



**FACTORS INFLUENCING SMALL AND MEDIUM ENTERPRISES' INNOVATION
STRATEGIES IN DURBAN**

by

KUDZAI NIGEL MAKUWE

21344425

Submitted in fulfillment of the requirements for the Degree of

**MASTERS IN MANAGEMENT SCIENCES
BUSINESS ADMINISTRATION**

in the

Department of Entrepreneurial Studies and Management

Faculty of Management Sciences

at

DURBAN UNIVERSITY OF TECHNOLOGY

SUPERVISOR: Dr L. M. LEKHANYA

NOVEMBER 2021



**FACTORS INFLUENCING SMALL AND MEDIUM ENTERPRISES' INNOVATION
STRATEGIES IN DURBAN**

Submitted in fulfilment of the requirements for the Degree of Master's in Management Sciences, Business Administration, in the Department of Entrepreneurial Studies and Management, Faculty of Management Sciences at the Durban University of Technology

by

KUDZAI NIGEL MAKUWE

21344425

NOVEMBER 2021

SUPERVISOR: Dr L. M. LEKHANYA

PhD (UWC): Management; D-Tech (DUT): Marketing

ABSTRACT

It is evident and generally agreed by scholars around the world that Small and Medium Enterprises (SMEs) are the backbone of any thriving economy. For the SME sector to fully support the economic activities of a country it needs to be absorbed in innovation activities that deliver products and services valued by customers. Studies have been conducted globally confirming a positive relationship between SMEs and their characteristic innovative nature. However, paucity still exists in the local context of South Africa, especially in Durban, on what influences SME innovation strategies. It was thus the aim of the current study to identify factors that influence SME innovation strategies in Durban. In addition, the study recognised the impact of Corona Virus 2019 (Covid-19) on SME innovation, while also delving into post Covid-19 innovation strategies by SMEs.

The study made use of a quantitative research design and a structured questionnaire was distributed to respondents. The sample size of the study was 248 SME owners/ managers in Durban. With the closure of certain businesses, the impact of covid-19 forced a shift from probability to non-probability sampling, as well as changes to the data collection planned initially for the study. Therefore, the researcher had to resort to targeting SMEs in Durban that were allowed to operate. With the aid of a research assistant the questionnaire was distributed to and collected from respondents. Collected data was analysed using the Statistical Package for Social Sciences (SPSS) version 25.0 for Windows. The results emanating from the study were then presented in the form of bar graphs, pie charts and cross tabulations.

The main findings of the research revealed that the majority of SMEs in Durban surveyed invest in technology equipment. Furthermore, the results showed agreement by a majority of the SMEs that the size of a firm influences innovation strategies. In addition, the majority of SME owners strongly agreed that the global pandemic, Covid-19, has significantly changed consumer buying patterns. The research project additionally highlighted some of the most critical factors that influence SME innovation strategies in Durban. Policy makers, academics and SME stakeholders will find the study informative.

DECLARATION

I, the undersigned, **Kudzai Nigel Makuwe**, do hereby declare that this dissertation submitted for the Degree of Master in Management Sciences: Business Administration, in the Faculty of Management Sciences at Durban University of Technology, is solely the result of my own original work. This work has not been submitted to any other institution of higher education for a degree award or other purposes. All the authors whose work contributed to this research study have been acknowledged accordingly, accurately cited and referred to in the references list.

This dissertation was conducted under the supervision of **Dr Lawrence Mpele Lekhanya** (Senior Research Fellow Durban University of Technology).

Manuscript entitled: “Factors Influencing Small Medium Enterprises’ Innovation Strategies in Durban” has been published under Academy of Entrepreneurship Journal (AEJ) Volume 27 Issue 2 2021.

I hereby give full consent for this work to be made available for inter-library loan, photocopying, and to any outside interested organisations and students.

I hereby certify that the above statement is true and correct.

Signed:

Date: 10/11/2021

Kudzai Nigel Makuwe

Btech (DUT): Human Resources Management

APPROVED FOR FINAL SUBMISSION

Signed:

Date: 10/11/2021

Dr Lawrence Mpele Lekhanya

PhD (UWC): Management; D-Tech (DUT): Marketing

ACKNOWLEDGEMENTS

Firstly, I would like to thank the Lord Almighty the creator of heaven and earth for the wisdom, strength and tenacity required to complete a study of this magnitude. The study hard pressed me on every side, yet I was not crushed, it perplexed me but was never in despair, struck down but not destroyed (2 Corinthians 4:8-9). It can only be God.

To my supervisor, brother and mentor Dr Lawrence Mpele Lekhanya, for his expertise and sedulous knowledge of the SMEs sector. Without your patience, willingness to support and pragmatic advices the study would not have been completed. You are the best.

To the National Research Foundation (NRF) for the Innovation Master's Scholarship that financed my studies and all my living expenses. I thank you very much. However, the views and thoughts expressed in this study are those of the researcher and not of the NRF.

The Durban University of Technology for the world class facilities that support research. Also, for the 100% remission of tuition fee. It went a long way in relieving the financial burden associated with postgraduate studying. The opportunity you gave me to further my studies is a lifetime treasure.

I am indebted to Dr Rodwell Makombe the National Research Foundation rated scholar and doctor of linguistics for language editing the study ensuring it meets the brevity and clarity required. I appreciate your expertise and knowledge. Ms Helen Richter also, I thank you.

To the Deputy Dean of Management Science Dr M.E. Lourens words cannot express how grateful I am for your immense contribution throughout my academic journey. You held my academic hand since day one and guided me at every stage. Thank you so very much.

Finally, to the Messrs and Mmes who directly contributed to the completion of this study and are not mentioned by name due to space constraints. You are not forgotten, the warmest place in my heart is reserved for you. I thank you.

DEDICATION

The study is dedicated to the following people.

My parents Mr. W. Z. Makuwe and Mrs. S. Makuwe for imparting and nurturing in me the values of education from an early age. I thank you for the confidence you continue to have in me and for the financial support since day one. You are a blessing.

My siblings Faith, Theosebia and Tinodashe Makuwe who had to miss brotherly warmth whilst I undertook the research work. Also, to my toddler nieces Amara and Camilla for all the ‘uncle what are you doing’ during my studies; it helped me unwind. *Nhasi ndezveduwo, wedu adadisa (It is our turn to celebrate, our own has done us proud).*

To the endless victims of the novel Covid-19 (Corona virus 2019) pandemic. May your soul rest in peace. You are not forgotten.

To my future wife and children, the study was done with you in mind. I did it for you.

And I am confident that God, who began a good work in me, will continue his work until it is finally finished on the day when Christ Jesus returns

(Philippians 1.6)

TABLE OF CONTENTS

ABSTRACT	iii
DECLARATION.....	iv
ACKNOWLEDGEMENTS	v
DEDICATION	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xii
LIST OF FIGURES	xiii
1 CHAPTER ONE BACKGROUND AND OVERVIEW OF THE STUDY	1
1.1 INTRODUCTION	1
1.2 PROBLEM STATEMENT AND METHODOLOGY	2
1.2.1 Problem Statement.....	2
1.2.2 Aim of the Study	3
1.2.3 Research Objectives	3
1.2.4 Research Questions	3
1.3 SIGNIFICANCE OF THE STUDY	4
1.4 SCOPE OF THE STUDY	4
1.5 BRIEF OVERVIEW OF THE LITERATURE REVIEW	4
1.5.1 Lack of Access to Finance.....	5
1.5.2 Lack of Skills and Training	6
1.5.3 Lack of Business Knowledge and Experience	6
1.5.4 Government Policy	6
1.5.5 Schumpeterian Innovation Theory	7
1.6 LIMITATIONS OF THE STUDY	8
1.7 DELIMITATION OF THE STUDY	8
1.8 RESEARCH METHODOLOGY AND DESIGN	8
1.8.1 Research Design	8
1.9 RELIABILITY AND VALIDITY	9
1.10 ETHICAL CONSIDERATIONS	9
1.11 STRUCTURE OF THE DISSERTATION	9
1.12 SUMMARY OF THE CHAPTER	10
2 CHAPTER TWO LITERATURE REVIEW	11

2.1	INTRODUCTION	11
2.2	DEFINITION OF KEY CONCEPTS	12
2.2.1	SMEs	12
2.2.2	SME Innovation.....	14
2.2.3	SMEs Innovation Strategies	15
2.3	GLOBAL CONTEXT OF SME INNOVATION	16
2.4	THE CURRENT STATE OF THE SME SECTOR IN SA	19
2.4.1	Durban: The Study Area.....	20
2.5	THE CURRENT STATE OF SME INNOVATION IN SA.....	22
2.5.1	The Role of Innovation on Economic Development of SMEs.....	26
2.5.2	The Role of Innovation in SME Growth	30
2.5.3	Characteristics of Innovative SMEs in SA	31
2.6	INNOVATION CHALLENGES FACED BY SMEs IN SA	32
2.6.1	Lack of Financial Support	35
2.6.2	Lack of Information Technology.....	36
2.6.3	Lack of Qualified Personnel	36
2.7	SME INNOVATION: CURRENT TRENDS.....	36
2.8	THEORETICAL POINTS OF DEPARTURE AND INNOVATION CONCEPTS	39
2.8.1	Diffusion of Innovation Theory.....	40
2.9	FORMS OF INNOVATION	40
2.9.1	Product Innovation	42
2.9.2	Process Innovation.....	42
2.9.3	Service Innovation.....	43
2.9.4	Marketing Innovation	43
2.10	SME INNOVATION CONCEPTS	44
2.10.1	Open Innovation	44
2.10.2	Closed Innovation.....	45
2.11	FACTORS INFLUENCING SME INNOVATION STRATEGIES	45
2.11.1	Financial Factors	47
2.11.2	Firm Size	49

2.11.3	Economic Situation	49
2.11.4	Management Entrepreneurial Innovation Competence	50
2.11.5	SME Innovation Culture.....	52
2.11.6	Business Knowledge and Expertise.....	53
2.11.7	SME Technological Innovation.....	54
2.11.8	Market Orientation and Customer Behaviour	57
2.11.9	Government Support and Innovation Policies.....	59
2.12	THE RESOURCE-BASED VIEW	62
2.13	SME AWARENESS OF COVID-19 RELIEF FUND.....	64
2.13.1	SME Relief Financial Scheme.....	67
2.13.2	Business Growth and Resilience Facility	67
2.13.3	Restructuring of SEFA-Funded Loans	67
2.14	SME INNOVATION POST COVID-19	68
2.15	SUMMARY OF THE CHAPTER	69
3	CHAPTER THREE RESEARCH DESIGN AND METHODOLOGY	70
3.1	INTRODUCTION	70
3.2	RESEARCH AIM.....	70
3.2.1	Research Questions	70
3.3	RESEARCH DESIGN	71
3.3.1	Types of Research Approach.....	71
3.3.2	Qualitative Research.....	72
3.3.3	Quantitative Research.....	72
3.4	RESEARCH PARADIGM (Positivism).....	73
3.5	PRIMARY DATA COLLECTION	73
3.6	SECONDARY DATA	74
3.7	TARGET POPULATION.....	74
3.8	SAMPLING	75
3.9	FOLLOW-UP PROCEDURES	75
3.10	QUESTIONNAIRE CONSTRUCTION.....	76
3.10.1	Measuring Instruments	76
3.11	PILOT STUDY	77

3.12	VALIDITY AND RELIABILITY	77
3.12.1	Reliability	78
3.13	COVID-19 AND CHALLENGES POSED TO THE STUDY	79
3.14	DATA COLLECTION METHODS	80
3.15	ETHICAL CONSIDERATIONS	80
3.16	DATA ANALYSIS	82
3.17	SUMMARY OF THE CHAPTER	82
4	CHAPTER FOUR DATA ANALYSIS AND DISCUSSION OF FINDINGS	83
4.1	INTRODUCTION	83
4.2	RESEARCH INSTRUMENT	83
4.3	RESPONSE RATE	84
4.4	DESCRIPTIVE STATISTICS	84
4.5	RELIABILITY TESTING	84
4.6	ANALYSIS OF BIOGRAPHICAL DATA	85
4.7	FACTOR ANALYSIS	91
4.8	PRESENTATION, INTERPRETATION AND DISCUSSION OF RESEARCH FINDINGS	92
4.8.1	Respondent Perceptions on Financial Factors	93
4.8.2	Respondent Perceptions on Firm Size	95
4.8.3	Respondent Perceptions on Economic Situation	98
4.8.4	Respondent Perceptions on Management Competences	101
4.8.5	Respondent Perceptions on SME Innovation Culture	103
4.8.6	Respondent Perceptions on Government Support and Innovation Policies	106
4.8.7	Respondent Perceptions on SMEs Technological Innovation	108
4.8.8	Respondent Perceptions on Market Orientation and Customer Behaviour	111
4.8.9	Respondent Perceptions on Human Capital	114
4.8.10	Respondent Perceptions on the Resource-Based View	117
4.8.11	Respondent Perceptions on SME Awareness of the Covid-19 Relief Fund	119
4.8.12	Respondent Perceptions on Innovative SMEs	122
4.9	CROSS TABULATION	124
4.10	STUDY LIMITATION	129
4.11	SUMMARY OF THE CHAPTER	130

5	CHAPTER FIVE RECOMMENDATIONS AND CONCLUSION	131
5.1	INTRODUCTION	131
5.2	SUMMARY OF KEY FINDINGS	131
5.3	LITERATURE REVIEW COMPARATIVE FINDINGS	132
5.4	CONCLUSIONS	133
5.5	STUDY RECOMMENDATIONS	134
5.6	STUDY IMPLICATIONS	134
5.7	FURTHER STUDY RECOMMENDATIONS	134
5.8	SUMMARY OF THE RESEARCH CHAPTERS.....	135
5.9	CONCLUDING REMARKS	136
	REFERENCE LIST	137
	ANNEXURE A: CONSENT FORM	185
	ANNEXURE B: QUESTIONNAIRE	186
	ANNEXURE C: ETHICAL CLEARANCE	190

LIST OF TABLES

Table 2.1: SMEs according to the National Business Act.....	13
Table 2.2: Changing definitions of SME innovation.....	14
Table 2.3: SME sector contribution to employment and GDP in developing countries	17
Table 2.4: The contribution of selected African SMEs to GDP	27
Table 2.5: Factors affecting SME innovation.....	34
Table 4.1: Structure of the Questionnaire.....	84
Table 4.2: Reliability results of the research instrument	85
Table 4.3: Gender of respondents.....	86
Table 4.4: Business sector	87
Table 4.5: Number of employees	88
Table 4.6: Number of years in the business	89
Table 4.7: Level of Education	90
Table 4.8 : Statements on financial factors.....	95
Table 4.9: Statements on firm size	97
Table 4.10: Statements on economic situation	100
Table 4.11: Statements on management competencies	103
Table 4.12: Statements on innovation culture	106
Table 4.13: Statements on government support	108
Table 4.14: Statements on SME technology	110
Table 4.15: Statements on market orientation and customer.....	113
Table 4.16: Statements on human capital.....	116
Table 4.17: Statements on the resource-based view.....	118
Table 4.18: SME awareness of the covid-19 relief fund	121
Table 4.19: Cross tabulation between finance and experience (years).....	124
Table 4.20: Cross tabulation between Government support and Experience (years).....	125
Table 4.21: Cross tabulation between Managerial competences and Sector.....	126
Table 4.22: Cross tabulation between Covid-19 and Education	127
Table 4.23: Cross tabulation between Qualification and Sector	128
Table 4.24: Cross tabulation of Competitive advantage and Experience.....	129

LIST OF FIGURES

Figure 2.1: Top 10 innovative countries in the world	18
Figure 2.2: Durban map.....	21
Figure 2.3: The chronology of the six waves of SA Innovation Survey	23
Figure 2.4: SME contribution to economic development in SA	28
Figure 2.5: SME contribution to employment.....	29
Figure 2.6: Current SME Innovations	38
Figure 2.7: Factors influencing innovation	47
Figure 2.8: Government regulations.....	61
Figure 2.9: The resource-based view.....	63
Figure 2.10: SME Covid-19 relief interventions	66
Figure 3.1: Instruments for primary data collection	73
Figure 4.1: Position in the business	86
Figure 4.2: Business sector.....	87
Figure 4.3: Number of employees	89
Figure 4.4: Number of years in the business	90
Figure 4.5: Level of education.....	91
Figure 4.6.1 and 4.6.2: Frequencies of statements regarding financial factors	93
Figure 4.7.1 and 4.7.2: Frequencies of statements regarding firm size.....	96
Figure 4.8.1 and 4.8.2: Frequencies of statements regarding economic situation.....	98
Figures 4.9.1 and 4.9.2: Frequencies of statements regarding managerial competences	101
Figure 4.10.1 and 4.10.2: Frequencies of statements regarding SME innovation culture.....	104

1 CHAPTER ONE

BACKGROUND AND OVERVIEW OF THE STUDY

“The ability of SMEs to meet growing consumer expectations is largely based on their capability to innovate and deliver products and services that customers value”

(Taneja, Pryor and Hayek 2016).

1.1 INTRODUCTION

A growing body of literature confirm that Small and Medium Enterprises (SMEs) universally have the capacity to stimulate economic growth, alleviate poverty as well as develop new technologies (Machaka 2018; Gunjati and Adake 2020). SMEs achieve growth mainly because of their ability to produce innovative products and offer improved service (Colclough, Moen, Hovd and Chan 2019). Small businesses require innovation strategies to achieve improved performance and increase chances of survival (Nagaraju 2015). Through innovative activities, small firms can maintain economic development critical for businesses to sustain a competitive edge in the market (Madrid- Guijarro, Garcia and Van Auken 2009). The Schumpeterian concept of “creative destruction” demonstrates the ability of small firms to achieve economic growth and innovation. Schumpeter’s foundational work shows that SMEs can challenge larger firms by introducing sustainable innovation strategies (Machaka 2018).

Innovation strategies are widely regarded as the main drivers of business growth and ultimately, economic prosperity. There is evidence in literature that suggests small venture failure is as a result of a lack of innovation strategies (Cooper and Edgett 2010) yet SMEs environment promotes innovativeness of enterprises (Lewandowska 2014). In addition, Nagaraju (2015) argues that a well-articulated innovation strategy helps SMEs adapt with ease to changes in the market environment. This viewpoint is also supported by Kim and Kim (2018) who posit that small businesses need to invest in Research and Development (R&D) and collaborate with other firms in order to realise innovativeness.

According to Agyei (2018), SMEs play a pivotal role towards economic development through wealth distribution, job creation, advancing technology, poverty alleviation and innovation. Eniola and Entebang (2016) acknowledge the role of SMEs on the economic front especially in developing and emerging countries. Most scholars and economists agree that entrepreneurship

is a crucial factor in the development of economies and societies' well-being (Drayton 2011). Gomera, Chinyamurindi and Mishi (2018) concur that strategy is key in mitigating the challenges faced by SMEs such as poor performance and high failure rate.

However, a new set of challenges has engulfed the SMEs sector directly impacting on their ability to be innovative. The Covid-19 pandemic, a disease caused by the novel Corona virus of 2019 is said to have caused a decrease in revenue and SMEs' innovative activities (Le *et al.* 2020). Globally, small enterprises are burdened by worker's wages, accumulating rental costs and low consumer buying power all due to the pandemic (Tran 2020). In SA, the government has come up with mechanisms to help lessen the burden on distressed SMEs. The Covid-19 Relief Fund is one of the many initiatives the government has put in place to assist SMEs stay afloat and be innovative.

The study aims to identify factors that influence SME innovation strategies in Durban. According to the Small Business Programme (SBP) SME Growth Index (2013), innovation is critical in the performance and survival of small businesses. The study was conducted in Durban because there is limited research on factors that influence innovation among SMEs in Durban. A quantitative research design was used to address two potent questions: (1) what are the innovation strategies adopted by SMEs in Durban? (2) what are the factors that influence SMEs innovation strategies in Durban? The chapter concludes by providing the methodology used to achieve the research aim and objectives.

1.2 PROBLEM STATEMENT AND METHODOLOGY

This section outlines the problem statement, aims, objectives and research questions of the study. It also outlines the methodology of the study.

1.2.1 Problem Statement

According to Kaplinsky (1998); Ortiz-Villajos and Sotoca (2018) innovation is not only a necessity for a business to survive, but also a competitive advantage for a business to grow. The SBP SME Growth Index (2013) list lack of innovation as one of the six main factors that inhibit SME growth in SA. Small business enterprises can only survive when they possess certain technologies and innovation strategies (Kim and Kim 2018). However, lack of innovation, as well as understanding and knowledge of various factors that affect SME innovation, particularly in Durban, is still an issue of concern. Abdu and Jibir (2018) opine that studies on factors

influencing innovation mainly focus on established firms, therefore, research on SMEs remains scant and necessary.

SMEs need to build innovative strategies that will increase market share and profits and address challenges such as financial constraints and lack of sufficient resources (Tian and Lin 2019; Ndiege 2019). The challenge, however, for SMEs is finding the balance between developing competitive technologies and securing enough capital to fund the innovation process (Kim and Kim 2018). Given the limited studies on factors influencing SME innovation strategies in developing countries, the study fills a knowledge gap in existing literature, particularly the SA context.

1.2.2 Aim of the Study

The aim of the study is to assess the factors influencing SME innovation strategies in Durban.

1.2.3 Research Questions

In order to achieve the research objectives outlined below, the following research questions were formulated:

- What are the factors that influence SMEs' innovation strategies in Durban?
- What is the state of SMEs' innovation strategies in Durban?
- To what extent do the identified factors influence the innovation strategies of SMEs in Durban?
- How can the innovation strategies of SMEs in Durban be improved?

1.2.4 Research Objectives

To achieve the aim of the study, the following objectives will be pursued:

- To identify the factors that influence SMEs' innovation strategies in Durban.
- To determine the state of SMEs' innovation strategies in Durban.
- To examine the extent to which the identified factors influence SMEs' innovation strategies in Durban.
- To suggest best approaches that can be employed by SMEs to improve innovation strategies in Durban.

1.3 SIGNIFICANCE OF THE STUDY

The current study seeks to contribute to the existing body of knowledge regarding factors influencing SMEs' innovation strategies in Durban. The findings of this study will assist policy makers both at national and local government levels in Durban. It will enable a deeper understanding of the factors that influence innovative strategies of SMEs in the Durban area in particular and in SA in general. The problem of innovation among SMEs is worth studying because innovation strategies can help SMEs maintain a competitive advantage and thus grow the economy of the country. Lastly, the study will provide recommendations for future research in the area of SMEs and innovation.

1.4 SCOPE OF THE STUDY

The research study is confined to SMEs in the city of Durban in the KZN province. The research project does not include SMEs in other cities. The study seeks to understand the factors that influence SMEs' innovation strategies in Durban.

1.5 BRIEF OVERVIEW OF THE LITERATURE REVIEW

According to Tim *et al.* (2012), innovation is the most important intervention that can significantly transform SMEs. Without adequate innovativeness, small firms fail and countries lose out economically. Berenson and Mohr-Jeckson's (1994) seminal research and recent work of Gomera *et al.* (2018) highlight innovation as a major force for competitive advantage among SMEs. Rahman and Ramos (2013) posit that with innovation, value is created for small scale businesses through exploitation of new customers and new markets. Furthermore, various studies Gros (2016); Lewandowska (2014); Eldridge, Nisar and Torchia (2019) recognise innovation as the most progressive determinants of socio-economic growth, especially in emerging economies such as SA. Ndesaulwa and Kikula (2016) postulate that SMEs that engage in innovation perform better than those that do not.

Karlsson and Tavassoli (2016) affirm that when a business aims to be innovative, it should make choices based on what type or combination of innovation strategies should be adopted. Fritsch (2017) postulates that the fundamental choice businesses should make is whether to innovate or not. Innovation is needed for a business to enter new markets, boost market share and maintain a competitive advantage (Gunday, Ulusoy, Kilic and Alpan 2011). According to Kalra and Pant (2013), literature has proved that there is a positive relationship between competitive advantage and innovation strategies. As stated by Karlsson and Tavassoli (2016),

innovation is particularly important today as businesses fail to maintain a competitive advantage due to the ever-changing technology. Gomera *et al.* (2018) acknowledge that although SMEs are celebrated for innovation and community development, the majority of SMEs still perform dismally.

Kim and Kim (2018) explain that small business enterprises can only survive when they possess certain technologies and innovation strategies. However, there are other factors that drive the innovation strategies of SMEs in Durban, as discussed below.

1.5.1 Lack of Access to Finance

All SMEs require financial resources to begin trading and grow (Chimucheka 2013). Small firms lack the financial muscle to support their innovation activities, according to Hussain, Si, Xie, and Wang (2010), hence the majority end up performing poorly. Furthermore, the authors argue that small businesses need financial support since they lack financial resources to invest in the latest technology. This view is also supported by Ladzani and Netswera (2009), who argue that finance is generally inaccessible for SMEs, especially those in developing countries such as SA. Lekhanya and Mason (2014) confirmed a shortage of finance impedes SMEs growth and stifles innovation activities in KZN. Moreover, lack of access to adequate finance by SMEs is considered a critical barrier to small business growth and innovative abilities (Barbero, Casillas and Feldman 2011).

Kuntchev, Ramalho, Rodríguez-Meza, and Yang (2013) discovered that small businesses find it difficult to secure loans, when compared to larger and established organisations. Gbandi and Amissah (2014) confirmed that finance contributes to a successful business path. In concurrence, Mikołajczak and Pawlak (2017) state that availability of funds and financial readiness positively influence innovation among SMEs. Although many SMEs in developing countries face financial challenges, it is worth noting that the government of SA and financial institutions such as banks provide financial support to SMEs. The government introduced the Covid-19 Relief Fund to assist innovative small businesses that experience financial distress in the context of the global pandemic, as set out in the Small Enterprise Finance Agency (SEFA 2020). Major banks such as ABSA have initiated funding mechanisms, such as the ‘ABSA siyasizana’ (we help one another) initiative to assist persons and businesses cope with the effects of Covid-19.

1.5.2 Lack of Skills and Training

In emerging economies, including SA, lack of training and development has been highlighted as a challenge affecting the innovative prospects of SMEs, with Nieman and Nieuwenhuizen (2009) of the opinion that education is closely linked to entrepreneurial activities. A study conducted by Muringani (2015) shows that educational background, skills training and experience are key to the innovation abilities of SMEs. According to Urriago, Modrego, Barge-Gil and Paraskevopoulou (2010), human development is an essential condition for innovation.

Good education and training systems impact on society through building a populace receptive to innovation. In addition, a business society that can grasp global knowledge is creative and entrepreneurial (Urriago *et al.* 2010). Drawing on human capital theory, Sahut and Peris-Ortiz (2014) suggest links exist between education, innovation and high growth in entrepreneurship activities. Furthermore, R&D is identified as one of the main factors that influence the innovation activities of SME (Urriago *et al.* 2010).

1.5.3 Lack of Business Knowledge and Experience

Competencies of business owners or managers have a positive influence on the performance, success and survival of a business. Managerial competences are measured using business knowledge and business start-up experience (Sitharam and Hoque 2016). According to Muriithi (2017), small business owners lack skills to successfully manage businesses and this shortcoming makes them poorly equipped to innovate and ultimately, they fail to survive. Ahmedova (2015) is of the view that for small businesses to be innovative, they need to create new knowledge or combine existing knowledge components. Bouazza, Ardjouman and Abada, (2015) argue that lack of competent people on the part of small business is the cause of low innovation strategies in the sector and remains a major challenge.

1.5.4 Government Policy

Both in normal situations and in times of global distress (Covid-19), governments have noted the importance of crafting specific policies in order to assist SMEs (Le *et al.* 2020). Nyarku and Oduro (2018) are of the view that the government sets a legal framework(s) to regulate what can or cannot be done by SMEs in the market. In this regard, Le *et al.* (2020) cite complicated law systems and administrative procedures as challenges faced by small enterprises. With the government framework governing high business tax, business registration and transactional costs, favourable government policies thus assist in promoting small businesses; not only to

grow the economy but also to innovate (Nyarku and Oduro 2018). According to Kamunge, Njeru and Tirimba (2014), government policy has the potential to make or break SMEs. It is therefore, incumbent on the government to put a favourable regulatory framework in place.

Sitharam and Hoque (2016) find that the success of SMEs is threatened by lack of access to resources and over-regulation, with government regulations with regard to the establishment of businesses often conflicting and complicated. SA labour regulations are among the most restrictive in the world and hamper business growth and the ability to innovate (Sitharam and Hoque 2016). Le *et al.* (2020) posit that favourable government policies play a pivotal role in motivating SMEs to be innovative and sustainable. In light of this, local government authorities need to relax regulations and reduce bureaucratic red tape. However, small businesses also need to find new innovative ways to reduce the impact of restrictive barriers. In spite of some restrictive regulations, Rustonjee (2015) posits that the SA government's support for SMEs is evident in the creation of the Small Business Development Ministry, which provides support to SMEs in achieving growth and realising innovativeness.

1.5.5 Schumpeterian Innovation Theory

The close relationship between economic development, entrepreneurship and innovation are best explained by Joseph Alois Schumpeter's long-standing argument (Fritsch 2017). The Australian born Schumpeter (1934), pioneer of the innovation theory, argues that creativity and entrepreneurial innovation are the primary drivers of economic growth. According to Backam, Klaesson and Oner (2017), innovation has become a major tool that ensures business survival through the stimulates of what Schumpeter (1934) calls the "gales of creative destruction". Fritsch (2017) describes "gales of creative destruction" as the energy used by entrepreneurs to outperform competitors in the market. Furthermore, Divisekera and Nguyen (2018) explain that creative distraction refers to the rate at which SMEs replace outdated products and services with new improved, innovative products and services. Schumpeter (1934) states it is not only monetary gain that pushes entrepreneurs to innovate but also a strong desire to create a new thing that can change the world.

The current study appropriates the Schumpeterian theory of "creative destruction" to support the argument that innovation is essential for small business growth. The theory of creative destruction supports business development and explains the influence of innovation on SMEs. It is stated by Chipunza (2014) that small businesses engage in innovation when they view it as

a survival tool. This point is further supported by Udriyah, Tham and Azam (2019), who suggests SMEs use innovation to maintain a competitive edge in the market. However, the theory of creative destruction suggests that what is today considered innovation will one day become outdated. A genuine need thus exists to identify factors that continuously influence innovation among SMEs in Durban.

Lekhanya, Olajumoke and Nirmala (2017) opine that innovation plays a pivotal role in assisting SMEs to develop new products, services and processes. Innovation also helps in the formulation of new strategies needed for business to adapt to latest technology changes. In addition, innovation does not only improve growth and maintain competitive advantage of small firms, it is also a vital catalyst for boosting the economic fortunes of a country.

1.6 LIMITATIONS OF THE STUDY

The literature reviewed for this study was limited to factors influencing innovation among SMEs. Due to both time and resource constraints, the study was restricted to SMEs in the city of Durban, KZN only. The results can, therefore, not be generalised to other SMEs in other areas as situational factors may differ. All SMEs in Durban should have formed part of the sample but due to time constraints and the continuing Covid-19 pandemic, only 248 SMEs in Durban were targeted.

1.7 DELIMITATION OF THE STUDY

The current research study is limited to SMEs in the Durban area of the KZN province in SA. The Durban area was selected as the city of Durban is the second largest economic hub in SA, after Johannesburg in the Gauteng province. The target population of the study is limited to only the owners or/ managers of SMEs. This is due to the nature of information needed for the study requiring respondents that fully understand the nature of the business.

1.8 RESEARCH METHODOLOGY AND DESIGN

1.8.1 Research Design

According to Nishishiba, Jones and Kraner (2013), research design can be defined as a game plan or roadmap the researcher follows in order to answer the research question. This study used a quantitative approach, with a questionnaire used as measurement instrument to solicit data from 240 SME owners or managers in Durban.

1.9 RELIABILITY AND VALIDITY

Dale and Mason (2011) define validity as the degree to which the measuring instrument achieves the set objectives for which it was made. According to Zikmund, Babin, Carr, and Griffin (2013), for the research findings to be valid, the research techniques and approach must be of an appropriate standard. Both the internal and external threats of validity are examined to see whether any impact the research findings (Leedy and Ormrod 2014).

Zikmund *et al.* (2013) state that validity is not the same as reliability, however, the two are closely related. Reliability is defined as the level of consistency in the questionnaire and is strongly linked to quantitative research (Coghlan and Brydon-Miller 2014). To ensure reliability of the measuring instrument, a pilot questionnaire was administered. In addition, a Cronbach coefficient alpha test was conducted with SPSS, to calculate reliability, since this is the most common measure of reliability for a questionnaire.

1.10 ETHICAL CONSIDERATIONS

Data collection, according to Tashakkori and Teddlie (2009), is associated with political and ethical issues. The researcher has a responsibility to protect participants from harm and maintain confidentiality. This view is supported by Saunders, Lewis and Thornhill (2009), who suggest that it is important to obtain consent from the respondents prior to data collection. Ethical clearance was obtained from the Durban University of Technology (DUT) Ethics Committee before the study was conducted. The researcher assured respondents that the information they provided would be used solely for the study purpose. The researcher informed participants they could withdraw from the research process at any time they wished.

1.11 STRUCTURE OF THE DISSERTATION

Presented below is the overall structure of the dissertation:

CHAPTER 1: BACKGROUND AND OVERVIEW OF THE STUDY

Chapter 1 introduced and provided an overview of the study. It addressed the problem statement, key objectives, significance of the study and the methodological approach of the research. In conclusion, the limitations and delimitations of the study were highlighted.

CHAPTER 2: OVERVIEW REVIEW OF THE LITERATURE

Chapter 2 will review literature on the role of innovative SMEs in the SA economy. In addition, the role of the SA government in promoting SMEs' innovation strategies in Durban will be investigated. The chapter further aims to establish the current state of SMEs in SA and will conclude by identifying the factors that influence SME innovation strategies in Durban and highlighting the impact of Covid-19 on SMEs.

CHAPTER 3: RESEARCH METHODOLOGY

Chapter 3 will present the research methodology and design of the study. The main differences between qualitative and quantitative research will also be highlighted. Furthermore, the chapter will discuss the sample size, target population, collection of data and the development of the measuring instrument. The chapter will conclude with an explanation how the validity and reliability of the study were ensured.

CHAPTER 4: ANALYSIS OF RESULTS AND DISCUSSION OF FINDINGS

Chapter 4 will set out an analysis of results using SPSS version 26.0 for Windows and a detailed discussion of the research findings. The data is presented in the form of bar graphs, pie charts and cross tabulations.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

The study will be concluded in chapter 5, by first explaining how the research objectives were achieved, after which recommendations will be provided based on the findings, along with suggested areas for future research.

1.12 SUMMARY OF THE CHAPTER

The chapter presented an overview of the study and discussed the problem statement, aims and objectives and research questions, with the research methodology also presented. An outline of the different chapters of the study concluded the chapter. The following chapter is an in-depth review of relevant literature on factors that influence SME innovation strategies.

2 CHAPTER TWO

LITERATURE REVIEW

“Whether the innovation is product, service, process or organisational, it is the result of a dynamic innovation process that involves factors internal and external to the company”
(Taneja et al. 2016)

2.1 INTRODUCTION

The previous chapter presented an introduction, brief overview of the study, the problem statement, and aim, as well as research objectives of the current study. The purpose of this chapter is to review literature relevant to the study and the review focuses on studies conducted on factors that influence innovation among SMEs. The chapter further explores literature related to the current state of innovation among SMEs in SA, characteristics of innovative businesses and barriers to innovation among SMEs.

Kiveu, Namusonge and Muathe (2019) state that SMEs that invest in innovation stand a chance to create novel, ground-breaking, new products, services, processes and marketing activities. He further observes that in doing so, small firms position themselves for super competitive performance, while boosting their chances of survival and contributing to economic growth. The chapter concludes by presenting the factors that influence innovation strategies of SMEs in Durban.

The innovation strategy of an organisation is reflected in the value it puts on novel business activities which, in turn, create opportunities for survival (Ndesaulwa, Kikula and Chao 2017). Scholars, such as Moses *et al.* (2012) and Muringani (2015), find the attention given to SMEs' innovation strategies is growing universally. This can be attributed to innovation now being widely regarded as a key factor in maintaining small businesses' competitive edge (Rhee, Park and Lee 2010; Hadjimanolis 2019). The role played by small firms in wealth creation, technological advancement and innovation is undisputed and is an attribute born out of their ability to invest in innovative strategies (Love and Roper 2015; Hadjimanolis 2019).

A study conducted by Wahab and Jabar (2017) shows that innovation strategies significantly increase organisational performance and firm growth. Given that small businesses are widely

acknowledged as agents of growth and innovation (Jackson 2015), this study seeks to better understand the relationship between innovation and business growth in a local context.

2.2 DEFINITION OF KEY CONCEPTS

This section provides definitions of the key terms contained in the research project.

2.2.1 SMEs

According to Berisha and Pula (2015), there is no specific definition for SMEs. Hosseini *et al.* (2016) and Lekhanya and Dlamini (2017) aver that definitions of SMEs depend on the region, country and economic sector, with the number of employees the main determinant. This viewpoint is supported by Abor and Quartey (2010), who suggest that developed and highly industrialised countries and emerging economies give a different definition for SMEs. Economists tend to classify SMEs based on their size and the number of people they employ. Madanchian, Hussein, Noordin, and Taherdoost (2015) argue that SMEs are defined differently from country to country, based on the number of employees or annual sales turnover.

In the SA context, however, the National Small Business Act (1996 as cited in Henning 2019), defines an SME as an enterprise with the capacity to generate no more than R40 million per annum and no more than 200 employees. According to the Act, small enterprises are further classified into different categories as follows:

- micro enterprise.
- very small enterprise.
- small enterprise; and
- medium enterprise.

The current study conceptualises SMEs as defined in the National Small Business Act of 1996.

Table 2.1: SMEs according to the National Small Business Act

Enterprise Size	Number of employees	Annual turnover depending on the sector (ZAR)	Total assets depending on the sector (ZAR)
Medium	Less than 100 to 200 depending on the sector	Fewer than R4 million depending on the sector	Less than R2 million to R18 million
Small	Less than 50	Less than R2 million	Less than R2 million
Very small	Less than 10 to 20	Fewer than R200 000 to 500 00	Less than R150 000 to R500 000
Micro	Less than 5	Less than R150 000	Less than R100 000

Source: Lekhanya, L. M. (2015). Adapted.

Different scholars have produced different ways of categorising SMEs. Recent literature identifies at least four categories of small to medium enterprises, namely survivalist enterprises, microenterprises, small enterprises and medium enterprises.

- Survivalist enterprises typically consist of hawkers, vendors and subsistence farmers, with a level of turnover annually considered to be below the national poverty line (Abor and Quartey 2010).
- Microenterprises have a level of turnover annually less than the value added tax (VAT) registration limit of R150 000 per year. These small firms typically consist of home industries, such as ‘spaza shops’ and commuter taxis and characteristically employ not more than five people (Machaka 2018).
- The National Small Business Amendment Act 29 of 2004, state that small enterprises are generally more established, operate formally and exhibit more complex business practices, for example innovation. These enterprises generally employ up to 50 employees and have an annual turnover of between R2 to R25 million per year.
- Medium enterprises are also well-established enterprises that operate formally, exhibit more complex practices and are usually innovative in nature. They employ as many as 200 staff members and have an annual turnover of between R4 and R50 million per year (Machaka 2018).

2.2.2 SME Innovation

The creation of new products, services and processes that speak to customer needs and lead to profit and competitive edge are described as innovation by O'Regan and Ghobadian and Sims (2006). Scarborough (2011) defines innovation as the creation of something new that adds value to customers. In addition, Rahman and Ramos (2013) suggest innovation is a technic used to invent new technology, generate new ideas, processes, products and services that meet the needs of the customer. However, innovation for SMEs can also, on the one hand, be defined as a process in which businesses identify a problem and seek new methods to address it (Rumanti, Samadhi and Wiratmadja 2016). On the other hand, Zanello, Fu, Mohnen, and Ventresca (2016) define innovation for small businesses as the adoption of new, improved business methods and practices.

Nonetheless, innovation is defined by Schumpeter (1949) as the exploitation of existing business resources to create new products, new suppliers, new raw materials and new production methods. Drucker (1994) states that innovation is important for entrepreneurs in creating competitive potential in business and wealth. It is furthermore suggested by Expósito, Fernández-Serrano and Liñán (2019) that when innovation is positively harnessed, it has the potential to boost the financial position of SMEs, while also increasing their chance for survival and improving competitive advantage.

Table 2.2: Changing definitions of SME innovation

Innovation era	Definition descriptors	Reference
Creating new offerings 1960-1970	Exploitation of new ways and markets.	Schumpeter (1961).
Adoption of offering 1970-2000	Adoption of new ideas and practices by users as new. Accepting novel ideas, products, service and marketing.	Roger (1995). Oyelaran-Oyeyinka (1996).
Value addition for customers, Post 2000	The introduction of something new that adds	Scarborough (2011).

	value and contributes to customer satisfaction. Application of novel solutions to problems. Development of new customer orientated products and services.	Sullivan (2008). O'Regan <i>et al.</i> (2006).
--	---	---

Source: Chipunza, L. T. (2014). *Adopted.*

However, Addae-Boateng and Dzisi (2016) explain that the term innovation is derived from the Latin word “Novus” which means new, create or invent and the prefix “in” denotes the process of creating a new product or service. Moreover, Neneh and Van Zyl (2017) suggest that innovation involves the introduction of a new product, service or idea aimed at improving a business.

According to Schumpeter’s seminal research as cited in Dziallas and Blind (2019), innovation involves:

- The introduction of a new product.
- The introduction of a new method of production.
- The opening of a new market.
- The introduction of a new service.

2.2.3 SMEs Innovation Strategies

Katz, Preez and Schutte (2010) argue the difficulty in defining an innovation strategy due to the many definitions of the two domains - innovation and strategy. However, their explanation is that an innovation strategy can be defined as a plan that enables a business to achieve its goals. In addition, Nagaraju (2015) defines an innovation strategy as an overall strategy required to undertake innovation. Innovation strategies help SMEs to achieve success and meet customer needs. Literature affirms that when businesses adopt an innovation strategy, they perform better than those that do not (Terziovski 2010).

Therefore, an innovation strategy is regarded as important for small business survival, growth and successful performance. An innovation strategy involves decision making, idea sourcing and resource allocation aimed at achieving customer satisfaction (Muringani 2015; Machaka 2018). A winning innovation strategy thus ensures growth, effectiveness and efficiency of small firms. This corroborates findings by Snyman, Kennon, Schutte, and Von Leipzig (2014) that a strategy is important for small business growth.

2.3 GLOBAL CONTEXT OF SME INNOVATION

This section explores the performance of innovative SMEs in the global context. The European Commission report of 2008 confirms that SMEs represent 99 percent of all enterprises globally, with Memka and Lekhanya (2017) also highlighting the correlation between SME innovativeness and the recovery and continued development of European economies. European Union (EU) countries are regarded as the world's best performers in the area of technology, science and production of high-end innovative products (Arshad, Rasli and Khan 2018).

According to De Marco, Martelli and Di Minin (2020), SMEs in Europe account for 99.8 percent of employment and economic growth. The innovative nature of small enterprises plays a pivotal role in growing the economy, creating employment, and contributing to the Gross Domestic Product (GDP) of a country. However, a study conducted by the National Economics University (2020) shows that the majority of businesses are facing difficulties due to the Covid-19 pandemic. These difficulties include a decline in revenue due to the lack of production activities, shortages of raw materials and inability to export (Le *et al.* 2020). The above-mentioned challenges generally hamper innovative activities for SMEs and have been exacerbated by Covid-19. The table below shows the contribution of SMEs to the GDP and employment creation in developing countries.

Table 2.3: SME sector contribution to employment and GDP in developing countries

Country	Percentage Contribution GDP	Percentage of job creation
Kenya	50%	80%
Uganda	18%	90%
Tanzania	60%	20%
Ethiopia	3.4%	90%
Ghana	70%	49%
Nigeria	50%	70%
South Africa	60%	60%

Source: Chege, S. M. and Wang, D. (2019). Adapted.

The role that SMEs in Australia play in fostering economic growth and innovation is well documented (Shelton, Martek and Chen 2016; Hosseini *et al.* 2016). A European Commission report published in 2015, shows Australia as one of the top innovative countries in the world. The report also mentions countries such as Belgium, United Kingdom (UK), Netherlands and France, as top performers. Measures undertaken by the government of Australia include steps to address the innovativeness of SMEs, such as setting up a National Innovation and Science Agenda (NISA), through which the government seeks to promote innovation activities among SMEs. In this regard, Bloch and Bhattacharya (2016) confirm that small business innovation has long been hailed as a driver for economic growth, SME survival, growth, and development.

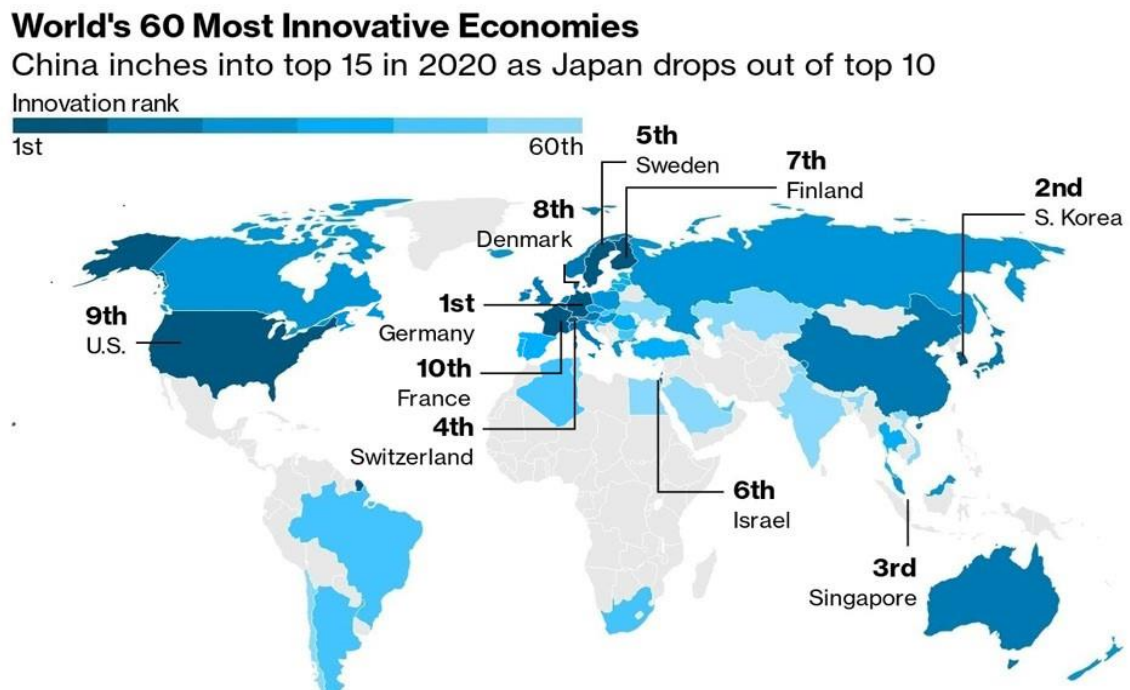
After the United States of America (USA), China has the second largest economy, with SMEs in China accounting for more than 90 percent of all registered enterprises. Collectively, these small enterprises contribute 40 to 60 percent of the national GDP, 50 percent towards taxation, 75 percent towards technological innovation, 80 percent towards development of new products and 80 percent towards employment (Wang 2016; Tong, Zhao and Wang 2019).

