero, J.C., Pérez-Canto, S. & Soriano-Serrano, M. 2013. Health and safety management in olive mills in Spain. *Safety Science*, 51:101–108.
- Park, J., Jeong, H., Hong, S., Park, J., Kim, D., Kim, J. & Kim, H. 2013. Effects of health and safety problem recognition on small business facility investment. *Annals of Occupational and Environmental Medicine*, 25(26):1–10.
- Parker, D.L., Bejan, A. & Brosseau, L.M. 2012. A qualitative evaluation of owner and worker health and safety beliefs in small auto collision repair shops. *American Journal of Industrial Medicine*, 55:474–482.
- Patel, D., Goetzel, R.Z., Beckowski, M., Milner, K., Greyling, M., Da Silva, R., Kolbe-Alexander, T., Trabizi, M. & Nossel, C. 2013. The healthiest company index: A campaign to promote worksite wellness in South Africa. *Journal of Occupational and Environmental Medicine*, 55(2):172–178.
- PayStream. 2014. *Health and safety proposals for contractors*. Retrieved from: <http://www.paystream.co.uk/Limited-company-news/HS-proposals-for-contractors.aspx?aid=801699469&cid=438036713> [Accessed 19 March 2014].
- Perez-Floriano, L.R. & Gonzales, J.A. 2007. Risk safety and culture in Brazil and Argentina: The case of TransInc Corporation. *International Journal of Manpower*, 28(5):403–417.

- Phin, D. 2013. *Safety programs and OSHA compliance*. Retrieved from: <http://www.cavignac.com/safety-programs-and-osha-compliance/> [Accessed 27 August 2015].
- Pillay, K.R. 2014. The costs of construction accidents. Unpublished master's thesis. Bellville: Cape Peninsula University of Technology.
- Pot, F.D. & Koningsveld, E.A.P. 2009. Quality of working life and organisational performance: Two sides of the same coin? *Scandinavian Journal of Work and Environmental Health*, 35(6):421–428.
- Pozo, H., Tachizawa, T., Pozo, R.A.F. & Pozo, T. 2013. Quality of life management at work: A strategic program for improved performance in micro and small companies in the Jundiá region, Brazil. *African Journal of Business Management*, 7(27):2733–2744.
- Prasad, S.V.S.R., Rao, Y.P. & Chalaphati, P.V. 2013. Prioritising the elements of OHSAS-18001 in construction segments in India: Analytical hierarchy process approach. *International Journal of Occupational Hygiene*, 5(4):159–165.
- Probst, T.M., Graso, M., Estrada, A.X. & Greer, S. 2013. Consideration of future safety consequences: A new predictor of employee safety. *Accident Analysis and Prevention*, 55:124–134.
- PwC (PricewaterhouseCoopers). 2009. *Corporate governance King III Report: Introduction and overview*. Retrieved from: <http://www.pwc.co.za/en/king3/index.jhtml> [Accessed 09 September 2015].
- Rajal, C.B., Cid, A.G., Cruz, M.C., Poma, H.R., Cacciabue, D.G., Romano, N., Moraga, N.B. & Last, J.A. 2013. Increasing capacity for environmental engineering in Salta, Argentina. *American Journal of Industrial Medicine*, 56(1):11–19.
- RCI (Regulatory Compliance Incorporated) Safety. 2015. *Incident reporting*. Retrieved from: http://www.rcisafety.com/safety-systems/safety-management-system/incident-reporting?_vsrefdom=adwords&qclid=C1zV2_vYqscCFcTJtAodT90Ong [Accessed 15 August 2015].
- Reason, J. 2005. *Managing the risk of organisational accidents*. Burlington: Ashgate.
- Reason, J. 2007. *Human error*. Cambridge: University Press.