According to Gao and Hafsi (2015), the owner of a small business in China often doubles as its manager, which means owners are responsible for making all strategic decisions in relation to innovation. Nevertheless, 68 percent of SMEs in China fail within the first five years and only 13 percent take a survivalist position for 6-10 years (Tong *et al.* 2019). This could indicate that SMEs ought to be innovative in order to grow into sustainable entities.

Since attaining its independency in 1957, Ghana has embraced a positive multi-party democracy that promotes small enterprises. The promotion of SMEs creates a favourable environment for small innovative businesses to flourish (Atiase and Dzansi 2019). In Ghana, SMEs are responsible for economic growth, poverty alleviation, innovation and contribute to the country's GDP. Realising the importance of SMEs in science, technology, and innovation, the government of Ghana has introduced policies aimed at growing the small businesses sector (Osei, Yunfei, Appienti, and Forkuoh 2016). As a result, the economy of Ghana has grown more rapidly than any other emerging economy in Africa (Atiase and Dzansi 2019).

Molini and Paci (2015) opine that Ghana has managed to create employment and reduce the poverty rate from 37.6 percent in 1991 to a low 9.6 percent in 2012, through innovative SMEs. According to Addae-Boateng and Dzisi (2016), SMEs in Ghana are defined as businesses that employ not more than 100 people and their total asset value does not exceed One Million United States dollars. However, although SMEs in Ghana continue to experience high growth and government support, they also face challenges. Some of these challenges include high operational costs, poor technological infrastructure, and high loan default rates (Boateng, Boateng, and Bampoe 2015).

Figure 2.1: Top 10 innovative countries in the world



Source: Global Innovation Index, (2020). Adapted.

A report by the Global Innovation Index (GII 2020) states that Germany is the most innovative economy in the world, with an overall score of 67.2 percent and is ranked 1st. Furthermore, the largest economy in the world, the USA, is ranked 9th with an innovation score of 61.7 percent (Figure 2.1). However, China, the 2nd ranked economy and the fastest growing economy in the world (Wonglimpiyarat 2015b; Cao, Ho, Hu and Jorgenson 2020), scored 54.8 percent and is ranked 14th on the innovation index. The GII ranks SA at number 63, with an innovation score of 34 percent. Nonetheless, it is worth noting that even though SA is 63rd in the world, it is number one in Africa. Consequently, this explains the level of innovativeness among SMEs in SA in relation to the rest of Africa.

2.4 THE CURRENT STATE OF THE SME SECTOR IN SA

Talukder, Quazi and Djatikusumol (2020) find that SMEs in Indonesia constitute approximately 98 percent of all businesses and contribute 56 percent to the national GDP. Agbola and Amoah (2019) confirm that SMEs in Ghana comprises most businesses, with the wholesale and retail trade being the dominant, contributing 70 percent towards GDP. As determined by Van Scheers and Makhitha (2016), there are more than two million SMEs in SA that employ roughly 61 percent of the population. This is supported by Nieuwenhuizen (2019), who confirms 2 251 821 small enterprises exist in SA. Vrgovic, Vidicki, Glassman, and Walton (2012) posit that SMEs are considered the fastest growing segment in most emerging economies and are largely considered as the main engine of growth. These small enterprises are also perceived as adaptive to environmental changes and are more innovative compared to larger established organisations (Bruwer and Van Den Berg 2017).

A strong SME sector contributes positively to the growth of a country's GDP through creating employment. However, in SA, the overall growth of small businesses is significantly low and thus a cause for concern (Sitharam and Hoque 2016). The role that SMEs play in the development of a country is significant (Bayati and Taghavi 2007), with Muriithi (2017) pointing out that SMEs participate in all sectors of economic development, from agriculture, fishing, mining, and manufacturing, to retail, climate change and technological innovation. The presence and participation of SMEs in all sectors of the economy cements the critical role they play in the development of the economy. Nevertheless, most SMEs in SA are involved in the service sector industry where they employ close to two-thirds of the labour force (Kamunge *et al.* 2014).

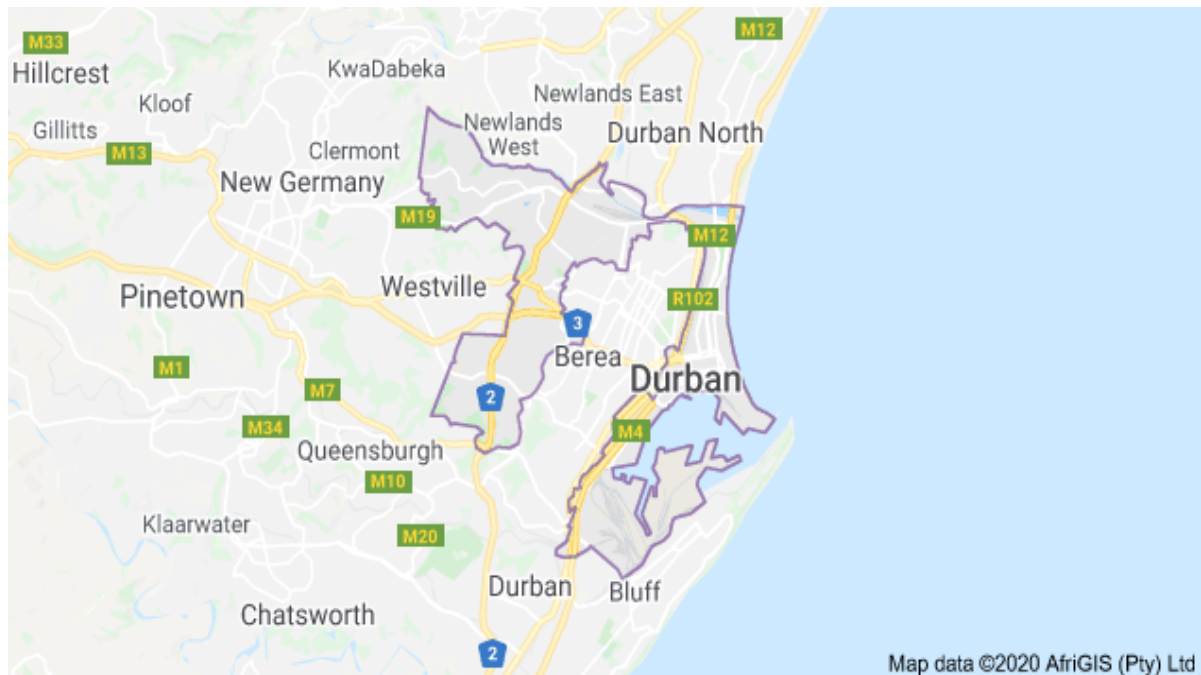
Fjose, Grunfeld and Green (2010) aver that SMEs play a pivotal role of facilitating development as the sector provides inputs, services and funding for other small businesses in the industry. The funding provided by the SA small business sector continues to be the fuel for sustainable economic development and innovation performance for the country (Fjose *et al.* 2010). Of the more than two million small firms in SA, only 667 433 are, however, formally registered businesses (Nieuwenhuizen 2019). Additionally, Nieuwenhuizen (2019) observes that SME development in SA is slow, mainly due to only 933 formal SMEs being created over a period of eight years. This trend is worrying, specifically when the SA government is spearheading a concerted effort to stimulate small business growth. This growth will, according to the government, be achieved through supportive pieces of legislation and policies, such as the Small Business Act of 1996, the Small Business Amendment Act of 2003, the Accelerated and Shared Growth Initiative for SA (AsgiSA) of 2006 and the National Development Plan (NDP) of 2012.

Numerous studies maintain the main reason why SMEs in SA take a survivalist position, may be attributed to government regulations (Herrington and Kew 2017; Nyamwanza, Paketh, Makaza and Moyo 2016; Nieuwenhuizen 2019). The restrictive regulatory environment constrains SME growth and hinders innovation. In a study conducted by Herrington and Kew (2017), 60 percent of the respondents identified government regulations and policies as factors that inhibit growth and innovation among SMEs. Furthermore, in Cant and Wiid's (2013) study, 80 percent of respondents blamed government for the poor performance of SMEs in SA. Moreover, Muriithi (2017) also identified government 'red tape' as the major cause of SME failure. Therefore, small enterprises will have to generate innovative strategies to deal with the consequences of the Covid-19 pandemic.

2.4.1 Durban: The Study Area

The creation of the city of Durban gave rise to a business boom in the area. Durban has experienced exponential growth and development throughout SA's different historical periods namely colonisation, Apartheid, the First Industrial revolution and now the Fourth Industrial revolution (Industry 4.0).

Figure 2.2: Durban map



Source: Google Maps, (2020). Adapted.

Durban is a coastal city that is situated in the KwaZulu-Natal (KZN) province of SA. The province is situated along the South Eastern coastline of Africa. The city is well-known regionally for its popular beaches, recreational facilities, its friendly shores and a thriving business environment. According to Stats SA (2011), the Durban Metropolitan Area spreads over an area of approximately 2 297 km² and has an estimated population of 3 442 361 people. From the year 2001 to 2011, Durban's population experienced a sharp growth of about 1.13 percent, in comparison to the moderate 2.34 percent growth between 1996 and 2001 (Stats SA 2014). The population of Durban was expected to continue on a growth trajectory to about 3.64 million people between the year 2016 and 2017 (Stats SA 2019). An estimate of the SA population is currently at around 54 million people.

The location of Durban along the coastline makes it a port of choice for importing and exporting goods in and out of SA. The coastal nature of the city informs its spatial plan, functions, and port dynamics. It is these rising dynamics that gave birth to the development of the Durban Central Business District (CBD). Due to the boom in business, the city is decentralising outwardly towards the Northern parts. These economic developments have led larger and established firms, such as Tongaat Hulett Developments and Dube Tradeport, to move out of

the CBD area. These positive developments are evident in the development of highways, residential areas, world class shopping centres, for example Cornubia Shopping Centre, and the newly-built King Shaka International Airport. The latest developments have been positively acknowledged as instrumental in positioning Durban on the world map.

On the economic front, Durban manages the second largest economy in SA after Johannesburg. Marnewick (2014) observes that SA has a high unemployment rate. The World Bank (2018) reported that in the third quarter of 2017, the overall unemployment rate in SA stood at 27.7 percent. Based on 2015 income levels, a total of 55 per cent of SA's population are regarded as poor. This was based on a national poverty datum line of 992 ZAR per person per month. According to Stats SA (2020), the unemployment rate declined to 23.3 percent in the 2nd quarter. Studies affirm that when adequately supported, SMEs can play a pivotal role, not only in achieving innovative outcomes but also in advancing economic growth for the country (Abor and Quartey 2010; Sithole 2015), thus creating employment, reducing poverty, and raising the people's standard of living.

2.5 THE CURRENT STATE OF SME INNOVATION IN SA

According to Ngek and van Aardt Smith (2013) one key indicator of a thriving economy is the establishment of a well-oiled SMEs sector. Booyens (2011) suggests the sector has been widely hailed as a key driver of employment, economic growth, and innovation in SA. Even though the government has put policies in place to grow and develop the SME sector, high rates of failure are still experienced in the sector (Neneh and Van Zyl 2017). As determined in studies conducted by Fatoki (2014b), SMEs in SA do not grow; instead, they survive due to a lack of proper innovation strategies. The authors argue that 75 percent of newly established small businesses fail to reach the maturity stage.

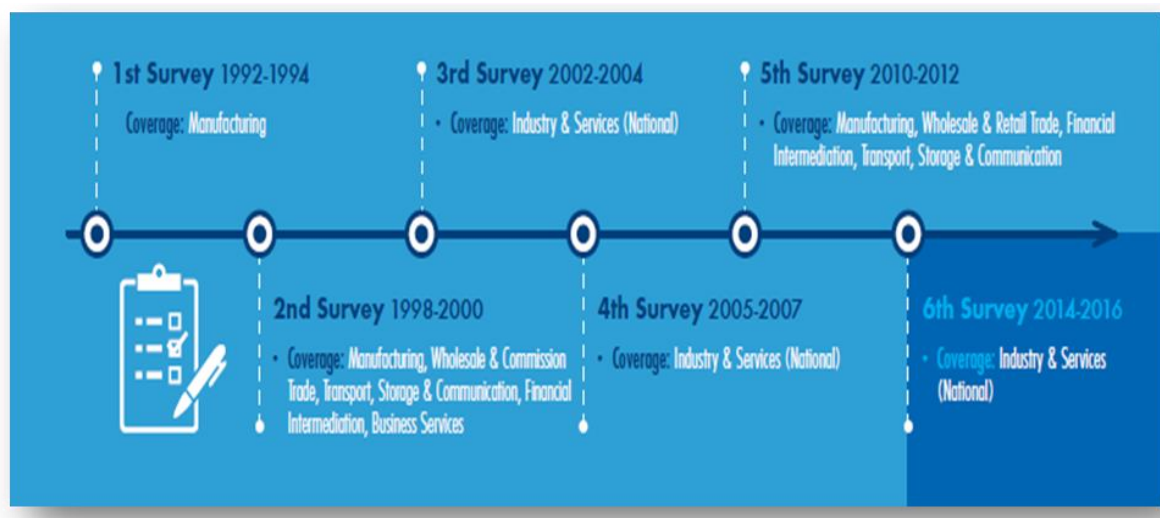
Previously, Fatoki and Garwe (2010) posited that without growth, sustainability and innovation strategies, SMEs in SA risk stagnation. This echoes findings by Mirela (2008), who identified innovation as a vital component of SME growth and development. A study by Masona *et al.* (2015) confirmed the positive relationship between innovation strategies and small business sales, growth and performance. It is, therefore, paramount for SA SMEs to engage in innovation activities, if they are to improve their survival rate and contribute to the growth of the economy.

For small firms to meaningfully compete in the harsh global economic environment, it is important to engage in innovation, which is invariably acknowledged as the main driver of sustainable competitive advantage and long-term economic growth (Moses *et al.* 2012). The World Trade Organisation (WTO) reported that small businesses contribute approximately 35 percent of the GDP of emerging economies and 50 percent of the GDP of developed countries (WTO 2016). In addition, the role played by SMEs in economic and social development through job creation, poverty alleviation and skills development, is well-documented (Abor and Quartey 2010; Oualalou 2012; Malefane 2013; June 2020).

Nkwinika and Munzhedzi (2016) argue that the development of SMEs may assist in improving completion, productivity, innovation, and stimulating economic growth. Lekhanya (2015), finds that leadership behaviour, skills, quality of leaders and innovation are essential factors that influence SME survival and performance. Sibanda (2013) agrees with the assertion that small businesses in SA play a pivotal role in the country's economy by creating employment opportunities and alleviating poverty.

SA SMEs contribute more than 45 percent to the overall GDP of the country and are responsible for most innovative products and services. Nkwinika and Munzhedzi (2016) confirm the SA government supports innovation among SMEs; evidenced by policy documents such as the NDP. The plan ensures small businesses remain viable, innovative and competitive.

Figure 2.3: The chronology of the six waves of SA Innovation Survey



Source: SA Business Innovation Survey, 2014-2016. Adapted.

According to Moses *et al.* (2012), the SA government is fully aware of the economic benefits associated with business innovation. Through the Department of Science and Technology, the government has set up the Centre for Science, Technology, and Innovation Indicators (CeSTII). The main role of the centre is to conduct innovation surveys to establish the state of innovation in SA.

The SA Business Innovation Survey, carried out by the CeSTII at the Human Sciences Research Council (HSRC), was first conducted between the years 1992-1994 and covered businesses in the manufacturing sector. The aim is to determine the policies that work or identify areas that require improvements, in as much as innovation is concerned (SA Business Innovation Survey 2014-2016). The second, third, fourth and fifth were all done in different years and also targeted different sectors, as depicted above (Figure 2.3). The most current survey is the sixth, conducted between the years 2014-2016 and deals with businesses in Industry and Services, nationally

It was found by the SA Innovation Survey (2008) that 65.7 percent of firms engaged in innovation activities, while a mere 34.6 percent reported no innovation activities. Furthermore, according to the survey, in the period 2014-2016, an average business in SA spent 1.7 percent of its turnover on innovation activities (Moses *et al.* 2012). Nonetheless, successful enterprises that engaged in innovation reported producing new products and implementing innovative marketing processes (SA Business Innovation Survey 2014-2016). The SA business innovation survey 2014-2016 also revealed that 65.4 percent of businesses in SA were innovation active.

The New Partnership for Africa's Development (NEPAD) ministerial forum on science and technology notes that innovation is paramount for economic growth on the African continent. Innovation activities among SMEs are widely credited for increased value, productivity and healthy competition among small firms in developing countries. NEPAD is a socio-economic flagship programme and development agency of the African Union (AU) and works with the continent's first African Union Development Agency (AUDA-NEPAD 2020). Furthermore, in SA, the NDP entrenches the importance of a capable developmental state through science, technology and innovation. The aim of the NDP, however, is to mitigate high levels of poverty, inequality and unemployment.

SA adopted the National System of Innovation (NSI) model, which has been praised worldwide for high economic growth, competitiveness and innovation (Hart, Booyens and Sinyolo 2019).

In short, according to the National Advisory Council on Innovation (NACI 2006) “the NSI includes the full value chain ranging from R&D to “implemented new products and processes”, but excludes economic framework conditions and related downstream components of the innovation value chain, such as manufacturing capacity and marketing structures. Wild (2015) maintains that the country recognises the impact of Science, technology and innovation in alleviating developmental challenges. Nevertheless, good governance and leadership is required to create an enabling environment that promotes innovation and competitiveness of business (Klijn and Koppenjan 2016).

According to the SA Business Innovation Survey (2014-2016), the top 5 effects of innovation strategies on business goals are:

- Increased range of goods and services.
- It guarantees superior quality of goods and services.
- Increased capacity production.
- Penetration of new markets and growth in market share.
- Improved flexibility of production.

Moses *et al.* (2012) state that for a country, industry, or business to be competitive in the global economy, it should be innovative. This highlights the importance for businesses to understand the needs of customers and use technology to boost competitiveness. Oyelaran-Oyeyinka and Sampath (2008) posit that innovation is responsible for advancing SME productivity and growth. Furthermore, innovation is widely acknowledged as the main driver for long-term economic growth and guarantees unmatched competitiveness for small ventures (Moses *et al.* (2012).

In the private sector, unlike in the public sector, innovation occurs within individual organisations and sometimes through combined inter-organisational efforts. The process of producing an innovation is as a result of strategic endeavours that small businesses do not wish to share (Moses *et al.* 2012). Ramoroka, Booyens and Jacobs (2017) explain that SMEs need to invest in skilled human resources and have access to financial resources for their businesses to contribute meaningfully to innovation. In SA, such resources are reportedly in short supply. This affects small businesses’ innovation activities negatively. However, according to the SA

Innovation Survey (2008), the performance of SA enterprises is somewhat better when compared to others in the region; regardless of all the challenges they face.

2.5.1 The Role of Innovation on Economic Development of SMEs

Ayandibu and Houghton (2017) agree the small business sector is the largest contributor to employment, job creation, new product development and innovation in most countries. According to Booyens (2011) the immense contribution of SMEs to economic development has been established. It is also generally agreed that there are positives to be drawn from the relationship between entrepreneurship, innovation and economic growth (Ayandibu and Houghton 2017). In addition, the role played by SMEs in innovation and economic growth is a subject of much discussion (Nagaraju 2015).

Small enterprises with the capabilities to innovate gain not only competitive advantage, as Gunjati and Adake (2020) point out, but also help grow the economy. The contribution of SMEs to a country's economic development can, therefore, only be overlooked at own peril (Oduntan 2014). While Fatoki and Garwe (2010) maintain that small ventures naturally employ a larger labour force, when compared to large established businesses, OCDE (2014) stress that more income for employees leads to greater buying power, which ultimately alleviates poverty.

In SA, entrepreneurship development was included in the country's growth and development programme in the late 1940s. This was achieved through the establishment of the small business support fund (Delmar and Holmquist 2004; Chimucheka 2013). Although the government of SA identified the small business sector as a vehicle to achieve improved economic growth, this objective is yet to be achieved, since many SMEs still experience high failure rates of around 80 percent (Watkins 2012). In fact, according to a report published by Statistics SA (Stats SA 2020a), SA has slipped into a technical recession. This means much still needs to be done before SMEs can meaningfully contribute to the growth of the economy.

SMEs contribute to the economic development of a country because:

- SMEs are the economic growth engine.
- SMEs are critical for poverty alleviation.
- SMEs play a pivotal role in developing countries.
- SMEs contribute significantly to GDP.

Table 2.4: The contribution of selected African SMEs to GDP

Countries	Contributions to GDP (%)	Contributions to employment (%)	References
Kenya	40-50%	80%	Mwarari & Ngugi 2013.
Nigeria	50%	70%	Ariyo 2011; Kolasiński 2012.
Zimbabwe	40%	15%	Katua 2014; Zwinoira 2015.
Rwanda	20.5%	60%	Mukamuganga 2011
Ghana	70%	49%	Ghana Bank Doing Business Report 2013
Uganda	18%	90%	Uganda Ministry of Trade, Industry and Cooperatives (MTIC) 2015
South Africa	50-60%	60%	DTI 2012; Willemse 2010

Source: Muriithi, S. (2017). Adapted.

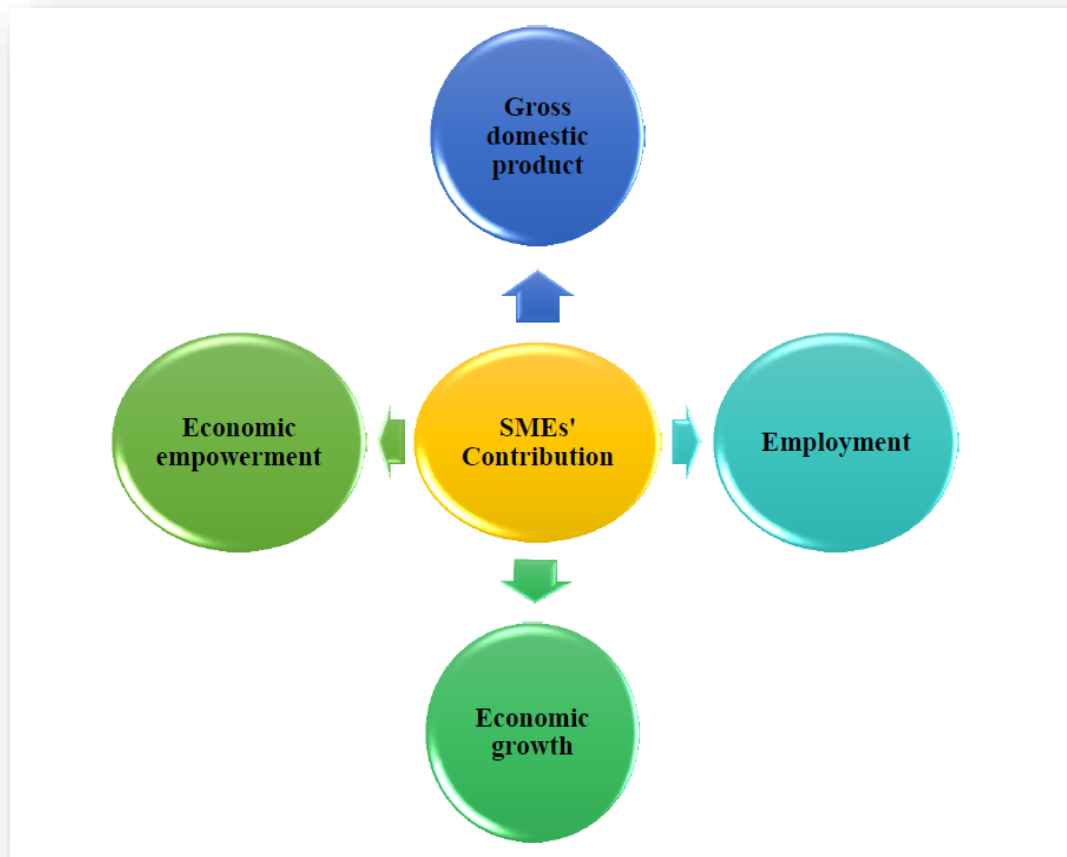
2.5.1.1 Promoting economic Growth

Oduntan (2014) explains that it is in the nature of SMEs to be involved in primary and secondary business activities that depend on locally sourced materials. This makes them achieve value added operations that are key to economic growth and development. In Ghana, SMEs account for 85 percent of employment opportunities and their contribution to the country's GDP was approximately 70 percent in the year 2010. Nieuwenhuizen (2019) and Agbola and Amoah (2019) argue that SMEs are recognised as drivers of economic growth in both developing and developed countries. Long (2016) confirms that SMEs in SA contribute 35-45 percent to GDP and create 50-60 percent of employment in the country.

Operating a small business is more labour intensive than for an established organisation, hence the capacity to generate employment and employ more people. SMEs can help solve the problem of unemployment in many developing countries (Chinyamurindi 2016). In addition, Agbola and Amoah (2019) reiterate that SMEs generate employment through stimulating economic growth and development. By creating employment, SMEs simultaneously increase consumer buying power. SMEs have long been a vehicle used by countries to reduce poverty and address inequality among the citizenry. Moreover, small businesses also engage the

services of both skilled and unskilled labour, thereby creating employment opportunities for people who are often seen as unemployable.

Figure 2.4: SME contribution to economic development in SA



Source: Maziriri, E. T. (2018). Adapted.

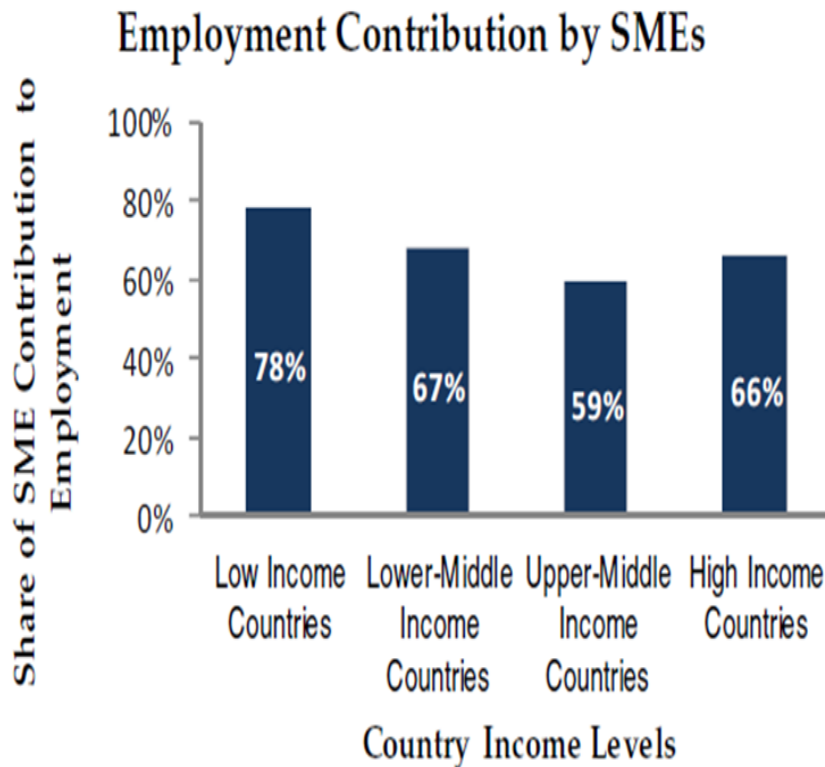
2.5.1.2 Innovative SMEs and Job creation

The economic role played by SME innovation is never in doubt and the sector continues to play a crucial role in stimulating economic growth (Abor and Quartey 2010). Further to this, small businesses are the main driver of innovation and employment creation, with Liu, Park and Whang (2019) explaining that job creation is defined as the total number of jobs generated in an economy. Fostering innovation among SMEs thus helps alleviate poverty, create jobs, develop new products and services and boost the economy (Bloch and Bhattacharya 2016).

While SMEs in South Korea have created 2.5 million jobs (Liu *et al.* 2019), SMEs in SA, according to Makhitha, van Scheers and Mmatli (2019), employ more people than the

government and private institutions jointly. Bouazza (2015) and Hosseininia and Ramezani (2016) state that SMEs in developing countries, such as Algeria and Iran, are not only responsible for employing the largest number of people but are also active in generating new jobs. Moreover, SMEs contribute to skills development, exports, technology advancement and innovation activities.

Figure 2.5: SME contribution to employment



Source: Muzenda, T. (2019). Adapted.

A study conducted by Ayyagari, Demirgüç-Kunt and Beck (2003 as cited in Muzenda 2019) reveals that SMEs contribute 78 percent towards employment in low income countries and 66 percent in higher income countries. On the contrary, a study conducted by Ayyagari, Demirguc-Kunt and Maksimovic (2014) on 49 370 SMEs in 140 countries, revealed that small firms contribute the least in terms of employment. The study highlighted that it is the SME sector instead that matches the contribution of larger firms. Ngeek and van Aardt Smit (2013) suggest that while most innovative SMEs remain paramount in job creation and innovation, not all SMEs can generate enough jobs.

De Wit and De Kok (2014) questioned the authenticity of SMEs' ability to create employment, arguing that they do not create many jobs. The authors cite the short life-span of small business as the main reason they cannot significantly contribute towards employment creation. This view is corroborated by the fact that although SA has many small firms, its unemployment rate remains one of the highest in the world. SA's unemployment rate was shown by Schachtebeck, Groenewald, Nieuwenhuizen (2019) to be 23.2 percent in 2008, after which it jumped to 25.2 percent in 2014, and in 2017 it moved to 27.7 percent. Currently, SA's unemployment rate stands at a staggering 29.1 percent (Stats SA 2020). Literature suggest that only a small number of high growth, high innovative SMEs are capable of creating jobs in the SME sector (Ngek and van Aardt Smit 2013).

In the interim, the World Bank (2010) continues to emphasise that unemployment in emerging economies can only be mitigated by SME development. The World Bank posits that the development of small firms is a good start in promoting economic growth, technology advancement and innovative activities, as well as eradicating unemployment.

2.5.1.3 Promoting competition

Evidence from existing literature suggests that efforts by SMEs to develop a competitive advantage positively impact business (Ho, Ahmad and Ramayah 2016). Henning (2019) defines competitive advantage as the quality of a product or service that makes customers perceive it as significantly superior. Additionally, Sin *et al.* (2016) point out that SMEs are more likely to adopt innovation because of intense competition from other businesses. There is a positive link between SME innovation and competitive pressure from other businesses, with competition among businesses regarded as healthy for the economy, since it pushes small enterprises to adopt innovative strategies. However, competitive advantage for SMEs is not only gained through innovation but also through low prices and improved quality of goods (Ho *et al.* 2016).

2.5.2 The Role of Innovation in SME Growth

In the current period of Industry 4.0, the success of a small business is largely dependent on its ability to engage in innovation activities. By necessity, innovation policy should thus become growth policy and strategy for small firms (Mazzucato and Perez 2015). Furthermore, Chandran, Poklemba, Sopko and Šafár (2019) concur that innovation is the key to business growth and performance. A study by Dosi, Pawitt and Soete (1988) acknowledged that since the Schumpeterian era, innovation has always played a role in the economic growth of SMEs.

Small businesses can, nonetheless, achieve innovation through the adoption and use of technology, while the role of innovation in the development of SMEs is demonstrated through their ability to create jobs, generate income and improve trade balance for the country. Bouazza (2015) contends that innovative SMEs are a key source of wealth creation and contribute immensely to socio economics through generation of revenue that significantly increases service delivery. Furthermore, small enterprises are the starting point for industrial development. Today's largest organisations started as SMEs that gradually grew (Oduntan 2014).

According to Chandran *et al.* (2019), there is a positive relationship between innovation and SME growth, insofar as innovation by small businesses opens new markets and provides room for the introduction of new products and services. In turn, this stimulates business and leads to growth and competitiveness. There is thus a need for SMEs to consistently introduce new innovations and monitor mechanisms aimed at increasing competitiveness.

Studies by Fernández-Serrano and Romero (2013) and Santos, Romero and Fernández-Serrano (2012) explain that innovation fosters improved quality, sales growth, internal efficiency and the reduction of production costs. In addition, Expósito and Sanchis-Llopis (2018) found robust evidence suggesting that innovation is multifaceted and has different benefits for SMEs, which include among others, improved competitive advantage, ability to set and improve quality standards, improved performance and growth in sales.

The fact that innovation conditions the competitive advantage of SMEs is never in doubt (Expósito *et al.* 2019). Nevertheless, SMEs face an array of barriers that hinder their innovation abilities. Such barriers include lack of financial support from both government and external sources, an insufficient skilled labour resource, inadequate access to markets and lack of experience (Abd Aziz and Samad, 2015). Therefore, Expósito and Sanchis-Llopis (2018) conclude that innovation activities for small businesses are generally subject to both human and financial capital limitations.

2.5.3 Characteristics of Innovative SMEs in SA

Small businesses have many characteristics other than the number of people they employ and are often managed by their owners, with the assistance of family members (Okello-Obura and Matovu, 2011). In this regard, decision-making is quick and quite flexible. By their nature

SMEs thus offer a narrow range of products/services and have an unsophisticated management structure (Ayandibu and Houghton 2017).

Gronum, Verreynne and Kastle (2012) note that when confronted with difficult situations, SMEs often make haphazard decisions that go against accurate business information. This viewpoint is further supported by Ayandibu and Houghton (2017), who confirm the decision-making processes of SME as quite flexible and informal. Gurtner and Reinhardt (2016) suggest that for something new to be defined as novel, it should be different from what already exists in the market. Urbancova (2013) finds that innovation strategies contribute to sustainable growth for both the organisation and the country. Furthermore, Gunjati and Adake (2020) postulate that SMEs are characterised by flexibility and a simple organisational structure which better positions them to innovate.

Below are the major characteristics of innovative SMEs.

- A strong relationship between firm performance and new innovative products and services.
- New products and customer-oriented services ensure SME market share growth and improve profit margins.
- Growth by means of non-price factors such as new design, improved quality, and innovative services.
- Ability to side-line outdated products for new products and services.
- Encompass latest technologies leading to quickened production time and introduction of new products.

2.6 INNOVATION CHALLENGES FACED BY SMEs IN SA

Inasmuch as SMEs play a pivotal role in the socio-economic development of nations, they still face a myriad of challenges. SMEs in emerging economies such as SA face more challenges compared to SMEs in developed countries. According to Nkwinika and Munzhedzi (2016), the problems faced by SMEs are multi-faceted and inhibit small business growth. These problems include lack of business support, poor infrastructure, restrictive legal and highly regulated business environments.

Small businesses face challenges that are unique, such as poor cash flow, lack of financial resources, lack of experience to run a business, skilled manpower and marketing problems

(Saari 2020). These challenges often contribute to poor firm performance and survival rates. Despite all these problems, small businesses still contribute to economic growth (Salome, Damilola and Sunday 2013). In SA, SMEs are found to be more innovative than large organisations, although contribution to innovation often takes time (Abor and Quartey 2010). This is mainly attributed to the lack of resources that enable larger firms to implement innovative initiatives quicker.

According to Njoroge (2015), the performance of SMEs has been largely disappointing. This is despite the favourable policy initiatives adopted by governments of emerging economies in the last decade to boost growth and mitigate challenges. Mthabela (2015) posits that despite many attempts by the SA government to assist SMEs, most small enterprises fail to develop into successful businesses. Furthermore, a study by Muriithi (2017) determined that 75 percent of SA SMEs fail to turn into established enterprises, with SA having the highest SMEs failure rate in the world.

Ebuti, Ufot and Olom (2015) acknowledge that SMEs in developing countries face challenges. In SA, small businesses are faced with stiff competition from large organisations. Omar and Amos (2014) concur that competition with established firms and extensive competition among SMEs make up some of the challenges faced by SMEs (Ocloo, Akaba and Worwui-Brown 2014). Further to this, Lekhanya (2015) states that lack of financial assistance for small businesses is a challenge that leads to poor performance. In some cases, small businesses are crippled by negative government regulations, as well as policies and higher tax (Czarnitzki and Hottenrott 2011).

The aim of every business is to pursue innovation activities to achieve competitive growth and improve profits. Strobel and Kratzer (2017) suggest that achieving effective innovation is a difficult task for SMEs mainly because they face many barriers. Barriers to innovation are defined as factors (both internal or external) that decrease a firm's ability to introduce a sustainable new product, process or service (Lewandowska, 2014; Madeira *et al.* 2017).

According to Zimmermann (2012), the number of SMEs that undertake innovation activities has dropped sharply in the past decade, due to the numerous obstacles they face. Empirical studies by Zimmermann (2012) and Taneja *et al.* (2016) show that the lack of a skilled workforce, poor innovation competences, unavailability of financial resources, and insufficient

management commitment, as well as stringent government regulations are some of the common barriers facing SMEs. In addition, Strobel and Kratzer (2017) confirm that financial constraints, government bureaucracy, lack of managerial know-how and unclear innovation strategies are the main challenges faced by SMEs.

Given that small businesses are exposed to changing environmental forces, it is vital for small business owners to pursue strategic partnerships. Due to high costs, uncertainties and risks, it is nevertheless difficult for small enterprises to develop technologies of their own (Taneja *et al.* 2016). However, Schenkel, Farmer and Maslyn (2019) posit that product, process, and service innovation is paramount in addressing challenges faced by SMEs. It is, therefore, important for small businesses in Durban to provide products and services that are innovative in nature.

Table 2.5: Factors affecting SME innovation

Percentage of enterprises (%)	Innovation activity	Non-innovation activity
Cost factors		
Lack of funding	23.8	15.2
Lack of finance	24.7	11.4
Innovation costs too high	18.8	14.3
Knowledge factors		
Lack of qualified personnel	22.9	8.6
Poor marketing strategy	9.4	1.9
Market factors		
Market dominated by established enterprises	19.3	11.4
Uncertain demand for innovative goods and services	13.9	10.4
Reasons not to innovate		
No need due to prior innovations	2.7	2.6
No need because of no demand for innovations	5.4	13.3

Sources: *Innovation in the SA manufacturing sector, 2010-2012. Adapted.*

2.6.1 Lack of Financial Support

SMEs in SA often face challenges in accessing financing for growth and innovation activities (Muriithi 2017; Wonglimpiyarat 2015a). This viewpoint is also supported by Ariyo (2008) and Beck and Cull (2014), who confirm that the inability of small businesses to access credit or finance is a major challenge that hinders not only SME survival but also performance and growth. Lack of finance is a major impendent to small firms' growth (Fjose *et al.* 2010). However, Muriithi (2017) notes that lack of access to finance is not only a South African problem but a universal challenge faced by SMEs. This leaves SMEs with no option but to source funds from friends, family members or rely on self- financing in order to fund business activities.

Financial costs have been identified as the most significant barrier to innovation for small firms. Funders are usually reluctant to fund innovative initiatives because of the uncertainty associated with innovation (Madrid- Guijarro *et al.* 2009). Carvalho, Raposo, Preto and Carvalho (2019) suggest the main challenge small businesses face in the implementation of innovative strategies is the limited access to finance, along with high innovation costs. Furthermore, Hoogendoorn, Mellett and Visser (2017) confirm that SMEs in developing countries are financially constrained and unable to invest fully in innovation activities. Chipunza (2014) intimates that very high innovation costs significantly stifle SME innovation activities. Since many small businesses experience financial and resource constraints, they are most likely to be affected by exorbitant innovation costs (Silva 2007). Moreover, Madeira *et al.* (2017) state that different barriers or obstacles retard the innovation strategies of small enterprises.

Another factor that poses a threat to small businesses is that of cost, because of the close link these enterprises have to both internal and external funding and innovation financing costs (Lewandowska 2014). Madeira *et al.* (2017) identify high innovation financing costs as the greatest obstacle hindering the innovation process. It thus becomes difficult for SMEs to generate new ideas and introduce new products on the market and increase their market share. Further, Madeira *et al.* (2017) suggest that higher innovation costs cause major innovation strategy delays for SMEs. Studies by Song and Oh (2015) and Yu, Yan and Assimakopoulos (2015) confirm that due to financial constraints, small firms find it difficult to invest in product, process, service or marketing R&D.

2.6.2 Lack of Information Technology

The positive use of Information Technology (IT) in small enterprises has a major influence on their competitive advantage (Chege and Wang 2019). The lack of information on the latest technology is a hindrance to the development of small enterprise innovation strategies (Nunes and Silva 2010). A study conducted by the Office for National Statistics (2014) in the UK revealed a widening gap between small firms and established businesses. The study brought to the fore the fact that SMEs still lag behind in terms of their adoption and use of IT when compared to larger firms.

A European Commission report unearthed similar trends and noted that a mere two percent of small firms are well-versed in the use of digital technology and take advantage of IT (European Commission 2015). This has far reaching implications for SMEs because they continue to miss out on the advantages of digitisation, such as online buying, e-stores and e-marketing.

2.6.3 Lack of Qualified Personnel

Various studies show that SMEs resist innovation due to the lack of skilled human resources capable of pursuing innovative projects (McAdam and McConvery 2004; and Chipunza 2014). Lack of top management commitment is proof that the small business environment is not supportive of innovation. Therefore, lack of skilled human resources is one of the barriers to innovation among SMEs (Madrid- Guijarro *et al.* 2009).

Nieman and Nieuwenhuizen (2009) argue that a lack of training and development is an obstacle for SMEs' innovation activities. Poor training and lack of skilled labour with innovation acumen suppresses SME innovation and development, along with the ability to come up with sound innovation strategies. Unlike small firms, larger organisations are more likely to acquire financial assistance to attract skilled human resources that drive innovation (Chipunza 2014). Furthermore, Sendawula, Turyakira and Bananuka (2018) find lack of commitment from the employees and owners/ managers of small firms retards the agenda to pursue sustainable innovation.

2.7 SME INNOVATION: CURRENT TRENDS

In a dynamic world where technology is constantly changing, it is imperative that SMEs adopt new technologies to remain competitive (Karimov and Abrahamsson 2019). Currently, Industry 4.0 has been identified as the latest technological paradigm that drives the small business sector.

This view is supported by various authors (Fernando 2013; Mittal, Khan, Romero, and Wuest (2018), who suggest that in a global economy, innovation and creativity have become central to the growth of small businesses.

Akinsola (2018) further confirms the importance of SMEs in today's harsh, global economic environment. According to the World Bank Group, small firms account for more than half of all formal jobs globally and provide effective innovation solutions (Akinsola 2018). Judging by these findings, it is evident that SMEs play a pivotal role in today's global economy. Levin (2018) agrees and states it is important for economic growth that SA absorb new technologies, knowledge, and innovations and catch up with the global technology frontier.

In SA, Industry 4.0 has gained momentum with SMEs developing innovative projects (Fig. 2.6) that are key to growth (Schulz, Gott, Blaylock and Zuazua 2018). The World Economic Forum (2018) defines Industry 4.0 as "the utilisation of cyber-physical systems to develop and introduce new ways and processes of doing things." Industry 4.0 also refers to the way both humans and machines interact to achieve competitiveness.

Figure 2.6: Current SME Innovations

Technology	Description
Artificial intelligence and robotics	Development of machines that can substitute for humans, increasingly in tasks
Ubiquitous linked sensors	Also known as the "Internet of Things". The use of networked sensors to remotely connect, track and manage products, systems and grids.
Virtual and augmented realities	Next-step interfaces between humans and computers involving immersive environments, holographic readouts, and digitally produced overlays for mixed-reality experiences.
Additive manufacturing	Advances in additive manufacturing, using a widening range of materials and methods. Innovations include 3D bioprinting of organic tissues.
Blockchain and distributed ledger technology	Distributed ledger technology based on cryptographic systems that manage, verify and publicly record transaction data; the basis of "cryptocurrencies" such as bitcoin.
Advanced materials and nanomaterials	Creation of new materials and nanostructures for the development of beneficial material properties, such as thermoelectric efficiency, shape retention and new functionality.
Energy capture, storage and transmission	Breakthroughs in battery and fuel cell efficiency; renewable energy through solar, wind, and tidal technologies; energy distribution through smart grid systems; wireless energy transfer; and more.
New computing technologies	New architectures for computing hardware, such as quantum computing, biological computing or neural network processing, as well as innovative expansion of current computing technologies.
Biotechnologies	Innovations in genetic engineering, sequencing and therapeutics, as well as biological computational interfaces and synthetic biology.

Source: The WEF and A.T. Kearney, (Schulz et al. 2018). Adapted.

As important as it is for small business ventures in developing countries to adopt new technologies, equal importance must be afforded to its advancement (Levin 2018). Some emerging technologies currently in use by SMEs include Nanotechnology, synthetic technology, cyber physical, and artificial intelligence, as well as additive manufacturing. Technological innovation makes the practice of doing business more efficient and effective (Gates 2018). According Barbieux and Padula (2018), nanotechnology has been the standard state-of-the-art technology for smallest businesses, specifically those in chemical, pharmaceutical and cosmetic industries. In countries such as Brazil nanotechnology has become part of the overall government strategy.

2.8 THEORETICAL POINTS OF DEPARTURE AND INNOVATION CONCEPTS

The concept of innovation was first discussed by Joseph Schumpeter in his theories of innovation (1934-1942), which established that wealth creation and creativity are a result of disruptive introduction of new products and services (Taylor 2013). Hong, Oxley, McCann, and Le (2016) state that the early Schumpeter confirmed the important role SMEs play in advancing innovation. Although the researcher recognises that Schumpeter (1942) later became pro large established firms, the current study focuses on the ideas of the ‘early Schumpeter’, where innovation was at the centre of small business development. Kiveu, Namusonge and Muathe (2019) argue that small business enterprises are underpinned by novelties, in the form of new products and services that meet customer needs. The idea of innovativeness is embodied in small firms as a strategy that drives the creation of novelties, with a financial return on investment (Molokwu, Barreria and Urban 2013).

Innovation is defined as the establishment of something new or an improvement of significance to products or processes and is, generally, associated with doing something new or different (Popescu 2014). According to Kuratko, Morris, and Covin (2011), the core of starting a business is to innovate and benefit financially through the development of new products or services or new ways of doing business that improve customer service. An improved innovative way of doing business is beneficial to organisational stakeholders and greatly improves the firm’s performance. On the one hand, Taylor (2013) posits that innovation can ensure survival, growth, and differentiation for SMEs. On the other hand, Ambad and Wahab (2013) argue that a small business that takes an innovative stance boosts the chances of survival and achieves a significant return on investment.

Sharma and Dave (2011) found Schumpeter to be one of the first scholars to place emphasis on the role of innovation in the entrepreneurial journey. According to Langroodi (2021), Schumpeter developed the theory “creative destruction,” which postulates that introducing new products, services, processes and procedures, disrupts the market. That disruption will stimulate innovativeness and boost market share and growth. Additionally, Kuratko *et al.* (2013) suggest that innovativeness can be in the form of a new product or improved service, with innovative SMEs continuously finding improved ways of completing a task. According to Antoncic and Hisrich (2003), innovation among SMEs tends to focus on technological, administrative, product and service innovation.

Schumpeter is of the view that a significant economic relationship exists between innovation and the economic system of a country. A state that fails to support SMEs economically will also fail to stimulate creativity and innovation. The venturing of SMEs into innovation disrupts the old ways of doing business and replaces them with new ones (Chipunza 2014).

2.8.1 Diffusion of Innovation Theory

Syahadiyanti and Subriadi (2018) describes diffusion as a theory that attempts to explain the manner in which new technology ideas develop. The theory suggests that some people embrace innovation faster than others. Sharp and Miller (2016) propose that diffusion of innovation is a thought process that analyses and evaluates the way in which new services, ideas and products are adopted. The diffusion of innovation process allows a business to move from the pre-adoption stage to the adoption and post-adoption stages of innovative ideas (Carreiro and Oliveira 2019). Although both the Schumpeterian and diffusion theories speak to innovation, which is the theoretical framework of the study, the Schumpeterian theory is more relevant to the current study because the author addresses innovation in the entrepreneurial setting, while Rusu, Sandu and Frangieh (2020) focuses on innovation in leadership.