- Rebelo, M.F., Santos, G. & Silva, R. 2014. Integration of individualised management systems (MSs) as an aggregating factor of sustainable value for organisations: An overview through a review of the literature. *Journal of Modern Accounting and Auditing*, 10(3):356–383.
- Reese, C.D. 2009. *Occupational health and safety management: A practical approach*, 2nd ed. New York, NY: CFC Press.
- Reich, M. & Fonger, J. 2015. *The integration of disabled people into the German labour market – how the workplace health management is able to complement the existing tools*. Retrieved from: http://real.mtak.hu/24735/1/ICoM_2015-paper046.pdf [Accessed 04 October 2016].
- Reiner, M. 2011. *Safety, health, environment and quality framework for small and medium-sized enterprises in Durban area*. Doctoral Dissertation, Stellenbosch: Stellenbosch University.
- Revell, A. & Blackburn, R. 2007. The business case for sustainability? An examination of small firms in the UK's construction and restaurant sectors. *Business Strategy and the Environment*, 16:404–420.
- Revell, A., Stokes, D. & Chen, H. 2010. Small business and the environment: Turning over a new leaf? *Business Strategy and the Environment*, 19:273–288.
- Rhebergen, M.D.F., Lenderink, A.F., Van Dijk, F.J.H. & Hulstof, C.T.J. 2012. Do Dutch workers seek and find information on occupational safety and health? *American Journal of Industrial Medicine*, 55:250–259.
- Robbins, S.P. 2001. *Organisational behaviour*, 9th ed. NJ: Prentice Hall.
- Rosli, M.M., Kuswanto, F. & Omar, A.R.C. 2012. *Competitive strategies and firm performance: A comparative study of Malaysian and Indonesian small and medium enterprises*. Paper presented at the Third International Conference on Business and Economic Research Proceeding, Bandung, 12–13 March.
- RoSPA (Royal Society for the Prevention of Accidents). 2008. Time to cut health and safety red tape? *The RoSPA Occupational Safety and Health Journal*, 38(9):1-3.
- RoSPA (Royal Society for the Prevention of Accidents). 2009. High cost for small firms. *The RoSPA Occupational Safety and Health Journal*, August:1-4.

- RoSPA (Royal Society for the Prevention of Accidents). 2015a. *About RoSPA*. Retrieved from: <http://www.rospa.com/> [Accessed 01 May 2015].
- RoSPA (Royal Society for the Prevention of Accidents). 2015b. *Health and safety in SMEs inquiry*. Retrieved from: <http://www.rospa.com/occupational-safety/advice/small-firms/sme-inquiry> [Accessed 15 April 2015].
- RoSPA (Royal Society for the Prevention of Accidents). 2015c. *RoSPA joint statement*. Retrieved from: <http://www.rospa.com/rospaweb/docs/advice-services/occupational-safety/joint-statement.pdf> [Accessed 01 May 2015].
- RoSPA (Royal Society for the Prevention of Accidents). 2015d. *RoSPA's mission and vision*. 2015. Retrieved from: <http://www.rospa.com/about/mission-vision/> [Accessed 01 May 2015].
- Rossouw, A. 2011. SHEQ industry skills up. *Occupational Risk*, 2(4):22–23.
- RSA (Republic of South Africa). 1993. *Occupational Health and Safety Act No. 85 of 1993 as amended by the Occupational Health and Safety Amendment Act No. 181 of 1993*. Pretoria: Government Printing Works.
- RSA (Republic of South Africa). 1996. *Constitution of the Republic of South Africa Act No. 108 of 1996*. Pretoria: Government Printing Works.
- RSA (Republic of South Africa). 1997. *Compensation for Occupational Injuries and Diseases Amendment Act No. 61 of 1997*. Pretoria: Government Printing Works.
- RSA (Republic of South Africa). 2004. *National Small Business Amendment Act No. 29 of 2004*. Pretoria: Government Printing Works.
- SABS (South African Bureau of Standards). 2015. *Participation in South African National Technical Committees*. Pretoria: SABS.
- Saguy, I.S. & Sirotinskaya, V. 2014. Challenges in exploiting open innovation's full potential in the food industry with a focus on small and medium enterprises (SMEs). *Trends in Food Science and Technology*, 38:136–148.
- Santos, G., Barros, S., Mendes, F. & Lopes, N. 2013. The main benefits associated with health and safety management systems certification in Portuguese small and medium enterprises post quality management system certification. *Safety Science*, 51:29–36.
- Sardeshmukh, S.R., Chen, M., Uzuegbunam, I.S., Kasthurirangan, G. & Baron, R.A. 2010. Deliberate practice makes expert entrepreneurs: An analysis of how entrepreneurs become experts in opportunity identification and