2.9 FORMS OF INNOVATION

Zanello *et al.* (2016) suggest that innovation in SMEs comes in different forms, such as product innovation, process innovation, service innovation and marketing innovation. Innovation is a concept that is multi-faceted and complex (Fischer and Fröhlich 2013) and thus defies a single definition. Therefore, innovation can be defined as a new service, idea, product or way of doing things.

Small businesses often find themselves in competitive business environments, both globally and locally, hence the need for effective innovative strategies to maintain a competitive advantage. According to Krause and Schutte (2015), innovation does not only require novelty by creating something new, but also through generating return on investment. This point is also supported by Guo (2019), who posits that small businesses with an innovation strategy focus on developing new products that position the business better in the market.

Innovation improves the overall business performance of SMEs (Kim, Song and Nerkar 2012). Osuga (2016) supports this view and observes that it is important for owners to be innovative so that their businesses may compete meaningfully or survive in a highly charged global market.

This will help their businesses maintain a sustainable competitive advantage and improved performance. As stated by O'Regan *et al.* (2006), small businesses need to adopt innovation as an integral element of business strategy and survival amid a competitive market environment.

Çetinkaya Bozkurt and Kalkan (2014) enumerate the types of innovation SMEs can undertake, including new methods of production, improved products, new markets, and sales, as well as organisational innovation. While product innovation involves development of new products, services and improvements of existing products, Piening and Salge (2015) define process innovation as the introduction of an improved supply chain, along with production and administrative processes.

The reconfiguration of small businesses' administrative innovation through technology is paramount in a dynamic environment wherein a competitive edge needs to be established. A competitive edge will assist SMEs in gaining a financial advantage and market share over larger and established firms (Damanpour, Walker and Avellaneda 2009). Numerous studies find that small businesses are enabled to compete successfully when embracing innovation (Hall and Williams 2008; Hall 2009). It also improves the competitiveness of their products and services.

Globalisation and technological advancement drives SMEs to pursue innovation and formulate innovation strategies important for business growth (Otero-Neira, Lindman and Fernandez 2009). However, it is argued that in order for small businesses to fully innovate, they need resources and a scarcity of resources interferes with the ability of small business to innovate (Woschke, Haase, and Kratzer 2017; Colclough *et al.* 2019). The scarcity of resources refers to "less than the minimum resources needed to produce a required level of organisational output".

There is no consensus among scholars on the number of innovation stages that result in an innovative service or product, with different authors advising a different number, ranging from three to four stages (Chipunza 2014). According to Dervitsiotis (2010), innovation has four stages, while Roper, Du and Love (2008) contend that innovation has three main stages. All scholars, however, despite not agreeing on the stages of the innovation process, agree that innovation is a value chain. The value chain starts with an idea generated into a valuable new product or service for a small business.

The innovation process is the engine that drives SME innovation. Dervitsiotis (2010) posits that an idea can only be converted into cash through a fully-fledged innovation process. Innovation by small enterprises can be classified into three main types, product innovation, process innovation and service innovation. The three influence each other, promote each other and play an important role in SMEs innovation activities. The Innovation in the SA manufacturing sector report for 2010-2012 affirms that innovation is a critical key driver of economic sustainability and growth. The report highlighted that development, as well as introduction or implementation of a new improved service, process or product are part of innovation activities.

2.9.1 Product Innovation

It is stated by Popadiuk and Choo (2006) that product innovation refers to the creation of a new or improved product that propels an organisation to achieve competitive growth in an existing or new market. Nonetheless, Wang (2016) defines product innovation as the production and operation of small businesses in product improvement, business engagement, innovation, and invention. Furthermore, product innovation focuses on the effectiveness required to develop a new product and new service (Kahn 2018).

However, Wang (2016) finds that production innovation can be divided into two main categories, namely important and incremental product innovation. Ahalin, Drnovšek and Hisrich (2012) and Small (2018) are in agreement that product innovation is mainly concerned with the generation of new ideas and the creation of something novel that will be reflected in the final product, marketing strategy or service offered by a business. According to the Innovation in the SA manufacturing sector report for 2010-2012 reviewed that product innovation of SMEs is set at 39.6 percent.

2.9.2 Process Innovation

Chipunza (2014) defines process innovation as the introduction of a new, improved method aimed at delivering a product or service to the customer at a quicker turnaround time. The term 'process' may mean the relatedness of activities that lead to transformation of inputs into value added outputs for the target market. According to Kahn (2018), process innovation involves the changing of the process to improve processing and reduce business costs. The author further asserts that process innovation is best supported by organisational processes, production systems and service delivery systems.

In addition, Katz *et al.* (2010) describe process innovation as a novel technique aimed at distributing and producing new products or services, for example, the use of robotics to more effectively and efficiently produce goods. Kahn (2018) also suggests a positive relationship exists between product innovation and process innovation. However, unlike product innovation that emphasises effectiveness, process innovation is all about efficiency and cutting costs. This helps small businesses improve the quality of goods and products that meet the expectations of the consumer (Katz *et al.* 2010).

2.9.3 Service Innovation

Wang (2016) maintains that service innovation is the most suitable type of innovation for SMEs, due to service innovation encompassing both new ideas and improved business service. It also seeks to improve the existing business structure of an organisation. According to Witell *et al.* (2016), the definition of service innovation remains problematic because there is no consensus among scholars. On the one hand, Maureen (2018) defines service innovation as a combination of both new products and processes, giving more efficiency to the production of improved products and services. On the other hand, Kindström and Kowalkowski (2014) posit that service innovation promotes the establishment of new products, concepts and services. The idea is that the new product or service will meet the customer needs and expectations.

2.9.4 Marketing Innovation

For SMEs, innovation also involves marketing. Kahn (2018) reasons that marketing innovation mainly concerns connecting the customers to different promotional types. According to Maureen (2018), marketing innovation basically implies that business enterprises introduce products or services that position them well in a certain market. Gustavsson and Larsson (2020) concur that marketing innovation is a tool that assists small enterprises to gain a competitive advantage. Kahn (2018) further suggests that by doing so, marketing innovation propels demand for products or services through the creation of products, service awareness and uniqueness.

A market innovation study by Beringer Vineyards (2015) on a wine making enterprise reported that the majority of customers who sampled the wine went on to buy the product. Similar marketing initiatives can go a long way in boosting sales, revenue, and competitiveness among SMEs. As stated by Aksoy (2017), while markets create value and increase the innovation performance of a business, the competitiveness of an enterprise is largely dependent on its

ability to lure customers using marketing innovativeness (Gupta, Malhotra, Czinkota and Foroudi 2016). Furthermore, Aksoy (2017) suggests that market innovation is critical for SMEs when they want to penetrate local and international markets. This is attributed to SMEs being unlike established firms, having to face stiff competition and experience a high rate of failure. Nevertheless, Gustavsson and Larsson (2020) argue that marketing innovation better positions a product so that it meets customers' needs and reaches new markets.

2.10 SME INNOVATION CONCEPTS

Below are the two main concepts SMEs can adopt in order to bolster innovation.

2.10.1 Open Innovation

Open innovation for small enterprises is a concept developed by Henry Chesborough (2003) and refers to the ability of an enterprise to incorporate external knowledge required to develop innovative ideas. Chesborough (2003) established that important business ideas can either come from inside or outside the organisation and be adopted by the market. Interestingly, Chesborough (2003) confirmed that open innovation, unlike closed innovation, is not a binary concept. Rahman and Ramos (2013) confirm a positive relationship between open innovation and SME innovation performance. Srisathan, Ketkaew and Naruetharadhol (2020) regard open innovation as a powerful business strategy with the potential to achieve sustainable growth for SMEs.

To gain competitive advantage, small businesses often prefer to innovate through the creation and development of new products and services for business success, hence the need to adopt open innovation. Universally, open innovation is becoming a common feature, with most SMEs embracing it as an innovation strategy (Krause 2017). In Thailand, the government encourages SMEs to adopt open innovation through the National Innovation Agency (NIA) (Srisathan *et al.* 2020). Hossain (2015) posits that small enterprises have started to adopt open innovation regularly to drive innovation.

Nevertheless, Krause (2017) argues that open innovation is a two-way process, which means organisations bring in new ideas and technologies and sell ideas and technologies to other enterprises. According to several studies, open innovation can increase small firm performance, generate new ideas for product development and increase the market value of the business (Ahn, Minshall, and Mortara 2015; Fasnacht 2018; Thakur *et al.* 2019). Research by Hadjimanolis

(2019) agrees that SMEs engage in open innovation primarily to satisfy customer needs and wants.

2.10.2 Closed Innovation

The concept of closed innovation is premised on the view that innovation in small enterprises requires greater control. Closed innovation is moulded internally within the business and passed among the employees to achieve the required level of quality.

Alawamleh, Ismail, Aladwan and Saleh (2018) identify the rules of closed innovation as follows:

- The enterprise is required to employ the most qualified people in the market.
- The nature of innovation is derived from the marketing department of the business and not the product/service.
- Giving adequate attention to the competitive advantage of the business.
- The market is a competitive field and the organization must win it.

2.11 FACTORS INFLUENCING SME INNOVATION STRATEGIES

In a rapidly changing global business environment an innovation strategy is a critical asset for a small business to survive and grow. Due to the technological revolution, dynamic consumer needs and fierce competition, SMEs now rely on innovation to create a competitive edge (Dadfar, Dahlgaard, Brege and Alamirhoor 2013; Kim, Park and Paik 2018). A study by Eggink (2011) showed that SME innovation does not happen in isolation but revolves around interaction between a business and its environment. The environment can either be conducive to innovation strategies or not. Armed with an innovation strategy, small businesses tend to focus on developing and introducing new products and services (Naranjo-Valencia, Jiménez-Jiménez, and Sanz-Valle 2011; Guo 2019).

Scholars widely recognise innovation as the most competitive strategy for SMEs to gain superior competitive performance (Prajogo 2016; Galloway, Miller, Sahaym and Arthurs 2017; Guo 2019). Furthermore, the factors that influence SME innovation strategies have been widely researched, although scholars focus on different areas (Ferreira, Fernandes, Alves and Raposo 2015; Lee and Tang 2018). Antolín-López *et al.* (2015) highlight that compared to larger firms that are established, small enterprises are more innovative and face challenges in developing a

strategy. In addition, Bloch and Bhattacharya (2016) note that small businesses account for a higher number of innovations than dominant and larger businesses.

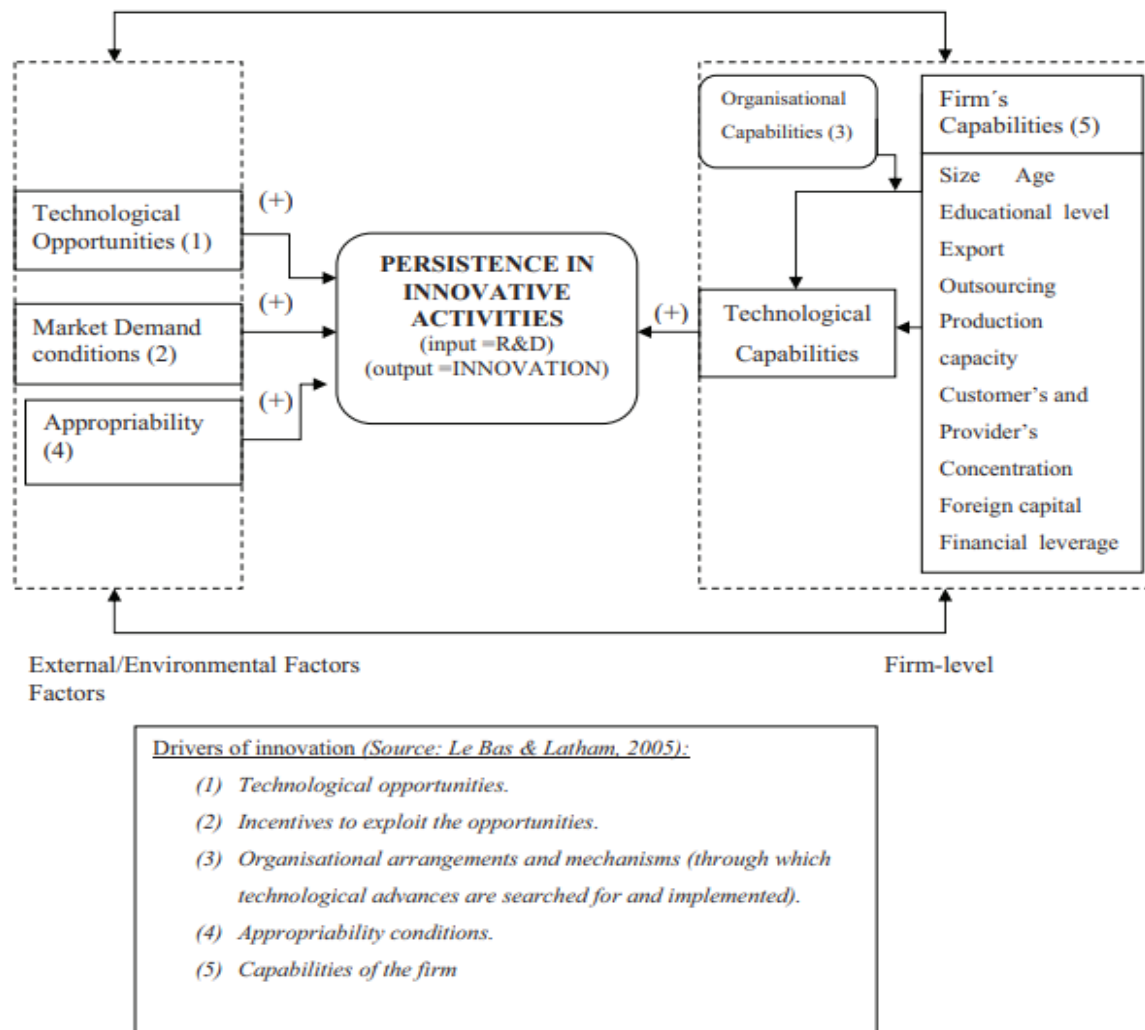
Since the advent of the millennium, global economies have been rapidly transforming into creative and innovative economies. Innovation has thus become a necessity rather than an option and small businesses now face the need to be innovative to remain relevant in the market (Ehrenberger, Koudelkova and Strielkowski 2015; Kim *et al.* 2018). It is thus imperative that small firms innovate continuously so they can boost their chances of survival. In a harsh business world environment, it is either a business “innovates or dies”. Moreover, innovation does not only allow SMEs to develop new products, services and processes but leads to firm growth, survival, and achieving a competitive edge (Arshad *et al.* 2018).

Bowen, Rostami and Steel (2010) confirm that innovation is key to small business economic performance and productive growth, while it also boosts small business profit margins and creates business potential for growth. It is therefore important that small firms enhance their innovation strategies to create new ideas, as well as to develop new products and services (Kim *et al.* 2018). According to Yang (2011), small firms with innovative capabilities tend to achieve better technological performance and business development than those without. Krause (2017) argues that for small businesses to stay relevant they need to innovate as failure to innovate may lead to failure to survive.

Accordingly, Bayarçelik, Taşel and Apak (2014) find the strategic posture that small businesses take influences innovation projects. For this reason, SMEs now place emphasis on innovation. Furthermore, Rujirawanich, Addison, and Smallman (2011) posit that innovation enables SMEs to be better positioned to meet customer needs, to be ahead of competitors and to better compete with larger firms. As explained by Calantone, Cavisgil and Zhao (2002), the main goal for small ventures is to undertake innovation activities to gain competitive economic advantage through customer satisfaction, which ensures survival, improved market share and profit.

The competitiveness of SMEs is directly dependent on their ability to adopt innovation activities (Pivcevic and Petric 2011). Literature confirms that innovation activities of SMEs are to a great extent influenced by several factors (Booyens 2011; Codagan, Boso and Storey 2012; Salome *et al.* 2013). Below are some of the factors that influence SME innovation strategies.

Figure 2.7: Factors influencing innovation



Source: Triguero, A. and Córcoles, D. (2013). Adapted.

2.11.1 Financial Factors

SMEs in Germany continue to perform at the highest level and are regarded as the best in the EU. However, according to the European Commission (2015), German SMEs remain the weakest in terms of innovation capabilities. This challenge is attributed mainly to lack of access to finance. Lack of finance directly hinders innovation strategies. According to Lecerf (2012), financing small enterprises is critical in achieving innovation success. Innovation happens only if the capacity to innovate exists in the firm.

Divisekera and Nguyen (2018) assert that, in as much as innovation is critical for SMEs, it requires large amounts of capital. Thus, financial muscles of small firms play an essential role

in influencing the SMEs' innovation activities. Bayarçelik *et al.* (2014) define innovation capacity as the availability of resources and collaborative structure within the organisation to solve problems. Xie, Zeng, Peng and Tam (2013) confirm that adequate financial resources are required for SMEs to operate and make technological innovations. This is echoed by Chimucheka (2013), who states that all firms, large or small, require financial resources to fund business growth and innovation strategies. Fatoki and Garwe (2010) suggest that other than education and training, financial constraints in SA are the second biggest cause of below par SME innovation activities.

Furthermore, Chimucheka (2013) highlights that most SMEs experience a lack of adequate financial means that every business requires to operate at optimum level. Similarly, Ndiaye, Razak, Nagayev, and Ng (2018) acknowledge that finance is a constraint that hampers small businesses' performance and innovation strategies. In addition, Lee, Sameen and Cowling (2014) assert that in most cases, small firms often lack financial resources to fund the innovation strategy of the business. A survey conducted by the World Bank Enterprise (2010) reveals that financial challenges significantly hinder innovation activities, chiefly in highly innovative enterprises.

Mahendra, Zuhdi and Muyanto (2015) also note that small businesses that experience financial challenges are most likely not to achieve innovation growth. For small firms, financial constraints are the main challenge that inhibits them from achieving survival, growth, and innovation (Fatoki and Garwe 2010 cited in Nze 2016). Abdu and Jibir (2018) suggest that acute financial constraints negatively impact small business innovation endeavours. Moreover, Mahendra *et al.* (2015) opine that financial resources are critical for SMEs as they increase their chances to be innovative and fund other business needs.

According to Chimucheka and Rungani (2014), lack of collateral security, lack of knowledge and a poor business plan are some of the reasons SMEs in SA fail to access financial funding. Lee *et al.* (2014) note that, alternatively, SMEs will now need to make use of external sources of funding, such as government funding. However, Sibiya and Kele (2019) assert that most SMEs are sceptical of losing total control of the firm.

2.11.2 Firm Size

Findings from a study conducted by Davenport, Bibby and Zeng (1999) and Eggink (2011) show a positive relationship between firm size and the level at which it innovates. Messeni Petruzzelli and Ardito (2019) confirm the size of an enterprise directly influences its innovation activities and strategies. Innovation is generally viewed as a business' capacity to create new products and services that are superior to those of competitors (Jeng and Pak 2016). According to Gunjati and Adake (2020), SMEs can implement new creative ideas faster because of their size. However, it is widely agreed that established firms have an advantage when it comes to innovation compared to smaller businesses because larger organisations have stronger cash flow to fund innovation activities.

Bayarçelik *et al.* (2014) suggest that larger organisations, because of their size have access to resources that promote innovation. Deschryvere (2014) concurs that established enterprises provide better innovative products, services and process compared to SMEs. Schumpeter (1942) confirms that larger businesses generally outperform SMEs in innovation. Nonetheless, the argument is that smaller firms are resource-constrained in comparison to larger firms. However, Hong *et al.* (2016) posit that SMEs are better positioned to innovate because of their size. The main reason larger firms are less innovative is because of the bureaucracy that grows with aging, even while there is a continuous infusion of new employees into the firm that results in a constant supply of innovative ideas (Hong *et al.* 2016). This, therefore, requires SMEs to not only survive but grow their business so that they can compete with larger firms.

2.11.3 Economic Situation

The SA economy has at different times plunged into recession, which negatively affected the innovative abilities of SMEs (Mbali, Ngibe and Celani 2019). According to Rujirawanich *et al.* (2011), the economic environment of a country plays a pivotal role in enhancing SME innovation activity. The global economic crises of 2008, whose effects are still being felt to date, have negatively impacted SMEs further (Lesáková 2014). According to Stats SA (2020), the SA economy slipped into recession in the fourth quarter of 2019 and the economy contracted by 1,4 percent in the process.

Innovation in small firms does not happen in isolation, requiring collaboration and coordination with the country's economy. However, poor economic performance hampers innovation activities (Divisekera and Nguyen 2018). The success of small enterprises is thus mainly

dependent on the rate at which they embrace innovation as a business strategy and the performance of the country's economy (Madrid- Guijarro *et al.* 2009). As Volchek, Jantunen, and Saarenketo (2013) explain, SMEs need to be promoted for the country to experience sustainable economic growth, which will simultaneously give birth to employment opportunities and strengthen consumer buying power. Karpak and Topcu (2010) maintain that the role played by SMEs in economic development cannot be underestimated.

Consequently, small businesses are responsible for much of the innovation activities that enable improved products and services. The economic performance of a country is, therefore, important in influencing innovation strategies for SMEs. As Kankisingi (2019) stresses, the current low growth of the country's GDP affects SME innovation and performance.

2.11.4 Management Entrepreneurial Innovation Competence

The main advantage that small ventures possess is their flexibility and ability to respond to changes with speed (Taneja *et al.* 2016). In addition, businesses that exhibit a high level of managerial entrepreneurial orientation experience creativity, innovation and a competitive edge (Ginting 2015), while Booyens (2011) points out that innovation strategies and entrepreneurship work hand-in-hand. Therefore, entrepreneurship is the transformation of novel ideas into innovative products and services.

The ability of SMEs to meet and sometimes exceed consumer expectations is mainly attributed to their innovative nature and ability to deliver products, services, marketing strategies, and processes that customers value (Taneja *et al.* 2016). The competencies of business owners or managers largely determine the running of the business and the innovation strategies the enterprise will adopt (Mamabolo, Kerrin and Kele (2017). In this regard, Muriithi (2017) posits that managerial competences stem from the ability to combine both tangible and intangible resources into a new product/ service.

A study conducted by Colclough *et al.* (2019) indicates that the ambitions, skills, competences and perspectives of owners or managers significantly influence the innovation strategy outcomes of SMEs. Furthermore, the education background of SME owners or managers has been credited as an important factor leading to sustainable innovation in small firms, universally (Urbancova 2013). In addition, Bayarçelik *et al.* (2014) explain that the management style of small businesses owners/managers is an important factor in predicting the adoption of

innovation strategies by the firm, with owners/managers of small enterprises reinforcing innovation objectives through effective employee engagement, participation, and communication. Kelley, O'Connor, Neck, and Peters (2011) confirm that the broad action taken by owners has the potential to shape the organisational culture and value system. Similarly, Dobni, Klassen and Thomas (2015) suggest that SMEs need adequate resources and managerial personnel who care about creativity and use their innovation capabilities to create new products, services and processes that satisfy customer needs and maximise profits.

It was further revealed by Lugemwa (2014) that entrepreneurs' competencies are vital in aiding outstanding small firm performance and achieving the right innovation strategy, which goes a long way in promoting business growth and competitive advantage. Sendawula *et al.* (2018) suggest that the skills, knowledge and experience of owners or managers and employees are critical in stimulating innovative competencies. According to Madrid- Guijarro *et al.* (2009), SMEs that do not take advantage of innovation as a business strategy risk becoming uncompetitive.

Since the 21st century is knowledge and information driven, SMEs that depend on employee knowledge, creativity, qualification, and experience are likely to be successful. For SMEs to be fully innovative, they need to promote continuous learning and employee development (Urbancova 2013). Mamabolo *et al.* (2017) confirm that human capital development involves investing in employee work experience, education, training, and learning.

Organisational learning is defined as an experiential and cognitive process that involves acquiring knowledge and skills required for the business to fully function (Aragón-Correa, Garcí'a-Morales, and Cordo'n-Pozo 2007). However, innovation strategies will only flourish when the workforce is supportive of these efforts (Halim *et al.* 2014). In a study by Divisekera and Nguyen (2018), it was found that an educated and skilled workforce is essential in generating and implementing innovative business ideas and managing new technologies.

Gao and Hafsi (2015) suggest positive links exist between knowledge development and small business innovation strategies. Therefore, a business owner with a high level of education is likely to show willingness to innovate and have a deeper knowledge of the benefits of innovation. Ndesaulwa *et al.* (2017) explain that the availability of qualified personnel who can manage innovation processes is not only crucial for SMEs but also larger organisations.

According to Madrid- Guijarro *et al.* (2009), SMEs can gain innovative ideas from their human resources through effective communication, strong organisational norms and commitment from top management. A study conducted by Acemoglu and Pischke (1999) concluded that the adoption of innovation as a business strategy requires employee commitment and engagement. Human capital is acknowledged by several authors to generate creativity and is widely considered as a determinant that influences SME innovation (Zemplinerová 2010; Urbancova 2013). Thus, small firms should always have numerous innovative ideas at their disposal.

2.11.5 SME Innovation Culture

Business entrepreneurial activity involves the overall business attitude in terms of innovation activities, for example the ability to offer new services and products that are customer orientated (Snyman *et al.* 2014). SMEs that exhibit an entrepreneurial culture are, according to recent literature, prone to experience more sustained growth and competitive advantage in the market (Lee, Hallak and Sardeshmukh 2019; Almodóvar-González, Fernández-Portillo and Díaz-Casero 2020).

For small businesses to fully engage in entrepreneurial activities that are innovative, they need to adopt innovativeness as a business culture. According to “Schein’s model of organizational culture” (Schein and Schein 2016), business culture positively impacts the success of a business and the rate at which it innovates. Bacq and Eddleston (2018) explain that a firm’s culture is a resource that, when used effectively, can contribute to the innovative success of a business.

Innovation strategy is crucial for SME survival, performance, and competitive advantage. As such, the application of innovation in a business requires a culture that promotes innovativeness. When businesses encourage their employees to share skills with the rest of the organisation, they create a culture of innovation. In this regard, Halim *et al.* (2014) state that organisational culture is at the core of SMEs’ innovation activities. As such, the firm’s beliefs, values, behaviours, and culture are shared in a way that encourages employees to be innovative (Aksoy 2017).

Several studies reveal that SMEs achieve competitive edge through employees’ innovative potential and a heightened innovation culture required to create new products and services (Aksoy 2017; Damanpour 1992; Terziovski 2010). In addition, Terziovski (2010) argues that

business culture is the main challenge to the adoption of an innovation strategy. With SMEs being more adaptable to a culture of innovation than larger firms, superiority in the market can then be gained through the innovation culture and competitive advantage of SMEs.

2.11.6 Business Knowledge and Expertise

Creativity, the creation of value and innovativeness are crucial determinants that influence the success and performance of SMEs in today's dynamic world. Through business knowledge and expertise, SMEs stand a greater chance of adapting to challenges and developing a sustainable innovation strategy (Salisu and Abu Bakar 2018). This echoes findings by Tseng and Lee (2014) that the firm's innovation capabilities can be accelerated or slowed by the way the business manages knowledge or the learning process. Business knowledge management is additionally shown to involve the enterprises' activities in sharing, learning, and capturing knowledge (Cantor, Blackhurst, Pan and Crum 2014; Wu *et al.* 2016).

One way a business can boost innovation knowledge and expertise is through collaborations with other businesses. Chege and Wang (2020) confirm that collaboration between SMEs and their stakeholders plays a pivotal role in stimulating the positive foundations required for small firms to be innovative. Furthermore, Madeira *et al.* (2017) cite difficulty in finding cooperative partners as a factor that hinders small firms' innovation strategies.

Xie, Zeng and Tam (2010) identify collaboration between enterprises as having a positive influence on innovativeness. Collaboration between firms, suppliers and customers is important in maintaining competitiveness. Similarly, as highlighted by Taneja *et al.* (2016), when enterprises fail or are unable to innovate in isolation, their owners/ managers can work with other firms where ideas, resources and expertise can be harnessed through collaboration and coordination. Fukugawa (2006) emphasised establishing positive contacts with external stakeholders as having a positive influence on the ability of SMEs to innovate.

Sawang and Matthews (2010) concur that small enterprises that develop a positive relationship with external partners stand a good chance of introducing innovative new products. Furthermore, De Marco *et al.* (2020) postulate that collaborative activities amongst small businesses positively influence innovation activities. However, Freel and Harrison (2006) argue that there are many small firms that innovate successfully without cooperative partners by developing internal strategies.

2.11.7 SME Technological Innovation

Due to an increase in innovativeness, globalisation, competition for customers and selling online, it is important for SMEs to maintain the traditional balance between customers and suppliers. Subrahmanya, Mathirajan and Krishnaswamy (2010) highlight that technological innovation is unavoidable for firms as it spurs competitiveness and boosts their potential to break into new markets. This statement is confirmed by Gunjati and Adake (2020) who maintain that technology plays a pivotal role in affording small businesses a competitive edge.

With the introduction of new communication methods such as computer technology and social media platforms customers are now more aware of choices and needs (Dobni *et al.* 2015). Consequently, small business ventures need to invest more in the available technology and social media to keep in touch with customers. These latest global developments require SMEs to re-think innovation strategies and provide value added goods and services to customers (Taneja *et al.* 2016).

Talukder *et al.* (2020) affirm that small businesses are increasingly becoming more technologically aware through technological acquisitions. Such technological acquisitions give impetus to rapid economic growth, development, and innovation, with innovation regarded as the major driver of SME survival and performance. As such, most developing organisations have crafted policies and strategies that support firm innovation (Makanyeza and Dzvuke 2015). SMEs play a pivotal role in training indigenous entrepreneurs and providing a platform for wealth creation, human capital development and skills distribution at all levels of society. Aksoy (2017) furthermore asserts that innovation positively impacts the overall performance and competitiveness of a business.

However, a positive relationship is shown by Abdu and Jibir (2018) to exist between the technological capability of a firm and its innovation strategy. Scientific evidence also affirms that a sizeable number of SMEs are involved in technological innovations across a variety of sectors and this influences their innovative success (Ndesaulwa *et al.* 2017). SMEs are generally regarded as the main driver of new product development, service delivery, firm performance, and new technologies (Chege and Wang 2020). Nevertheless, Subrahmanya (2009) highlights that the technological innovations of small enterprises are based on the capabilities of in-house technologies. It is, therefore, paramount for small businesses to develop and invest in training of staff on a continuous basis.

Madrid- Guijarro *et al.* (2009) acknowledge that the flexibility of small businesses makes them adaptable to new technologies and increases their technological capabilities. Furthermore, research shows that the small business sector has been active in adopting innovative technologies (Divisekera and Nguyen (2018). Sevrani and Elmazi (2008) explain that SMEs have embraced ICT because it does not only support communication but also other electronic communications, for example e-marketing and online business. Mazzarol (2015) affirms that by using innovative technology, small firms can reach millions of customers globally. Technology advancement for SMEs should thus be regarded as a critical component that can be used strategically to promote innovation.

Arshad *et al.* (2018) posit that innovation opens new opportunities for business growth, improved business operations or higher profits. The importance of technology is acknowledged by Yanadori and Cui (2013) as an innovative catalyst for SMEs' improved business performance. Small firms that innovate and provide good value to customers stand out against competitors. In addition, Chipunza (2014) states that changes in technology can bring about new possibilities for SMEs to explore. These possibilities can be in the form of new product design, latest production techniques, improved products, and enhanced marketing. Innovation is equally important for technology-based small firms to achieve sustainable growth and competitive advantage (Parida, Westerberg and Frishammar 2012; Arshad *et al.* 2018). Moreover, Ahuja (2011) notes that SMEs around the world are faced with the stiff challenge of coping with and managing rapid technological changes that push them to continuously innovate to ensure excellence and growth.

- **Power supply**

Energy supply is central to the cost efficiency and operation of SMEs universally. SA is at present experiencing an acute power crisis. A critical electricity crisis spells doom for both the country's economy in general and small enterprises' innovation endeavours (Goldberg 2016). According to Fjose *et al.* (2010), inadequate supply of electricity negatively impacts small business as it hinders full capacity operation of the business. A report by the World Bank Enterprise Survey (2010) ranked the challenge of electricity as the most serious hindrance facing SMEs in developing countries. Fjose *et al.* (2010) posit that Africa is the only continent worldwide that continues to face the challenge of electricity supply. Constant power supply is paramount as it enables smooth functioning of machinery that facilitate innovation.

In SA, load shedding remains a possibility in the future, according to Findt, Scott, and Lindfeld (2014), mainly because of Eskom's aging infrastructure that is in desperate need of repair and maintenance. Earlier in 2020, Andre de Ruyter, the new CEO of Eskom, announced that power outages (load shedding) will continue in the medium term. Umar and Kunda-Wamuwi (2019) define load shedding as a method of systematic reduction of electricity (load) by temporarily switching off supply to other areas. However, this method has the potential to negatively impact on the running and performance of small-scale businesses.

Botha (2019) affirms that SMEs in SA have not yet fully recovered from the effects of load shedding first implemented by Eskom in 2008. Scott, Darko, Lemma, and Rud (2014) confirm that load-shedding is a major constraint to the smooth operation of SMEs as it hampers innovation. Without reliable electricity supply, small firms are unable to run innovative production activities, offer service that satisfy customers' needs and maintain competitive advantage (Botha 2019).

A study by Mhlanga (2018) concluded that a small business in SA operates, on average, at 77 percent efficiency, when not affected by power outages. Disruptions in the supply of electricity have the potential to affect small businesses' innovation strategies in Durban. Nonetheless, the researcher observed that small businesses in Durban often find innovative solutions to mitigate the challenge of reliable power supply, with most business ventures in Durban having turned to diesel powered generators and solar energy as power outage backups.

- **SME Investment in Research and development**

Booyens (2011) maintains that knowledge is at the centre of innovativeness and is achieved through intensive R&D. Furthermore, small business can be innovative in different ways, not only by developing new products and services but also by developing new knowledge (Zanello *et al.* 2016). Eggink (2011) found that the technological capability of a business is strongly linked to its R&D activities.

R&D is of such importance to SMEs that the EU SME policy prioritises small businesses participation in R&D. With the advent of Industry 4.0, it is paramount for small businesses to incorporate R&D into their overall business strategy as businesses become increasingly high-tech (Wang 2016). In addition, Gao and Hafsi (2015) confirm the importance of R&D as a driver for generating new knowledge, financial performance and competitive advantage. This

confirms findings by Czarnitzki (2006) that a business' R&D activities are an investment in SMEs knowledge capabilities.

For SMEs, "In- House" R&D investment is crucial to generate new knowledge they can either use or sell. Dunne *et al.* (2016) show that the importance of innovation to SMEs manifests in their R&D strategy. It thus follows that a positive relationship exists between SMEs, R&D capabilities and innovation outputs. Furthermore, Love and Roper (2015) argue that even in sectors that are low on technology, such as manufacturing and service, R&D is equally important.

Griffith *et al.* (2003) maintain that the importance of the relationship between R&D and innovation is that it creates new knowledge required for innovation purposes. Nonetheless, Freel (2005) suggests that in SMEs, unlike in larger firms, R&D is less likely to be a specialist organisational function. On the one hand, Love and Roper (2015) find that SMEs are less dependent on internal R&D compared to larger organisations and are more dependent on external knowledge acquired through partnerships with other smaller firms. On the other hand, Dunne *et al.* (2016) suggest that for small enterprises, R&D often focuses on innovation strategies and creativity.

2.11.8 Market Orientation and Customer Behaviour

Market orientation is defined as a business culture that assists organisations to assess and act on customer needs (Ferrell, Gonzalez-Padron, Hult and Maignan 2010). This confirms research by Narver and Slater (1990), who defined market orientation as an organisational culture that is promoted by small businesses to satisfy customer needs in order to gain market share. In addition, Ngeek and van Aardt Smith (2013) suggest that market orientation is a major source of SMEs' competitive advantage and pushes small businesses to innovate. This is confirmed by Taneja *et al.* (2016), when they posit that since small enterprises have improved direct contact with their customers, they stand to gain valuable opportunities to innovate through constant customer feedback. The aim, however, is to deliver value added goods that promote and maintain a competitive market advantage.

According to Divisekera and Nguyen (2018), prevailing competition in the market pushes small firms to pursue innovative strategies. Competition for competitive edge and market share thus forces small business to innovate, resulting in the growth of SMEs. Consequently, market

orientation is widely linked to SME innovation strategies and improved firm performance (Ngeek and van Aardt Smith 2013). This stresses the importance of SMEs embracing a market orientation culture that promotes innovation.

Dobni *et al.* (2015) further emphasise that innovation activities for SMEs include considering market preferences, resources, knowledge management and implementation of strategies that support innovation. Furthermore, it is widely recognised that the major antecedent of establishing competitive edge for small firms is innovation (Prajogo and Ahmed 2006; Nguyen, Phong and Hui 2019). Nguyen *et al.* (2019) additionally explain that market share, market performance and accelerated production are some of the benefits of creativeness. Moreover, in a rapid and unpredictable business environment, Le and Lei (2019) find that innovation capabilities become the only solution for small enterprises to create competitive advantage.

Bayarçelik *et al.* (2014) argue that customers also influence innovation, hence it is important for small enterprises to work closely with customers to determine their needs. The needs determined will then inform decisions regarding new innovative products and services that meet customer requirements. In this regard, Tseng (2019) maintain that understanding customer orientation is important and leads to customer satisfaction through innovative customer orientated products.

Customer behaviour also influences small business innovation strategies through stimulating new ideas, new products, and services that meets consumer demands (Bayarçelik *et al.* 2014). When considering consumer behaviour, as defined by Ramya and Ali (2016), as the purchasing behaviour of the ultimate consumer, it is up to SMEs to understand customer preferences and orientation to develop innovative customer requirements. The current business environment has upped the requirement for SMEs to constantly consider customer needs and wants. Therefore, SMEs should create a superior competitive advantage by developing new products, markets, and services (Taneja *et al.* 2016).

There are many factors that influence the ultimate consumer to make certain buying decisions, according to Ramya and Ali (2016). Nonetheless, the Corona virus (Covid-19) and its impact pose a real threat to the existence of many small businesses. While how, what, and how much consumers buy has been of much discussion during the Covid-19 pandemic, few studies have been published on the impact of Covid-19 on consumer buying behaviour. However, available

studies on consumer buying behaviour during a crisis give us a sense of how consumers are likely to behave in the context of Covid-19 (Crijns, Cauberghe, Hudders and Claeys 2017; Sarmento, Marques and Galan-Ladero 2019). Such studies go a long way in assisting SMEs to fashion innovative strategies that suit consumers during a crisis or pandemic. For example, a study conducted by Sarmento *et al.* (2019) revealed that consumers are more budget conscious and frequent the shops less during a pandemic.

In China, SMEs will have to generate innovative strategies to deal with government and consumer demands during the Covid-19 pandemic. According to Cohen (2020), because of the hard lockdown measures imposed to contain the spread of the Corona virus, most consumers now prefer virtual online shopping. This will force small business to adopt innovative strategies that meet this changing consumer behaviour. Craven, Moen, Hovd and Chan (2020) propose SMEs should invest more in online platforms and make their presence felt through selling quality products online.

2.11.9 Government Support and Innovation Policies

Beraha and Đuričin (2020) confirm that governments the world over have issued policies aimed at mitigating the impact of Covid-19 on the smooth operation of SMEs. Muriithi (2017) confirmed that government support for SMEs remains a critical factor globally. It is the government of a country that sets the right business environment that supports SME growth. The government that does not fully support small businesses thus deprives the country of business growth and hurts the sector (Kamunge *et al.* 2014). Creating a conducive environment includes that a government can create a favourable tax system, fair competition regulation, easier licencing opportunities for small ventures, and infrastructure funding, as well as funding for technological innovations by SMEs.

It has been noted that regulatory frameworks are usually a constraint to innovation, with SMEs in SA highlighting unfavourable regulatory framework as a major challenge for growth and survival (Abor and Quartey 2010). The current regulatory framework is designed to favour established businesses and pays no attention to emerging small firms. For example, as with established firms, small businesses are forced to pay high income taxes. According to Abor and Quartey (2010), this is the type of unfavourable regulations that hinder the growth, development and innovative projects of SMEs. Guijarro (2009) advises that due to government policies, global competition and uncertain economic environment, small businesses need to adopt

innovation as a business strategy, as innovation strategies will help SMEs maintain a competitive advantage.

In SA, the Department of Trade and Industry (DTI) launched an integrated strategy aimed at promoting small business enterprises in 2003. The sole aim of the strategy was to create an enabling environment for SMEs through reduction of regulatory constraints that inhibit small firms (Nieuwenhuizen 2019).

The strategy addressed the following challenges:

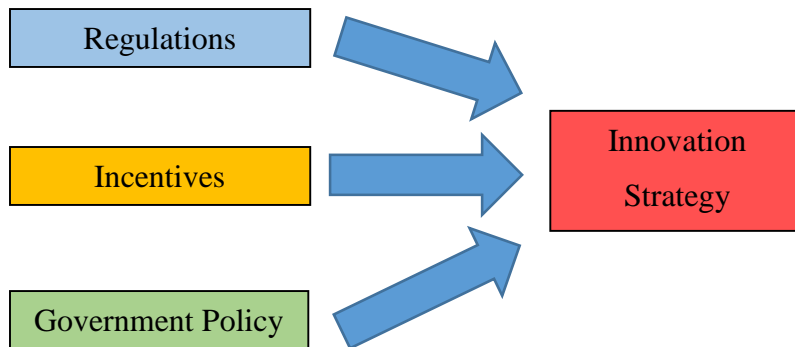
- Regulatory requirements and red tape posing serious challenges.
- Frequent overlap and conflicting regulatory requirements between different governmental institutions; and
- An increasingly hostile environment for business growth, mostly due to government regulations.

According to Songling, Kennon, Schutte, and Von Leipzig (2018), small firms that receive any form of government support stand a better chance to expand operations required to boost performance and innovate, with those that receive government incentive innovating more than those that receive less. Studies reveal that governments universally rely on policies and regulation frameworks to bring about a conducive environment that favours SME growth and innovative activities (Halabí and Lussier 2014; Nițescu 2015). This is affirmed by Chimucheka (2013) who state that the role of government in SME innovation is mainly to provide an enabling environment that promotes the introduction of new products or services. Furthermore, business managers/owners that build strong ties with government officials stand to gain a lot in terms of incentives and business grants (Li *et al.* 2008).

Several studies have shown that government commonly introduces policies aimed at mitigating challenges faced by SMEs, such as access to markets, funding, and market expansion (Gilmore, Galbraith and Mulvenna 2013; Doh and Kim 2014). In addition, market expansion is highlighted by Sibiya and Kele (2019) as one of the main reasons governments introduce pro SMEs policies, while it is also argued that government believes market expansion by small firms alleviates socioeconomic challenges. In SA, SMEs are mainly supported by the Small

Enterprise Development Agency (SEDA), Khulula Enterprise Finance and Ntsika Enterprise Promotions (Mbali *et al.* 2019).

Figure 2.8: Government regulations



Source: Sahrom, N. S, Tan, C. L. and Yahya, S. (2016). Adapted.

Over the years, government regulations have been viewed as a constraint or a challenge (Sahrom *et al.* 2016). However, for enterprises to be innovative, the government needs to provide a conducive businesses environment. Thus, innovative government policies become a blueprint for the development of SMEs' innovation strategy (Sahrom *et al.* 2016). Moreover, Serei (2017) notes that the role of the government (local or national) is to provide an enabling environment through opening new markets and reducing negative policies that work against SMEs.

Negative government policies usually take the form of cumbersome registration of businesses, tough business tax and draconic labour laws (Alkahtani, Nordin and Khan 2020). Studies acknowledge that regulation influences SME innovation strategy (Ambec *et al.* 2013; Shu, Zhou, Xiao and Gao 2014), for example, government policies that encourage the transfer of human and financial capital and promote collaborations between firms are crucial to innovativeness (Sharif 2012). Serei (2017) concludes that in most countries the government is an external environment that influences small firms' innovation strategies.

Furthermore, government policies are paramount in promoting SME innovativeness. In this regard, Merta, Nummela and Harikkala-Laihininen (2017) determine that small businesses are the biggest contributors to innovation strategies in Europe. Furthermore, Patanakul and Pinto

(2014) postulate that the role of government is to provide opportunities for technological transformation and sustained development through standard policy goals. The Small Business Act for Europe outlines a 10-pointer policy initiative for SMEs that includes access to finance, internationalisation, enterprise R&D and promoting entrepreneurial innovation skills (Merta *et al.* 2017).

The SA government views the small business sector as an important component that boosts the economy and as a result, the government has fashioned several policies and initiatives aimed at assisting SME innovation. As Patanakul and Pinto (2014) explain, innovation policies can also be in the form of support for SMEs, R&D and tax incentives for investment in innovative technologies. In SA, the South African Revenue Service (SARS) offers a tax holiday incentive to innovative SMEs in financial distress due to the impact of Covid-19 (SARS 2020). Consequently, through such government policies, sustainable innovation is achieved and promoted (Merta *et al.* 2017).

2.12 THE RESOURCE-BASED VIEW

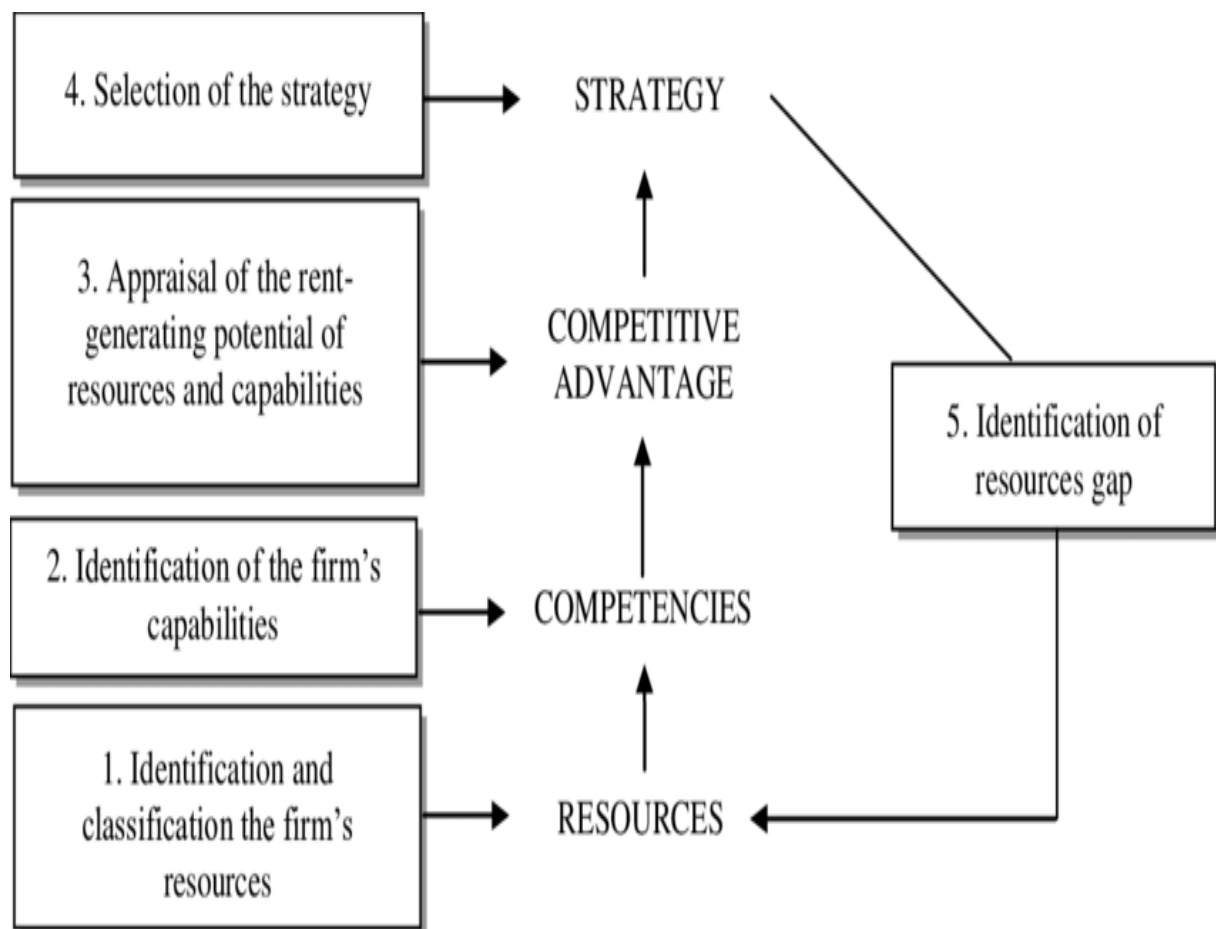
Kirchmer (2011) as cited in Marima (2018) argues that the SME innovation trajectory is largely dependent on the availability of resources. The major obstruction to SME growth, market expansion, performance and competitive advantage is the lack of resources (Sibiya and Kele 2019). The ability of a business to innovate is thus premised on the availability of adequate resources (Nagaraju 2015). In addition, Patanakul and Pinto (2014) state that small businesses are in desperate need of adequate resources so they may implement appropriate innovative strategies.

While Viljamaa (2011) maintains that small ventures the world over are largely resource constrained, Sibiya and Kele (2019) find that the lack of adequate resources not only hinders the business achieving a competitive edge but it also influences the firm's innovation strategy. De Marco *et al.* (2020) acknowledge that limited innovation among SMEs is caused by lack of resources and limited access to finance.

Seminal research by Barney (2001) established that the availability of resources determines the quality, quantity and the selling price of the product or service. Sexton and Barrett (2003) further argue that the resource-based view (RBV) aspect of innovation is based on the availability of resources as a starting point for formulating innovation strategies. SMEs in

possession of rare and valuable resources therefore stand to benefit from market expansion, sustainable competitive performance and innovation. Furthermore, scholars such as Shirokova, Bogatyreva, Beliaeva, and Puffer (2016) posit that, as a strategy, innovation is a precious, intangible, limited resource that small enterprises must possess as compensation for resources in short supply, such as finance, which they generally lack.

Figure 2.9: The resource-based view



Source: Figurska, I. (2011). Adapted.

Bacq and Eddleston (2018) highlight that the RBV provides a viable framework as to the manner in which SMEs can make use of limited resources to boost their innovation capabilities and enhance customer satisfaction. The RBV can be innovatively exploited by small firms to achieve competitive performance through the combination and consolidation of limited resources. Ndesaulwa *et al.* (2017) argue that innovation, contrary to general belief, is as important to large firms as it is to small firms. According to the RBV, innovativeness stems

from business skills, competences and the ability to turn limited resources into opportunities (Bacq and Eddleston 2018). This means small businesses can make the most with the resources at their disposal should they be able to use them effectively to innovate and gain advantage over competitors.

In most business ventures it is the human resources that enhance SMEs' competitive advantage through their different forms of expertise (Taneja *et al.* 2016). The RBV business strategy is all about acquiring, organising and converting both tangible and intangible resources; for example, skills, knowledge, expertise, and customer service, as well as technology, into creating a novel product or service (Desa and Basu 2013). In addition, Desa and Basu (2013) find that the RBV does not mean the availability of resources ensures success for a business, instead, the resources must be strategically used to gain innovative advantage and improve growth.

2.13 SME AWARENESS OF COVID-19 RELIEF FUND

On the 11th of March 2020, the World Health Organisation (WHO) announced that Covid-19 had become a global pandemic (WHO 2020). In order to prevent the spread of the virus, countries worldwide imposed national lockdown measures (Beraha and Đuričin 2020). The Covid-19 pandemic has come at a heavy cost for small businesses and is taking a toll on their operational activities (Didier, Huneus, Larrain and Schmukler 2020). Although small ventures are flexible and have a simple organisational structure, according to Beraha and Đuričin (2020) they are vulnerable in times of global pandemic.

Further to the negative impact that Covid-19 has had on the health sector, it has also impacted SMEs and the economy. A study conducted in America revealed that the majority of small businesses are closed and most will not be able to reopen after the pandemic (Bartik *et al.* 2020). According to Baker and Judge (2020), small business ventures are among some of the businesses hit hardest by the Covid-19 pandemic. Many are incapacitated, and the majority face cash flow challenges. This brings to the fore the question of how to harness innovation to survive the resulting recession.

It would thus be prudent for SMEs to take advantage of the government relief fund designed to alleviate the effects of the Covid-19 pandemic on businesses. The funds may be used to make critical business decisions, such as laying off staff and continuing with business activities (Bartik *et al.* 2020). Government financing has the potential to help cover operational costs of

SMEs until the pandemic subjugates (Didier *et al.* 2020). There is a growing body of knowledge (Econfp 2020; Elgin, Basbug, Yalaman 2020) of governments worldwide taking initiatives to cushion SMEs from the full impact of Covid-19. For example, in Europe and the USA, policy makers are providing SMEs with funding equivalent to two years of profit. Such an initiative boosts the chances of small business to survive the pandemic and remain competitive. The main motivation seems predicated on predictions that the economic impact of the Covid-19 pandemic is much worse than that of the 2008 financial crises (Beraha and Đuričin 2020).

In SA, the Department of Small Business Development (DSBD) manages funding programmes aimed at assisting small business enterprises cope with the effects of Covid-19, by stimulating the competitiveness of innovative small businesses during this timeframe. Such interventions include the Debt Relief Financing Scheme and the Business Growth and Resilience Facility. Not only has the government of SA come on board to support SMEs, major financial actors have also joined in. ABSA bank is assisting small businesses through its Siyasizana (help each other) initiative (ABSA 2020). NEDBANK is also assisting SMEs cope with Covid-19 through its (Covid- 19 SME LOAN PHASE II). The phase two is simply an expansion of the first phase that offered better deals to small businesses (NEDBANK 2020). Beraha and Đuričin (2020) postulate that SMEs are the most affected by the current pandemic when compared to larger businesses.

Figure 2.10: SME Covid-19 relief interventions



**small business
development**
Department:
Small Business Development
REPUBLIC OF SOUTH AFRICA

COVID-19 SMME INTERVENTION MEASURES

SMME RELIEF FINANCE SCHEME

This facility is a Soft Loan Facility, aimed at assisting existing businesses in order to keep them afloat during the COVID-19 pandemic for a period of 6 months, from April 2020.



BUSINESS GROWTH AND RESILIENCE FACILITY



This facility will fund SMMEs who produce or supply health care and related products that are required to combat the spread of COVID-19 pandemic.

RESTRUCTURING OF SEFA-FUNDED LOANS

A payment moratorium/holiday will be given to sefa funded SMMEs for a period of a maximum of six months to reduce the instalment burden of loan obligations on clients during the COVID-19 period.



INFORMAL SECTOR



Tailor-made Facilities are being developed in consultation with Organised Informal Business Owners, Spaza Shops and the Self-Employed. These will be announced in due course.

    
info@dsbd.gov.za | info@mybbedu.org.za | 0860 063 7667 | <https://rammeka.gov.za>



sefa
Small Enterprise Finance Agency



seda
SMALL ENTERPRISE DEVELOPMENT AGENCY
an institution of state

Source: Department of Small Business Development, (2020). Adapted.

2.13.1 SME Relief Financial Scheme

The DSBD introduced a relief financial mechanism for SMEs negatively affected by the Covid-19 pandemic. This relief facility is described as a soft loan, aimed at assisting small business ventures to stay afloat during the Covid-19 pandemic. The DSBD states that the loan facility is meant to run for a period of six months, starting from the month of April, 2020.

Aimed at providing a ‘payment holiday’ on existing debts, the facility also seeks to assist SMEs acquire raw materials and maintain the smooth running of operational costs. The relief facility is tailor-made to match business demands, such as cash flow and the impact of Covid-19 on the business. However, only SMEs registered by 28 February 2020 are eligible for the funding. Moreover, preference will be given to SMEs owned by women and those that employ 70 percent SA nationals. According to a study conducted by Le *et al.* (2020), the majority of small businesses face challenges in paying rentals and workers’ wages. The government initiative will contribute greatly in assisting SMEs maintain sustainable growth and continue to produce new products and services.

2.13.2 Business Growth and Resilience Facility

The Business Growth and Resilience Facility is aimed at funding SMEs that produce or supply products related to health care. This type of product is necessary to help combat the spread of the Corona virus. The DSBD encourages SMEs affected by the Covid-19 pandemic to take full advantage of the facility, which will provide SMEs with working capital, stock, finance and equipment.

SMEs, however, will need to meet the qualifying criteria requirements such as:

- The company must be 100 percent owned by SA citizens;
- The company employs 70 percent South Africans;
- Priority will be given to businesses owned by youth and women;
- Be registered and compliant with UIF and SARS.

2.13.3 Restructuring of SEFA-Funded Loans

Several financial and non-financial support measures have been initiated by government and the private sector to assist SMEs during the Covid-19 pandemic (SEDA 2020). The SEFA provides financial services to qualifying SMEs, having been established in the year 2012 with

the aim of assisting small businesses across sectors. The agency strives to be the leading catalyst in the development of sustainable SMEs through the provision of finance (SEFA 2013). During the Covid-19 pandemic, SEFA is offering restructuring of loans to SEFA-funded SMEs, in the form of a payment holiday for funded SMEs. The payment holiday is given for a period of six months and will help reduce the burden on clients with loan obligations during the Covid-19 pandemic.

2.14 SME INNOVATION POST COVID-19

According to Hadi and Supardi (2020), the important question to ask now is whether SMEs, as the frontline of innovation, can return to normal after Covid-19. The global pandemic of Covid-19 has caused tremendous distraction to the world economy, with Europe's GDP falling to a record low (Eurostat 2020). In addition, the United States economy contracted by 1.2 percent in the first quarter due to Covid-19; the largest since the financial crisis (PWC 2020). However, in all this, it is the SME sector that has been impacted the most, mainly due to restrictions put in place by governments to curb the spread of the virus (OECD 2020).

Papadopoulos, Baltas and Balta (2020) opine that to address the extreme challenges posed by Covid-19, SMEs need to come up with innovative strategies both during and post the pandemic. Roper and Turner (2020) concur that innovation is at the heart of SME recovery and continuity post Covid-19. Gibb and Buchanan (2006) suggest that SMEs need to have a plan in place at all times that ensures recovery and continuity post major disruptions. Eggers (2020) predicts that the recovery process for SMEs will be an easy one because of their small size, flexibility when threatened and capability to innovate (Juergensen, Guimón and Narula 2020).

On the one hand, Hadi, Tjahjono, and Palupi (2020) are of the view that post Covid-19 local governments need to prioritise SMEs by providing favourable regulations that promote innovativeness. On the other hand, Papadopoulos *et al.* (2020) suggest that going forward SMEs need to invest in digital technologies such as artificial intelligence, internet and 5G technology (fifth generation). In addition, Chan *et al.* (2019) confirm business benefits associated with the strategic use of digital technologies such as productivity, improved performance and competitiveness.

The view point is also supported by Etemad (2020), who acknowledges the impact of online technologies in making it faster for SMEs to reach out to all valuable stakeholders. Roper and

Turner (2020) cite R&D as a critical element SMEs can rely on in order to navigate business life after the Corona virus pandemic. However, the authors caution that only a few small business ventures will be able to conduct R&D, since the majority will be left financially drained. Fitriasari (2020) posits that the introduction of a novel product or service that targets a segment of the consumer base will be paramount for small businesses post Covid-19. As noted by Thorgren and Williams (2020), it is the sole responsibility of the affected businesses to find solutions to their situation. It thus remains to be seen what steps innovative SMEs will take to remain afloat and ensure continuity.

2.15 SUMMARY OF THE CHAPTER

In this chapter, relevant literature on innovation strategies that influence SMEs has been reviewed. It has been established in literature that small business enterprises stimulate innovation activities, create jobs, promote competitiveness and support overall economic growth. As a result, they swiftly adapt to change and easily adopt new strategies. In the rapidly changing world and increasingly competitive global marketplace, small businesses have a strong influence on economic growth. An innovation strategy is thus essential in promoting business growth, creating employment opportunities and advancing technological development. The next chapter details the research methodology used in this research study.

3 CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

“Innovation is an exemplar of how small business leaders should analyse their external environment to discover opportunities that can be matched with the strengths present in the organisation itself” (Taneja et al. 2016)

3.1 INTRODUCTION

The previous chapter presented an in-depth analysis of recent literature on small businesses and innovation strategies. This was achieved through reviewing different sources relevant to the research objectives. The current chapter seeks to outline the research design and methodology adopted for the study. It provides an analysis of the target population, data collection, sampling techniques, and research design, as well as the pilot study and ethical considerations. According to Sekaran and Bougie (2016), research design is the next step taken after the review of literature and should be designed in such a way that it answers the research questions. To understand the factors that influence SME innovation strategies in Durban, a structured questionnaire with closed-ended questions was used to elicit and capture responses. Analyses of the data gathered was performed using the Statistical Package for Social Sciences (SPSS) v 26.0 for Windows.

3.2 RESEARCH AIM

The aim of the study is to establish the factors that influence SME innovation strategies in Durban.

3.2.1 Research Questions

- What are the factors that influence SME innovation strategies in Durban?
- What is the state of SME innovation strategies in Durban?
- To what extent do the identified factors influence the innovation strategies of SMEs in Durban?
- How can the innovation strategies of SMEs in Durban be improved?

The researcher adopted a methodology believed best suited to answer the research questions and achieve the study objectives.

3.3 RESEARCH DESIGN

Creswell and Clark (2011) and Parahoo (2014) define research design as a process that is used to gather, interpret, report, and evaluate research information. According to Myers (2019), a research design is the plan for the research, and it involves data collection tools, research methods and data analysis. Rahi (2017) suggests that research design is the structure in which the research study is defined and the way the study is organised.

Punch (2009) states that research design is similar to a game plan involved in undertaking research work. It involves understanding the research problem, reporting, and publishing the research findings. The current study made use of a quantitative research approach, which entails the use of structured questions administered to a large number of targeted respondents with possible response options provided. The researcher, with the help of a research assistant, administered the questionnaire to the research participants for data collection. This approach is supported by Burns and Bush (2014).

For the current study, both primary and secondary sources were consulted, for example books, journals, internet sources, and newspaper articles, as well as reports to gather data. A positivist research method, which some scholars commonly refer to as quantitative research (Cooper and Schindler 2008), was adopted. A questionnaire (Annexure B) was distributed to the research respondents. Furthermore, the data collected was analysed using statistical analysis software (SPSS v 25.0 for Windows).

3.3.1 Types of Research Approach

Zikmund *et al.* (2013) state that no research design is more important than the other. Myers (2019) suggests that both quantitative and qualitative designs are important and necessary for researching business organisations as these designs can be rigorous and are both important to research studies. A key characteristic of qualitative and quantitative research designs is that they are empirical investigations that rely mainly on scientific data. According to Myers (2019), quantitative research is best suited for large samples and when the researcher wants to generalise results to a larger population.

However, Myers (2019) is also of the view that qualitative research design is best suited for researchers who want to gain an in-depth understanding of a subject in an organisation. The

author posits that for researchers to get an in-depth understanding of real situations, they need to engage actively with the people in organisations.

3.3.2 Qualitative Research

According to Silverman (2017), it is important to note that qualitative methods are not superior when compared to quantitative methods. Blaxter (2010) postulate that qualitative research methods involve collecting and evaluating information through the use of mainly non-numeric forms. Leedy and Ormrod (2005) explain that the main purpose of qualitative research is to allow participants to engage with complex research questions through explaining and describing. Because of its phenomenological perspective, Giddings (2006) describes quantitative research design as flexible and adaptive in nature. However, skills in using structured data collection methods, such as observations and interviewing are needed most in qualitative research studies.

3.3.3 Quantitative Research

Myers (2019) states that quantitative research methods originated from the natural sciences, where they were developed to study natural occurrences. The author further suggests that quantitative methods now widely accepted include survey methods, laboratory experiments and numerical methods. Quantitative studies emphasise numbers more than anything, with the numbers representing theoretical constraints and presenting strong scientific evidence (Rasinger 2013). To address the research questions: 1) What are the factors that influence SME innovative strategies in Durban? 2) What is the state of SME innovative strategies in Durban? 3) To what extent do the identified factors influence SME innovation strategies in Durban? and 4) How can best approaches be employed by SMEs to improve innovation strategies in Durban? This study used a quantitative research method.

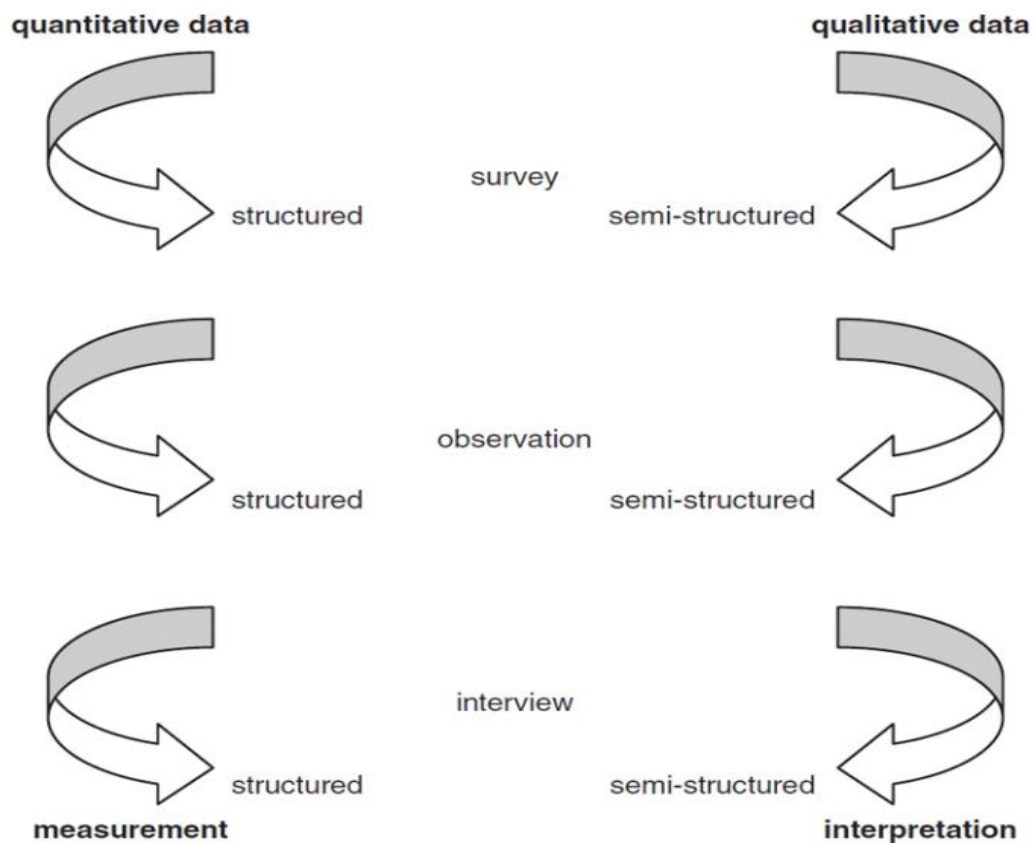
A quantitative study is explained by Myers (2019) to mostly be concerned with what the target population has said, while the data help us understand people, their actions and what drives them. Struwig and Stead (2013) postulate that quantitative research studies measure constructs using observations or structured questionnaires. Rasinger (2013) posits that the main characteristic of quantitative research studies is data that are quantifiable in some way. Struwig and Stead (2013) suggest that the focus of quantitative research is on empirical evidence, which is achieved through acquiring responses from a targeted population.

3.4 RESEARCH PARADIGM (Positivism)

According to Rosiek and Gleason (2017) the research paradigm positivism refers to the epistemology philosophy that defines research knowledge as that can be verified. The research paradigm emerged in the early 20th century to cover the knowledge gap posed by interpretivist approaches. Su (2018) highlights that in most sociological research, especially so those focusing on business management positivism is frequently used. This is mainly because of its ability to predict and explain relationships between constituent elements. For the current study positivism was adopted.

3.5 PRIMARY DATA COLLECTION

Figure 3.1: Instruments for primary data collection



Source: Farquhar, J. D. (2013). Adapted.

In respect of this study, the researcher made use of a questionnaire (Annexure B) to collect the primary data for the study. Primary data is defined by Struwig and Stead (2013) as information collected for the research study. A research study mainly focuses on answering research

questions and achieving the overall study objectives. Driscoll (2011) suggests that primary data is gathered by the researcher, with this commonly achieved through a survey research study. In support, Gaire (2018) highlights that primary data can be acquired through observation, face-to-face, telephone and email interview or by means of a questionnaire.

Distribution of the questionnaire was managed by the researcher or a trained research assistant. Gray (2014) confirms the researcher can make the decision to self-administer the research questionnaire or not. Furthermore, the author suggests that the researcher may choose to have the questionnaire completed in their presence or in absentia. For this study, the researcher or his assistant were not present unless the respondents chose so. The researcher simply personally collected the completed questionnaires.

3.6 SECONDARY DATA

The current study used secondary data to review the literature and lay the theoretical foundation for the study. The secondary data included books, theses, and journals relating to SMEs as well as factors that influence innovation. Much of the information the researcher used in formulating the questionnaire was extracted from secondary sources.

3.7 TARGET POPULATION

According to Rasinger (2013), a population is defined as all elements or groups the researcher is interested in that can be used for the research study. For any study, elements can mean people, products or organisations, and are grouped based on shared common characteristics informed by the research problem (Zikmund, Carr and Griffin 2013). Cox (2008) confirm that populations must include all elements and units of interest to the researcher relevant to the study.

For this study, the researcher approached the Durban Chamber of Commerce (DCC) to provide a list of registered SMEs in Durban. The Chamber suggested the list is confidential and shared only with members. However, a study by Mbali *et al.* (2019) revealed that the number of SMEs in Durban is not conclusive. Nonetheless, Mahohoma (2018) refers to a total of 700 registered SMEs in Durban for the years 2014/2015. The total target population for this study thus consists of 700 SME owners or managers in the Durban area of KZN, SA.

3.8 SAMPLING

Daniel (2012) defines sampling as the selection of a subset of the population for study purposes. In addition, Zikmund *et al.* (2013) articulate that sampling is a procedure meant to draw research conclusions based on the perceptions of the subset of the population. Furthermore, the author posits that when done properly, sampling has the potential to save money and time. The study used figures from the DCC, as cited in Mahohoma (2018), and a sample size of 248 was established.

According to Sekaran and Bougie (2013) for a population of 700, a sample size of 248 is sufficient. Furthermore, Saunders *et al.* (2009) propound that for most studies, more than 30 and less than 500 respondents is considered appropriate as representative of the population.

Based on the above, the researcher adopted a non-probability sampling technique for the study; it was the most appropriate since the total population number was unclear. Prevailing lockdown regulations at the time, due to the Covid-19 pandemic, were also considered. Some SMEs that could have made the population were not allowed to operate due to Covid-19 government regulations. Nonetheless, Vehovar, Toepoel and Steinmetz (2016) acknowledge that in non-probability sampling, members of the population do not have an equal chance of being selected. The selection of the sample is influenced by personal judgement, time, circumstances and convenience.

The researcher personally chose not to visit SMEs in areas deemed as Covid-19 ‘hot spots’ by the ministry of health. The aim of the decision was to not put the health of the researcher and that of the respondents at risk. Cooper and Schindler (2008) describe convenience sampling as the easiest and cheapest, as the researcher can select from whoever is available.

3.9 FOLLOW-UP PROCEDURES

The researcher conducted data collection at the height of the Covid-19 pandemic and cases were increasing daily and severely. A plan had to be made to achieve a good response rate. Although some businesses closed before they could return the questionnaire, due to government regulations, for example some small-scale liquor traders, the researcher had to devise a follow-up plan to increase the response rate, as stated below:

- Phone calls were made reminding respondents to complete the questionnaire, which increased the response rate sharply.

- The researcher continued to visit conveniently positioned respondents at their businesses.

All this was done following Covid-19 protocols as stipulated by the government, such as regular sanitation of hands, maintaining social distancing and wearing of a face mask.

3.10 QUESTIONNAIRE CONSTRUCTION

For the current study, a quantitative research approach was adopted, with a structured questionnaire used to gather data from respondents. The questionnaire was meant to gather data mainly with regard to the elements of the study, such as innovation strategies, SME growth and performance and SME awareness in respect of the Covid-19 relief fund. In addition, a pilot study enabled the researcher to identify vague statements and refine them for logical flow and clarity prior to administering the questionnaire.

3.10.1 Measuring Instruments

As Bryman and Bell (2011) explain, a Likert scale is an instrument used to measure respondent attitudes towards a subject matter under investigation. Many researchers frequently use the Likert scale for rating. This is mainly due to it being assumed that each statement carries the same importance and weighting (Kumar 2019). The scale in most cases requires the population to respond by indicating how strongly they agree or disagree to the statement under investigation. A 5-point Likert scale is graded according to options to choose from, such as; Strongly agree, Agree, Neutral, Strongly disagree and Disagree. The study used the Cronbach's Alpha coefficient test to determine validity and reliability. A 5-point Likert scale was employed as the researcher felt respondents needed to be given sufficient options to ensure a carefully thought-out response.

Section A: Demographics

The demographics section of the questionnaire highlighted SME owners or managers and the size of the business. It covered aspects such as;

- Gender
- Business sector
- Number of employees
- Number of years in the business

Respondents were asked to reply appropriately to the above information.

Section B: Small and Medium Enterprises' Innovation strategies

Using a 5-point Likert scale, respondents were requested to tick the most appropriate option from strongly agree, agree, neutral, strongly disagree or disagree.

Section C: Factors influencing Innovation

In this section, which is also the backbone of the study, respondents were quizzed to provide a response on factors that influence SME innovation.

3.11 PILOT STUDY

Frey (2018) describes a pilot study as the mini version of the research, done prior to the actual study being conducted; to assist the researcher in planning the actual study by allowing testing of the proposed research instrument's techniques. Furthermore, Allen (2017) suggests that a pilot study is aimed at weeding out potential problems before the main study is conducted. A pilot study involves administering the research questionnaire to a small sample of respondents selected by the researcher (Bless and Higson-Smith 2004). The main purpose of conducting a pre-test of the study is to expose any errors, problems, faults, and vagueness of questions so that corrections can be made. Corrective changes and adjustments to ensure respondents fully understand the question need to be made prior to distribution of the final questionnaire to a larger population (Welman, Kruger and Mitchell 2005).

In the context of this study, information identified from the pilot study was used to refine the questions. The pilot study consisted of 10 questionnaires distributed to 10 randomly selected SME owners or managers in Durban. The pre-test study identified some vague and ambiguous questions and the researcher made the necessary changes. A questionnaire free from errors, to the satisfaction of the researcher, was then administered to the target population.

3.12 VALIDITY AND RELIABILITY

The credibility of the researcher's interpretations is defined by Silverman (2017) as validity. Thus, Denscombe (2010) maintains that for a measuring instrument to be deemed valid, it must measure what it is intended to measure on different trials (Neuendorf 2019). Furthermore, Stokes (2011) is of the view that for an instrument to satisfy validity, it must respond accurately to its objectives. To achieve validity, the questionnaire must measure what it is set to measure. Once achieved, it will help the researcher meet the research objectives (Jan and Tony 2012).

Various types of validity, namely construct validity, content validity, criterion validity and face validity, are measured by three dominant mechanisms.

- **Construct validity** - according to Zikmund *et al.* (2013), construct validity is the extent to which the research instrument measures specific constructs such as attitude, behaviour, trait, or abilities. Construct validity specifically measures the relevancy and accuracy of the research questionnaire.
- **Content validity** - Cooper and Schindler (2006) state that content validity, also known as logical validity, refers to the robustness of the research questionnaire, which can be determined by conducting a pre-test study. As mentioned, a pilot study was conducted by the researcher. Yin (2014) further suggests that content validity refers to the magnitude to which the research instrument measures the entire content it is supposed to measure.
- **Criterion validity**- refers to the ability of a measuring instrument to match the results related to other measures made (Leedy and Ormrod 2014). It is the final measure that ascertains whether the instrument measured accurately.
- **Face validity**- Leedy and Ormrod (2014) maintain that face validity is used to determine the extent to which the measuring instrument is believed to be measuring what it is perceived to measure. The research instrument should seem to be measuring the correct characteristics.

For the current study, validity was ensured by administering the questionnaire to the researcher's supervisor, who is also an SME expert. The researcher was then given the green light to conduct the study as there were no areas of concern.

3.12.1 Reliability

Through subjecting responses to Cronbach's Coefficient Alpha computing software, which is widely used in similar studies, reliability was ensured in this study (Stokes 2011). Furthermore, reliability was ensured by conducting a pilot study that enabled the researcher to identify, rework and refine vague questions. According to Welman *et al.* (2005), reliability examines the

ability of the research instrument to obtain consistent and accurate results. Stokes (2011) affirms that reliability is achieved when the researcher uses the same instrument on the same population at different times but still obtains the same results. This is confirmed by Burns and Bush (2014) who state that achieving the same results from the same measuring instrument is testimony that the instrument is of a high quality.

3.13 COVID-19 AND CHALLENGES POSED TO THE STUDY

The novel coronavirus 2 (Covid-19), which causes an acute respiratory syndrome, is widely believed to have originated from Wuhan, Hubei province in China. The disease started in December 2019 and has since spread across other countries globally (Zu *et al.* 2020). A recent study conducted by Fairlie (2020) revealed that the effects of Covid-19 on human activities are far and wide. The SME sector has not been spared either, with unprecedented closing of small businesses around the world (Fairlie 2020).

In SA, the government sought to contain the rapid spread of the virus by imposing a hard lockdown. The lockdown meant limited human activity (essential services) and most businesses had to close. This closure of businesses did not only negatively impact small enterprises but also researchers. Data collection proved to be a major challenge as some SMEs sectors were closed and others opened and closed unpredictably. A good example of some SMEs that were closed includes liquor traders, winemakers, tourism industry, and tobacco manufactures, as well as restaurants. With the closure of such businesses, it proved difficult for the researcher to conduct data collection as initially planned. Therefore, the researcher had to resort to targeting SMEs in Durban that were allowed to operate and also shift from probability to non-probability sampling.

The second major challenge posed by Covid-19 for the research project was that of “hotspot” areas. A report issued by the Premier of KZN, Sihle Zikalala on the 26th of July 2020, reviewed that Durban had officially taken over as the Covid-19 epicentre in SA. The number of cases in the province had risen to 60 532, with 3 405 new infections being noted since the previous day. The Premier suggested that areas in Durban such as Umlazi, KwaMashu, Phoenix, and Chatsworth, as well as Inanda, Newlands, Tongaat, and Pinetown, along with Westville and Ntuzuma, were regarded as hotspots (Mail & Guardian 2020). The researcher had to cautiously avoid those areas and focus the study mainly on less affected areas.

3.14 DATA COLLECTION METHODS

There are different methods a researcher can use to collect data and each method has its advantages and disadvantages. It is the duty of the researcher to search and determine the most appropriate method to use for data collection (Denscombe 2010). According to Dan (2012) and Stewing and Stead (2013), data can be collected using computer methods, face-to-face, and via postal means, as well as by telephone or emails. The authors further highlight that the data collection method needs to, however, answer the research question and meet the research objectives.

- **Face to face methods-** the researcher visits the respondents to ask them interview questions face-to-face and records the responses.
- **Postal methods-** Questionnaires are posted to the respondents who will, in turn, respond after reading the instructions and post the responses back to the researcher.
- **Computer methods-** Questionnaires are emailed to the respondents for them to respond and email back the responses.
- **Self-administration of the questionnaires-** this is the most common method used, with the researcher personally handing out the questionnaire. The researcher may choose to wait for participants to respond or for them to respond in absentia.

For this study, the researcher opted to personally or with the help of a trained research assistant, hand out questionnaires. This approach is widely believed to provide a higher rate of responses (Welman *et al.* 2005; Struwig and Stead 2013). The researcher also personally collected the completed research questionnaires.

3.15 ETHICAL CONSIDERATIONS

Ethics is defined by Best (2012) as the researcher's ability to maintain good behaviour in relation to observing the rights of the research subjects. The overall conduct, behaviour, and values of the researcher must always be acceptable; behaviour must align with conduct deemed standard. Adams and Lawrence (2015) maintain that the researcher's ethical code of conduct should not infringe on the personal well-being of the participants. Furthermore, Walliman

(2011) argues that ethical considerations mostly involve morals, and respect for the community. In addition, Anderson (2013) notes three main principles of ethical conduct for research involving humans namely, people, beneficence, and respect for justice. For this study the researcher received ethical clearance from the DUT (Annexure D).

In other words, as explained by Fouka and Mantzorou (2011), ethics refer to the standard of good behaviour by the researcher that guides them to act in a respectable manner towards the participants. Ethical practices ensure that the researcher maintains high levels of integrity at all times during the research processes. The researcher made it clear to participants (Annexure A) that there was no harm to participants and participation was voluntary. Hamilton and Corbett-Whittier (2013) confirm that research participants have the right to refuse to participate in the study and can withdraw at any time without giving reasons.

Furthermore, for this study, the researcher also observed the following ethical considerations:

- **Informed consent**

For the current study, the researcher first sought permission to conduct the research project by issuing a letter of information. The researcher obtained the consent of the participants through the signing of a consent agreement. Further to that, a cover letter (Annexure A) was issued to the respondents ensuring they were informed of the research aim and objectives of the research.

- **Confidentiality and Anonymity**

Bell (2010) states that the researcher should not be in a position to tell from who the responses came. The researcher understood that the anonymity of respondents is paramount and their identities should be kept secret. Therefore, the researcher ensured that no names or personal information of the respondents were added in the distributed questionnaires. In the cover letter, the researcher made it clear that confidentiality and anonymity was to be respected.

- **Voluntary participation**

The current study reinforced the fact that participation in the study was voluntary and the participants could withdraw at any time without giving a reason. The researcher also personally

informed participants that they had a right to voluntary participation before issuing the questionnaire.

3.16 DATA ANALYSIS

The researcher personally coded the responses from the questionnaire and the data were then analysed by a qualified statistician. Statistical analysis software, SPSS version 26.0 for Windows, was used to establish the characteristics of the target population. Furthermore, inferential conclusions were drawn from the data, making it possible for the researcher to make inferences with regard to the targeted population. The statistical analyses for the study are presented in greater detail in Chapter 4.

3.17 SUMMARY OF THE CHAPTER

In this chapter, the researcher outlined and analysed the research methodology of the study. The chapter presented the research design, target population, sampling techniques and pilot study in detail. It also covered the administration of the questionnaire, data collection, ethical considerations, and data analysis. The following chapter presents the data analysis and discusses the scientific findings of the research project.

4 CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF FINDINGS

“Small businesses need to be more customer-centered because of easily available technology and social media that have advanced the availability of information and customer solutions” (Taneja et al. 2016)

4.1 INTRODUCTION

The previous chapter presented the methodology used to gather data for the current study. A research questionnaire with structured questions was employed as a tool for data collection, comprised of three sections, namely A, B and C. The sections each consisted of questions largely drawn from the reviewed literature.

Once collected, the data were then captured on an Excel spreadsheet and further processed into information using SPSS v 26.0. According to Harms and Lakens (2018) inferential techniques include the use of cross tabulation and chi square test values, which are interpreted using the p-values. The traditional approach to reporting results requires a statement of statistical significance. A p-value is generated from a test statistic, with a significant result indicated by " $p < 0.05$ ".

The current chapter provides an in-depth analysis of the research findings of this study, with regard to factors influencing SME innovation strategies in Durban. According to Ayiro (2012) and Asthana and Brushan (2016), statistical analysis involves the collection, processing and conversion of raw data into information. The information is then analysed in detail to understand which factors influence SME innovation strategies in the Durban area. The results are descriptive, which means they will be presented in the form of graphs, figures and cross tabulations.

4.2 RESEARCH INSTRUMENT

The research instrument consisted of 73 items, with a level of measurement at a nominal or an ordinal level. The questionnaire was divided into three sections that measured various themes, as illustrated below:

Table 4.1: Structure of the Questionnaire

A	Biographical data
B7	Financial factors
B8	Firm size
B9	Economic situation of a country
B10	Management entrepreneurial innovation competence
B11	SMEs innovation culture
B12	Government support and innovation policies
B13	SMEs technological capability
B14	Market orientation and customer behaviour
B15	The resource-based view
B16	SMEs awareness of the Covid-19 relief fund
B17	Human capital
B18	Competitive advantage
C19	Innovative Small and Medium Enterprises

4.3 RESPONSE RATE

In total, 248 questionnaires were despatched and 171 were returned, giving a 69 percent response rate, regardless of the challenges encountered. The researcher collected data for a period of three months to ensure the response rate is representative of the study. In a similar study conducted by Mpiti (2016) in the Free State Province, a response rate of 73 percent was achieved.

4.4 DESCRIPTIVE STATISTICS

Descriptive statistics form an integral part of a research study that provide a simple and understandable measure (Mishra *et al.* 2019). According to Frey (2018), descriptive statistics involve organising and summarising information in an effective way. In this study, large chunks of information will be presented, summarised and discussed in the form of graphs, cross tabulations, pie charts and tables.

4.5 RELIABILITY TESTING

Reliability is defined by Neuendorf (2019) as the rate at which the measuring instrument replicates the same results after repeated trials. The author further suggests that without first

establishing reliability, content analysis is futile. For this study, the researcher sought the assistance of Cronbach's Alpha to measure the reliability of the questionnaire. A reliability coefficient of 0.70 or higher is considered as "acceptable" for a newly developed construct (Frost *et al.* 2007).

The table below reflects the Cronbach's alpha score for all the items that constituted the questionnaire.

Table 4.2: Reliability results of the research instrument

	Section	Number of Items	Cronbach's Alpha
B7	Financial factors	5	0,805
B8	Firm size	4	0,677
B9	Economic situation of a country	5	0,724
B10	Management entrepreneurial innovation competence	6	0,811
B11	SMEs innovation culture	5	0,805
B12	Government support and innovation policies	4	0,887
B13	SMEs technological capability	4	0,851
B14	Market orientation and customer behaviour	6	0,806
B15	The resource-based view	4	0,631
B16	SMEs awareness of the Covid-19 relief fund	5	0,764
B17	Human capital	5	0,758
B18	Competitive advantage	4	0,864
C19	Innovative Small and Medium Enterprises	10	0,874
Overall		67	0,880

Table 4.2 conclusively depicts the reliability score of 0.880 of sections B and C of the study. A reliability score of 0.60 and above is widely regarded as accepted and is recommended. The achieved overall score of above 0.880 is testimony that the results of the study are reliable, consistent and can be trusted. In addition, all sections exceed or approximate the recommended Cronbach's alpha value.

SECTION A

4.6 ANALYSIS OF BIOGRAPHICAL DATA

The section below presents the biographical information of the respondents, with the biographical analysis of the sample including gender, position in the business, number of years

in operation, and number of employees, as well as the sector in which the business operates and respondents' level of education. Table 4.3 illustrates the gender of the respondents.

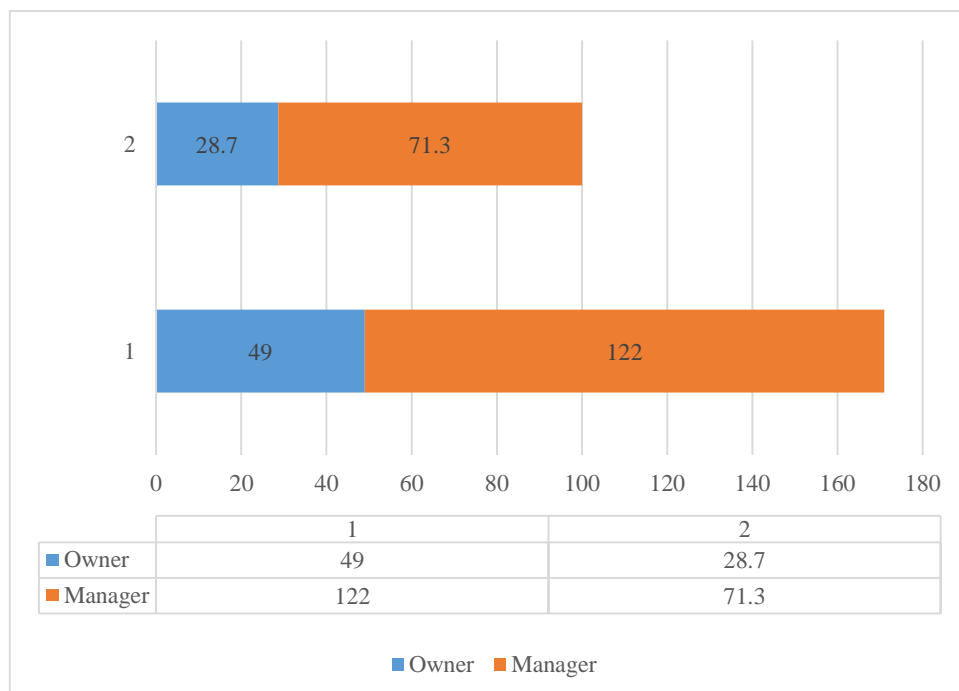
Table 4.3: Gender of respondents

	Frequency	Percent
Male	96	56,1
Female	75	43,9
Total	171	100,0

The total number of male and female participants (Table 4.3) that represent the SME sector and participated in the study shows a moderate balance in presentation of both males (56.1 percent) and females (43.9 percent). The data confirm that male participants still make up the majority and are consistent with the findings by Sitharam and Hoque (2016), in a survey conducted in KZN amongst SMEs. The results revealed that male participants make up the majority (57 percent), while the balance is occupied by female participants.

The research targeted only the owner/ manager of the business to complete the study (Figure 4.1).

Figure 4.1: Position in the business



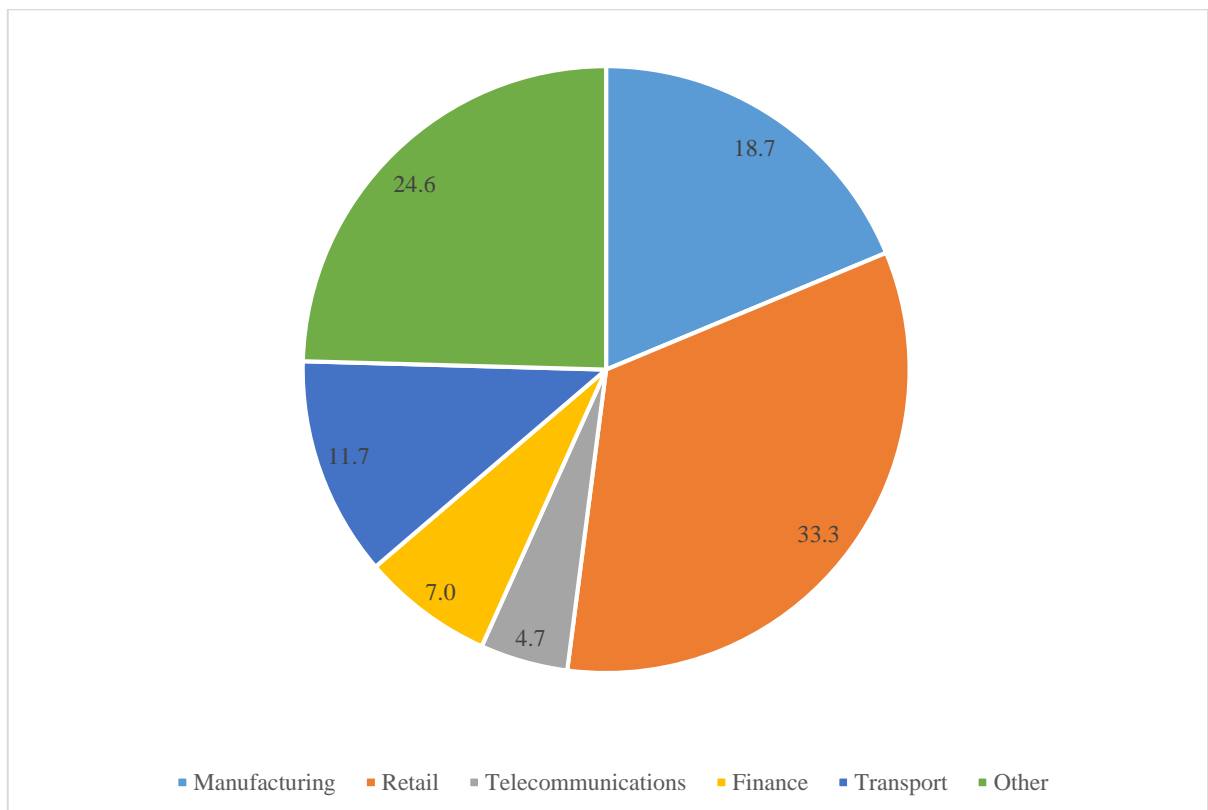
The job profile of SME respondents in the Durban area who participated in the study is illustrated (Figure 4.1). The findings show that majority (71.3 percent) act as managers of the business, while 28.7 percent are the actual owners of the business.

Businesses offering different products and services were part of the study, as shown in Table 4.4 and Figure 4.2.

Table 4.4: Business sector

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Manufacturing	32	18,7	18,7	18,7
	Retail	57	33,3	33,3	52,0
	Telecommunications	8	4,7	4,7	56,7
	Finance	12	7,0	7,0	63,7
	Transport	20	11,7	11,7	75,4
	Other	42	24,6	24,6	100,0
	Total	171	100,0	100,0	

Figure 4.2: Business sector



Various sectors of the business participated in the research, with Figure 4.2 showing that the majority of the SMEs that participated operating in the retail sector (33,3 percent), followed by (24,6 percent) for “Other”. The “Other” category consisted of many businesses that were not specifically mentioned, for example construction, catering, gambling and many more. Manufacturing polled 11,7 percent and the remainder is for telecommunications (4,7 percent) and finance (seven percent). The findings conclusively suggest that the retail industry comprises the majority of businesses operating in the Durban area. The findings are consistent with those reported by Mutanda (2014), who also found that the majority of SMEs in Durban are in the retail business. This may be due to the fact that retail businesses are easy to set up and have a ready customer base.

The number of staff employed by SMEs was a factor in selecting the business to participate in the study (Figure 4.3).