- evaluation. In *USASBE Proceedings*. Boca Raton, FL: United States Association for Small Business and Entrepreneurship:209–227.
- Sari, R.C., Mustikawati, I. & Hum, N. 2016. *Innovative model for implementation corporate social responsibility to realise green small and medium enterprises: Evidence from Japan and Indonesia*. Retrieved from: http://eprints.uny.ac.id/20744/1/KLN_2014.pdf [Accessed 10 September 2016].
- SASSA (South African Social Security Agency). 2012. *Annual Report 2011/2012*. Retrieved from: <http://www.sassa.gov.za/index.php/knowledge-centre/annual-reports> [Accessed 08 October 2014].
- SASSA (South African Social Security Agency). 2016. *Annual Report 2015/2016*. Retrieved from: <http://www.sassa.gov.za/index.php/knowledge-centre/annual-reports> [Accessed 31 January 2017].
- Saunders, M., Lewis, P. & Thornhill, A. 2012. *Research methods for business students*, 6th ed. London: Pearson.
- Semboja, H.H.H., Ahonen, G. & Hussi, T. 2012. Microeconomics of firms compliant with occupational safety and health. *African Newsletter on Occupational Health and Safety*, 22(1):6–9.
- Shaw, C.D., Braithwaite, J., Moldovan, M., Nicklin, W., Grgic, I., Fortune, T. & Whittaker, S. 2013. Profiling health-care accreditation organisations: An international survey. *International Journal for Quality in Health Care*, 25(3):222–231.
- Shirokova, G., Vega, G. & Sokolova, L. 2013. Performance of Russian SMEs: Exploration, exploitation and strategic entrepreneurship. *Critical Perspectives on International Business*, 9(1/2):173–203.
- Siddiqui, K. 2013. Heuristics for sample size determination in multivariate statistical techniques. *World Applied Sciences Journal*, 27(2), 285–287.
- Sieberhagen, C., Rothmann, S. & Pienaar, J. 2009. Employee health and wellness in South Africa: the role of legislation and management standards. *SA Journal of Human Resource Management*, 7(1):1-9.
- Sievanen, L. 2014. How do small-scale fishers adapt to environmental variability? Lessons from Baja California, Sur, Mexico. *Maritime Studies*, 13(9):1–19.

- Small Business Finance Agency. 2014. *Annual Report 2014*. Retrieved from: http://www.sefa.org.za/Content/Docs/SEFA%20Annual%20report%20Main_29_08_2014_LOW_RES_FOR_WEB.pdf [Accessed 17 August 2015].
- Smallwood, J., Haupt, T. & Shakantu, W. 2009. *Construction health and safety in South Africa*. Retrieved from: http://www.cidb.org.za/documents/kc/cidb_publications/ind_reps_other/ind_reps_construction_h_s_in_sa_status_recommendations.pdf [Accessed 01 September 2015].
- SME Toolkit. 2015. *Sample Health and Safety Policy*. Retrieved from: <http://www.smetoolkit.org/smetoolkit/en/content/en/953/Sample-Health-and-Safety-Policy?view=print> [Accessed 15 April 2015].
- Smit, Y. & Watkins, J.A. 2012. A literature review of small and medium enterprises (SME) risk management practices in South Africa. *African Journal of Business Management*, 6(21):6324-6330.
- Smith, D.P. 2013. Characteristics of innovative entrepreneurs: An analysis at the level of the individual, the firm, and the business environment. *New Visions for Public Affairs*, 5:25–39.
- Smith, M.J., Cohen, H.H., Cohen, A. & Cleveland, R.J. 2013. Reprint of characteristics of successful safety programs. *Journal of Safety Research*, 100 years edition:89–100.
- Sørensen, O.H., Hasle, P. & Bach, E. 2007. Working in small enterprises: Is there a special risk? *Safety Science*, 45:1044–1059.
- Spector, J.M. 2008. Cognition and learning in the digital age: Promising research and practice. *Computers in Human Behaviour*, 24:249–262.
- Sreejesh, S., Mohapatra, S. & Anusree. M.R. 2014. *Business research methods: An applied orientation*. London: Springer.
- Starren, A., Hornikx, J. & Luijters, K. 2013. Occupational safety in multicultural teams and organisations: A research agenda. *Safety Science*, 52:43–49.
- Statistics South Africa. 2012. *Standard Industrial Classification (SIC) of all economic activities*. Retrieved from: http://www.statssa.gov.za/classifications/codelists/Web_SIC7a/SIC_7_Final_Manual_Errata.pdf [Accessed 21 August 2015].