Table 4.5: Number of employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 20	9	5,3	5,3	5,3
	21 to 50	51	29,8	29,8	35,1
	51 to 100	36	21,1	21,1	56,1
	101 to 150	35	20,5	20,5	76,6
	151 to 200	40	23,4	23,4	100,0
Total		171	100,0	100,0	

Figure 4.3: Number of employees

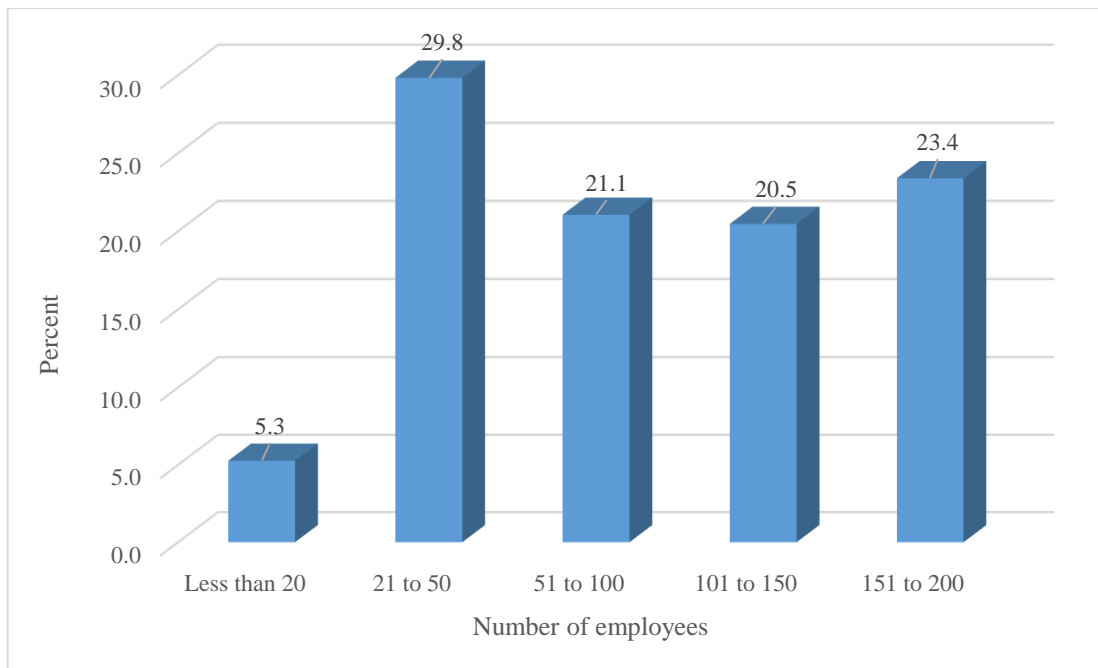


Figure 4.3 reflects the number of employees in the different SMEs ventures. The study reviews that the majority of SMEs (35 percent) employ 50 persons and less; 21.1 percent of SMEs employed 51-100 employees; 20.5 percent employed 101-150, while 151-200 persons were employed by 23.4 percent of SMEs. The study results highlight that of the businesses surveyed, 35 percent are small, while the majority (65 percent) are medium enterprises. The findings confirm those of Bardarova, Serafimova and Atanasoski (2019) and Schachtebeck *et al.* (2019), who also acknowledge the tremendous role played by SMEs in providing sustainable employment.

The research targeted SMEs with varying years in the business (Figure 4.5).

Table 4.6: Number of years in the business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 - 5	49	28,7	28,7	28,7
	6 - 10	49	28,7	28,7	57,3
	11 - 15	26	15,2	15,2	72,5
	16 - 20	21	12,3	12,3	84,8
	21 - 25	14	8,2	8,2	93,0
	> 25	12	7,0	7,0	100,0
Total		171	100,0	100,0	

Figure 4.4: Number of years in the business

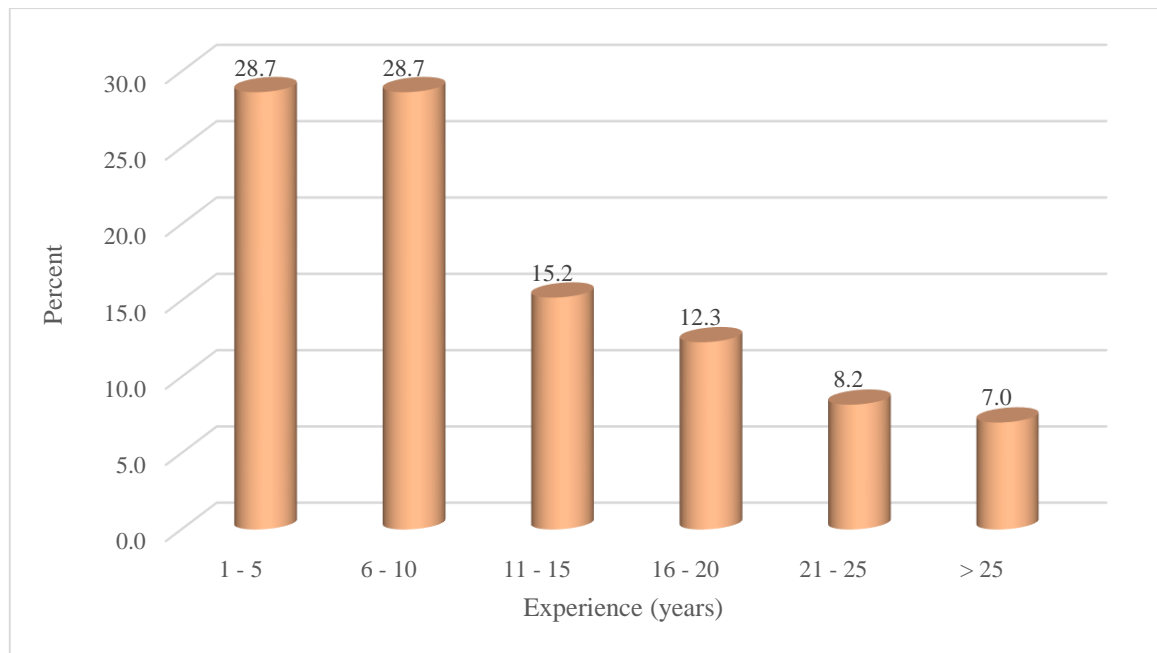


Figure 4.4 illustrates the number of years the respondents have been owning/ managing the business. It is clear from the results that the businesses surveyed have managed to maintain a steady operation of the business ventures. Businesses in operation from 1-10 years polled 28.7 percent, while for those with 11-20 years the average is around 13 percent. In addition, only seven percent of the SMEs have been in operation for 25 years and more. According to Schachtebeck *et al.* (2019), SA is characterised by a high SME failure rate, especially in the early years.

The study targeted participants of different levels of education (Figure 4.5).

Table 4.7: Level of Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Matric / Certificate	38	22,2	22,2	22,2
	Diploma / Bachelor's degree	56	32,7	32,7	55,0
	Honours degree / B.Tech	41	24,0	24,0	78,9
	Masters	24	14,0	14,0	93,0
	Doctorate	12	7,0	7,0	100,0
	Total	171	100,0	100,0	

Figure 4.5: Level of education

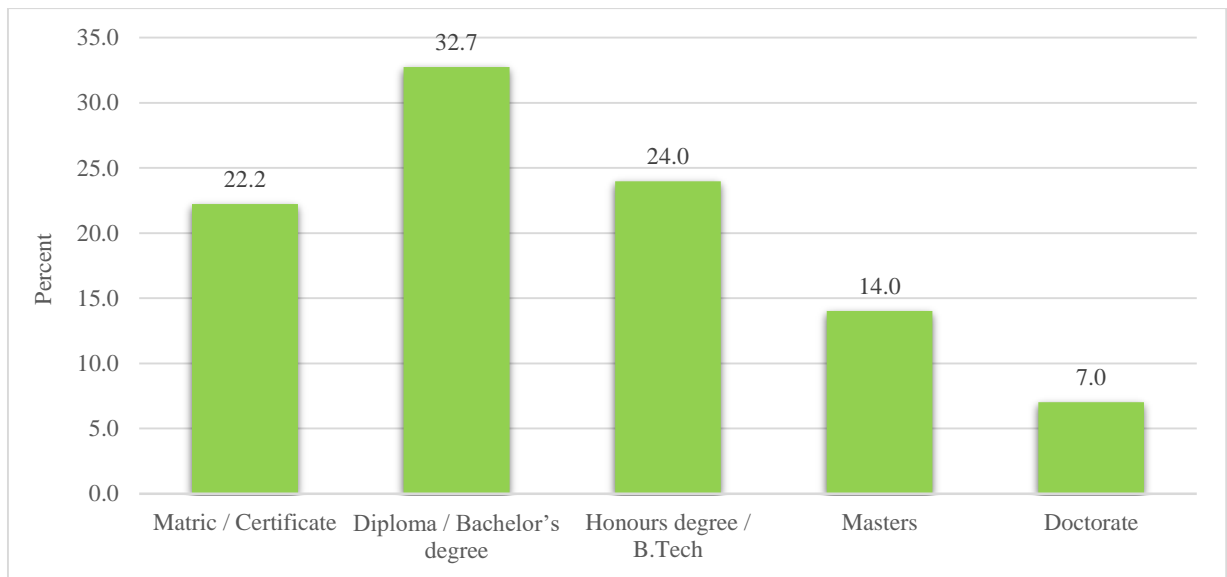


Figure 4.5 shows that approximately 22.2 percent of the respondents possess a matric certificate; 32.7 percent achieved a bachelor's degree and 24 percent attained a honours degree. A total of 14 percent highlighted that they have a master's degree. The result concurs with findings established by Marima (2018). The author reviewed that a sizeable number (19 percent) of SME owners/managers possess a master's degree and seven percent are holders of a doctorate degree. The finding suggests that the majority of the respondents have at some stage been to a university. In support, Mutanda's (2014) study amongst SMEs in Durban revealed similar findings. Portuguese Castro, Ross Scheede and Gómez Zermelo (2019) find that most universities now include some modules on entrepreneurship to promote innovative entrepreneurial thinking.

SECTION B

4.7 FACTOR ANALYSIS

According to Yong and Pearce (2013), the main role of factor analysis is to break data down into easy to understand patterns. Bartholomew, Knotts, and Moustaki (2011) propound that factor analysis reduces the number of measurable and observable variables to form much easier to work with latent variables. In this study, however, factor analysis was achieved by first correlating the variables to establish independence. This was achieved through the use of the Kaiser-Meyer Olkin (KMO) Measure of Sampling adequacy and Bartlett's test on the two domains and 13 sub-variables.

Table 4.7: Kaiser-Meyer Olkin and Bartlett's sampling adequacy test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,668
Bartlett's Test of Sphericity	Approx. Chi-Square	6622,923
	df	2211
	Sig.	0,000

Table 4.7 depicts the KMO measure and Bartlett's test results. The Kaiser-Meyer-Olkin (KMO) is a measure of sampling adequacy and reflects the ratio of the sum of the squared inter-item correlations to the sum of the squared inter-item correlations plus the sum of the squared partial inter-item correlations, summed across all correlations. When the KMO approaches unity, or at least achieves a value bigger than .60, the correlation matrix is deemed factor analysable (Tabachnick and Fidell, 2007). In Addition, Kaiser (as cited in Field, 2005) recommends accepting KMO values greater than .50 as acceptable, values between .50 and .70 as mediocre, and values between .70 and .80 as good while values between .80 and .90 are great and values above .90 are superb. In this study, as depicted above, the KMO sampling adequacy was 0,668, which means the score is above 0.5 and appropriate.

Bartlett's test of Sphericity is a statistical tool used to measure whether the hypothesis is uncorrelated in the identity matrix (Lee and Kang 2018). The Chi-square test of lesser values $p < 0.05$ significantly means that the factor analysis is conclusive, and the data are useful. For this study, all conditions are satisfied for factor analysis. That is, the KMO Measure of Sampling Adequacy value is greater than 0.50 and the Bartlett's Test of Sphericity sig. value is less than 0.05.

4.8 PRESENTATION, INTERPRETATION AND DISCUSSION OF RESEARCH FINDINGS

In this section, descriptive statistics such as bar graphs, tables and percentages are used to present the statistical findings.

4.8.1 Respondent Perceptions on Financial Factors

The study sought to understand the perceptions of participants on financial factors, with responses presented in Figure 4.6 and Table 4.8.

Figure 4.6.1 and 4.6.2: Frequencies of statements regarding financial factors

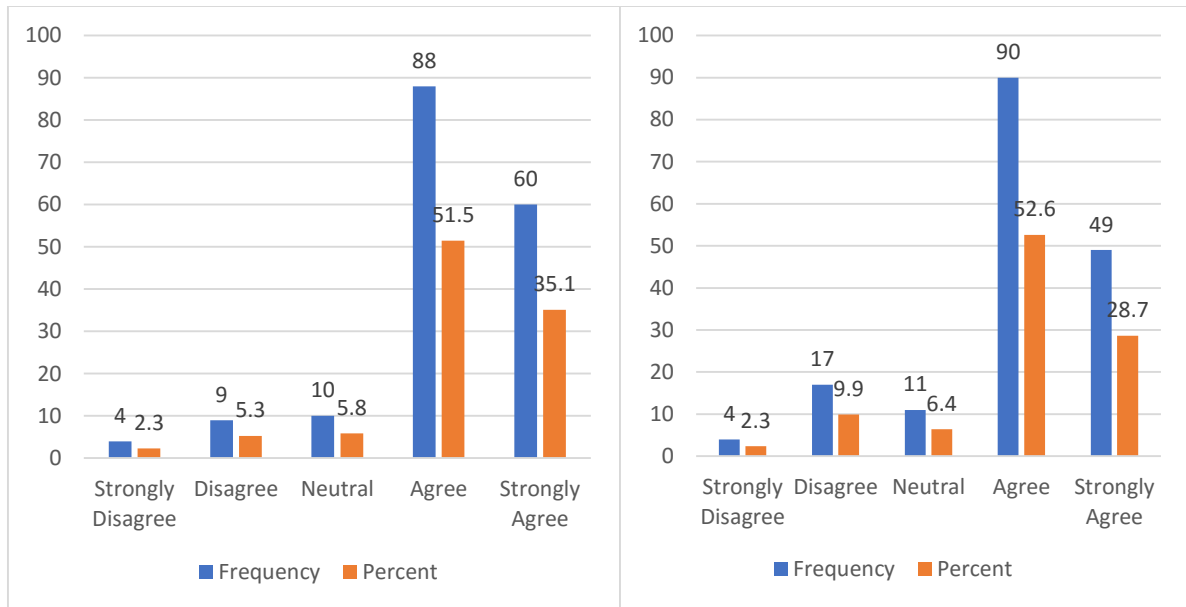


Figure 4.6.1 shows responses as to whether respondents believe finance is critical in shaping the business innovation strategy. Figure 4.6.2 depicts responses on whether respondents believe without access to finance it is difficult to be innovative.

Figure 4.6.3: Government Incentives

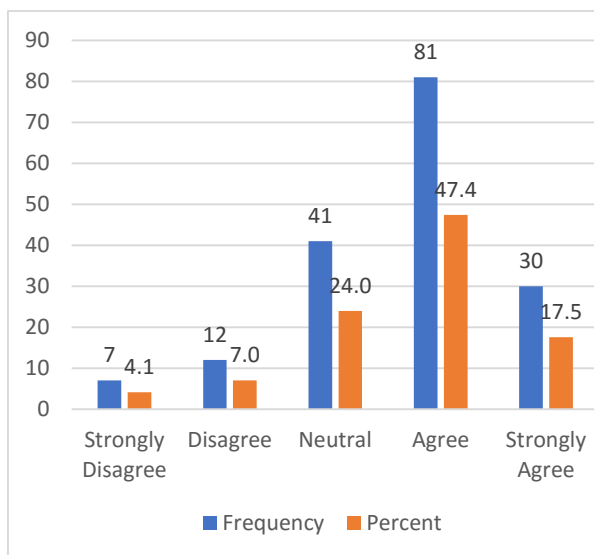


Figure 4.6.4: Finance Availability

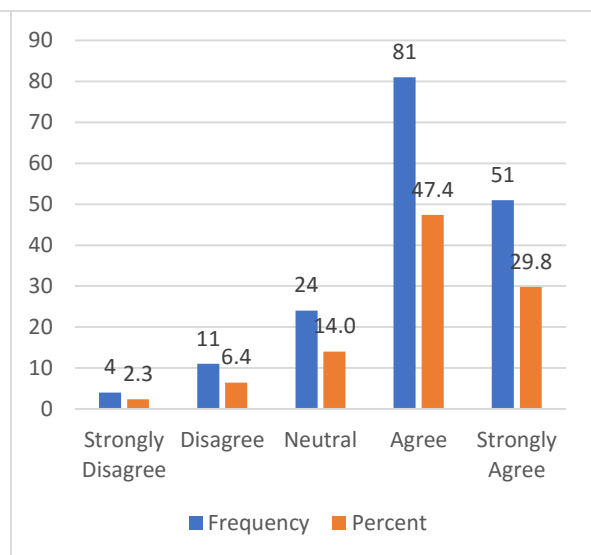


Figure 4.6.3 illustrates findings on whether the government provides financial incentives to small business, while Figure 4.6.4 depicts responses on whether the business innovation strategy is dependent on the availability of finance.

Figure 4.6.5: Financial incentives and innovation

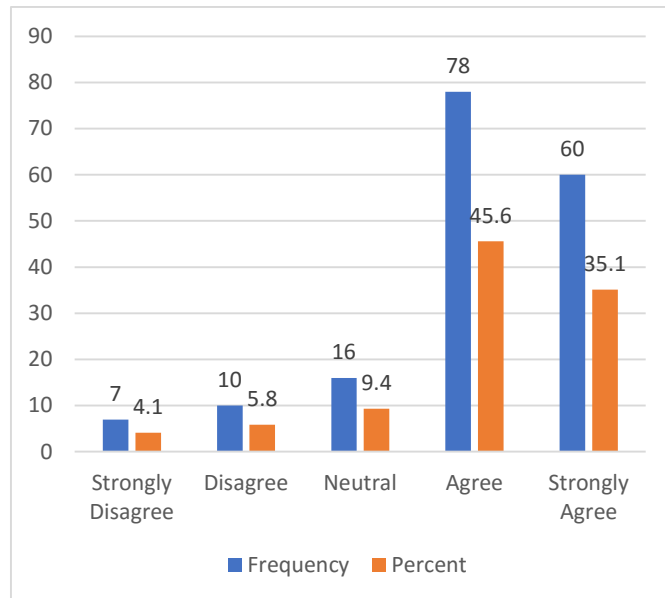


Figure 4.6.5 presents the findings on respondent perceptions regarding whether financial incentives influence the business to innovate.

Generally, Figure 4.6 indicates the frequency of respondent responses regarding statements on financial factors. Respondents indicated the degree to which they relate to the statements by choosing an option on the Likert scale from; Strongly Disagree; Disagree; Neutral; Agree; and Strongly Agree. It is evident, as depicted by Figure 4.6 that a significant majority agreed finances play a significant role in influencing SME innovation strategies. A total of 52.6 percent agreed, while 35.1 percent strongly agreed that financial access is critical. In addition, a few (9.9 percent) disagreed while 4.1 percent) strongly disagreed with the statements and the role finance plays in shaping SME innovation strategies. The general agreement in responses is supportive of the literature (Divisekera and Nguyen 2018; Chimucheka 2013) that highlight and confirm the importance of finance in the development of SMEs' innovative capacity.

Furthermore, Figure 4.6 shows a majority (45.6 percent) of the respondents agreed that financial incentives increase SMEs' innovation chances, while 47.4 percent agreed that the government does provide financial assistance to SMEs to assist with innovation capabilities. Furthermore,

a sizeable 35.1 percent believe finance is paramount in determining businesses' innovation strategies. Studies conducted by, among others, Chimucheka (2013) eloquently explain the influence of finances on SME performance.

Table 4.8: Statements on financial factors

	Component	1
I believe finance is critical in shaping an organisation innovation strategy.	B7.1	0,649
Without financial access small firms will find it difficult to innovate.	B7.2	0,687
The government provides financial incentives to small businesses.	B7.3	0,390
The organisation innovative strategy depends on the availability of finance.	B7.4	0,769
Access to financial incentives influence the enterprises innovation strategies.	B7.5	0,738

To determine whether the scoring patterns per statement were significant per option, a component test was conducted. Table 4.8 illustrates that the statements loaded perfectly in a single component. This implies that the statements that constituted these sections perfectly measured what it set out to measure and respondents are in agreement. Furthermore, the KMO Measure of Sampling Adequacy and Bartlett's test depict a significant influence between SME financial factors and their influence on innovation strategies. The results indicate a KMO value greater than 0.500; $df = 4$; $sig = 0.000$, therefore, the hypothesis for this variable is accepted. Finances play a pivotal role in influencing Durban SMEs' innovation strategies.

4.8.2 Respondent Perceptions on Firm Size

The study also tested perceptions of SME owners/managers in Durban on the influence firm size has on innovation strategies. Responses are illustrated in Figure 4.7 and Table 4.9.

Figure 4.7.1 and 4.7.2: Frequencies of statements regarding firm size

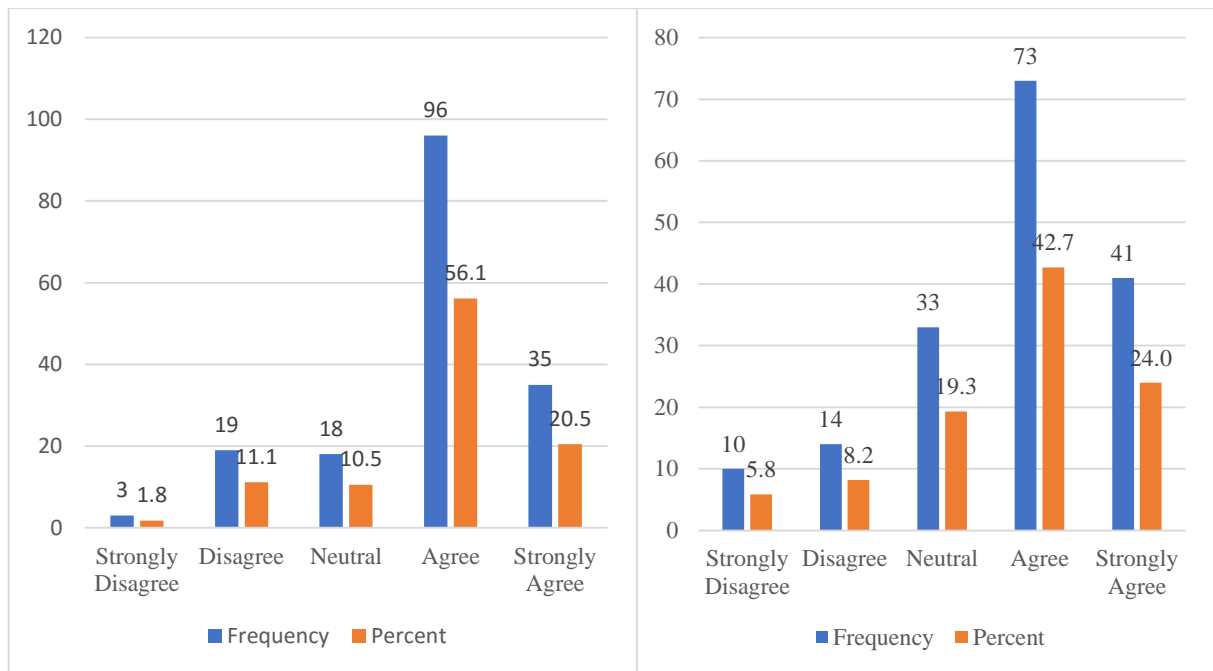
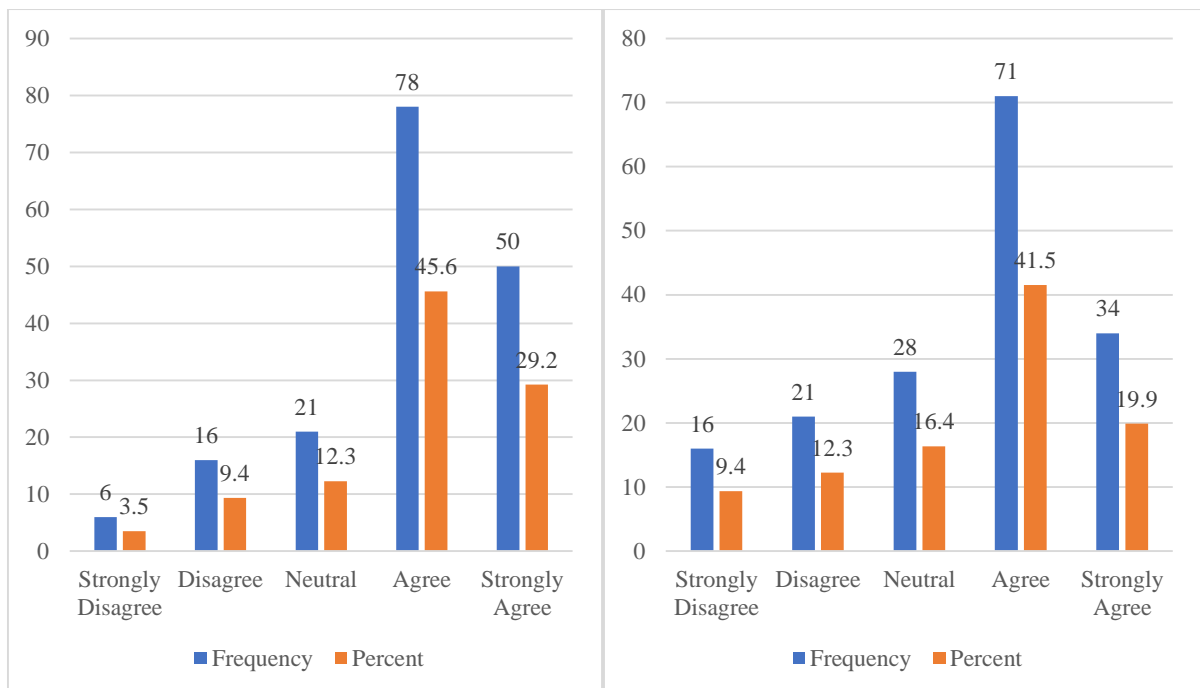


Figure 4.7.1 illustrates the findings for the statement whether respondents believe the size of the business influences innovation strategies. Furthermore, Figure 4.7.2 depicts responses on whether the size of the business impacts innovation.

Figure 4.7.3: Large business and innovation Figure 4.7.4: Business size and innovation



Presented above (Figure 4.7.3) are responses to the statement large businesses are more innovative when compared to SMEs, while Figure 4.7.4 depicts findings on whether respondents believe innovation strategy is influenced by the size of the business.

Figure 4.7.1-4 above show the general perception of SME owners/ managers with regard to the influence of firm size on innovation strategies. A majority (56.1 percent) of SME owners/ managers agreed, 29.2 percent strongly agreed that the size of the business is paramount in determining innovation strategies to be adopted. However, 11.1 percent disagreed, 19.3 percent indicated neutral, while 20.5 percent strongly disagreed. The general agreement is testimony that a majority of SMEs in Durban believe the size of the business is a factor in determining SME innovation strategies. According to Messeni Petruzzelli and Ardito (2019) and Gunjati and Adake (2020), SMEs implement novel ideas quicker due to their relatively small size. In contrast, Bayarçelik *et al.* (2014) argue that established businesses are more prone to innovation than small enterprises.

Furthermore, 45.6 percent of respondents believe larger businesses are more innovative when compared to SMEs. The findings mirror those of Chimucheka (2013), who contends that established businesses are more innovative because of sufficient financial resources. A total of 42.7 percent of SME owners/ managers asserted that the size of the business does impact the innovation strategy.

Table 4.9: Statements on firm size

	Components		
	1	2	
I believe the size of the organisation influence our innovation strategies	B8.1	0,373	
The size of our enterprise impacts on our innovation strategies	B8.2		0,326
I believe larger organisations innovate more compared to SMEs	B8.3		0,375
Innovation strategy is not influenced by the size of the organisation	B8.4		0,352

To determine whether the scoring patterns per statement were significant per option, a component test was conducted. Table 4.9 illustrates that the variable loaded in two components. The statement “I believe the size of the organisation influence our innovation” fell in component 1, showing a score of 0.373. Other statements loaded perfectly in component 2. The discrepancy

in scoring indicates that respondents are of a different view regarding the variable. However, the KMO Measure of Sampling Adequacy and Bartlett’s test depict a significant influence between the size of the business and its influence on innovation strategies. The results indicated a KMO value greater than 0.500; $df = 4$; $sig = 0.000$. Therefore, the hypothesis for this variable is accepted. Finances play a pivotal role in influencing Durban SMEs innovation strategies.

4.8.3 Respondent Perceptions on Economic Situation

The research further sought to establish SMEs’ perception on the influence of economic situation on innovation strategies. The findings are presented in Figure 4.8 and Table 4.10.

Figure 4.8.1 and 4.8.2: Frequencies of statements regarding economic situation

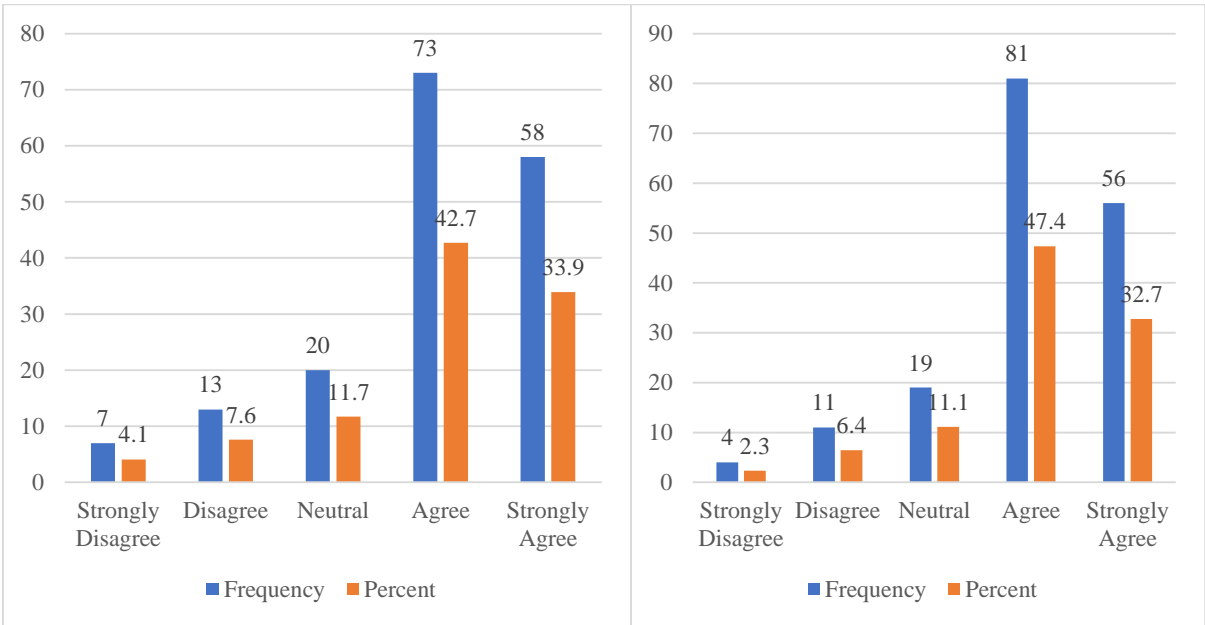


Figure 4.8.1 illustrates the findings on whether the economic situation of a country impacts on SME innovation. Figure 4.8.2 depicts responses regarding whether the economic situation influences innovation strategies.

Figure 4.8.3: Ability to produce

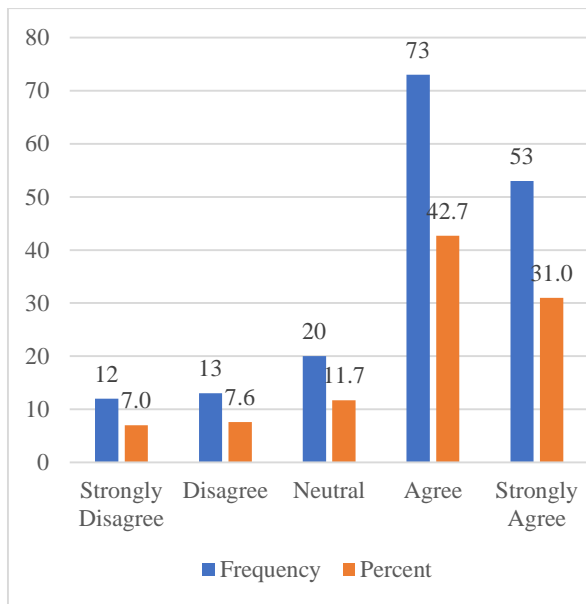
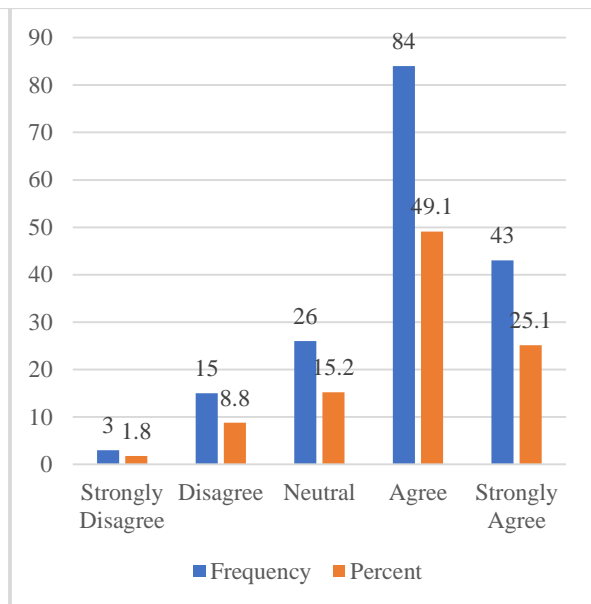


Figure 4.8.4: Ability to innovate



Illustrated in Figure 4.8.3 are findings regarding whether economic performance affects SMEs' ability to produce new products or services, while Figure 4.8.4 shows whether respondents believe the current economic recession is hampering SMEs to produce innovative goods and products.

Figure 4.8.5: No effect

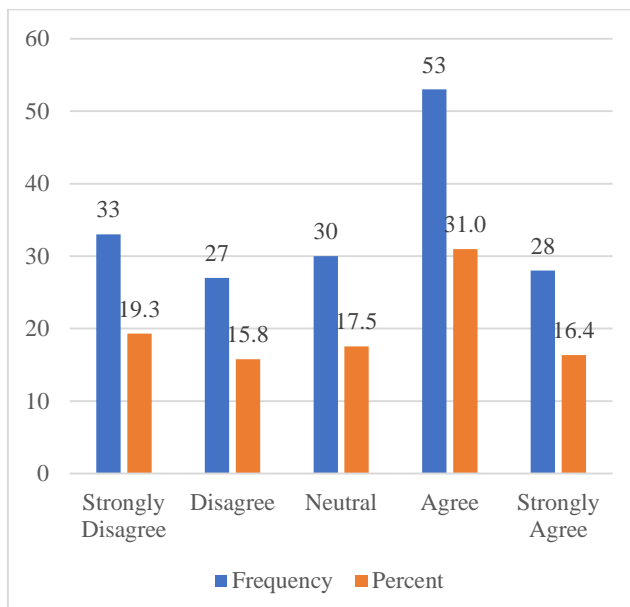


Figure 4.8.5 illustrates SME owners'/ managers' responses to the statement "I believe economic factors do not affect the business innovation strategy".

Figures 4.8.1-5 present the responses regarding the statement on the impact of the prevailing economic situation on SMEs' innovation strategies. A majority (42.7 percent) of SME owners/managers agreed and 33.9 percent strongly agreed that the economic fortunes of a country influence SMEs' innovation strategies. A total of 7.6 percent disagreed, while 4.1 percent strongly disagreed (statement 9.1). In addition, almost half of the respondents (49.1 percent) agreed that the state of the economy impacts on SME innovation. In support, according to Van Scheers (2018), economic recession is confirmed as a threat to SME sustainability and productivity.

Further, a total of 42.7 percent and 31 percent agreed that the current economic recession in SA does hamper SMEs' innovation capabilities. SA has been experiencing economic challenges lately, with Stats SA (2020) reporting that the economy of SA slipped into recession in the fourth quarter of 2019, contracting by 1,4 percent.

Table 4.10: Statements on economic situation

	Component	1
The prevailing economic situation in our country impacts on our innovation capabilities.	B9.1	0,741
Economic situation of a country influence SMEs innovation strategies.	B9.2	0,741
Country's economic situation impact on the business' ability to produce innovative new products or service.	B9.3	0,810
The poor economic growth in the country is affecting the business ability to introduce new products/ service and marketing.	B9.4	0,583
I believe economic factors do not affect the business innovation strategy.	B9.5	0,418

To determine whether the scoring patterns per statement were significant per option, a component test was conducted. Table 4.10 illustrates that the statements loaded perfectly in a single component. This implies that the statements that constituted these sections perfectly measured what it set out to measure and respondents are in conclusive agreement. Furthermore, the KMO Measure of Sampling Adequacy and Bartlett's test show significance between the economic performance and their influence on SMEs innovation strategies. The results indicate a KMO value greater than 0.500; $df = 4$; $sig = 0.000$, therefore, the hypothesis for this variable is accepted. The economic performance of a country plays a pivotal role in influencing Durban SMEs' innovation strategies.

4.8.4 Respondent Perceptions on Management Competences

Depicted in Figures 4.9.1-4 are the responses of SME owners/managers on managerial competences. The statements sought to understand their perceptions regarding managerial skills, values and the impact they have on innovation strategies.

Figures 4.91 and 4.9.2: Frequencies of statements regarding managerial competences

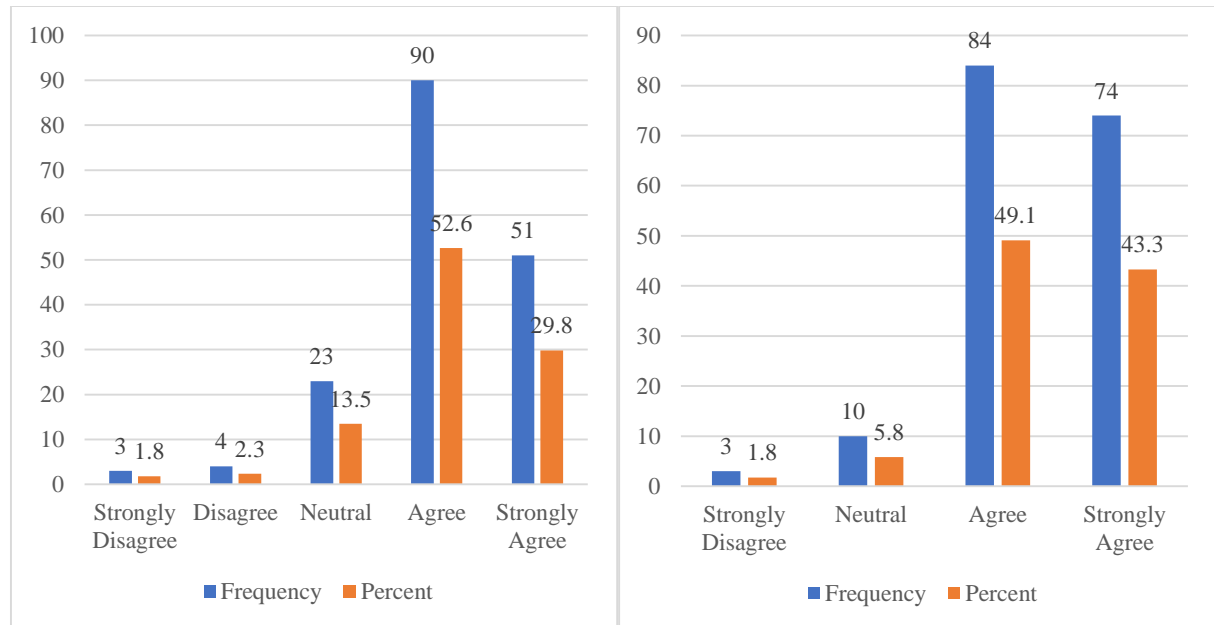


Figure 4.9.1 depicts findings on whether the respondents believe they are qualified to manage the business. Figure 4.9.2 illustrates the findings on whether SME owners/managers believe they are qualified to run the business.

Figure 4.9.3: Innovation and competences

Figure 4.9.4: Environment

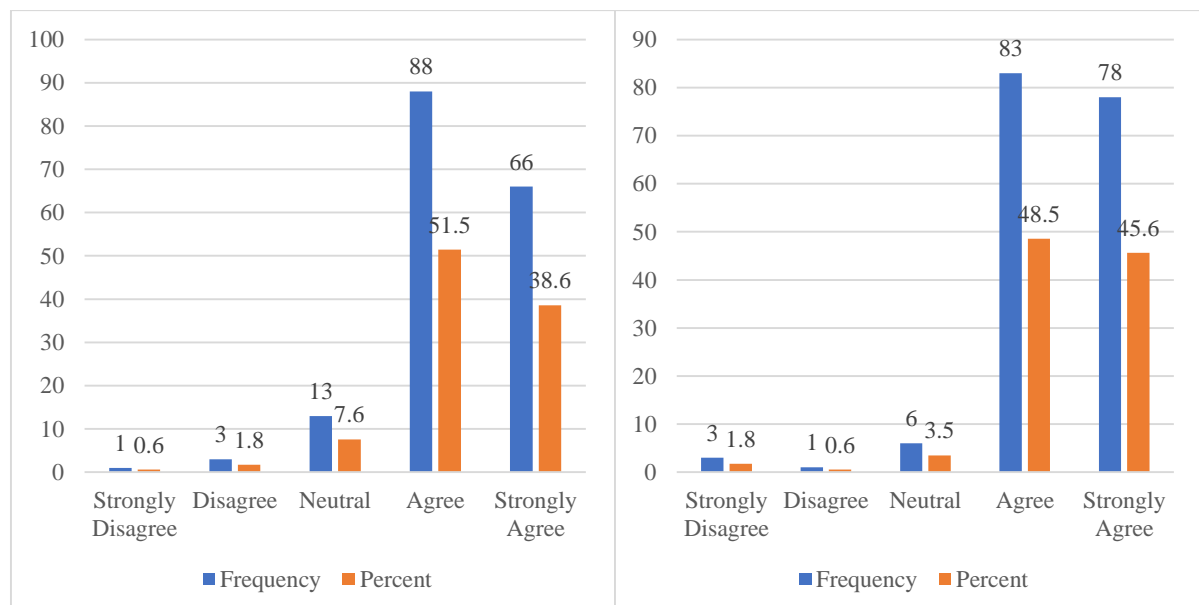


Figure 4.9.3 presents the findings regarding respondent perceptions on whether the business is innovative because of their competences. In addition, Figure 4.9.4 illustrates findings on whether the owners/managers provide a conducive environment that promotes innovativeness.

Figure 4.9.5: Qualification

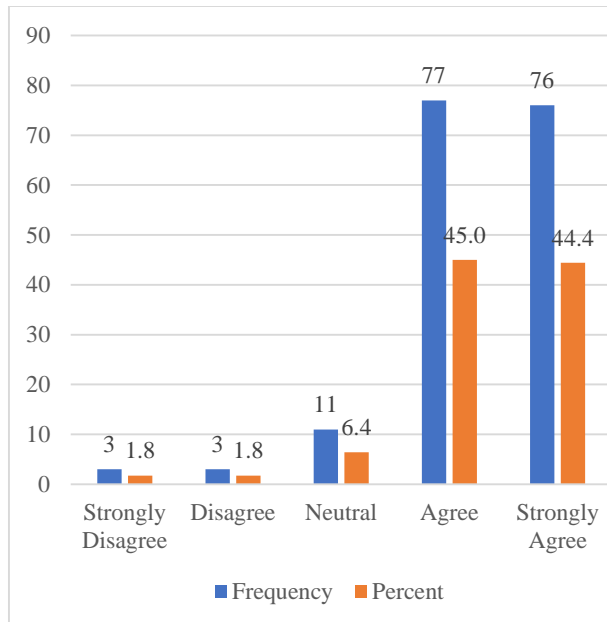


Figure 4.9.6: Managerial skills

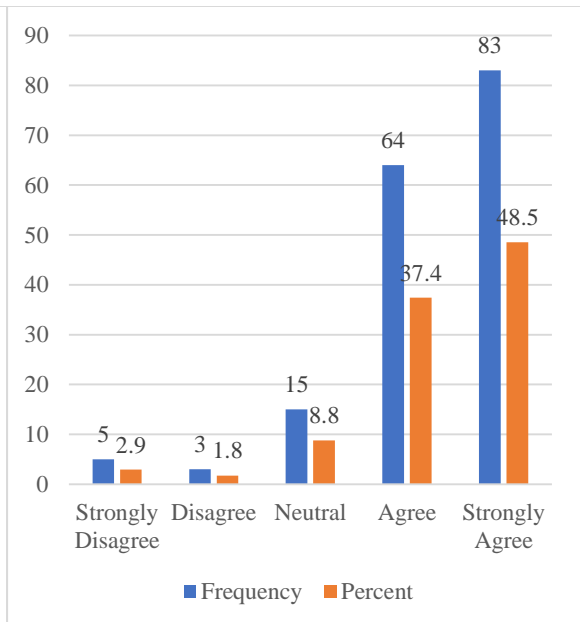


Figure 4.9.5 shows results on whether qualification is important in influencing a business to innovate, while Figure 4.9.6 explores whether managerial skills aid SMEs' innovation activities.

Figures 4.9.1-6 reflects responses regarding respondent perceptions on managerial competences. The majority (52.6 percent) of SME owners/ managers agreed, while 48.8 percent strongly agreed that managerial competences aid SME innovation strategies. Interestingly, very few strongly disagreed and approximately 13.5 percent remained neutral to the statements that managerial competences are a factor that influences innovation amongst SMEs. According to Lara and Salas-Vallina (2017), for SMEs to remain and sustain competitive advantage, they need to manage knowledge. The authors further suggest that managerial skills are a resource to the business and help create value. Neneh (2018) suggests that the competitiveness of a business is predominantly dependent on the owner's education.

Interesting to note as well, is that half (51.5 percent) of the respondents agreed that because of their skills the business is innovative, while 49.1 percent believe they are the right fit for the

job. A further 48.8 percent posited that adequate managerial skills lead to innovativeness, 8.8 percent opted to remain neutral and 2.9 percent disagreed. In support, SMEs need to develop a strategy that promotes lifelong learning in order to boost managerial skills, values and knowledge (Hamburg 2014).

Table 4.11: Statements on management competencies

	Component 1	
The manager/ owner is qualified to run the business.	B10.1	0,665
I believe I have the required competences to operate the business.	B10.2	0,774
Because of my managerial skills, the organisation is innovative.	B10.3	0,623
My management style involves providing a conducive environment for employees to share ideas.	B10.4	0,648
Qualification play a pivotal role in determining the organisation innovation strategy.	B10.5	0,664
Without adequate management skills small firms will find it difficult to be innovative.	B10.6	0,660

To determine whether the scoring patterns per statement were significant per option, a component test was conducted. Table 4.11 illustrates that the statements loaded perfectly in a single component. This implies that the statements that constituted these sections perfectly measured what it set out to measure and respondents are in conclusive agreement. Furthermore, the KMO Measure of Sampling Adequacy and Bartlett's test show significance between management competencies and their influence on SME innovation strategies. The results indicate a KMO value greater than 0.500; $df = 4$; $sig = 0.000$, therefore, the hypothesis for this variable is accepted. Management competences play a pivotal role in influencing Durban SMEs' innovation strategies.

4.8.5 Respondent Perceptions on SME Innovation Culture

Figures 4.10.1-5 and Table 4.12 present SME owners'/ managers' perceptions on the role of innovation culture in influencing innovation strategies.

Figure 4.10.1 and 4.10.2: Frequencies of statements regarding SME innovation culture

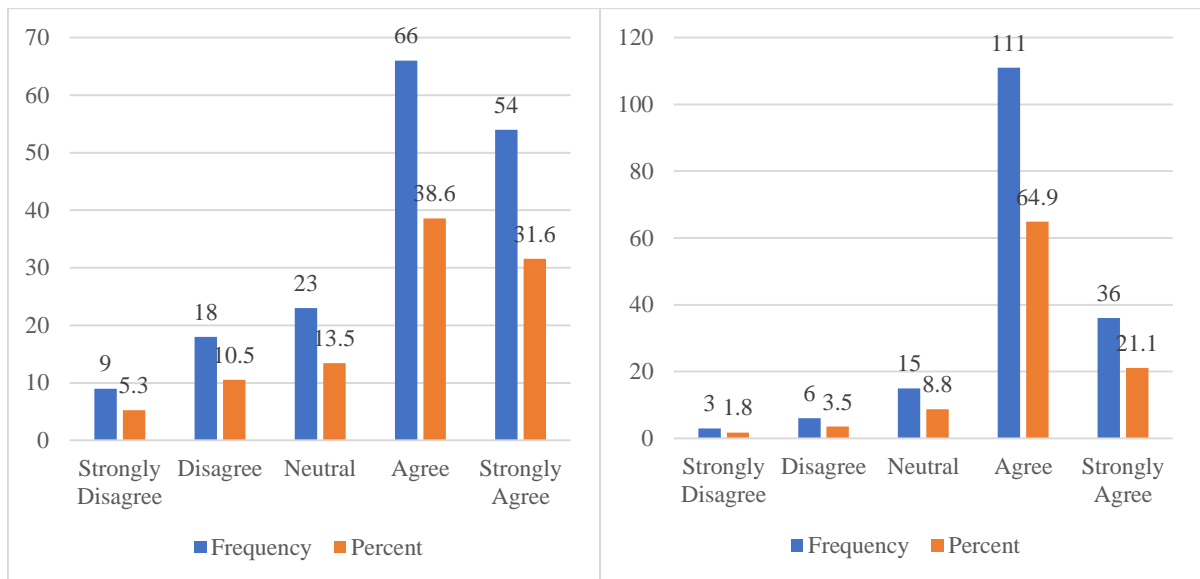


Figure 4.10.1 sought to illustrate whether the owner/ manager of the business attends innovation workshops, while Figure 4.10.2 presents the findings regarding whether the business invests in technology.

Figure 4.10.3: Customer satisfaction

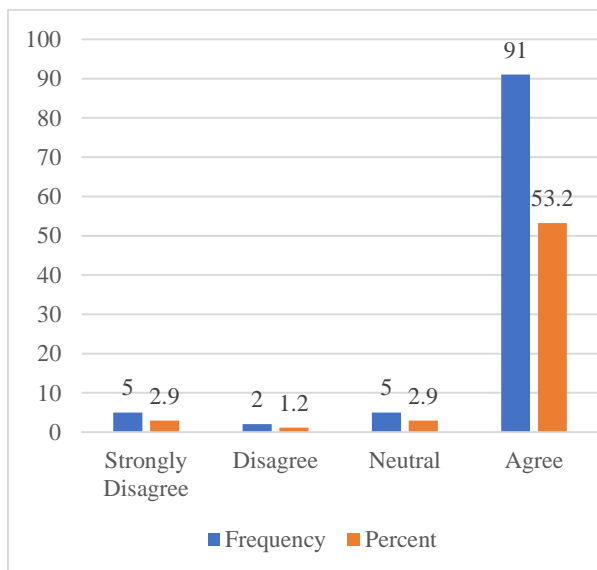


Figure 4.10.4: Creativity

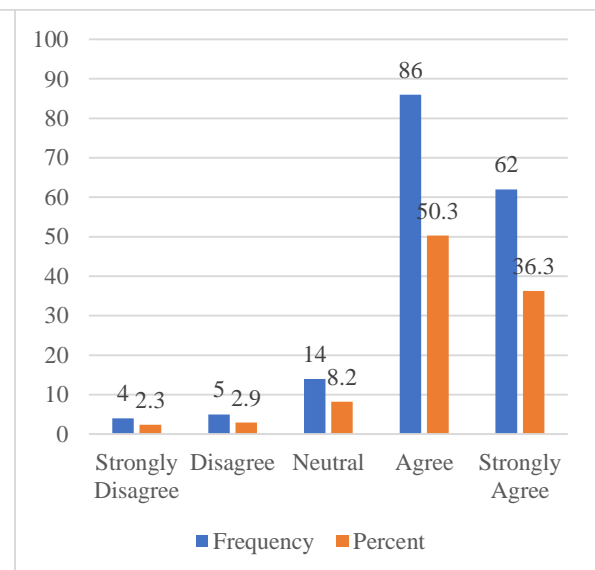


Figure 4.10.3 illustrates the findings on whether the business provides a product or service that satisfies the customer. Figure 4.10.4 presents results in relation to the statement I believe the business promotes creativity.

Figure 4.10.5: Innovation and business culture

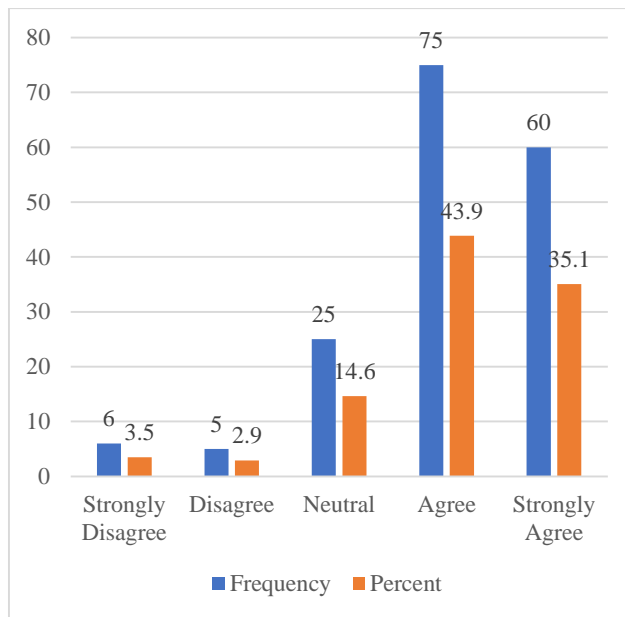


Figure 4.10.5 provides findings from the respondent views on whether innovation is part of the overall business culture.

Figures 4.10.1-5 depict the frequency at which the respondents relate to the statements that SME innovation culture influences innovation strategies. What is worth noting from the responses is that a majority of SME owners/ managers agreed with the statements. A staggering 64.9 percent agreed and 39.8 percent strongly agreed that innovation culture is key. A total of 14.6 percent remained neutral, while 10.6 percent disagreed and 5.3 percent strongly disagreed. The findings are a testimony of how much emphasis SMEs in Durban place on technology acquisition. A study conducted by Almodóvar-González, Fernández-Portillo and Díaz-Casero (2020) revealed that SMEs that promote sharing of ideas and invest in technology stand to gain immensely in the business market.

Furthermore, 53.2 percent agreed that the products or services they offer meet customer satisfaction, 50.3 percent concurred their businesses promote creative ideas. A total of 43.9 percent SME owners/ managers believe innovation is part of their overall business culture. The findings show that SMEs in Durban have embraced a culture of innovativeness. Aksoy (2017) concurs that a significant relationship exists between SME culture and innovation. In addition, the author finds it hard to believe that business can be innovative without a culture that promotes it.

Table 4.12: Statements on innovation culture

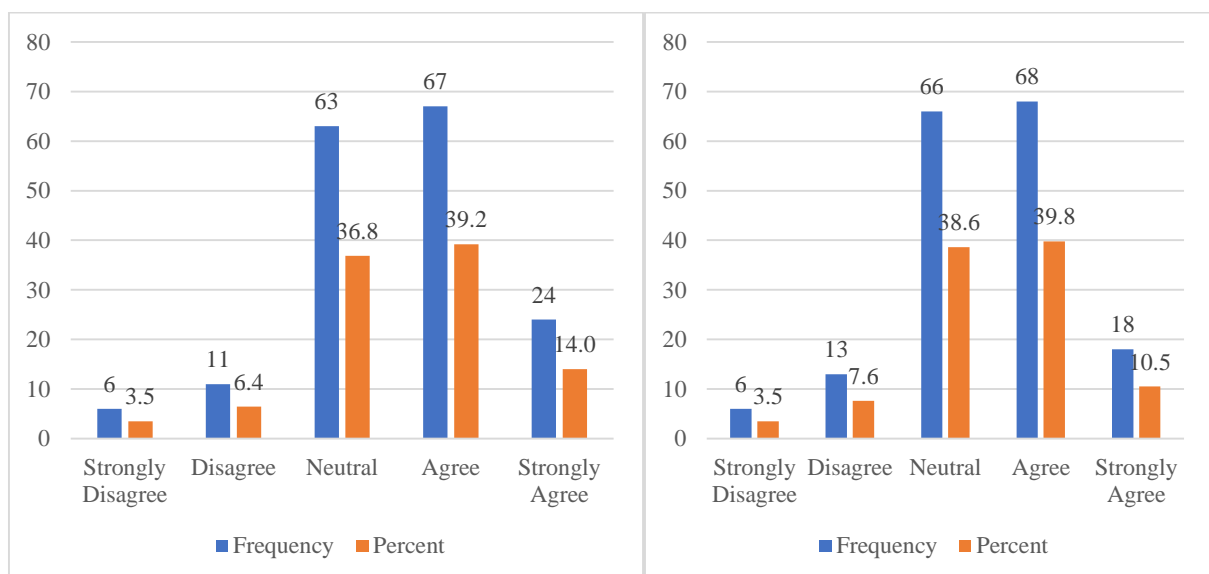
	Component	1
The owner/ manager attends innovation workshops.	B11.1	0,665
The business invests in technology.	B11.2	0,634
The firm provides services or products that are satisfy the consumer.	B11.3	0,441
I believe the business promotes creative skills.	B11.4	0,688
Innovation is part of the overall business culture.	B11.5	0,679

To determine whether the scoring patterns per statement were significant per option, a component test was conducted. Table 4.12 illustrates that the statements loaded perfectly in a single component. This implies that the statements that constituted these sections perfectly measured what it set out to measure and respondents are in conclusive agreement. Furthermore, the KMO Measure of Sampling Adequacy and Bartlett's test show significance between innovation culture and their influence on SMEs innovation strategies. The results indicate a KMO value greater than 0.500; $df = 4$; $sig = 0.000$, therefore, the hypothesis for this variable is accepted. An innovation culture is influential in shaping SME innovation strategies.

4.8.6 Respondent Perceptions on Government Support and Innovation Policies

The research sought to establish whether the government is providing SMEs with support. Furthermore, it also wanted to understand whether SMEs in Durban perceive government policies as supportive of innovation. The responses are illustrated in Figures 4.11.1-5 and Table 4.13.

Figure 4.11.1 and 4.11.2: Frequencies of statements regarding government support and innovation policies



Responses are illustrated (Figure 4.11.1) as to SME owners'/managers' perceptions regarding whether the government supports SMEs in order for them to be innovative. Figure 4.11.2 depicts findings as to whether the policies of the government are pro-innovation.

Figure 4.11.3: Incentives for new

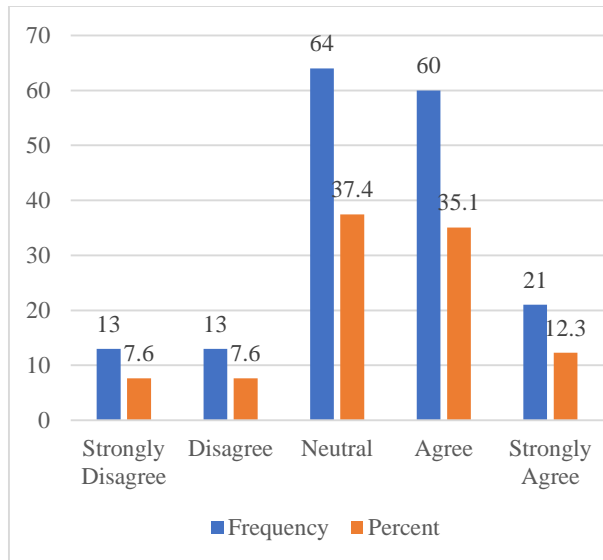


Figure 4.11.4: Environment

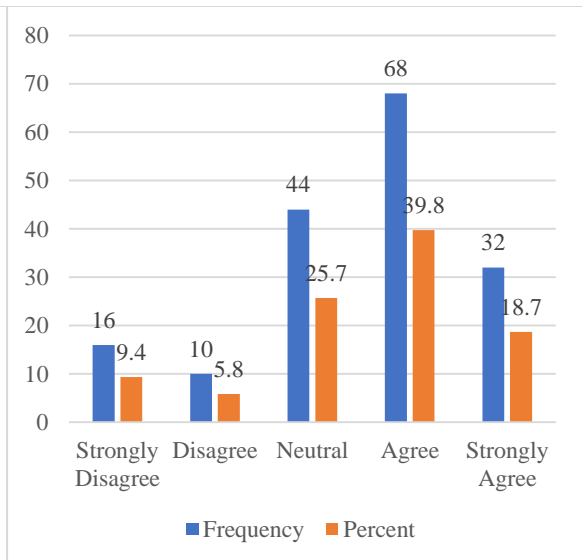


Figure 4.11.3 illustrates findings on whether the government provides incentives to SMEs that produce new products or offer a new service, while Figure 4.11.4 depicts results on whether the business environment provided by the government is conducive for SMEs to innovate.

Figures 4.11.1-4 depict the frequency at which SME owners/ managers believe the governments of SA is supportive of small businesses. According to Songling *et al.* (2018), SMEs that receive government support are more productive and turn to being innovative. Furthermore, Serei (2017) advances that the role of government is to provide SMEs with an enabling business environment that provides favourable policies and mitigates challenges. Figure 4.11 shows a majority of SMEs agreed that government is providing support and their policies are pro-SME. In support of the findings, the researcher noted that government made funds available to support SMEs in financial distress due to Covid-19.

Notably, a sizeable number of respondents (38.6 percent) opted to remain neutral on whether the policies of the government promote innovation. Additionally, 36.8 percent also remained neutral on whether they believe the government supports SMEs so that they engage in innovation. Lastly, a sizeable 25.9 percent also opted to be neutral on whether they perceive the

business environment as being conducive for SMEs to innovate. The findings suggest that SMEs in Durban are not comfortable responding to statements deemed as political. The reason might also be that in Africa anything that involves the government is generally regarded as politics. The majority may have chosen to not engage with the statement due to fear of victimisation. Nevertheless, a study conducted by Mbandlwa, Nirmala and Fagbadebo (2020) predicates that SA has good policies, however, the challenge is in the implementation process.

Table 4.13: Statements on government support

	Component	1
The government supports SMEs to be innovative.	B12.1	0,755
The policies of the government are pro-innovation.	B12.2	0,827
The government provide incentives to SMEs that deliver new products or services.	B12.3	0,832
The business environment provided by the government is conducive for small firms to innovate.	B12.4	0,822

To determine whether the scoring patterns per statement were significant per option, a component test was conducted. Table 4.13 depicts that the statements loaded perfectly in a single component. This implies that the statements that constituted these sections perfectly measured what it set out to measure and respondents are in conclusive agreement. Furthermore, the KMO Measure of Sampling Adequacy and Bartlett's test show a significant relationship between government support and its influence on SME innovation strategies. The results indicate a KMO value greater than 0.500; $df = 4$; $sig = 0.000$, therefore, the hypothesis for this variable is accepted. Government support is influential in shaping SME innovation strategies.

4.8.7 Respondent Perceptions on SMEs Technological Innovation

Figures 4.12.1-4 and Table 4.14 below illustrates the respondents' responses regarding their perception on the importance of technology in influencing SME innovation strategies.

Figure 4.12.1 and 4.12.2: Frequencies of statements regarding SMEs technological capabilities

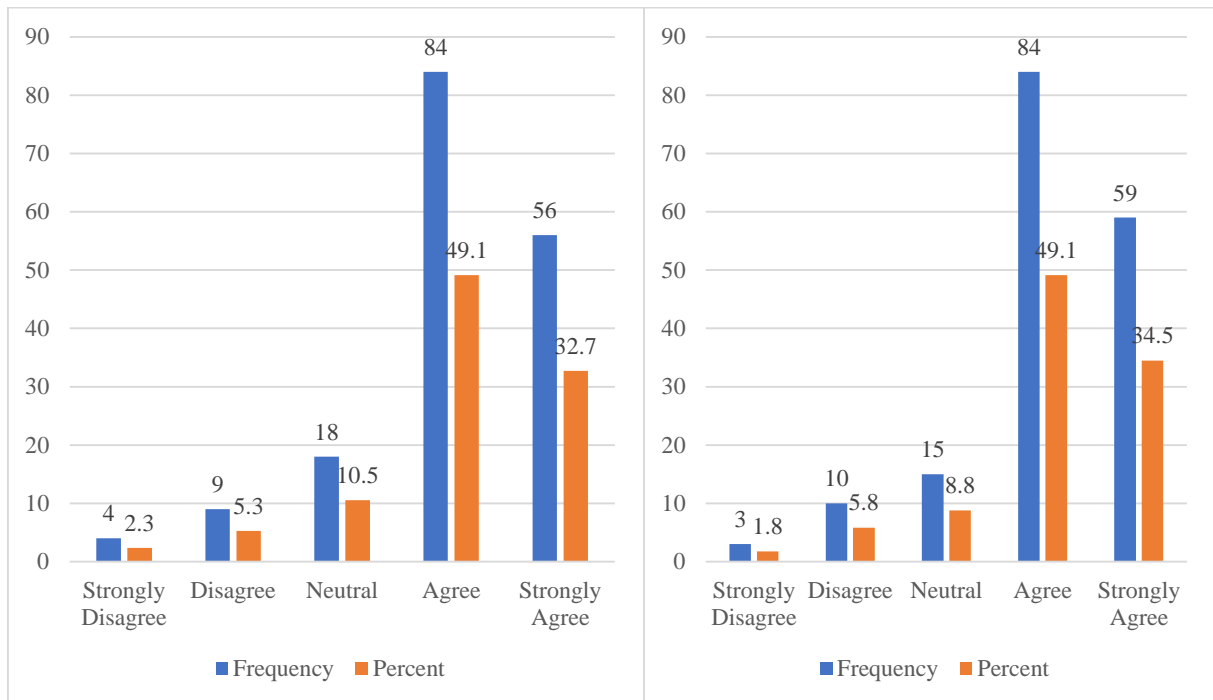


Figure 4.12.1 shows whether the business uses technological equipment, while Figure 4.12.2 sought to illustrate whether a relationship exists between technology and innovation strategy to be adopted.

Figure 4.12.3: Latest technology

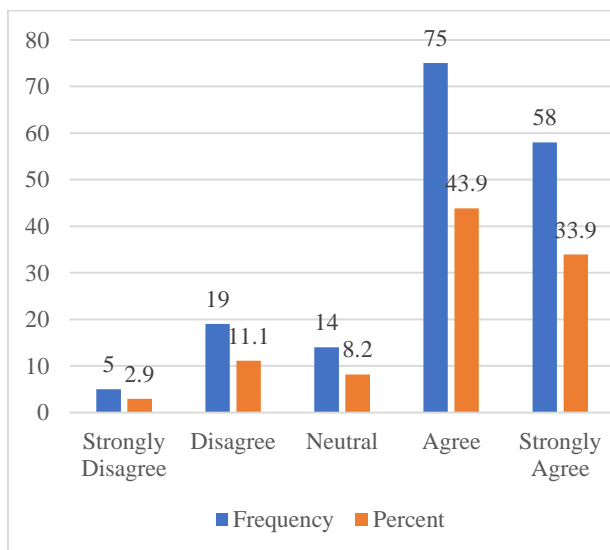


Figure 4.12.4: Technology eases business

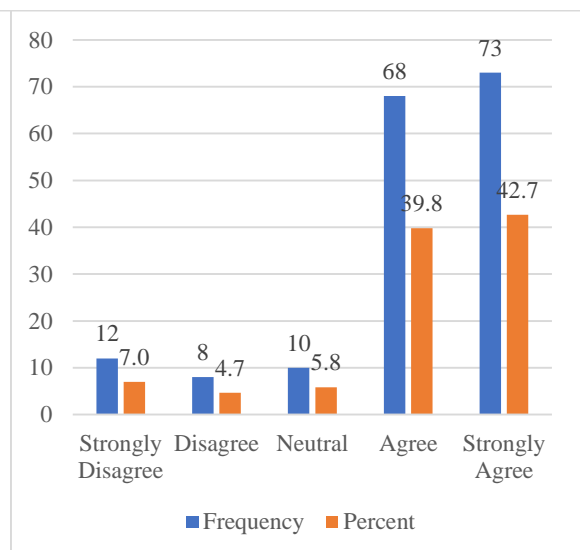


Figure 4.12.3 presents the findings regarding respondent perceptions on whether their business uses the latest technologies to provide new products/ services. Furthermore, Figure 4.12.4 depicts the findings regarding perceptions whether SME owners/managers believe technology makes doing business easier.

Figures 4.12.1-4 reflect SME owners'/ managers' perceptions concerning the influence of technology on the innovation strategy to be adopted. A majority, comprising just less than half (49.1 percent) of the respondents, agreed that technological capabilities are an influence, while 42 percent strongly agreed. However, 10.5 percent opted to remain neutral and seven percent chose to strongly disagree. The finding proves that technology plays a pivotal role in the innovation strategies of SMEs. In support, Dobni *et al.* (2015) submit that SMEs are becoming more aware of the need for technology as it enables them to be innovative (Mbali *et al.* 2019), thus, making consumers more informed of their preferred choices. In contrast, Bayarçelik *et al.* (2014) believe that some SMEs fail to develop new products/ services because of the cost associated with acquiring technologies.

A further 43.9 percent agreed that their business uses the latest technologies, 42.7 percent also agreed that technology makes the running of the business easier and more enjoyable. Interestingly, 34.5 percent of business strongly agreed that a relationship exists between technology and the production of improved products or services. The general agreement suggests that a majority of SMEs in Durban rely on technology to produce novel products or services. The findings mirror those of Moraes Silva, Lucas and Vonortas (2020), who suggest that SMEs are more radical and innovative. However, Subrahmanya *et al.* (2010) warn that the realisation of technological innovation by small firms is largely dependent on the availability of resources and the size of the business.

Table 4.14: Statements on SME technology

	Component	1
The organisation uses technological equipment.	B13.1	0,810
I believe a positive relationship between technology and business innovation strategy exists.	B13.2	0,884
The business relies on latest technologies to produce new products or services.	B13.3	0,739
I believe technology makes the running of the business easier.	B13.4	0,506

To determine whether the scoring patterns per statement were significant per option, a component test was conducted. Table 4.14 illustrates that the statements loaded perfectly in a single component. This implies that the statements that constituted these sections perfectly measured what it set out to measure and respondents are in conclusive agreement. Furthermore, the KMO Measure of Sampling Adequacy and Bartlett's test show significance between small business technologies and their influence on SME innovation strategies. The results indicate a KMO value greater than 0.500; $df = 4$; $sig = 0.000$, therefore, the hypothesis for this variable is accepted. It is then conclusive that technology plays a pivotal role in influencing Durban SMEs' innovation strategies.

4.8.8 Respondent Perceptions on Market Orientation and Customer Behaviour

Figure 4.13 and Table 4.12 present SME owners' / managers' perceptions on market orientation and consumer behaviour. The research sought to probe whether the market in which SMEs operate and the behaviour of the consumers contribute to innovation strategy.

Figure 4.13.1 and 4.13.2: Frequencies of statements regarding market orientation and consumer behaviour

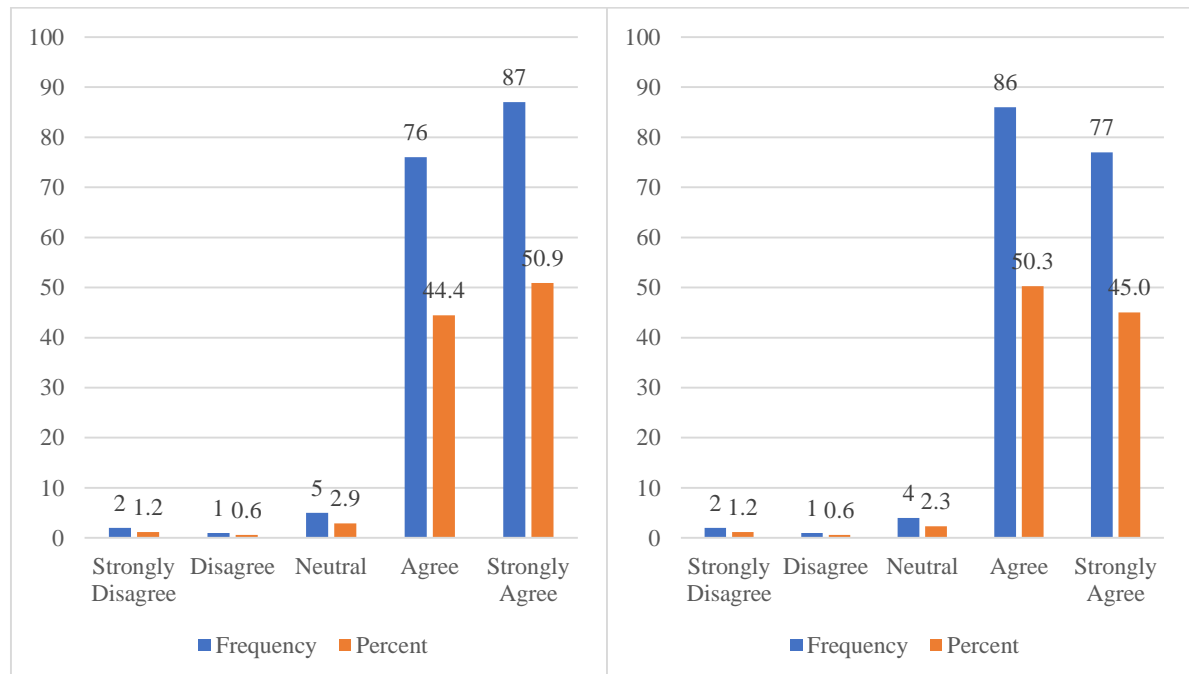


Figure 4.13.1 depicts perceptions on whether business managers fully understand customer needs. Figure 4.13.2 illustrates findings regarding whether the business offers products that add value to customers.

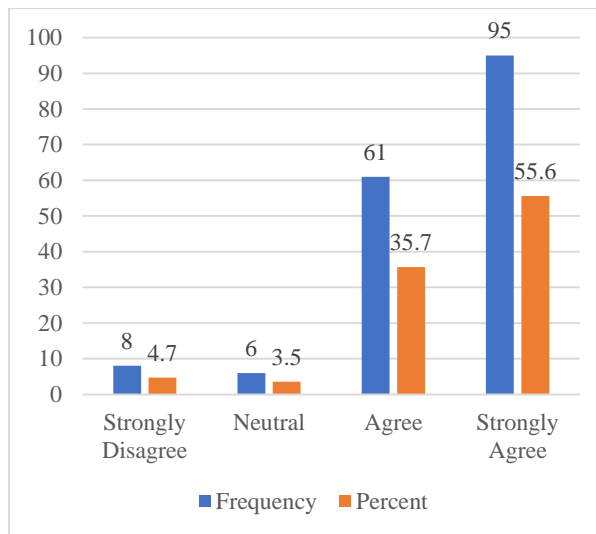
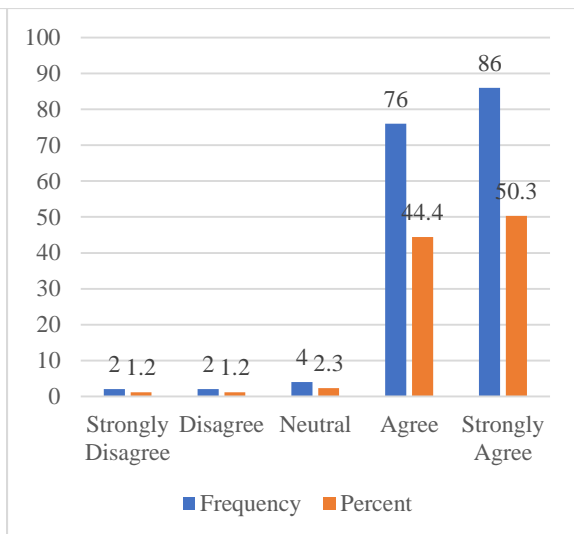
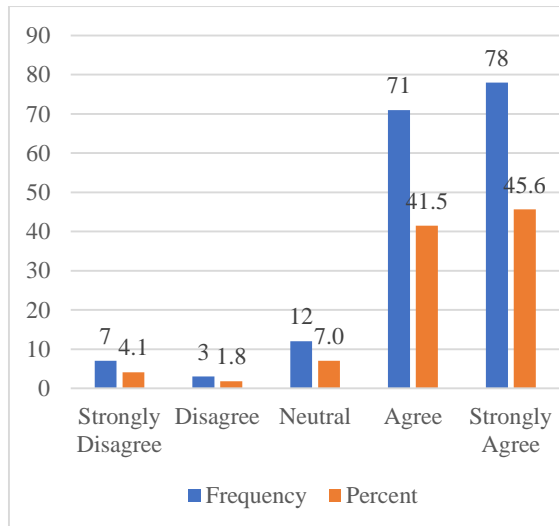
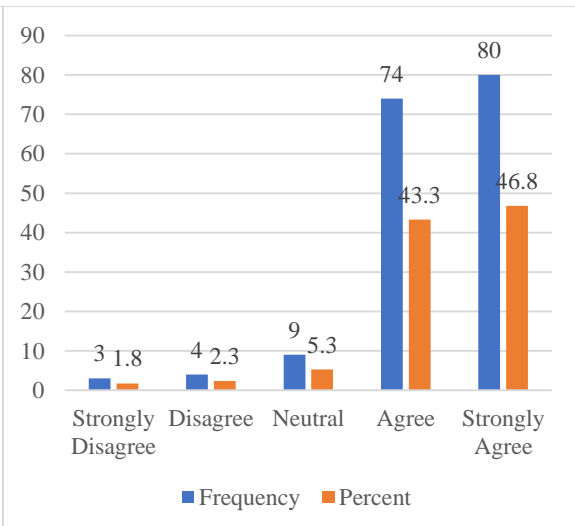
Figure 4.13.3: Buying patterns**Figure 4.13.4: Customer preferences**

Figure 4.13.4 presents responses regarding whether the Covid-19 pandemic has changed the buying patterns of customers. In addition, Figure 4.13.5 shows perceptions on whether the business fully understands customer preferences.

Figure 4.13.5: Customer first**Figure 4.13.6: Customer-oriented**

In Figure 4.13.5 findings regarding the statement offering customer needs is the business main priority are illustrated, while Figure 4.13.6 depicts responses on whether the business innovation strategy is influenced by a desire to offer customer-oriented products/ services.

Figures 4.13.1-6 depict the frequency of participant views regarding market orientation and consumer behaviour. A majority (55.9 percent) strongly agreed and 45.6 percent strongly

agreed, while seven percent remained neutral. A total of 4.1 percent strongly disagreed with the statement that market orientation and consumer behaviour have any influence on SME innovation strategies. The findings reveal that SME owners/ managers in Durban agreed that the needs of the market and consumer preferences play a part in determining a strategy. Ferrell *et al.* (2010) define market orientation as a business culture that deals with identifying customer needs in order to meet them.

Furthermore, 50.9 percent of respondents agreed that the products or services they offer add value to the consumer, while 45.6 percent believe that satisfaction of the consumer is the business' main priority. It is interesting to note that the majority of businesses (35.9 percent) agreed that the buying patterns of consumers have changed due to the Covid-19 pandemic. The researcher noted that on the 26th of March 2020 president Cyril Ramaphosa declared a national state of disaster and lockdown. The movement of people to the shops was restricted to only essential products or services. The findings conclusively demonstrate that Covid-19 has negatively affected SMEs in Durban. In support, several authors (Syriopoulos 2020; Juergensen *et al.* 2020; Bruwer, Hattingh and Perold 2020) concur that SMEs globally and SA in particular have been negatively affected by Covid-19.

Table 4.15: Statements on market orientation and customer

	Component	1
The owner/ manager understands the needs of the customers.	B14.1	0,556
The products/ service that we offer adds value to the customer.	B14.2	0,597
Because of Covid-19 the buying patterns of consumers has changed.	B14.3	0,629
The business fully understands customer preferences.	B14.4	0,755
The needs of the customers is the business' main priority.	B14.5	0,751
The business innovation strategy is influenced by the need to offer a consumer-oriented product/ service.	B14.6	0,711

To determine whether the scoring patterns per statement were significant per option, a component test was conducted. Table 4.15 illustrates that the statements loaded perfectly in a single component. This implies that the statements that constituted these sections perfectly measured what it set out to measure and respondents are in conclusive agreement. Furthermore, the KMO Measure of Sampling Adequacy and Bartlett's test show significance between small business technologies and their influence on SMEs innovation strategies. The results indicate a KMO value greater than 0.500; df = 4; sig = 0.000, therefore, the hypothesis for this variable is

accepted. It is then conclusive that market orientation and customer behaviour play a pivotal role in influencing Durban SME innovation strategies.

4.8.9 Respondent Perceptions on Human Capital

Figure 4.14 and Table 4.16 summarise perceptions of SME owners/managers regarding human capital. The research sought to understand the importance of human resources and their influence on innovation strategies.

Figure 4.14.1 and 4.14.2: Frequencies of statements regarding human capital

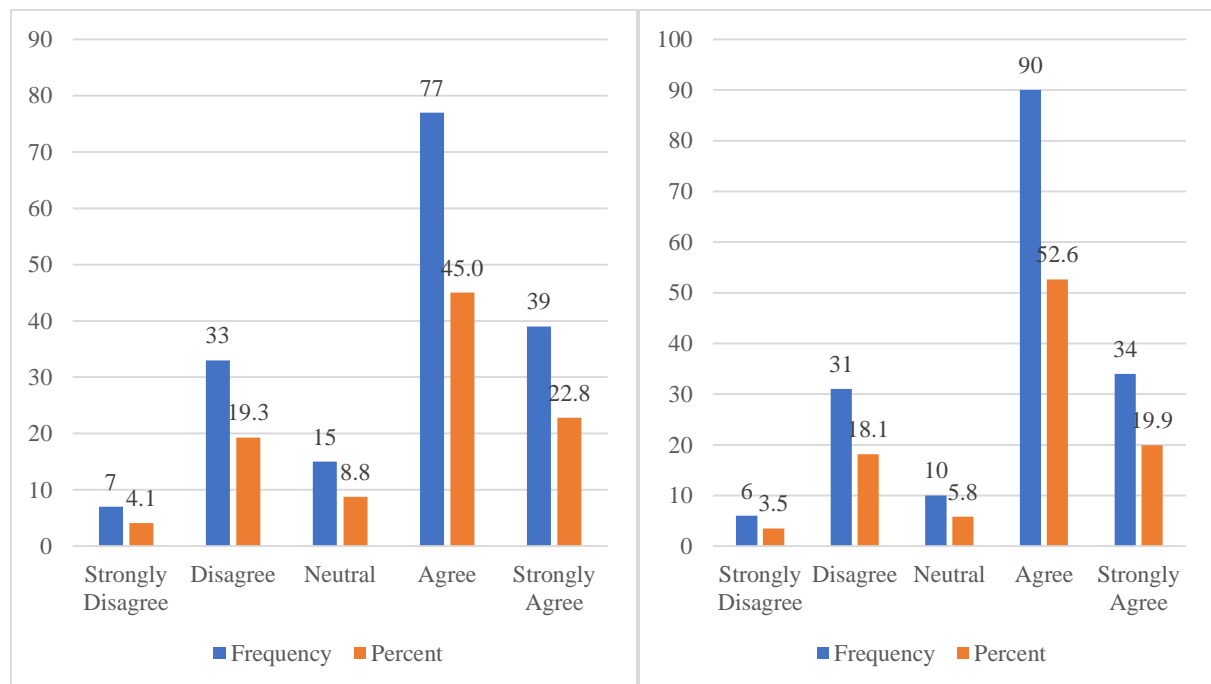
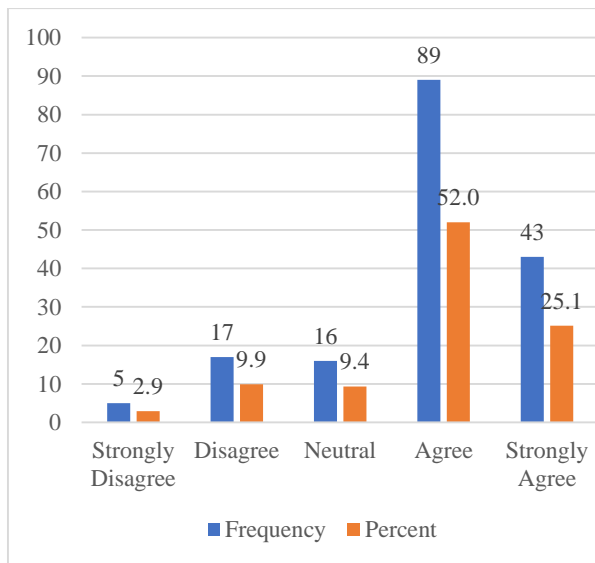
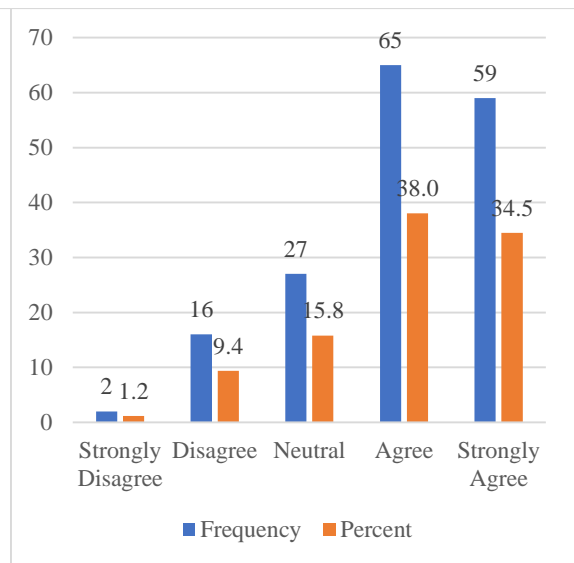
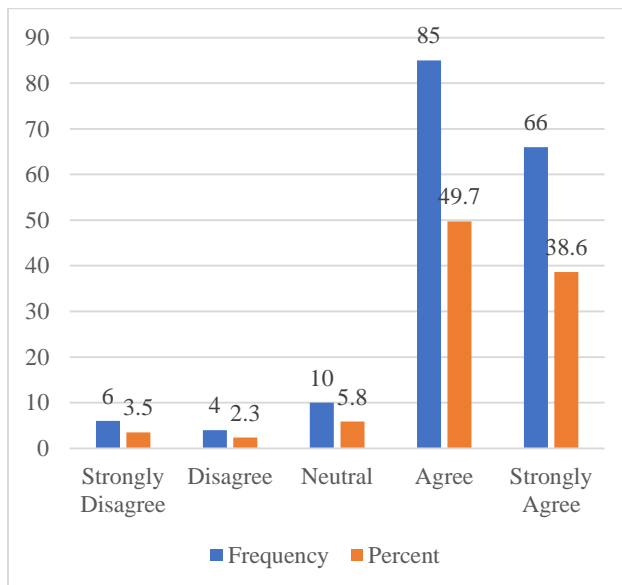


Figure 4.14.1 shows perceptions on whether the business employs the most qualified people, while Figure 4.14.2 illustrates findings as to whether qualification is a requirement when applying for a job.

Figure 4.14.3: Experienced new hires**Figure 4.14.4: Training and development**

Perceptions on whether the business employs people with the right experience are shown in Figure 4.14.3, while responses on whether the business invests in training and development are illustrated in Figure 4.14.4.

Figure 4.14.5: Business innovation strategy and skilled employees

In Figure 4.14.5 perceptions are reflected after respondents were asked to respond to the statement “I believe skilled employees positively influence the business innovation strategy”.

Figures 4.14.1-5 depict respondent perceptions on the statements regarding human capital. A majority (52.6 percent) agreed, 38.6 percent strongly agreed, 16 percent remained neutral, while

4.1 percent strongly disagreed with the statements that human resources are key. The general agreement conclusively indicate that a majority of SME owners/ managers place much importance on qualified human resources. In addition, the majority (38.5 percent) of SMEs indicated that they invest in employee training and development (statement 17.4). In support, training and development of employees is well stressed by Rabie, Cant and Wiid (2016); it leads to SME success in the market, specifically since small enterprises are characterised by a high failure rate (Cant and Wiid 2013).

In addition to agreeing that qualification is one of the requirements (52.6 percent), 52.2 percent also agreed that their businesses employs people with the right experience. A total of 49.7 percent agreed that skilled employees have a positive influence on promoting innovation. However, a low percentage (34.9 percent) of the respondents strongly agreed that they invest in employee training and development. The overall findings do suggest that SMEs in Durban agree with the importance of human resources in achieving creativity in the business. They do, however, lag behind in the area of employee training and development. The importance of training is eloquently summed up by Kulkarni (2013) who explains that training boosts the lives of employees and also ensures excellent business development.

Table 4.16: Statements on human capital

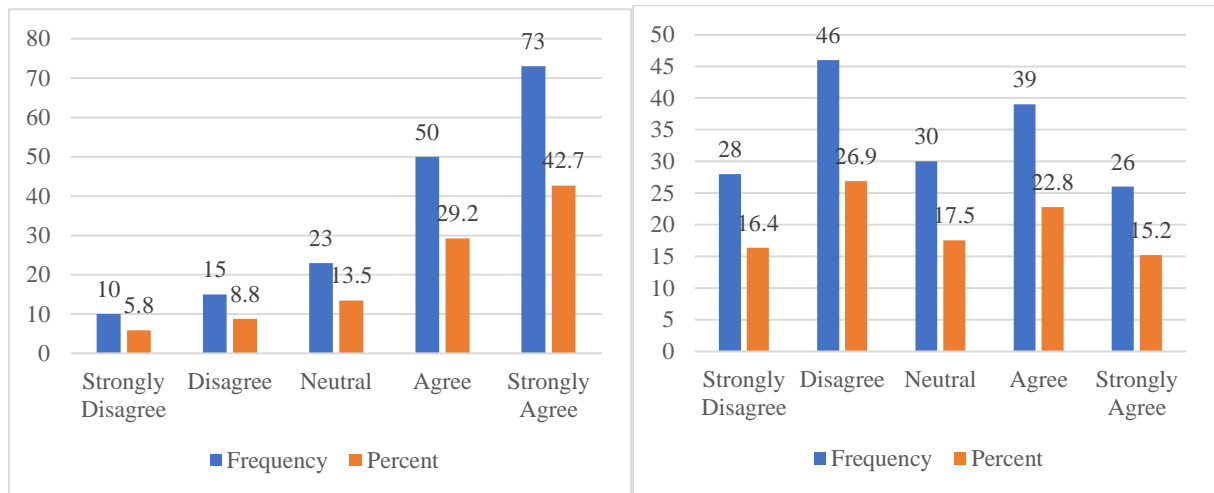
	Component	1
The business employees the most qualified personnel.	B17.1	0,771
Qualification is one of the requirements when applying for a job at our organisation.	B17.2	0,823
The firm employees' people with the right experience.	B17.3	0,569
The organisation invests in employee training and development.	B17.4	0,628
I believe skilled employees positively influence the business innovation strategy.	B17.5	0,406

A component test was conducted to determine whether the scoring patterns per statement were significant per option. Table 4.16 depicts that the statements loaded perfectly in a single component. This implies that the statements that constituted these sections perfectly measured what it set out to measure and respondents are in conclusive agreement. Furthermore, the KMO Measure of Sampling Adequacy and Bartlett's test show a significant relationship between human capital and its influence on SME innovation strategies. The results indicate a KMO value greater than 0.500; $df = 4$; $sig = 0.000$, therefore, the hypothesis for this variable is accepted. Human capital is influential in shaping SME innovation strategies.

4.8.10 Respondent Perceptions on the Resource-Based View

Figure 4.15 and Table 4.17 summarise the perceptions of SME owners/ managers in Durban regarding the influence of the availability of resources on innovation strategies.

Figure 4.15.1 and 4.15.2: Frequencies of statements regarding the resource based-view



Figures 4.15.1 and 4.15.2 reflect responses regarding whether the availability of resources influences SME innovation strategy and whether the business has sufficient resources to support innovation.

Figure 4.15.3: Limited resources

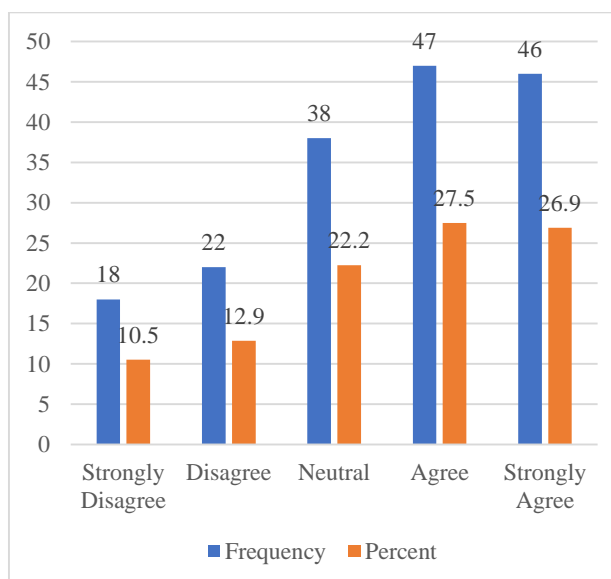


Figure 4.15.4: Resource volumes

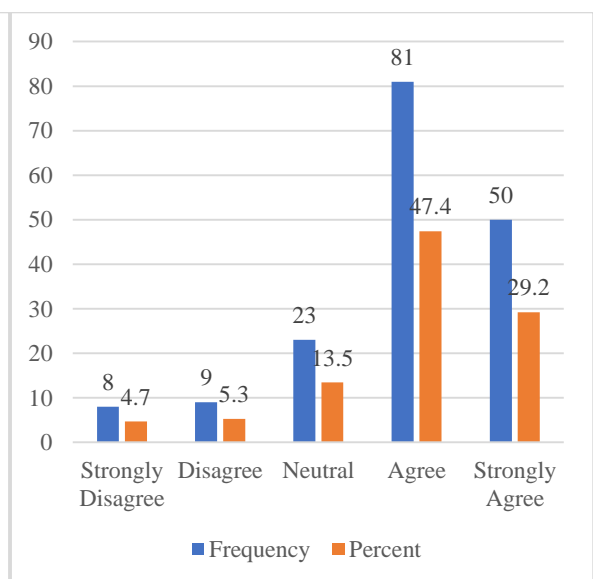


Figure 4.15.3 illustrates the findings on whether the business is struggling to innovate due to limited resources. In addition, Figure 4.15.4 shows respondent perceptions as to whether the business having more resources will aid its innovativeness.

Perceptions of SME owners/ managers concerning the RBV are presented in Figures 4.15.1-4. The availability of adequate resources shapes the ability of small business ventures to be innovative (Nagaraju 2015). Figure 4.15.1-4 shows that 27 percent of respondents disagreed, 17 percent opted to be neutral while 47 percent agreed to the statement that resources are of importance to the innovative agenda of SMEs. The general agreement is testimony that resources are key to SMEs and they influence innovation strategies. De Marco *et al.* (2020) assert that SMEs with fewer resources are less innovative.