- Steenkamp, R.J. 2012. Programme design dimensions explored for a professional occupational safety and health management qualification for Africa. *African Journal of Business Management*, 6(31):9072–9084.
- Stevens, P. & Fauvrelle, N. 2009. Harmonisation of health and safety laws. *MHD Supply Chain Solutions*, 39(6):1-10.
- Stoop, J. & Dekker, S. 2012. Are safety investigations pro-active? *Safety Science*, 50:1422–1430.
- Stranks, J. 2010. *Health and safety at work: An essential guide for managers*, 9th ed. London: Kogan Page.
- Strydom, J. 2015. David against Goliath: Predicting the survival of formal small businesses in Soweto. *International Business and Economics Research Journal*, 14(3):563–476.
- Sullivan, L. N.d. *The role of probability*. Retrieved from: http://sphweb.bumc.bu.edu/otlt/mph-modules/bs/bs704_probability/BS704_Probability_print.html [Accessed 19 October 2014].
- SurveyMonkey Inc. n.d. *How many respondents do I need?* Retrieved from: http://help.surveymonkey.com/articles/en_US/kb/How-many-respondents-do-i-need [Accessed 19 October 2014].
- Suter, A.H. & Arenas, J.P. 2014. Comparison of occupational noise legislation in the Americas: An overview and analysis. *Noise and Health*, 16(72):306–319.
- Swanepoel, E., Strydom, J.W. & Nieuwenhuizen, C. 2010. An empirical analysis of a private company's corporate social investment in SMME development in South Africa. *Southern African Business Review*, 14(1):58–78.
- Tait, R. & Walker, D. 2000. Marketing health and safety management expertise to small enterprises. *Safety Science*, 36:95–110.
- Targue, N.R. 2004. *The quality toolbox*, 2nd ed. New York, NY: ASQ Quality Press.
- Tasci, T. 2012. *Analysis of current occupational health and safety situation and needs of SMEs in Turkey*. Retrieved from: http://www.academia.edu/1767747/ANALYSIS_OF_CURRENT_OCCUPATIONAL_HEALTH_AND_SAFETY_SITUATION_AND_NEEDS_OF_SMES_IN_TURKEY_2012 [Accessed 21 August 2015].
- Taylor, M.V. & Stephenson, P.L. 2013. Disaster and emergency preparedness: A webliography. *Journal of Consumer Health on the Internet*, 17(1):54–66.

- Thaba, S.C., Mbohwa, C. & Pradhan, A. 2015. Occupational health and safety in the biofuels industry: *The case study of small scale biodiesel plants in Gauteng Province, South Africa. Paper presented at the World Congress on Engineering and Computer Science, San Francisco, USA, 21-23 October.* Retrieved from: http://www.iaeng.org/publication/WCECS2015/WCECS2015_pp940-944.pdf [Accessed 25 January 2017].
- Thakkar, J., Kanda, A. & Deshmukh, S.G. 2012. Supply chain issues in Indian manufacturing SMEs: Insights from six case studies. *Journal of Manufacturing Technology*, 23(5):634–664.
- Thinius, M. & Jakob, M.C. 2015. A strategy for workplace health promotion on German dairy farms. *Agricultural Engineering International*, 17(1):173–180.
- Torre, E.D. & Solari, L. 2011. High performance work systems, technological innovations and firm performance in SME: Evidences from Italy. *International Journal of Entrepreneurial Venturing*, 3(4):375–389.
- Tshoose, C. 2014. Placing the right to occupational health and safety within a human rights framework: Trends and challenges for South Africa. *Comparative and International Law Journal of Southern Africa*, 47(2):276–296.
- Tucker, S., Diekrager, D., Turner, N. & Kelloway, E.K. 2014. Work-related injury underreporting among young workers: Prevalence, gender differences, and explanations for underreporting. *Journal of Safety Research*, 50:67–73.
- Turkish Ministry of Labour and Social Security. 2014. *Project on Improvement of Occupational Health and Safety.* Retrieved from: <http://safetyhealth.com.tr/en/project-on-improvement-of-occupational-health-and-safety-conditions-at-workplaces-in-turkey-iscgip/> [Accessed 21 August 2015].
- Tustin, D. 2015. The physiognomy of SMMEs in South Africa and consequential national strategy reinforcement. *The Retail and Market Review*, 11(1):77–91.
- Tustin, D.H., Ligthelm, A.A., Martins, J.H. & Van Wyk, H.J. 2010. *Marketing research in practice.* South Africa: Unisa Press.