Further, the resource-based theory, as abridged by Barney (2001), stipulates that the availability of resources affects the quality, quantity and selling price of the product or service. Consequently, a majority (47.4 percent) agreed that should their businesses acquire more resources it will be a great boost to creativity. In addition, a further 26.9 percent strongly agreed that a lack of resources is negatively affecting their innovation endeavours. These findings (Fig. 4.15.4) suggest that SMEs in Durban lament the lack of resources to support their innovation attempts. Therefore, should more resources be made available to SMEs in Durban, innovativeness will be greatly improved.

Table 4.17: Statements on the resource-based view

	Components	1
The availability of resources contributes to new innovation strategies.	B15.1	0,683
The business has sufficient resources to support the innovation strategies of the enterprise.	B15.2	0,318
Due to limited financial resources the business is unable to be innovative.	B15.3	0,385
If the business can acquire more resources, it can help achieve creativity.	B15.4	0,758

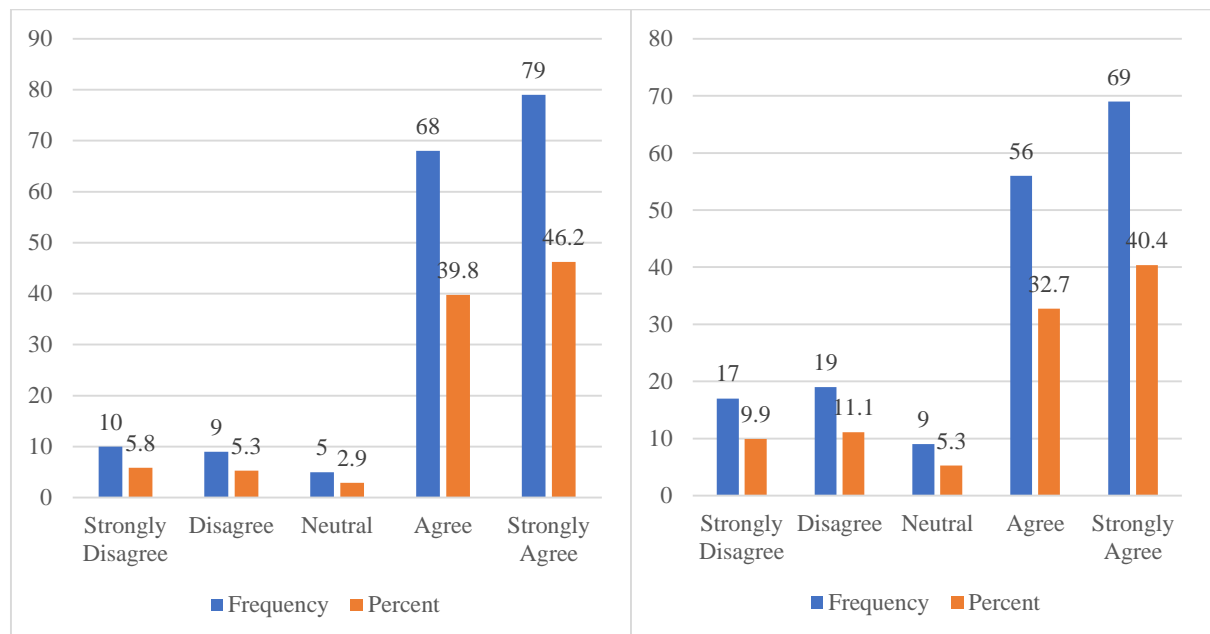
A component test was conducted to determine whether the scoring patterns per statement were significant per option. Table 4.17 illustrates that the statements loaded perfectly in a single component. This implies that the statements that constituted these sections perfectly measured what it set out to measure and respondents are in conclusive agreement. Furthermore, the KMO Measure of Sampling Adequacy and Bartlett's test show significance between small business resources and their influence on SMEs innovation strategies. The results indicate a KMO value

greater than 0.500; $df = 4$; $sig = 0.000$, therefore, the hypothesis for this variable is accepted. It is then conclusive that SMEs resources are influential in determining the innovation strategies.

4.8.11 Respondent Perceptions on SME Awareness of the Covid-19 Relief Fund

The study was undertaken in a time when the world is experiencing a severe pandemic (Covid-19). The study sought to test whether SMEs in Durban are aware of the Covid-19 relief fund. The fund was availed to them by the government of SA to assist with the negative effects of the pandemic. Table 4.18 and Figure 4.16 summarise the responses.

Figure 4.16.1 and 4.16.2: Frequencies of statements regarding SMEs awareness of the Covid-19 relief fund



Depicted in Figure 4.16.1 are the responses on whether SME owners are aware of the Covid-19 relief fund for small business, while Figure 4.16.2 shows whether respondents applied for the Covid-19 relief fund.

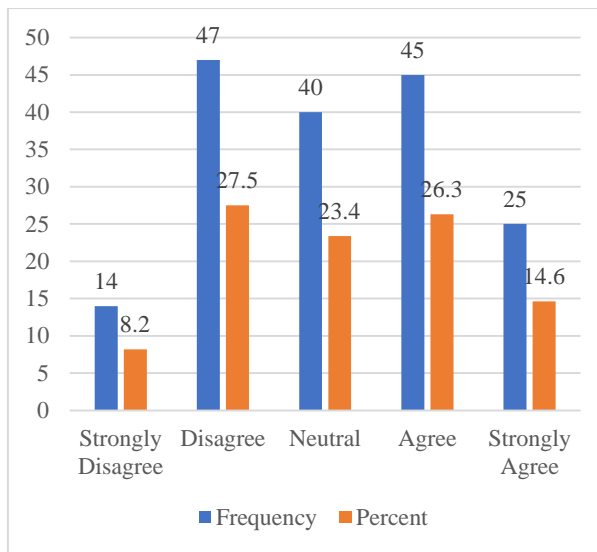
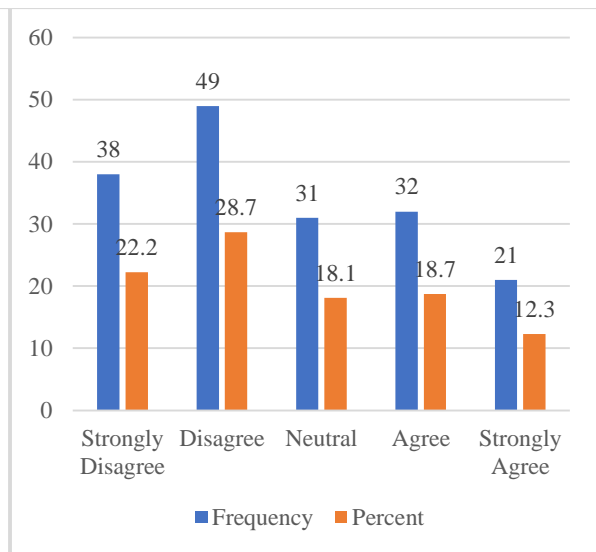
Figure 4.16.3: Covid relief fund assistance**Figure 4.16.4: Covid relief fund, innovation**

Figure 4.16.3 reflects perceptions of respondents when they were asked to engage with the statement “the Covid-19 relief fund is assisting the business during the pandemic”. Figure 4.16.4 depicts findings on whether the Covid-19 relief fund is in any way supporting SMEs to be innovative.

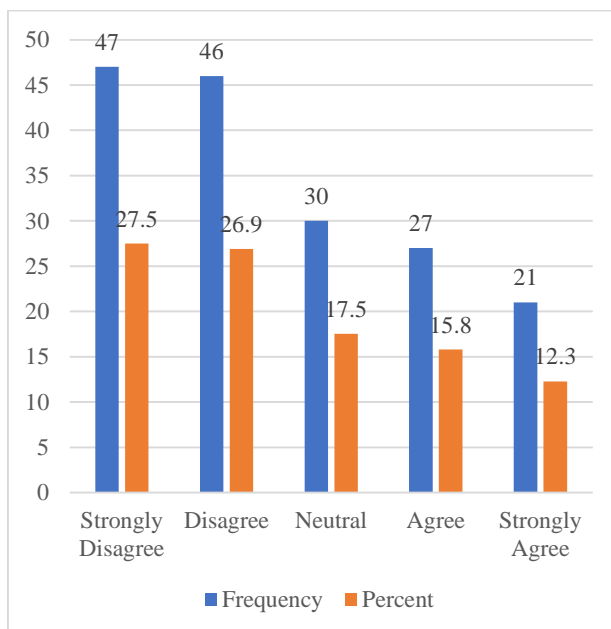
Figure 4.16.5: Covid-19 relief fund application process

Figure 4.16.5 shows responses regarding whether respondents found the process of applying for the Covid-19 fund to be easy.

Figures 4.16.1-5 depict the frequency at which respondents addressed the statements regarding SMEs awareness of the Covid-19 relief fund. The government of SA made funds available to assist SMEs that are experiencing distress due to the pandemic. The statements sought to test whether SMEs are aware of the fund and whether they are making use of it (Figures 4.16.1-2). A majority (46.2 percent) agreed, 39.8 percent strongly agreed, 27.5 percent disagreed, while 23 percent chose to remain neutral. It is clear from the findings that, in as much as the government has made funds available to SMEs, a sizeable number are not making use of the funds. The reasons might be that not much awareness has been created or red tape is hindering small ventures in accessing the funds.

Intriguingly, 39.8 percent of the respondents agreed they are aware of the Covid-19 relief fund, while 40.6 percent strongly agreed that they had applied for assistance from the relief fund. However, 27.5 percent disagreed that the relief fund is assisting them during the pandemic. The answer to that could be that the 27.5 percent respondents that strongly disagreed may be linked to the 26.9 percent that disagreed it was easy to apply for the Covid-19 SME relief fund. The research findings are damning. According to articles issued by News 24 and Mitchell (2020) writing for the Daily Maverick on 4 August 2020 reviewed massive looting of the Covid-19 funds has been unearthed. Reports indicate that the government was actually embarrassed by what it termed ‘barbaric behaviour’ of using the pandemic to ‘unlawfully enrich oneself.’

Table 4.18: SME awareness of the covid-19 relief fund

	Components	1	2
The owner/manager is aware of the SMEs Covid-19 relief fund.	B16.1		0,648
The owner/manager applied for the SMEs Covid-19 relief fund.	B16.2		0,672
The Covid-19 relief is assisting the business during the pandemic.	B16.3	0,725	
With the Covid-19 relief fund the business innovation strategy is being supported.	B16.4	0,849	
It is easy for the business to apply and receive the Covid-19 relief fund.	B16.5	0,748	

To determine whether the scoring patterns per statement were significant per option, a component test was conducted. Table 4.18 illustrates that the variable loaded in two components. The statements “The owner/manager is aware of the SME Covid-19 relief fund” and “The owner/manager applied for the SME Covid-19 relief fund” loaded in component 1 showing a score of 0.648 and 0.672 respectively. All the other statements loaded perfectly in

component 2. The discrepancy in scoring indicates that respondent views differ regarding the variable. However, the KMO Measure of Sampling Adequacy and Bartlett's test depict a significant relationship between the size of the business and its influence on innovation strategies. The results indicate a KMO value greater than 0.500; $df = 4$; $sig = 0.000$. Therefore, the hypothesis for this variable is accepted. Generally, SMEs in Durban are aware of the Covid-19 relief fund.

SECTION C

4.8.12 Respondent Perceptions on Innovative SMEs

The respondents were also quizzed on their perceptions regarding the innovativeness of SMEs. Figure 4.17 and Table 4.19 depict the responses.

Figure 4.17: Frequencies of statements regarding innovative SMEs

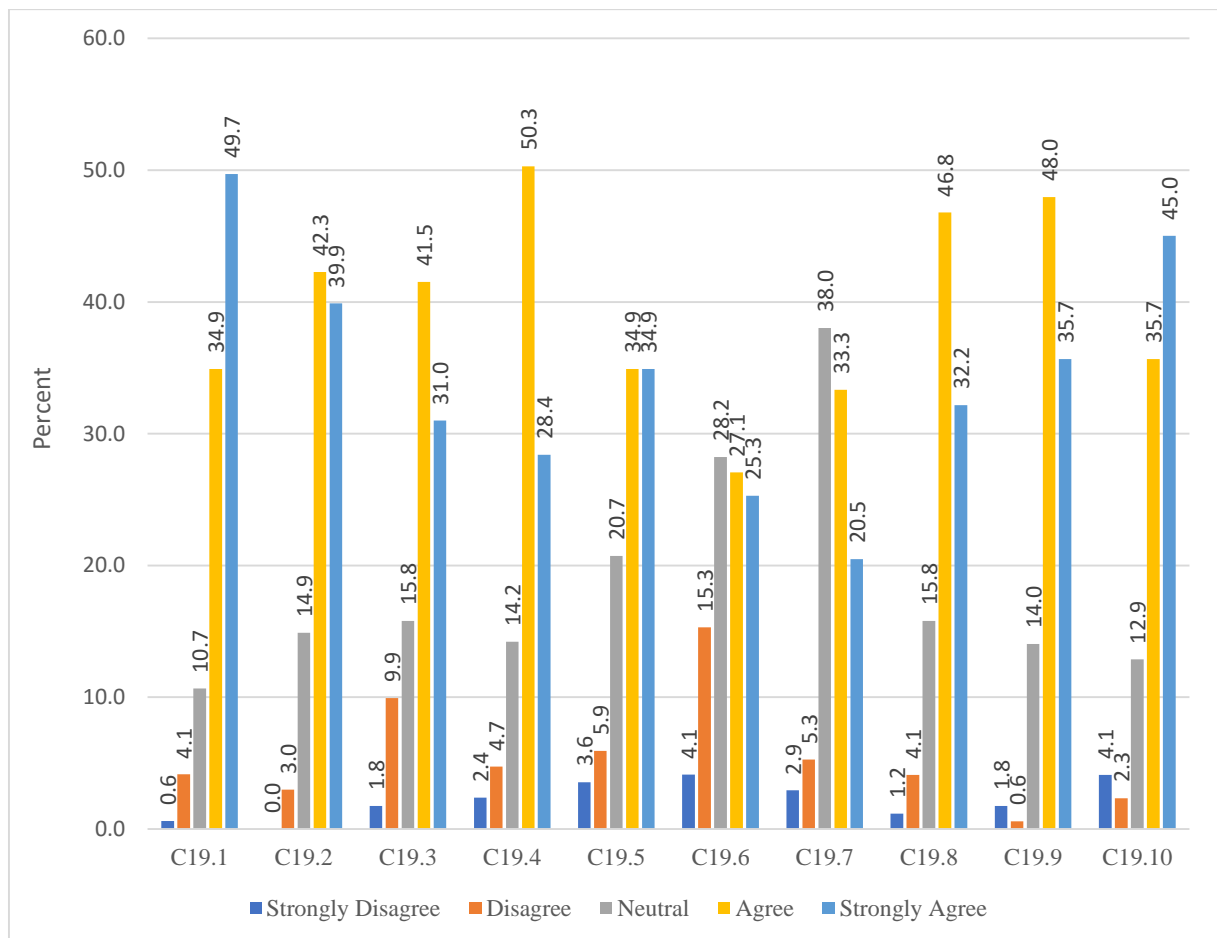


Figure 4.17 depicts responses by SME owners/ managers regarding their general belief as to whether small ventures are innovative. The statements also sought to understand the challenges

SMEs face that lead to innovative strategies. A majority (27.1 percent) agreed that SMEs in Durban are innovative, while 28.2 percent remained neutral (statement 19.6). A total of 49.7 percent strongly agreed that SMEs make up the backbone of the economy and 34.9 percent agreed, while 4.1 percent disagreed (statement 19.1). Interestingly, 46.8 percent agreed that innovative small business experience growth. The finding is in line with literature (Bouazza 2015; Chandran *et al.* 2019) wherein it is stated that innovation propels SME growth. Survival of SMEs is a challenge in SA as the majority fail (Rabie *et al.* 2016).

Further, a majority (42.3 percent) agreed that SMEs that are innovative promote employment, (50.3 percent) believe that innovation is the nerve that SMEs performance and survival is depends on. In addition, a total of 38 percent of the respondents opted to remain neutral to the statement that government provides funding to support SMEs in Durban. A further 46.8 percent believe that innovativeness promotes SME growth, with 35.7 percent strongly agreeing that innovative small businesses help alleviate poverty. The findings conclusively confirm that SMEs in Durban are aware and fully understand the influence of innovation on their businesses.

Table 4.19: Statements on innovative SMEs

	Component	1
I believe innovative SMEs improve economic growth.	C19.1	0,733
I believe innovative SMEs helps create employment.	C19.2	0,739
Without innovation strategies SMEs cannot survive.	C19.3	0,754
The performance of SMEs and survival is dependent on innovation.	C19.4	0,799
Innovation is a necessity for SMEs sector growth.	C19.5	0,772
SMEs in Durban are largely innovative.	C19.6	0,551
Funding is available to support small businesses.	C19.7	0,433
Innovations drives SMEs growth.	C19.8	0,651
I believe innovative small businesses help to alleviate poverty.	C19.9	0,737
Small firms are the backbone of the economy.	C19.10	0,482

A component test was conducted to determine whether the scoring patterns per statement were significant per option. Table 4.19 illustrates that the statements loaded perfectly in a single component. This implies that the statements that constituted these sections perfectly measured what it set out to measure and respondents are in conclusive agreement. Furthermore, the KMO of Sampling Adequacy and Bartlett's test were conducted. The results indicate a KMO value greater than 0.500; $df = 4$; $sig = 0.000$, therefore, the hypothesis for this variable is accepted. It

is then conclusive that SMEs in Durban are in agreement that they are innovative and contribute to the economy.

4.9 CROSS TABULATION

Cross tabulation is defined as the abridged version of categorical data presented in a table format comprising of frequencies (Momeni, Pincus and Libien 2018). The current study performed a second Chi square test to determine whether there was a statistically significant relationship between the variables (rows vs columns). The null hypothesis states that there is no association between the two. The alternate hypothesis indicates that there is an association. Below are the presentations of the cross tabulations.

Table 4.19: Cross tabulation between finance and experience (years)

Without financial access small firms will find it difficult to innovate* experience

		Experience (years)							Total
			1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	> 25	
Without financial access small firms will find it difficult to innovate			0	1	0	0	0	3	4
% within E			0,0%	2,0%	0,0%	0,0%	0,0%	25,0%	2,3%
Disagree			Count	5	3	4	1	3	17
% within E			10,2%	6,1%	15,4%	4,8%	21,4%	8,3%	9,9%
Neutral			Count	5	3	1	1	0	11
% within E			10,2%	6,1%	3,8%	4,8%	0,0%	8,3%	6,4%
Agree			Count	25	25	13	15	7	90
% within E			51,0%	51,0%	50,0%	71,4%	50,0%	41,7%	52,6%
Strongly Agree			Count	14	17	8	4	4	49
% within E			28,6%	34,7%	30,8%	19,0%	28,6%	16,7%	28,7%
Total			Count	49	49	26	21	14	171
% within E			100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Table 4.20 illustrates the responses between “financial access and experience”. As depicted, small businesses in operation for 16-20 years agreed (71.4 percent) that without financial assistance it is difficult for SMEs to innovate. Businesses in the category 6-10 years also strongly agreed (34.7 percent) that financial assistance is critical in influencing SME innovation. The p-value between “Experience” and “Without financial access small firms will find it difficult to innovate” is 0.007. This means that there is a significant relationship between the variables. That is, the experience of respondents does play a significant role in terms of how respondents view the level of innovation and financial access.

Table 4.20: Cross tabulation between Government support and Experience (years)**The government provides financial incentives to SMEs that are innovative* Experience**

		Experience (years)							Total
			1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	> 25	
The government provides financial incentives to small businesses	Strongly Disagree	Count	2	1	1	0	0	3	7
		% within Experience	4,1%	2,0%	3,8%	0,0%	0,0%	25,0%	4,1%
Disagree	Count	5	2	1	2	1	1	1	12
		% within Experience	10,2%	4,1%	3,8%	9,5%	7,1%	8,3%	7,0%
Neutral	Count	14	14	8	1	4	0	0	41
		% within Experience	28,6%	28,6%	30,8%	4,8%	28,6%	0,0%	24,0%
Agree	Count	25	18	13	13	7	5	5	81
		% within Experience	51,0%	36,7%	50,0%	61,9%	50,0%	41,7%	47,4%
Strongly Agree	Count	3	14	3	5	2	3	3	30
		% within Experience	6,1%	28,6%	11,5%	23,8%	14,3%	25,0%	17,5%
Total	Count	49	49	26	21	14	12	12	171
		% within Experience	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Table 4.21 shows the responses between “experience” and “government financial support and experience”. More than half (61.9%) of the businesses in operation for between 16-20 years agreed, while a further 50 percent in the category 21-25 years agreed that the government provides SMEs with financial incentives. The findings reveal that as the business ages and becomes more innovative, government provides the owner with incentives. The p-value between “Experience” and “The government provides financial incentives to SMEs that deliver new products/services” is 0.19. This means a significant relationship exists between the variables. That is, the experience of the respondent does play a significant role in terms of how respondents view government support to SME innovativeness.

Table 4.21: Cross tabulation between Managerial competences and Sector
I believe I have the required competences to operate the business * Sector

		Sector						Total
		Manufacturing	Retail	Communication	Finance	Transport	Other	
I believe I have the required competences to operate the business	Strongly Disagree	Count	0	3	0	0	0	3
	% within S	0,0%	5,3%	0,0%	0,0%	0,0%	0,0%	1,8%
	Neutral	Count	2	2	1	0	4	10
	% within S	6,3%	3,5%	12,5%	0,0%	20,0%	2,4%	5,8%
	Agree	Count	14	30	4	3	6	84
	% within S	43,8%	52,6%	50,0%	25,0%	30,0%	64,3%	49,1%
	Strongly Agree	Count	16	22	3	9	10	74
	% within S	50,0%	38,6%	37,5%	75,0%	50,0%	33,3%	43,3%
Total	Count	32	57	8	12	20	42	171
	% within S	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Figure 4.22 presents the responses between “sector” and “I believe I have the required competences to operate the business”. As illustrated, half of the SMEs in manufacturing strongly believe they possess the right competences to run the business. A further 64.4 percent in “Other” and 52.6 percent in retail also believe they have the right skills to manage the business effectively. The findings suggest that competences are of great significance to a majority of SME sectors in Durban. The p-value between “sector” and “I believe I have the required competences to operate the business” is 0.045. This means a significant relationship exists between the variables. That is, the sector of the respondent does play a significant role in terms of how respondents view the importance of having the right competences.

Table 4.22: Cross tabulation between Covid-19 and Education**The manager applied for the SMEs Covid-19 relief fund * Education**

			Education					Total		
			Matric / Certificate /	Bachelor's degree /	Masters	Doctorate				
The owner/manager applied for the SMEs Covid-19 relief fund			Strongly Disagree	Count	4	5	5	1	2	17
			% within Education		10,8%	8,9%	12,2%	4,2%	16,7%	10,0%
			Disagree	Count	8	4	0	6	1	19
			% within Education		21,6%	7,1%	0,0%	25,0%	8,3%	11,2%
			Neutral	Count	3	1	1	2	2	9
			% within Education		8,1%	1,8%	2,4%	8,3%	16,7%	5,3%
			Agree	Count	9	21	21	3	2	56
			% within Education		24,3%	37,5%	51,2%	12,5%	16,7%	32,9%
			Strongly Agree	Count	13	25	14	12	5	69
			% within Education		35,1%	44,6%	34,1%	50,0%	41,7%	40,6%
Total				Count	37	56	41	24	12	170
			% within Education		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Figure 4.23 reflects the responses between “education and the manager applied for the SMEs Covid-19 relief fund”. From these responses it is clear that a majority of SME owners/managers with a Master’s degree strongly agreed (50 percent), while 35.1 percent with a certificate also strongly agreed that they applied for the relief fund. The findings suggest that SME owners/managers with a higher qualification were more informed of the Covid-19 relief fund and its benefits. Consequently, those with lower qualifications proved not to be well informed with regard to SME Covid-19 relief. The p-value between “education” and “the manager applied for the SMEs Covid-19 relief fund” is 0.12. This means a significant relationship was found between the variables. That is, education of the respondent does play a significant role in terms of how respondents viewed the need to apply for the Covid-19 relief fund.

Table 4.23: Cross tabulation between Qualification and Sector**The business employs the most qualified personnel * Sector**

		Sector						Total
		Manufacturing	Retail	Communication	Finance	Transport	Other	
The business employs the most qualified personnel	Strongly Disagree	Count 3	1	0	1	0	2	7
	% within S	9,4%	1,8%	0,0%	8,3%	0,0%	4,8%	4,1%
	Disagree	Count 1	15	1	0	6	10	33
	% within S	3,1%	26,3%	12,5%	0,0%	30,0%	23,8%	19,3%
	Neutral	Count 6	3	4	0	1	1	15
	% within S	18,8%	5,3%	50,0%	0,0%	5,0%	2,4%	8,8%
	Agree	Count 13	22	3	7	11	21	77
	% within S	40,6%	38,6%	37,5%	58,3%	55,0%	50,0%	45,0%
	Strongly Agree	Count 9	16	0	4	2	8	39
	% within S	28,1%	28,1%	0,0%	33,3%	10,0%	19,0%	22,8%
Total	Count	32	57	8	12	20	42	171
	% within S	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

Table 4.24 illustrates the responses between “sector and the business employees the most qualified personnel”. The table shows that 58.3 percent of the respondents in finance agreed, while a further 50 percent in “other” also agreed that their businesses employ the most qualified persons. Interestingly, 30 percent in the transport sector disagreed and 26.3 percent in the retail sector also disagreed that qualification is a factor when selecting who to employ. The overall findings suggest that a majority of SMEs in Durban employ the most qualified personnel to do the job. The p-value between “sector” and “the business employs the most qualified personnel” is 0.001. This means a significant relationship was established between the variables. That is, the sector of the respondent does play a significant role in terms of how respondents viewed the need to employ the person who possesses the required qualification.

Table 4.24: Cross tabulation of Competitive advantage and Experience**The business innovates to maintain a competitive advantage * Experience (years)**

		Experience (years)							Total
			1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	> 25	
The business innovates in order to maintain a competitive advantage	Strongly Disagree	Count	2	0	0	1	0	2	5
		% within Experience	4,1%	0,0%	0,0%	4,8%	0,0%	16,7%	2,9%
Disagree	Count	1	1	2	1	0	0	5	
		% within Experience	2,0%	2,0%	7,7%	4,8%	0,0%	0,0%	2,9%
Neutral	Count	2	4	2	1	0	3	12	
		% within Experience	4,1%	8,2%	7,7%	4,8%	0,0%	25,0%	7,0%
Agree	Count	35	26	12	9	11	7	100	
		% within Experience	71,4%	53,1%	46,2%	42,9%	78,6%	58,3%	58,5%
Strongly Agree	Count	9	18	10	9	3	0	49	
		% within Experience	18,4%	36,7%	38,5%	42,9%	21,4%	0,0%	28,7%
Total	Count	49	49	26	21	14	12	171	
	% within Experience	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

Figure 4.25 presents the cross tabulation between “experience and the business innovate in order to maintain a competitive advantage”. The table shows respondent agreement by 18.4 percent of the SME that have been in operation for 1-5 years; 36.7 percent between 6-10 years; 38.5 percent between 11-15 and 42.9 percent between 16-20 years that they innovate in order to maintain competitiveness. The findings reveal that SMEs in Durban engage in innovation more as the number of operational years of the business increases. The p-value between “experience” and “the business innovates in order to maintain a competitive advantage” is 0.022. This means a significant relationship exists between the variables. That is, experience of the business does play a significant role in terms of how respondents view the need to be innovative to maintain a competitive edge in the market.

4.10 STUDY LIMITATION

Very few studies have been conducted on factors influencing SME innovation strategies in SA. Subsequently, the findings are specific to Durban and cannot be generalised to SMEs in other cities.

4.11 SUMMARY OF THE CHAPTER

The chapter presented an in-depth analysis and discussion of the research findings of SMEs in Durban, SA. The findings were illustrated using descriptive statistical techniques that included demographics, factors influencing innovation and innovative SMEs. The data were processed using the latest version 26 of SPSS. The final chapter will present the conclusion and recommendations based on the research findings.

5 CHAPTER FIVE

RECOMMENDATIONS AND CONCLUSION

“It is the responsibility of leaders to create an environment which helps employees to transcend barriers to innovation” (Taneja et al. 2016)

5.1 INTRODUCTION

This chapter follows on the data discussion and findings set out in the previous chapter and provides the main conclusions of this research study. The study conclusions are drawn from the research findings and answer the research objectives. The aim of the study was to assess the factors influencing SME innovation strategies in Durban. Recommendations on best practices that small businesses in Durban can use to strengthen innovation strategies will also be provided at the end of the chapter.

5.2 SUMMARY OF KEY FINDINGS

- The study found that a majority of SMEs (64.9 percent) in Durban invest in technology. The implication of the findings is positive; as technological equipment is reported to aid innovative activities.
- The study also determined that a majority of SMEs agreed that the size of a firm influences innovation strategies. The findings concur with those of Jin, Navare and Lynch (2019), who posit that innovation is an important element that influences the growth of a firm.
- In addition, the study showed that a majority of SMEs owners/ managers strongly agreed that the global pandemic caused by Covid-19 has changed the consumer buying pattern. A study conducted by Hall, Prayag, Fieger and Dyason (2020) confirms that a global pandemic has the potential to change consumer buying behaviour. Hence, the need for SMEs to have a strategy ready to mitigate the challenge.
- Furthermore, the study findings reveal that management competencies influence SME innovation strategies. A majority of respondents (52.6 percent) agreed that management skills and knowledge influence the innovation strategy.
- The study also found that human resources play a pivotal role in shaping and influencing innovation activities in firms. A majority of SME owners/ managers agreed they employ people with the right skills, knowledge and expertise.

- Additionally, the study confirms that access to funds is a factor that influences SME innovation strategies. Innovation activities are reported to be expensive, specifically for small businesses, which means access to finance is a must to bolster innovation activities (Fombang and Adjasi 2018).
- According to the research findings, a majority of SMEs strongly agreed that innovative SMEs create employment. The findings are in line with literature that also confirms the significance of SMEs in job creation and poverty alleviation.

5.3 LITERATURE REVIEW COMPARATIVE FINDINGS

The study established that there is a myriad of factors that influence SMEs in the Durban area to innovate. A majority of SME owners/ managers appreciate the influence government support has on the innovation strategy they adopt. Furthermore, they suggest the environment created by the government through funding and policies aid the innovative nature of SMEs. Literature reviewed highlighted that SME innovation flourishes more when they have government support and backing (Fatoki 2014a). Additionally, the research found a sizeable number of SMEs in Durban strongly agreed that access to finance greatly influences innovation. A majority acknowledged they find it difficult to produce novel products or services when they do not have access to funding. Literature reviewed confirm access to finance as the key driver for SME innovation (Hoogendoorn *et al.* 2017).

Moreover, the study further concludes that a majority of SMEs in Durban believe that the educational level of the owner/manager influences the innovation culture of the business. It was generally agreed by most SME owners/managers that businesses with managers who possess some form of qualification are seemingly more innovative. Furthermore, such managers help create an innovative business culture through sharing of ideas and rewarding innovative thinking. However, a majority of SME owners/ managers in Durban did attest that they do not provide training to employees. A study conducted by Colclough *et al.* (2019) confirms the importance of managerial competences, while Nieman and Nieuwenhuizen (2009) stress the need to provide employee training.

The study draws the conclusion that a majority of SMEs in Durban are operating beyond the first five years. It was revealed that almost the same number of SMEs progress from five years of operation to 10 years. The conclusions are contrary to literature, with for example, Muriithi

(2017) who suggests SMEs in SA are characterised by a high failure rate. The study also concludes that SMEs in Durban are helping grow the economy through their innovativeness. The findings are in line with general agreement found in literature that SMEs are the backbone of the economy (Machaka 2018).

It is further concluded by the study that a majority of SMEs in Durban invest in technology to advance innovativeness, with a majority of SME owners/ managers having strongly agreed they are now in the business of investing in the latest technology. Additionally, SMEs in Durban confirmed that technology facilitates the production of novel products and services. According to various studies, such as that by Talukder *et al.* (2020), it is largely agreed that technology makes it much easier for SMEs to innovate. Furthermore, the study concluded it was SME owners with some form of tertiary qualification that mostly applied for the Covid-19 SME relief fund. The relief fund is provided by the SA government to support SMEs who are experiencing financial distress due to the pandemic.

Furthermore, although a majority of SME owners/managers agreed they promote innovative ideas, no evidence suggests that the employees responsible for the innovations are rewarded. The study draws a conclusion that employees who bring innovative ideas should be rewarded. Rewards, in any form, to employees ensure continuity in generation of creative ideas.

5.4 CONCLUSIONS

- The study concludes that a majority of SMEs in Durban agreed that the government of SA provides financial assistance. The researcher understands that the government has made funds available to support SMEs to better cope with the Covid-19 pandemic.
- It is also concluded by the study that a majority of small business ventures in Durban agreed that poor economic performance negatively affects innovation activities. The businesses reported that their ability to produce new products or provide new service are being hampered by the current economic recession.
- It can also be concluded that a majority of SMEs lack adequate resources to support innovation endeavours. A majority highlighted that they lack sufficient resources to produce novel products.
- Finally, the study concludes that a majority (46.2 percent) of SME owners/ managers in Durban are aware of the SME Covid-19 relief fund. A majority also agreed that they applied

for the funds. However, a majority confirmed that the application process is tedious and cumbersome.

5.5 STUDY RECOMMENDATIONS

- Small business enterprises in Durban need to develop their own innovation strategy policies. Having a conducive government policy is important, however, an “in house” innovation policy is more important as it will inform all innovation activities for the business.
- Training and Development of employees will ensure continued innovative ideas and guarantees SME growth. It is also important for SME owners/ managers to attend innovation workshops, as they are important for knowledge sharing.
- The government of SA should continue to support SMEs financially and through innovative-friendly policies. The Covid-19 SME relief fund is a welcome gesture; however, the application process can be improved.
- Availability and access to financial resource remain a challenge for SMEs. Small business ventures need to adopt financing options such as bootstrapping, crowdfunding and trade credit to ensure their sustainable growth.
- Finally, Covid-19 is a global pandemic that caught everyone, including SMEs, unaware. This then mean SMEs need to be better prepared for eventualities such as a global pandemic.

5.6 STUDY IMPLICATIONS

The research project has highlighted some of the most critical factors that influence SME innovation strategies in Durban. Policy makers, academics and SMEs stakeholders will find the study informative.

5.7 FURTHER STUDY RECOMMENDATIONS

- The study was limited to Durban in KZN province only. Future researchers may expand the study to cover all provinces in South Africa.
- The research study targeted SME owners/ managers. Further studies can be undertaken by targeting SME employees.
- The current study employed a quantitative research methodology. Further research can be conducted using qualitative or mixed research methods.

5.8 SUMMARY OF THE RESEARCH CHAPTERS

Chapter 1

The introductory chapter outlined the background to the study and linked it to the local context, while the research problem of the study was also highlighted. The researcher explained that the problem of the study is based on a knowledge gap. In addition, the research questions and objectives were presented, outlining what the research sought to answer and achieve. The significance of the study was detailed, with emphasis on the fact that SMEs in Durban stand to benefit the most from the findings. The study revolves around factors influencing SME innovation strategies in Durban. Lastly, geographic factors were employed to delimit the study to only registered SMEs in Durban, KZN. The chapter was concluded by setting out the overall structure of this research study.

Chapter 2

The chapter presented and discussed the current literature on factors influencing innovation in SMEs. The reviewed literature was directly linked to the research question and objectives of the study. The chapter explicated on the state of SME innovation in SA, highlighting that even though the SA government has made favourable policies that promote SME innovation, the sector is still characterised by a high failure rate. Literature was also reviewed on the role of innovation in SME economic development and growth. The literature conclusively suggested that innovative small enterprises are paramount in both economic development and SME growth. The chapter also presented literature on the main challenges faced by SMEs that impact on innovativeness. Lack of access to finances was noted to be the main challenge for small businesses. Literature of factors influencing SME innovation strategies was also reviewed in greater detail. The chapter concluded by examining the effects of Covid-19 on SMEs and how the SA government was assisting. The researcher noted that not only is the government assisting distressed SMEs but other stakeholders such as banks have also come on board.

Chapter 3

The methodology used for the study to achieve its research objectives was outlined in this chapter. The research was quantitative in nature and a questionnaire with closed-ended questions was used as the tool to collect data. The target population for the study was also outlined, and comprised SME owners/managers in Durban. Furthermore, different sampling techniques were explained and the reason why non-probability sampling was perceived the most appropriate for the study. The importance of validity and reliability to the study was also

outlined. The chapter concluded by explaining how ethical considerations were to be observed by the researcher, who explained that ethical clearance was to be obtained first from the DUT. Lastly, participants had to consent to participating in the research and not sharing their identity and their continued health was of priority to the researcher.

Chapter 4

The chapter presented the discussion and analysis of the data collected for the study. The chapter confirmed the instrument used to mine the data and the response rate achieved. The main findings of the study were presented using descriptive statistics, in other words, the findings were summarised in the form of tables, pie charts, bar graphs and cross tabulations. In addition, findings of significant p values less than 0.05 were discussed in greater detail. Lastly, SPSS v 26.0 was the most descriptive tool used to present the findings and Cronbach's Alpha ensured reliability.

Chapter 5

This is the last chapter of the current study and it has presented the conclusions and recommendations for the research in detail. In this section an overall summary of the research is outlined and conclusions based on the research objectives provided. The recommendations on best approaches that can be employed by SMEs in Durban to improve innovation strategies are suggested. The chapter concludes by providing areas for future research.

5.9 CONCLUDING REMARKS

The aim of the study was to assess the factors influencing innovation strategies of SMEs in Durban. A total of 248 closed-ended questionnaires were distributed to SME owners/ managers in Durban, KZN. Current literature on SMEs and innovation was reviewed thoroughly in chapter two. Data collected from the respondents were analysed using the latest versions of statistical tools. The findings reveal that factors such as firm size, access to finance, managerial competences and government support influence SME innovation strategies. Finally, the study concluded by recommending actions that SMEs in Durban may pursue in order to improve innovativeness and competitive advantage, along with suggested areas that future researchers can look at to advance the study.

REFERENCE LIST

- Abd Aziz, N. N. and Samad, S. 2016. Innovation and competitive advantage: Moderating effects of firm age in foods manufacturing SMEs in Malaysia. *Procedia Economics and Finance*, 35(2016): 256-266.
- Abdu, M. and Jibir, A. 2018. Determinants of firm's innovation in Nigeria. *Kasetsart Journal of Social Sciences*, 39(3): 448-456.
- Abor, J. and Quartey, P. 2010. Issues in SME development in Ghana and South Africa. *International Research Journal of Finance and Economics*, 39(6): 215-228.
- Adams, K. A. and Lawrence, E. A. 2015. *Research methods, statistics and applications*. London: Sage Publications.
- Acemoglu, D. and Pischke, J. S. 1999. Beyond Becker: Training in imperfect labour markets. *The Economic Journal*, 109(453): 112-142.
- Addae-Boateng, S. and Dzisi, S. G. 2016. Innovation enhancement in family business SMEs in Ghana. *International Journal of Innovation Science*, 8(4): 388-403.
- Agbola, R. M. and Amoah, A. 2019. Coding systems and effective inventory management of SMES in the Ghanaian retail industry. *Central Inquiry*, (1): 46-65.
- Agyei, S. K. 2018. Culture, financial literacy, and SME performance in Ghana. *Cogent Economics & Finance*, 6(1): 1463813.
- Ahalin, B., Drnovšek, M. and Hisrich, R. D. 2012. Exploring the moderating effect of proactivity on the relationship between market information and innovation performance. *Economic and Business Review*, 14(2): 121-146.
- Ahmedova, S. 2015. Factors for increasing the competitiveness of Small and Medium-sized Enterprises (SMEs) in Bulgaria. *Procedia-Social and Behavioral Sciences*, 195: 1104-1112.

Ahn, J. M., Minshall, T., and Mortara, L. 2015. Open innovation: A new classification and its impact on firm performance in innovative SMEs. *Journal of Innovation Management*, 3(2): 33–54. doi:10.24840/ 2183-0606_003.002_0006.

Akinsola, F. 2018. Digital innovation: SMEs need a bridge to cross the digital divide. Available: <https://medium.com/@FemiAkinsola/digitalinnovation-smes-need-a-bridge-to-cross-the-digital-divide-d45b37d12047>. Accessed January 19, 2019.

Aksoy, H. 2017. How do innovation culture, marketing innovation and product innovation affect the market performance of Small and Medium-sized Enterprises (SMEs) *Technology in Society*, 51(1): 133-141.

Alawamleh, M., Ismail, L.B., Aladwan, K. and Saleh, A. 2018. The influence of open/closed innovation on employees' performance. *International Journal of Organizational Analysis*.

Alkahtani, A., Nordin, N. and Khan, R. U. 2020. Does government support enhance the relation between networking structure and sustainable competitive performance among SMEs? *Journal of Innovation and Entrepreneurship*, 9(1): 1-16.

Allen, M. ed. 2017. *The SAGE encyclopedia of communication research methods*. Sage Publications.

Almodóvar-González, M., Fernández-Portillo, A. and Díaz-Casero, J. C. 2020. Entrepreneurial activity and economic growth. A multi-country analysis. *European Research on Management and Business Economics*, 26(1): 9-17.

Ambad, S. N. A. and Wahab, K. A. 2013. Entrepreneurial orientation among large firms in Malaysia: contingent effects of hostile environments. *International Journal of Business and Social Science*, 4(16): 96 – 107.

Ambe, I. M. 2012. *Determining supply chain practices and strategies of light vehicle manufacturers in South Africa*. D. Com thesis, University of South Africa.

Ambec, S., Cohen, M.A., Elgie, S. and Lanoie, P., 2013. The Porter hypothesis at 20: can environmental regulation enhance innovation and competitiveness?. *Review of Environmental Economics and Policy*, 7(1), 2-22.

Anderson, V. 2013. *Research methods in Human Resources Management: Investigating a Business issue*. 3rd ed. London: CIPD House.

Antolín-López, R., Céspedes-Lorente, J., García-de-Frutos, N., Martínez-del-Río, J. and Pérez-Valls, M. 2015. Fostering product innovation: Differences between new ventures and established firms. *Technovation*, 41: 25-37.

Antoncic, B., and Hisrich, D. 2003. Clarifying the intrapreneurship concept. *Journal of Small Business and Enterprise Development*, 10(1): 7 – 24.

Aragón-Correa, J. A., García-Morales, V. J., Cordón-Pozo, E. 2007. Leadership and organizational learning's role on innovation and performance: Lessons from Spain, *Industrial Marketing Management*, (36): 349 – 359.

Ariyo, D. 2008. Small firms are the backbone of the Nigerian economy. *African Economic Analysis*.

Arshad, A. S., Rasli, A. and Khan, Y. K. 2018. Linking innovativeness and business performance: A Study of Malaysian technology-based SMEs. *Journal of Management Info*, 5(1): 13-16.

Asthana, H. S. and Brushan, B. 2016. *Statistics for social sciences (with SPSS Applications)*. Delhi: PHI Learning Private Limited.

Atiase, V. Y. and Dzansi, D. Y. 2019. Microfinance and necessity entrepreneurship: The Ghanaian experience. Societal Entrepreneurship and Competitiveness, *Emerald Publishing Limited*: 155-170.

AUDA-NEPAD. 2020. African Union Development Agency-New Partnership for Africa's Development. Research and Publications. Available: <https://www.nepad.org/publications>.

Ayandibu, A. O. and Houghton, J. 2017. The role of Small and Medium Scale Enterprise in local economic development (LED). *Journal of Business and Retail Management Research*, 11(2).

Ayiro, L. P. 2012. *A functional approach to educational research methods and statistics: Qualitative, Quantitative and Mixed Methods approaches*. New York: Edwin Press.

Ayyagari, M., Demirgüç-Kunt, A. and Beck, T. 2003. *Small and medium enterprises across the globe: a new database*. The World Bank.

Ayyagari, M., Demirguc-Kunt, A. and Maksimovic, V. 2014. Who creates jobs in developing countries? *Small Business Economics*, 43(1): 75-99.

Backman, M., Klaesson, J. and Öner, Ö. 2017. Innovation in the hospitality industry: Firm or location?. *Tourism Economics*, 23(8): 1591-1614.

Bacq, S. and Eddleston, K. A. 2018. A resource-based view of social entrepreneurship: how stewardship culture benefits scale of social impact. *Journal of Business Ethics*, 152(3): 589-611.

Baker, T. and Judge, K. 2020. How to help small businesses survive COVID-19. *Columbia Law and Economics Working Paper*, 620.

Barbero, J. L., Casillas, J. C. and Feldman, H. D. 2011. Managerial capabilities and paths to growth as determinants of high-growth small and medium-sized enterprises. *International Small Business Journal*, 29(6): 671-694.

Barbieux, D. and Padula, A. 2018. Paths and challenges of new technologies: the case of nanotechnology-based cosmetics development in Brazil. *Administrative Sciences*, 8(2): 16.

Bardarova, S., Serafimova, M. and Atanasoski, D. 2019. The role of measures for support of SMEs on employment in the Republic of Macedonia. *Knowledge International Journal*, 30(1): 73-80.

- Barney, J. B. 2001. Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of management*, 27(6): 643-650.
- Bartholomew, D., Knotts, M., and Moustaki, I. 2011. *Latent variable models and factor analysis: A unified approach*. (3rd ed.). West Sussex, UK: John Wiley & Sons.
- Bartik, A. W., Bertrand, M., Cullen, Z. B., Glaeser, E. L., Luca, M. and Stanton, C. T. 2020. How are small businesses adjusting to covid-19? early evidence from a survey (No. w26989). *National Bureau of Economic Research*.
- Bayarçelik, E. B., Taşel, F. and Apak, S. 2014. A research on determining innovation factors for SMEs. *Procedia-Social and Behavioral Sciences*, 150: 202-211.
- Bayati, A. and Taghavi, A. 2007. The impacts of acquiring ISO 9000 certification on the performance of SMEs in Tehran, *The TQM Magazine*, 19 (2): 140-149.
- Beck, T. and Cull, R. 2014. *Small and medium-sized enterprise finance in Africa. African Growth Initiative (working paper 16)*. Washington DC: Brookings.
- Bell, J. 2010. *Doing your research project. A guide for first-time researchers in education, health and social sciences*. 5th ed. Maidenhead: McGraw-Hill.
- Beraha, I. and Đuričin, S. 2020. The impact of COVID-19 crisis on medium-sized enterprises in Serbia. *Economic Analysis*, 53(1): 14-27.
- Berenson, C. and Mohr-Jeckson, I. 1994. Product rejuvenation: a less risky alternative to product innovation, *Business Horizons*, 37(6): 51-7.
- Beringer Vineyards. 2015. Beringer launches category-changing method of consumer sampling with taste station program. Cision PR Newswire. Available: <https://www.prnewswire.com/news-releases/beringer-launches-category-changing-method-of-consumer-sampling-with-taste-station-program-300060488.html> (Accessed 09 March 2019).

Berisha, G. and Pula, J.S. 2015. Defining Small and Medium Enterprises: a critical review. *Academic Journal of Business, Administration, Law and Social Sciences*, 1(1): 17-28.

Best, S. 2012. *Understanding and Doing Successful Research*. London: Pearson.

Blaxter, L. 2010. *How to research*. McGraw-Hill Education (UK).