- Unger, J.M., Keith, N., Hilling, C., Gielnik, M.M. & Frese, M. 2009. Deliberate practice among South African small business owners: Relationships with education, cognitive ability, knowledge, and success. *Journal of Occupational and Organisational Psychology*, 82:21–44.
- Unnikrishnan, S., Iqbal, R., Singh, A. & Nimkar, M. 2015. Safety management practices in small and medium enterprises. *Safety and Health at Work*, 6:46–55.
- Ushakova, T.V., Safiullin, A.R. & Strelnik, E.U. 2014. Small and medium business information management: Main trends of development in Russia. *Mediterranean Journal of Social Sciences*, 5(24):165–169.
- Usry, M.L. & Mosier, G.C. 1991. Negligent hiring: Headaches for the small business person. *Journal of Small Business Management*, January:72–76.
- Vagias, W.M. 2006. *Likert-type scale response anchors*. Clemson International Institute for Tourism & Research Development, Department of Parks, Recreation and Tourism Management. Clemson University.
- Valenti, A., Buresti, G., Rondinone, B.M., Persechino, B., Boccuni, F., Fortuna, G. & Lavicoli, S. 2015. *Stakeholders' perception of the possible implications of "green jobs" for health and safety at work in Italy*. Retrieved from: https://www.jstage.jst.go.jp/article/indhealth/advpub/0/advpub_2014-0208/pdf [Accessed 25 August 2015].
- Valsamakis, A.C., Vivian, R.W. & Du Toit, G.S. 1992. *The theory and principles of risk management*. Durban: Butterworths.
- Van Loggerenberg, N.J.F. 2013. Fundamentals of occupational hygiene. In: R. Steenkamp & A. van Schoor (Eds.). *Occupational safety and health (OSH): A TQM and quality of work life approach*. Cape Town: Juta and Company Ltd, 127–138.
- Van Schoor, A. 2013. Serving the internal customer: Creating a motivational work environment. In R. Steenkamp & A. van Schoor (Eds.). *Occupational safety and health (OSH): A TQM and quality of work life approach*. Cape Town: Juta and Company Ltd, 43–70.
- Van Zyl, L.E. 2014. *Research methodology for economic and management sciences*, 8th ed. London: Pearson.
- Velázquez, L., Munguía, N., Esquer, J., Zavala, A., Ojeda, S., Will, M. & Delakowitz, B. 2014. Occupational safety and health programs in the

- Maquiladora industry. *Economic and Environmental Studies*, 14(2):163–175.
- Verbeek, J. & Ivanov, I. 2013. Essential occupational safety and health interventions for low-and middle-income countries: An overview of the evidence. *Safety and Health at Work*, 4:77–83.
- Viego, V. & Sagui, N. 2015. Recent trends in occupational injuries and diseases in Argentina: A panel data approach. *Occupational Diseases and Environmental Medicine*, 3:57–75.
- Vo, L.C., Delchet-Cochet, K. & Akeb, H. 2015. Motives behind the integration of CSR into business strategy: A comparative study in French SMEs. *The Journal of Applied Business Research*, 31(5):1975–1986.
- Wachter, J.K. & Yorio, P.L. 2014. A system of safety management practices and worker engagement for reducing and preventing accidents: An empirical and theoretical investigation. *Accident Analysis and Prevention*, 68:117–130.
- Wainer, A. 2013. Rural development and migration in Mexico. *Development in Practice*, 23(2):232–248.
- Walker, D. & Tait, R. 2004. Health and safety management in small enterprises: An effective low cost approach. *Safety Science*, 42:69–83.
- Walters, D.R. 1996. Health and safety strategies in Europe. *Journal of Loss Prevention Industries*, 9(5):297–308.
- Wang, X., Wu, S., Song, Q., Tse, L., Yu, I.T.S., Wong, T. & Griffiths, S. 2011. Occupational health and safety challenges in China: Focusing on township-village enterprises. *Archives of Environmental and Occupational Health*, 66(1):3–11.
- Welman, C., Kruger, F. & Mitchell, B. 2011. *Research methodology*, 3rd ed. Cape Town: Oxford University Press.
- WESSA (Wildlife and Environmental Society of South Africa). n.d. *Series on environmental decision-making and action*. Retrieved from: <http://www.botany.uwc.ac.za/inforeep/decisions2.htm>
[Accessed 18 August 2015].

- WHO (World Health Organisation). 1994. *Global strategy on occupational health for all: The way to health at work*. Retrieved from:
http://www.who.int/occupational_health/publications/globstrategy/en/index5.html# [Accessed 01 May 2015].
- WHO (World Health Organisation). 2005. *Constitution of the World Health Organisation*. Retrieved from:
<http://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf?ua=1> [Accessed 01 May 2015].
- WHO (World Health Organisation). 2006. *Gender equality, work and health: A review of the evidence*. Retrieved from:
<http://www.who.int/gender/documents/Genderworkhealth.pdf?ua=1>
[Accessed 15 August 2015].
- WHO (World Health Organisation). 2007a. *Employment conditions and health inequalities*. Retrieved from:
http://who.int/social_determinants/resources/articles/emconet_who_report.pdf?ua=1 [Accessed 17 August 2015].
- WHO (World Health Organisation). 2007b. *The Global Occupational Health Network*. Retrieved from:
http://www.who.int/occupational_health/publications/newsletter/gohnet12_2_6nov07.pdf?ua=1 [Accessed 17 August 2015].
- WHO (World Health Organisation). 2015a. *Five keys to healthy workplaces: No business wealth without workers' health*. Retrieved from:
http://www.who.int/occupational.health/5keys_healthy_workplaces.pdf
[Accessed 14 August 2015].
- WHO (World Health Organisation). 2015b. *Promotion of occupational safety and health in small enterprises and the informal sector*. Retrieved from:
http://www.who.int/occupational_health/topics/en/oehtf8.pdf
[Accessed 17 August 2015].
- WHO (World Health Organisation). 2017. *Workplace health promotion*. Retrieved from:
http://www.who.int/occupational_health/topics/workplace/en/index1.html
[Accessed 15 February 2017].
- Wilson, V. 2014. Research methods: Triangulation. Evidence based library and information practice, 9(1), 74-75.

- Wollesen, B., Menzel, J., Drögenmüller, R., Hartwig, C. & Mattes, K. 2016. *The effects of a workplace health promotion program in small and middle-sized companies: A pre-post analysis*. Retrieved from:
https://www.researchgate.net/profile/Bettina_Wollesen/publication/306457485_The_effects_of_a_workplace_health_promotion_program_in_small_and_middle-sized_companies_a_pre_post_analysis/links/57be1e4b08ae2f5eb32deb6d.pdf [Accessed 28 December 2016].
- WorkSafe. 2014a. *12 ways to make small businesses safer*. Retrieved from:
<http://www.worksafe.vic.gov.au/safety-and-prevention/small-business/12-ways-to-make-small-businesses-safer> [Accessed 19 March 2014].
- WorkSafe. 2014b. *Safety essentials for small businesses*. Retrieved from:
<http://www.worksafe.vic.gov.au/safety-and-prevention/small-business/worksafe-ohs-essentials-program> [Accessed 06 August 2015].
- WorkSafe. 2015. *Identify and fix safety issues*. Retrieved from:
<https://www.worksafe.vic.gov.au/safety-and-prevention/small-business/identify-and-fix-safety-issues> [Accessed 10 August 2015].
- World Bank. 2013a. *Doing business 2013: Smarter regulations for small and medium size enterprises*. Retrieved from: <http://www.doingbusiness.org/~media/GIAWB/Doing%20Business/Documents/Annual-Reports/English/DB13-full-report.pdf> [Accessed 09 September 2015].
- World Bank. 2013b. *Doing business 2014: Understanding regulations for small and medium-size enterprises*. Retrieved from:
<http://www.doingbusiness.org/~media/GIAWB/Doing%20Business/Documents/Annual-Reports/English/DB14-Full-Report.pdf>
[Accessed 09 September 2015].
- Xavier, S.R., Kelley, D., Kew, J., Herrington, M. & Vorderwülbecke, A. 2012. *Global Entrepreneurship Monitor: 2012 Global Report*. Retrieved from:
<http://www.gemconsortium.org/docs/2645/gem-2012-global-report>
[Accessed 19 October 2014].
- Yang, T.C. 2013. Awareness of labour insurance coverage for occupational injuries and diseases among employees at small and large enterprises. *Tzu Chi Medical Journal*, 25:108–111.

- Yapp, C. & Fairman, R. 2006. Factors affecting food safety compliance within small and medium-sized enterprises: Implications for regulatory and enforcement strategies. *Food Control*, 17:42–51.
- Yilmaz, F. 2009. Occupational health and safety in developing countries and Turkey in globalisation process. *International Journal of Human Sciences*, 6(1):45–72.
- Yorio, P.L., Willmer, D.R. & Moore, S.M. 2015. Health and safety management systems through a multilevel and strategic management perspective: Theoretical and empirical considerations. *Safety Science*, 72:221–228.
- Yukhanaev, A., Fallon, G., Baranchenko, Y. & Anisimova, A. 2015. An investigation into the formal institutional constraints that restrict entrepreneurship and SME growth in Russia. *Journal of East-West Business*, 21:313–341.
- Zanko, M. & Dawson, P. 2012. Occupational health and safety management in organisations: A review. *International Journal of Management Reviews*, 14:328–344.
- Zeng, S.X., Tam, V.W.Y. & Tam, C.M. 2008. Towards occupational health and safety systems in the construction industry of China. *Safety Science*, 46:1155–1168.
- Zwetsloot, G.I.J.M., Kines, P., Wybo, J.L., Ruotsala, R., Drupsteen, L. & Bezemer, R.A. 2016. Zero accident vision based strategies in organisations: Innovative perspectives. *Safety Science*, 91:260–268.
- Zwetsloot, G.I.J.M., Van Scheppingen, A.R., Dijkman, A.J., Heinrich, J. & Den Besten, H. 2010. The organisational benefits of investing in workplace health. *International Journal of Workplace Health Management*, 3(2):143–159.

ANNEXURE A
ETHICAL CLEARANCE

COLLEGE OF ECONOMIC AND MANAGEMENT SCIENCES
RESEARCH ETHICS REVIEW COMMITTEE

18th November 2015

Ref #: 2015_CRERC_039(FA)

Name of applicant : Mrs E Esterhuyzen

Staff #: 90184254

Dear Mrs Eliza Esterhuyzen,

Decision: Ethics Approval

Name: Mrs E Esterhuyzen. estere@unisa.ac.za, 012 429 3612 or 082 929 8218

Proposal: Occupational Health and Safety: A Compliance Management Framework for Small Businesses in South Africa

Qualification: DCom Degree

Thank you for the application for research ethics clearance by the College of Economic and Management Sciences Research Ethics Review Committee for the above mentioned research. Final approval is granted for the duration of the project.

For full approval: The revised application was reviewed in compliance with the Unisa Policy on Research Ethics by the CRERC on **09th November 2015**.

The proposed research may now commence with the proviso that:

- 1) The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*
- 2) Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology,*