Bless, C. and Higson-Smith, C. 2004. *Fundamentals of social research methods* (3rd ed). Lusaka: Juta,

Bloch, H. and Bhattacharya, M. 2016. Promotion of innovation and job growth in small- and medium- sized enterprises in Australia: Evidence and policy issues. *Australian Economic Review*, 49(2): 192-199.

Boateng, O., Boateng, A. A. and Bampoe, S. 2015. Microfinance and poverty reduction in Ghana: Evidence from policy beneficiaries. *Review of Business and Finance Studies*, 6(1): 99-108.

Booyens, I. 2011. Are Small Medium and Micro-Sizes Enterprises engines of innovation? The reality in South Africa. *Science and Public Policy*, 38(1): 67-78.

Botha, T. 2019. *The impact of load-shedding within the Nelson Mandela Bay restaurant industry* (Doctoral dissertation, The IIE).

Bouazza, A. B. 2015. Small and medium enterprises as an effective sector for economic development and employment creation in Algeria. *International Journal of Economics, commerce and management*, 3(2): 1-16.

Bouazza, A. B., Ardjouman, D. and Abada, O. 2015. Establishing the factors affecting the growth of Small and Medium-sized Enterprises in Algeria. *American International Journal of Social Science*, 4 (2): 101-115.

Bowen, F. E., Rostami, M. and Steel, P. 2010. 'Timing is everything: a meta-analysis of the relationships between organizational performance and innovation', *Journal of Business Research*, 63(11): 1179–1185.

Bruwer, J. P. and Van Den Berg, A. 2017. The conduciveness of the South African economic environment and small, medium and micro enterprise sustainability: A literature review. *Expert Journal of Business and Management*, 5(1): 1-12.

Bruwer, J. P., Hattingh, C. and Perold, I. 2020. Probable Measures to Aid South African Small Medium and Micro Enterprises' Sustainability, Post-COVID-19: A Literature Review. *Post-COVID-19: A Literature Review* (June 12, 2020).

Bryman, D. R. and Bell, P. S. 2011. *Business research methods*. 10th ed. Boston: Irwin/McGraw Hill.

Burns, A. C. and Bush, R. F. 2014. *Marketing research*. 7th ed. Harlow: Pearson Education Limited. SA Business innovation survey 2014-2016.

Calantone, R. J., Cavisgil, S. T. and Zhao, Y. 2002. Learning orientation, firm innovation capability and firm performance. *Industrial Marketing Management*, 31(6): 515-524.

Cant, M. C. and Wiid, J. A. 2013. Establishing the challenges affecting South African SMEs. *International Business & Economics Research Journal (IBER)*, 12(6): 707-716.

Cantor, D. E., Blackhurst, J., Pan, M., and Crum, M. 2014. Examining the role of stakeholder pressure and knowledge management on supply chain risk and demand responsiveness. *The International Journal of Logistics Management*, 25(1): 202-223.

Cao, J., Ho, M. S., Hu, W. and Jorgenson, D. 2020. Effective labor supply and growth outlook in China. *China Economic Review*: 101398.

Carreiro, H. and Oliveira, T. 2019. Impact of transformational leadership on the diffusion of innovation in firms: Application to mobile cloud computing. *Computers in Industry*, 107: 104-113.

Carvalho, N., Raposo, V., Preto, M. T. and Carvalho, L. 2019. Innovative vs. non-innovative manufacturing SMEs: do strategies and goals differ? *International Journal of Business Innovation and Research*, 19(2): 251-284.

Çetinkaya Bozkurt, Ö. and Kalkan, A. 2014. Business strategies of SME's, innovation types and factors influencing their innovation: Burdur model, *Edge Academic Review*, 14(2): 189-198.

Chan, C.M., Teoh, S.Y., Yeow, A. and Pan, G., 2019. Agility in responding to disruptive digital innovation: Case study of an SME. *Information Systems Journal*, 29(2), 436-455.

Chandran, S., Poklemba, R., Sopko, J. and Šafár, L. 2019. Organizational innovation and cost reduction analysis of manufacturing process—case study. *Management Systems in Production Engineering*, 27(3): 183-188.

Chege, S. M. and Wang, D. 2019. Information technology innovation and its impact on job creation by SMEs in developing countries: an analysis of the literature review. *Technology Analysis & Strategic Management*: 1-16.

Chege, S. M. and Wang, D. 2020. The influence of technology innovation on SME performance through environmental sustainability practices in Kenya. *Technology in Society*, 60: 101210.

Chesborough, H. W. 2003. *Open Innovation*. Cambridge, MA: Harvard University Press.

Chimucheka, T. 2013. Overview and performance of the SMMEs sector in South Africa. *Mediterranean Journal of Social Sciences*, 4(14): 783.

Chimucheka, T. and Rungani, E. C. 2014. Obstacles to accessing finance by small business operators in the Buffalo City Metropolitan Municipality. Available: <https://econrsa.org/system/files/workshops/papers/2012/chimucheka-accessing-finance-paper.pdf>. (Accessed 19 June 2019).

Chinyamurindi, W. T. 2016. A narrative investigation on the motivation to become an entrepreneur among a sample of black entrepreneurs in South Africa: Implications for entrepreneurship career development education. *Acta Commercii*, 16(1): 1-9.

Chipunza, L. T. 2014. Driving innovation in small accommodation businesses: A comparative study of Zimbabwe and South Africa (*Doctoral dissertation, Bloemfontein: Central University of Technology, Free State*).

Codagan, J.W., Boso, N. and Storey, V.M. 2012. Entrepreneurship orientation and marketing orientation as drivers of product innovation success. A study of exporters from a developing country. *International Small Business Journal*, 3(2): 1-25.

Coghlan, D. and Brydon-Miller, M. eds. 2014. *The SAGE encyclopedia of action research*. Sage Publications Inc. Thousand Oaks.

Cohen, M. J. 2020. Does the COVID 1-19 outbreak mark the onset of sustainable consumption transition?

Colclough, S. N., Moen, O., Hovd, N.S. and Chan, A. 2019. SME innovation orientation: Evidence from Norwegian exporting SMEs. *International Small Business Journal*, 37(8): 780-803.

Cooper, D. R. and Schindler, P. S. 2006. *Business research methods*. 9th ed. New York: McGraw.

Cooper, J. and Schindler, M. 2008. *Perfect Sample Size in Research*. New Jersey.

Cooper, R. G. and Edgett, S. J. 2010. *Developing a product innovation and technology strategy for your business: a framework for developing a product innovation strategy includes defining innovation goals and objectives, selecting strategic arenas, developing a strategic map, and allocating resources*. Arlington, Industrial Research Institute.

Cox, B., 2008. *Target population*. *Encyclopedia of survey research methods*. Sage Publications, Inc. Thousand Oaks.

Craven, M., Moen, O., Hovd, N. S. and Chan, M. 2020. COVID-19: Implications for business. *McKinsey and Company*.

Creswell, J.W. and Clark, V.L.P., 2011. *Designing and conducting mixed methods research*. 2nd ed. Los Angeles. Sage.

Crijns, H., Cauberghe, V., Hudders, L. and Claeys, A. S. 2017. How to deal with online consumer comments during a crisis? The impact of personalized organisational responses on organisational reputation. *Computers in Human Behavior*, 75: 619-631.

Czarnitzki, D. 2006. Research and development in small and medium- sized enterprises: The role of financial constraints and public funding. *Scottish journal of political economy*, 53(3): 335-357.

Czarnitzki, D. and Hottenrott, H. 2011. R & D investment and financing constraints of small-medium sized firms. *Small Business Economics*, 36(5): 65-83.

Dadfar, H., Dahlgaard, J. J., Brege, S. and Alamirhoor, A. 2013. Linkage between organisational innovation capability, product platform development and performance. *Total Quality Management*, 24(7): 819 –834.

Dale, A. and Mason, J. eds. 2011. *Understanding social research: Thinking creatively about method*. Sage.

Damanpour, F. 1992. Organizational size and innovation. *Organization Studies*, 13(3): 375-402.

Damanpour, F. R. Walker, M. and Avellaneda, C. N. 2009. Combinative effects of innovation types and organizational performance: A longitudinal study of service organizations. *Journal of Management Studies*, 46(4): 650– 675.

Dan, R. 2012. *Field methods for academic research-interviews, focus groups and questionnaires in Business Studies*. 2nd ed: Academic publishing international limited.

Daniel, J. 2012. Preparing to make sampling choices. *Sampling Essentials: Practical Guidelines for Making Sampling Choices*, 2455.1-13.

Davenport, S., Bibby, D. Zeng. 1999. Rethinking a national innovating system: The small country as 'SME'. *Technology Analysis Strategic Management*, 11(3): 431-462.

De Marco, C. E., Martelli, I. and Di Minin, A. 2020. European SMEs' engagement in open innovation When the important thing is to win and not just to participate, what should innovation policy do? *Technological Forecasting and Social Change*, 152: 119843.

De Wit, G. and De Kok, J. 2014. Do small businesses create more jobs? New evidence for Europe. *Small Business Economics*, 42(2): 283-295.

Delmar, F. and Holmquist, C. 2004. Promoting entrepreneurship and innovative SMEs in a global economy: Towards a more responsible and inclusive globalization. *Istanbul, Turkey: Organisation for Economic Co-operation and Development*.

Denscombe, M. 2010. *The Good Research Guide*. London: McGraw Hill.

Dervitsiotis, K. N. 2010. Developing full-spectrum innovation capability for survival and success in the global economy. *Total Quality Management*, 21(2): 159–170.

Desa, G., and Basu, S. 2013. Optimization or bricolage? Overcoming resource constraints in global social entrepreneurship. *Strategic Entrepreneurship Journal*, 7(1): 26–49.

Deschryvere, M. 2014. R&D, firm growth and the role of innovation persistence: an analysis of Finnish SMEs and large firms. *Small Business Economics*, 43(4): 767-785.

Didier, T., Huneus, F., Larrain, M. and Schmukler, S. L. 2020. Financing firms in hibernation during the COVID-19 pandemic.

Divisekera, S. and Nguyen, V. K. 2018. Determinants of innovation in tourism evidence from Australia. *Tourism Management*, 67: 157-167.

- Dobni, C. B., Klassen, M. and Thomas, N. W. 2015. Innovation strategy in the US: top executives offer their views, *Journal of Business Strategy*, 36(1): 3-13.
- Doh, S., and Kim, B. 2014. Government support for SME innovations in the regional industries: The case of government financial support program in South Korea. *Research Policy*, 43(9): 1557-1569.
- Dosi, G., Pavitt, K. and Soete, L. 1988. *The economics of technical change and international trade*. Wheatsheaf. Brighton.
- Drayton, B. 2011. Collaborative entrepreneurship: how social entrepreneurs can tip the world by working in global teams. *Innovations: Technology, Governance, Globalization*, 6(2): 35-38.
- Driscoll, D. L. 2011. Introduction to primary research: Observations, surveys, and interviews. *Writing Spaces: Readings on Writing*, 2: 153-174.
- Drucker, P. F. 1994. *Post-capitalist society*. New York, Harper Business.
- Dunne, T. C., Aaron, J. R., McDowell, W. C., Urban, D. J. and Geho, P. R. 2016. The impact of leadership on small business innovativeness. *Journal of Business Research*, 69(11): 4876-4881.
- Dzialis, M. and Blind, K. 2019. Innovation indicators throughout the innovation process: An extensive literature analysis. *Technovation*, 80: 3-29.
- Ebuti, E. T., Ufot, J. A. and Olom, P. A. 2015. Marketing problems and the performance of selected Small and Medium Enterprises (SMEs) in Southern senatorial district of Cross River state, Nigeria. *American International Journal of Contemporary Research*, 5(5): 70-76.
- Econfip (Economics for Inclusive Prosperity). 2020. COVID-19 Briefs. Available: <https://www.econfip.org/>. (Accessed 20 June 2020).

Eggink, M. E. 2011. The role of innovation in economic development (Doctoral dissertation, University of South Africa).

Ehrenberger, M., Koudelkova, P. and Strielkowski, W. 2015. Factors influencing innovation in small and medium enterprises in the Czech Republic. *Periodica Polytechnica Social and Management Sciences*, 23(2): 73-83.

Eldridge, D., Nisar, T.M. and Torchia, M. 2019. What impact does equity crowdfunding have on SME innovation and growth? An empirical study. *Small Business Economics*: 1-16.

Elgin, C., Basbug, G., Yalaman, A. 2020. *Economic policy responses to a pandemic: developing the COVID-19 economic stimulus index*. Columbia University.

Eniola, A. A., and Entebang, H. 2016. Financial literacy and SME firm performance. *International Journal of Research Studies in Management*, 5: 31-43.

Etemad, H. 2020. Managing uncertain consequences of a global crisis: SMEs encountering adversities, losses, and new opportunities. *Journal of International Entrepreneurship*, 18(2): 125-144.

European Commission. 2015. Innovation Union Scoreboard 2015. Available: file:///C:/Users/Student/Downloads/ius-2015_en%20(1).pdf. Accessed 14 February 2019.

Eurostat 2020. Eurostat news release. April 2020. Available: <https://ec.europa.eu/eurostat/documents/2995521/10294708/2-30042020-BP-EN.pdf/526405c5-289c-30f5-068a-d907b7d663e6>. (Accessed: 18 July 2020).

Expósito, A. and Sanchis-Llopis, J. A. 2018. “Innovation and business performance for Spanish SMEs: New evidence from a multi-dimensional approach”, *International Small Business Journal: Researching Entrepreneurship*, 36(8): 911-931.

Expósito, A., Fernández-Serrano, J. and Liñán, F. 2019. The impact of open innovation on SMEs’ innovation outcomes: New empirical evidence from a multidimensional approach. *Journal of Organizational Change Management*.

Fairlie, R. W. 2020. The Impact of COVID-19 on Small Business Owners: Continued Losses and the Partial Rebound in May 2020 (No. w27462). *National Bureau of Economic Research*.

Farquhar, J. D. 2013. Data Collection. *Case Study Research for Business*: 65-83.

Fasnacht, D. 2018. Open innovation ecosystems. *In Open Innovation Ecosystems*: 131-172. Springer, Cham.

Fatoki, O. O. 2014a. The financing options for new small and medium enterprises in South Africa. *Mediterranean Journal of Social Sciences*, 5(20): 748-748.

Fatoki, O. O. 2014b. The entrepreneurial orientation of micro enterprises in the retail sector in South Africa. *Journal of Sociology and Social Anthropology*, 5(2): 125-129.

Fatoki, O. O., and Garwe, D. 2010. Obstacle to growth of new SMEs in South Africa: A principal component analysis approach. *African Journal of Business Management*, 4(5): 729-738.

Fernández-Serrano, J. and Romero, I. 2013. Entrepreneurial quality and regional development: characterizing SME sectors in low income areas. *Papers in Regional Science*, 92(3): 495-513.

Fernando, A. 2013. *An exploration of the role of local government in facilitating IT adoption by SMEs* (Doctoral dissertation, Small Enterprise Association of Australia and New Zealand).

Ferreira, J. J., Fernandes, C. I., Alves, H. and Raposo, M. L. 2015. “Drivers of innovation strategies: testing the Tidd and Bessant (2009) model”, *Journal of Business Research*, 68(7):1395-1403.

Ferrell, O. C., Gonzalez-Padron, T. L., Hult, G. T. M. and Maignan, I. 2010. From market orientation to stakeholder orientation. *Journal of Public Policy & Marketing*, 29(1): 93-96.

Figurska, I., 2011. Knowledge strategy of the organization. *Human Resources Management & Ergonomics*, 5(2).

Findt, K., Scott, D. B., and Lindfeld, D. C. 2014. *Sub-Saharan Africa power outlook. KPMG infrastructure and major projects group*. Johannesburg: KPMG.

Fischer, M. M. and Fröhlich, J. 2013. *Knowledge, complexity and innovation systems*. Springer Science and Business Media.

Fitriasari, F. 2020. How do Small and Medium Enterprise (SME) survive the COVID-19 outbreak? *Jurnal Inovasi Ekonomi*, 5(02).

Fjose, S., Grunfeld, L. A. and Green, C. 2010. SMEs and growth in Sub-Sahara Africa: Identifying SME role and obstacles to SME growth. *MENON-Publication*, 14: 1-28.

Fombang, M. S. and Adjasi, C. K. 2018. Access to finance and firm innovation. *Journal of Financial Economic Policy*.

Fouka, G. and Mantzorou, M. 2011. What are the major ethical issues in conducting research? Is there a conflict between the research ethics and the nature of nursing? *Health Science Journal*, 5(1): 3-14.

Freel, M. S. 2005. Patterns of innovation and skills in small firms. *Technovation* 25: 123–134.

Freel, M. S., and Harrison, R. T. 2006. Innovation and cooperation in the small firm sector: Evidence from ‘Northern Britain’. *Regional Studies*, 40(4): 289-305.

Frey, B. B. ed. 2018. *The SAGE encyclopaedia of educational research, measurement, and evaluation*. Sage Publications.

Fritsch, M. 2017. The theory of economic development—An inquiry into profits, capital, credit, interest, and the business cycle. *Regional Studies*, 51(4): 654-655.

Frost, M.H., Reeve, B.B., Liepa, A.M., Stauffer, J.W., Hays, R.D. and Mayo/FDA Patient-Reported Outcomes Consensus Meeting Group, 2007. What is sufficient evidence for the

reliability and validity of patient- reported outcome measures?. *Value in Health*, 10, pp.S94-S105.

Fukugawa, N. 2006. Determining factors in innovation of small firm networks: A case of cross industry groups in Japan. *Small Business Economics*, 27(2-3): 181-193.

Gaire, A. K. S. 2018. Interview: Data collection methods in qualitative research. *Nepal Journal of Multidisciplinary Research (NJMR)*, 35.

Galloway, T. L., Miller, D. R., Sahaym, A. and Arthurs, J. D. 2017. Exploring the innovation strategies of young firms: corporate venture capital and venture capital impact on alliance innovation strategy, *Journal of Business Research*, 71(2): 55-65.

Gao, Y. and Hafsi, T. 2015. R & D spending among Chinese SMEs: The role of business owners' characteristics. *Management Decision*.

Gates, G. E. 2018. *Repositioning a country for global manufacturing competitiveness: a case of South Africa* (Doctoral dissertation, University of Pretoria).

Gbandi, E. C. and Amissah, G. 2014. Financing options for small and medium enterprises (SMEs) in Nigeria. *Eur. Sci. J*: 10, 1.

Gibb, F., and Buchanan, S. 2006. A framework for business continuity management. *International Journal of Information Management*, 26(2): 128-141.

Giddings, L. S. 2006. Mixed-methods research: Positivism dressed in drag? *Journal of Research in Nursing*, 11(3): 195-203.

Gilmore, A., Galbraith, B., and Mulvenna, M. 2013. Perceived barriers to participation in R&D programmes for SMEs within the European Union. *Technology Analysis and Strategic Management*, 25(3): 329-339.

Ginting, G. 2015. Open innovation model: empowering entrepreneurial orientation and utilizing network resources as determinant for internationalization performance of small medium of agroindustry. *Agriculture and Agricultural Science Procedia*, 3(2015): 56-61.

Global Innovation Index (GII) 2019/2020. Global Innovation Index (GII) 2019. Available: <https://www.visualcapitalist.com/world-most-innovative-economies/>. (Accessed 26 March 2019).

Goldberg, A. 2016. *The economic impact of load shedding: The case of South African retailers* (Doctoral dissertation, University of Pretoria).

Gomera, S., Chinyamurindi, W. T. and Mishi, S. 2018. Relationship between strategic planning and financial performance: The case of small, micro and medium-scale businesses in the Buffalo City Metropolitan. *South African Journal of Economic and Management Sciences*, 21(1): 1-9.

Gray, D. E. 2014. Theoretical perspectives and research methodologies. *Doing Research in the Real World*, 3: 15-38.

Grobler, R. 2020. Covid-19 corruption: ANC caucus 'deeply embarrassed' by 'barbaric behaviour', 4 August. Available: <https://www.news24.com/news24/southafrica/news/covid-19-corruption-anc-caucus-deeply-embarrassed-by-barbaric-behaviour-20200804> (Accessed 20 August 2020).

Gronum, S., Verreynne, M.L. and Kastle, T. 2012. The role of networks in small and medium- sized enterprise innovation and firm performance. *Journal of Small Business Management*, 50(2): 257-282.

Gros, D. 2016. How would Brexit affect finance for SMEs? The Guardian. Available: <https://theguardian.com/smallbusiness-network/2016/apr/05/how-would-brexit-affect-finance-for-smes>. (Accessed 04 Oct 2019).

Guijarro, L. 2009. Semantic interoperability in eGovernment initiatives. *Computer Standards & Interfaces*, 31(1): 174-180.

Gunday, G., Ulusoy, G., Kilic, K. and Alpkan, L. 2011. Effects of innovation types on firm performance. *International Journal of production economics*, 133(2): 662-676.

Gunjati, S. B. and Adake, C. V. 2020. Innovation in Indian SMEs and their current viability: A review. *Materials Today: Proceedings*.

Guo, R. 2019. Effectuation, opportunity shaping and innovation strategy in high-tech new ventures. *Management Decision*, 57(1): 115-130.

Gupta, S., Malhotra, N. K., Czinkota, M. and Foroudi, P. 2016. Marketing innovation: A consequence of competitiveness. *Journal of Business Research*, 69(12): 5671-5681.

Gurtner, S. and Reinhardt, R., 2016. Ambidextrous idea generation—Antecedents and outcomes. *Journal of Product Innovation Management*, 33, 34-54.

Gustavsson, S. and Larsson, S. 2020. Marketing innovation for SMEs during COVID-19 Pandemic: A case study of the hospitality industry in Norrbotten. Marketing innovation for SMEs during COVID-19 pandemic: A case study of the hospitality industry in Norrbotten.

Hadi, S. and Supardi, S. 2020. Revitalization strategy for Small and Medium Enterprises after Corona virus disease pandemic (Covid-19) in Yogyakarta.

Hadi, S., Tjahjono, H. K., and Palupi, M. 2020. Study of organizational justice in SMEs and positive consequences: Systematic review. *International Journal of Advanced Science and Technology*: 29(03), 14.

Hadjimanolis, A. 2019. Drivers and barriers to sustainable innovation in SMEs in the context of small countries. *Managing Sustainable Innovation*.

Halabí, C. E., and Lussier, R. N. 2014. A model for predicting small firm performance: Increasing the probability of entrepreneurial success in Chile. *Journal of Small Business and Enterprise Development*, 21(1): 4-25.

Halim, H. A., Ahmad, N. H., Ramayah, T. and Hanifah, H. 2014. The growth of innovative performance among SMEs: Leveraging on organisational culture and innovative human capital. *Journal of Small Business and Entrepreneurship Development*, 2(1): 107-125.

- Hall, M. C. 2009. Innovation and tourism policy in Australia and New Zealand: Never the twain shall meet. *Journal of Policy Research in Tourism, Leisure and Events*, 1(1): 2–18.
- Hall, M. C. and Williams, A. M. 2008. *Tourism and Innovation*. Oxon, Routledge.
- Hall, M. C., Prayag, G., Fieger, P. and Dyason, D., 2020. Beyond panic buying: Consumption displacement and COVID-19. *Journal of Service Management*.
- Hamburg, I. 2014. Improving education and training impact on competitive advantages in SMEs. *International Journal of Innovative Research in Electronics and Communications (IJIREC)*, 1: 54-60.
- Hamilton, L. and Corbett-Whittier, C. 2013. Defining case study in education research. *Using Case Study in Education Research*, 3-22.
- Harms, C. and Lakens, D., 2018. Making 'null effects' informative: statistical techniques and inferential frameworks. *Journal of clinical and translational research*, 3(Suppl 2), 382.
- Hart, T. G., Booyens, I. and Sinyolo, S. 2019. Innovation for Development in South Africa: Experiences with Basic Service Technologies in Distressed Municipalities. *In Forum for Development Studies* (1-25). Routledge.
- Henning, M. 2019. *A conceptual approach to increase competitiveness in a typical South African manufacturing SME* (Doctoral dissertation, Stellenbosch: Stellenbosch University).
- Herrington, M. and Kew, P. 2017. Global Entrepreneurship Monitor (GEM) global report 2016/17.
- Ho, T. C., Ahmad, N. H. and Ramayah, T. 2016. Competitive capabilities and business performance among manufacturing SMEs: Evidence from an emerging economy, Malaysia. *Journal of Asia-Pacific Business*, 17(1): 37-58.

Hong, S., Oxley, L., McCann, P. and Le, T. 2016. Why firm size matters: investigating the drivers of innovation and economic performance in New Zealand using the business operations Survey. *Applied Economics*, 48(55): 5379-5395.

Hoogendoorn, G., Mellett, R. and Visser, G. 2017. Second homes tourism in Africa: Reflections on the South African experience. In *Urban Tourism in the Developing World* (127-166). Routledge.

Hosseini, M. R., Banihashemi, S., Chileshe, N., Namzadi, M. O., Udejaja, C. E., Rameezdeen, R. and McCuen, T. 2016. BIM adoption within Australian Small and Medium-sized Enterprises (SMEs): An innovation diffusion model. *Construction Economics and Building*, 16(3): 71-86.

Hosseini, G. and Ramezani, A. 2016. Factors influencing sustainable entrepreneurship in small and medium-sized enterprises in Iran: A case study of food industry. *Sustainability*, 8(10): 1010.

Hossain, M., 2015. A review of literature on open innovation in small and medium-sized enterprises. *Journal of Global Entrepreneurship Research*, 5(1), 1-12.

Hussain, I., Si, S. Xie, X. M. and Wang, L. 2010. Comparative study on impact of internal and external CFFs on SMEs. *Journal of Small Business and Entrepreneurship*, 23(4): 637-648.

Innovation in the South African manufacturing sector, 2010-2012. A micro-data analysis report based on the 2010- 2012 South African Business Innovation Survey undertaken by the Centre for Science, Technology and Innovation Indicators on behalf of the Department of Science and Technology. Available: <http://www.hsrc.ac.za/uploads/pageContent/8566/bis-2010-2012-manufacturing-sector-report.pdf>. (Accessed 18 July 2019).

Jackson, A. 2015. Can strategic management techniques be applied to small and medium enterprises. Available at SSRN 2670540.

Jan, D. and Tony, H. 2012. *Case study methodology in Business research*. 2nd ed. Albany: Routledge.

Jeng, D. J. F. and Pak, A. 2016. The variable effects of dynamic capability by firm size: the interaction of innovation and marketing capabilities in competitive industries. *International Entrepreneurship and Management Journal*, 12(1): 115-130.

Jin, Z., Navare, J. and Lynch, R. 2019. The relationship between innovation culture and innovation outcomes: exploring the effects of sustainability orientation and firm size. *R&D Management*, 49(4): 607-623.

Juergensen, J., Guimón, J. and Narula, R. 2020. European SMEs amidst the COVID-19 crisis: Assessing impact and policy responses. *Journal of Industrial and Business Economics*: 1-12.

June, S. 2020. Role ambiguity and job performance of employees in the service sector SMEs in Malaysia. *Malaysian Management Journal*, 15: 1-20.

Kahn, K. B. 2018. Understanding innovation. *Business Horizons*, 61(3): 453-460.

Kalra, N., Pant, P. 2013. Critical success factors of Total Quality Management in the Indian automotive industry (NCR). Department of management, accurate institute of management & technology, Greater Noida, U.P. 203006, India. *International Journal of Economy, Management and Social Sciences*, 2(8): 620-625.

Kamunge, M. S., Njeru, A. and Tirimba, O. I. 2014. Factors affecting the performance of small and macro enterprises in Limuru town market of Kiambu County. *International Journal of Scientific and Research Publications*, 4(12): 1-20.

Kankisingi, G. M. 2019. *The relationship between entrepreneurial orientation, organisational orientation and innovation performance of manufacturing small and medium enterprises in KwaZulu-Natal province* (Doctoral dissertation).

Kaplinsky, R. 1998. *Globalisation, industrialisation and sustainable growth: the pursuit of the nth rent*. Institute of Development Studies.

Karimov, E. and Abrahamsson, J. F. 2019. Industry 4.0 and Swedish SMEs: An assessment of current maturity level and challenges.

- Karlsson, C. and Tavassoli, S. 2016. Innovation strategies of firms: What strategies and why? *The Journal of Technology Transfer*, 41(6): 1483-1506.
- Karpak, B. and Topcu, I. 2010. Small medium manufacturing enterprises in Turkey: An analytic network process framework for prioritizing factors affecting success. *International Journal of Production Economics*, 125: 60-70.
- Katz, B. R., Preez, N. D. and Schutte, C. S. L. 2010. Definition and role of an innovation strategy. *In SAIIE conference proceedings*: 60-74.
- Kelley, D. J., O'Connor, G. C., Neck, H. and Peters, L. 2011. Building an organizational capability for radical innovation: The direct managerial role. *Journal of Engineering and Technology Management*, 28(4): 249-267.
- Kim, C, Song, J, Nerkar, A. 2012. Learning and innovation: Exploitation and exploration trade-offs, 65(8): 1189–1194.
- Kim, H. and Kim, E. 2018. How an open innovation strategy for commercialization affects the firm performance of Korean healthcare IT SMEs. *Sustainability*, 10(7): 2476.
- Kim, M. K., Park, J. H. and Paik, J. H. 2018. Factors influencing innovation capability of small and medium-sized enterprises in Korean manufacturing sector: Facilitators, barriers and moderators. *International Journal of Technology Management*, 76(3-4):214-235.
- Kindström, D. and Kowalkowski, C. 2014. Service innovation in product-centric firms: A multidimensional business model perspective. *Journal of Business & Industrial Marketing*, 29(2): 96-111.
- Kirchmer, M. 2011. *High performance through process excellence: from strategy to execution with business process management*. Berlin/Heidelberg, Germany: Springer Science & Business Media.

Kiveu, M.N., Namusonge, M. and Muathe, S., 2019. Effect of innovation on firm competitiveness: the case of manufacturing SMEs in Nairobi County, Kenya. *International Journal of Business Innovation and Research*, 18(3), pp.307-327.

Klijn, E. H. and Koppenjan, J. 2016. Governance networks in the public sector, Abingdon: Routledge knowledge assets and product innovation, *Technological Forecasting and Social Change*, 80: 351–363.

Krause, W. 2017. *An approach to enable and advance open innovation for small and medium-sized enterprises* (Doctoral dissertation, Stellenbosch: Stellenbosch University).

Krause, W. and Schutte, C. S. L. 2015. A perspective on open innovation in small-and medium-sized enterprises in South Africa, and design requirements for an open innovation approach. *South African Journal of Industrial Engineering*, 26(1): 163-178.

Kuckertz, A., Brändle, L., Gaudig, A., Hinderer, S., Reyes, C. A. M., Prochotta, A., Steinbrink, K. and Berger, E. S. 2020. Startups in times of crisis—A rapid response to the COVID-19 pandemic. *Journal of Business Venturing Insights*: 00169.

Kulkarni, P. P. 2013. A literature review on training & development and quality of work life. *Researchers World*, 4(2): 136.

Kumar, R. 2019. *Research methodology: A step-by-step guide for beginners*. Sage Publications Limited.

Kuntchev, V., Ramalho, R., Rodríguez-Meza, J. and Yang, J. S. 2013. *What have we learned from the enterprise surveys regarding access to credit by SMEs?* The World Bank.

Kuratko, D. F., Morris, M. H. and Covin, J. G. 2011. *Corporate innovation and entrepreneurship*. South-western Cengage learning Australia, United States.

Ladzani, W. and Netswera, G. 2009. Support for rural small businesses in Limpopo Province, South Africa. *Development South Africa* 26(2): 225–239.

Langroodi, F.E., 2021. Schumpeter's Theory of Economic Development: a study of the creative destruction and entrepreneurship effects on the economic growth. *Journal of Insurance and Financial Management*, 4(3).

Lara, F. J. and Salas-Vallina, A. 2017. Managerial competencies, innovation and engagement in SMEs: The mediating role of organisational learning. *Journal of Business Research*, 79: 152-160.

Le, H., Nguyen, T., Ngo, C., Pham, T. and Le, T. 2020. Policy related factors affecting the survival and development of SMEs in the context of Covid-19 pandemic. *Management Science Letters*, 10(15): 3683-3692.

Le, P. B. and Lei, H. 2019. Determinants of innovation capability: the roles of transformational leadership, knowledge sharing and perceived organizational support. *Journal of knowledge management*.

Lecerf, M. A. 2012. Internationalization and Innovation: The effects of a strategy mix on the economic performance of French SMEs, *International Business Research*, 5(6): 1-13.

Lee, C., Hallak, R. and Sardeshmukh, S. R. 2019. Creativity and innovation in the restaurant sector: Supply-side processes and barriers to implementation. *Tourism Management Perspectives*, 31: 54-62.

Lee, K. and Kang, S. 2018. Exploratory research for the development of a SDLT (Self-directed Learning Test) for young children. *The Educational Review, USA*, 2(3): 199-208.

Lee, N., Sameen, H., and Cowling, M. 2014. Access to finance for innovative SMEs since the financial crisis. *Research Policy*, 44(2): 370-380.

Lee, R. P. and Tang, X. 2018. Does it pay to be innovation and imitation oriented? An examination of the antecedents and consequences of innovation and imitation orientations. *Journal of Product Innovation Management*, 35(1): 11-26.

Leedy, P. D. and Ormrod, J. E. 2005. *Practical research*. Pearson Custom.

Leedy, P. D. and Ormrod, J. E. 2014. Qualitative research. *Practical research: Planning and design*, 2(24): 141-172.

Lekhanya, L. M. 2015. Leadership and corporate governance of small and medium enterprises (SMES) in South Africa: *Public Perceptions*.

Lekhanya, L. M. and Dlamini, H. L. 2017. Customer's perception towards product quality of automotive SMEs operating in Metropolitan areas, and consideration of environmental impact. *Environmental Economics*, (8): 36-45.

Lekhanya, L. M. and Mason, R. B. 2014. Selected key external factors influencing the success of rural small and medium enterprises in South Africa. *Journal of Enterprising Culture*, 22(3): 331-348.

Lekhanya, L. M., Olajumoke, N. G. and Nirmala, D. 2017. Exploring fast moving consumer goods (FMCG) small, medium and micro enterprises manufacturers' need for innovation to achieve growth. *Environmental Economics*, 8(2): 8.

Lesáková, L. 2014. Evaluating innovations in small and medium enterprises in Slovakia, Contemporary Issues in Business, Management and Education 2013. *Procedia - Social and Behavioral Sciences* 110: 74 – 81.

Levin, S. 2018. World Economic Forum and the Fourth Industrial Revolution in South Africa.

Lewandowska, M. 2014. Innovation barriers and international competitiveness of enterprises from Polish food processing industry. Research Results. *ACTA Scientiarum Polonorum Oeconomia*, 13(14): 103-113.

Liu, F., Park, K. and Whang, U. 2019. Organizational capabilities, export growth and job creation: An investigation of Korean SMEs. *Sustainability*, 11(14):3986.

Long, G. 2016. Unlocking economic growth through SME financing. Available: <https://futuregrowth.co.za/newsroom/unlocking-economic-growth-through-sme-financing/> (Accessed 11 August 2019).

Love, J. H. and Roper, S. 2015. SME innovation, exporting and growth: A review of existing evidence. *International small business journal*, 33(1): 28-48.

Lugemwa, P. 2014. Improving the secondary school curriculum to nurture entrepreneurial competences among students in Uganda. *International Journal of Secondary Education* 2(4): 73–86.

Machaka, R. 2018. *Modelling the Innovation Value Chain: Evidence from Manufacturing Sector SMMEs in South Africa* (Doctoral dissertation).

Madanchian, M., Hussein, N., Noordin, F. and Taherdoost, H. 2015. The role of SMEs in economic development: Case study of Malaysia. *International Journal of Academic Research in Management*, 4(3): 77-84.

Madeira, M. J., Carvalho, J., Moreira, J. R. M., Duarte, F. A. and de São Pedro Filho, F. 2017. Barriers to innovation and the innovative performance of Portuguese firms. *Journal of Business, Universidad del Pacífico (Lima, Peru)*, 9(1): .2-22.

Madrid- Guijarro, A., Garcia, D. and Van Auken, H. 2009. Barriers to innovation among Spanish manufacturing SMEs. *Journal of small business management*, 47(4): 465-488.

Mahendra, E., Zuhdi, U. and Muyanto, R. 2015. Determinants of firm innovation in Indonesia: the role of institutions and access to finance. *Economics and Finance in Indonesia*, 61(3): 149-179.

Mahohoma, T. 2018. *The impact of entrepreneurial competencies on the performance of SMEs in the eThekweni Municipal Region. KwaZulu-Natal, South Africa* (Doctoral dissertation) 1-152.

Mail & Guardian. 2020. KwaZulu-Natal is emerging as a new Covid-19 epicentre. Available: <https://mg.co.za/coronavirus-essentials/2020-07-28-kwazulu-natal-is-emerging-as-a-new-covid-19-epicentre>. Accessed 10 August 2020.

Makanyeza, C. and Dzvuke, G. 2015. The influence of innovation on the performance of small and medium enterprises in Zimbabwe. *Journal of African Business*, 16(1-2): 198-214.

Makhitha, M., van Scheers, L. and Mmatli, W., 2019. Developing and managing product development for Small and Medium Enterprises (SMEs) in South Africa. *Acta Universitatis Danubius. Œconomica*, 15(7).

Malefane, S. R. 2013. Small medium, and micro enterprise and local economic-base restructuring – A South African local government perspective. *Journal of Public Administration*. 48(4): 671–690.

Mamabolo, M. A., Kerrin, M. and Kele, T. 2017. Entrepreneurship management skills requirements in an emerging economy: A South African outlook. *The Southern African Journal of Entrepreneurship and Small Business Management*, 9(1): 1-10.

Marima, N. E. 2018. *Innovation as a strategy for small to medium enterprises' (SMEs) survival and growth in Mashonaland West Province, Zimbabwe* (Doctoral dissertation).

Marnewick, C. 2014. Information and Communication township technology adoption amongst township micro and small business: The case of Soweto. *South African Journal of Information*, 16(1).

Masona, C. M., Floreania, J., Miania, S., Beltramea, F., and Cappellettoa, R. 2015. Understanding the impact of entrepreneurial orientation on SMEs' performance. The role of the financing structure. *Procedia Economics and Finance*, 23: 16491661.

Maureen, T. 2018. *Strategies to overcome challenges when implementing an Enterprise Engineering Innovation Life-cycle* (Doctoral dissertation, University of Cape Town).

Maziriri, E. T. 2018. *The Impact of green marketing practices on competitive advantage and business performance among manufacturing small and medium enterprises (SMEs) in South Africa* (Doctoral dissertation, University of the Witwatersrand, Faculty of Commerce, Law and Management, School of Economic and Business Sciences).

Mazzarol, T. 2015. Research review: SMMEs engagement with e-commerce, e-business and e-marketing. *Small enterprise research*, 22(1): 79–90.

Mazzucato, M. and Perez, C. 2015. *Innovation as growth policy. The Triple Challenge for Europe: Economic Development, Climate Change, and Governance*. Oxford: OUP: 229-264.

Mbali, P. M., Ngibe, M. and Celani, J. N. 2019. Factors influencing the adoption of management accounting practices (MAPs) by manufacturing Small and Medium Enterprises (SMEs) in Durban, KwaZulu-Natal. *International Journal of Entrepreneurship*, 23(4).

Mbandlwa, Z., Nirmala, D. and Fagbadebo, O. 2020. Leadership challenges in the South African local government system. *Journal of Critical Reviews*.

McAdam, R., and McConvery, T. 2004. Barriers to innovation within small firms in a peripheral location, *International Journal of Entrepreneurial Behaviour and Research* 10(3): 206– 221.

Memka, D. and Lekhanya, L. M. 2017. Technological challenges influencing the implementation of green energy in the SME sector in KwaZulu-Natal (KZN). *Environmental Economics*, 8(3): 157-164.

Merta, J., Nummela, P. D. N. and Harikkala-Laihinien, M. S. R. 2017. National innovation system and SME innovativeness.

Messeni Petruzzelli, A. and Ardito, L. 2019. Firm size and sustainable innovation management.

Mhlanga, O. 2018. Drivers of restaurant efficiency in South Africa: A stochastic frontier approach. *International Journal of Culture, Tourism and Hospitality Research*, 12(4): 407-419.

- Mikołajczak, P. and Pawlak, J. 2017. Factors affecting outcomes of EU-supported investments in innovation among SMEs in the Greater Poland (Wielkopolska) region, Poland. *Journal of Research in Marketing and Entrepreneurship*, 19(2): 140-160.
- Mirela, B. 2008. Innovation-the characteristic tool of entrepreneurs. *Economic Science Series*, 17(4): 135-138.
- Mishra, P., Pandey, C.M., Singh, U., Gupta, A., Sahu, C. and Keshri, A. 2019. Descriptive statistics and normality tests for statistical data. *Annals of cardiac anaesthesia*, 22(1): 67.
- Mitchell, B. 2020. Covid-19 corruption betrays the proud legacy of Rivonia. *Daily Maverick*, 6 August. Available: <https://dailymaverick.co.za/opinionista/2020-08-06-covid-19-corruption-betrays-the-proud-legacy-of-rivonia/>. (Accessed 20 August 2020).
- Mittal, S., Khan, M. A., Romero, D., and Wuest, T. 2018. A critical review of smart manufacturing and Industry 4.0 maturity models: Implications for small and medium sized enterprises (SMEs). *Journal of manufacturing systems*, 49: 194-214.
- Molini, V. and Paci, P. 2015. *Poverty reduction in Ghana: Progress and Challenges* Washington, DC: World Bank Group.
- Molokwu, V. B., Barreria, J., and Urban, B. 2013. Entrepreneurial orientation and corporate governance structures at the firm level in South African oil and gas industry. *South African Journal of Human Resource Management*, 11(1): 1-15.
- Momeni, A., Pincus, M. and Libien, J. 2018. *Cross tabulation and categorical data analysis. in introduction to statistical methods in pathology*: 93-120. Springer, Cham.
- Moraes Silva, D. R. D., Lucas, L. O. and Vonortas, N. S. 2020. Internal barriers to innovation and university-industry cooperation among technology-based SMEs in Brazil. *Industry and Innovation*, 27(3): .235-263.

Moses, C., Sithole, M. M., Blankley, W., Labadarios, D., Makelane, H. and Nkobole, N. 2012. The state of innovation in South Africa: Findings from the South African national innovation survey. *South African Journal of Science*, 108(7-8): 15-20.

Mpiti, N. 2016. *The influence of private and public finance on the performance of SMMEs in the Free State: A case of Afro hair salons in Mangaung Metropolitan Area* (Doctoral dissertation, Bloemfontein: Central University of Technology, Free State).

Mthabela, T. E. 2015. *Assessing the causal failures of emerging manufacturing SMEs in Johannesburg* (Doctoral dissertation).

Muriithi, S. 2017. African small and medium enterprises' (SMEs) contributions, challenges and solutions. *European Journal of Research and Reflection in Management Sciences* 5(1): 36–48.

Muringani, J. 2015. *Innovation strategies of small firms in South Africa* (Doctoral dissertation).

Mutanda, M. 2014. *The perception of small and micro enterprises in Durban central business district towards financial planning* (Doctoral dissertation).

Muzenda, T. 2019. *Growth and survival of small and medium-scale enterprises in Kenya—an empirical case study of Nairobi County* (Doctoral dissertation, Faculty of Commerce).

Myers, M. D. 2019. *Qualitative research in business and management*. Sage Publications Limited.

Nagaraju, R. 2015. *Role of innovation strategy in the business growth of high-technology SMEs in UK*.

Naranjo-Valencia, J. C., Jiménez-Jiménez, D. and Sanz-Valle, R. 2011. Innovation or imitation? The role of organizational culture. *Management Decision*, 49(1): 55-72.

Narver, J. C. and Slater, S. F. 1990. The effect of a market orientation on business profitability. *Journal of Marketing*, 54(4): 20-35.

National Advisory Council on Innovation. 2006. The South African National System of Innovation: Structures, Policies and Performance. Background Report to the OECD Country Review of South Africa's National System of Innovation.

National Economics University. 2020. The report assesses the impact of Covid-19 on the economy and policy recommendations. HaNoi. Vietnam. Available: <http://trungtamwto.vn/download/19344/bao-cau-danh-gia-tacdong-covid-19-den-nen-kinh-te.pdf> (Accessed 10 April 2020).

Ndesaulwa, A. P. and Kikula, J. 2016. The impact of innovation on performance of small and medium enterprises (SMEs) in Tanzania: A review of empirical evidence. *Journal of Business and Management Sciences*, 4(1): 1-6.

Ndesaulwa, A. P., Kikula, J. and Chao, E. 2017. Investigation of barriers to SMEs innovation capacity in Tanzania: can technology and R&D mitigate their effects? *Journal of Business*, 5(1): 11-17.

Ndiaye, N., Razak, L.A., Nagayev, R. and Ng, A. 2018. Demystifying small and medium enterprises' (SMEs) performance in emerging and developing economies. *Borsa Istanbul Review*, 18(4): 269-281.

Ndiege, J. R. 2019. Social media technology for strategic positioning of small and medium-sized enterprises: Empirical evidence from a developing economy. *Electronic Journal of Information Systems in Developing Countries*; e12069. Available: <https://doi.org/10.1002/isd2.12069>. Accessed 10 May 2019.

NEDBANK. 2020. Covid-19 SME loan scheme phase II. Available: <https://www.nedbank.co.za/content/nedbank/desktop/gt/en/business/covid-19relief1/LoanschemephaseII.html> (Accessed 12 September 2020).

Neneh, B. N. 2018. Customer orientation and SME performance: The role of networking ties. *African Journal of Economic and Management Studies*.

- Neneh, B. N. and Van Zyl, J. 2017. Entrepreneurial orientation and its impact on firm growth amongst SMEs in South Africa. *Problems and Perspectives in Management*, 15(3): 166.
- Neuendorf, K. A. 2019. 18 Content analysis and thematic analysis. *Advanced Research Methods for Applied Psychology*: 211.
- Ngek, N. B. and van Aardt Smit, A. 2013. Will promoting more typical SME start-ups increase job creation in South Africa? *African Journal of Business Management*, 7(31): 3043-3051.
- Nguyen, D. K., Phong, L. B. and Hui, L. 2019. Creating competitive advantage for Vietnamese manufacturing and service firms: The role of collaborative culture and innovation capability. *International Journal of Business Administration*, 10(2): 32-42.
- Nieman, G., and Nieuwenhuizen, C. 2009. *Entrepreneurship: A South African Perspective*. Pretoria, Van Schaik Publishers.
- Nieuwenhuizen, C. 2019. The effect of regulations and legislation on small, micro and medium enterprises in South Africa. *Development Southern Africa*: 1-12.
- Nishishiba, M., Jones, M. and Kraner, M. 2013. *Research methods and statistics for public and non-profit administrators: A practical guide*. SAGE Publications.
- Nițescu, D. C. 2015. A new beginning for SMEs development? *Theoretical and Applied Economics*, 22(3): 39-52.
- Njoroge, R. M. 2015. *Marketing strategies and the performance of Small and Medium Enterprises in Matuu town, Machakos country, Kenya. A thesis*: University of Nairobi.
- Nkwinika, M. K. K. and Munzhedzi, P. H. 2016. *The role of small medium enterprises in the implementation of local economic development in South Africa*.
- Nunes, A., and Silva, M. J. 2010. Constrangimentos económicos e de mercado na capacidade inovadora das empresas Portuguesas: Evidências empíricas ao nível da inovação no processo.

In Proceedings of XX Luso - Spanish conference on management, 4-5 February, 2010. *Instituto Politécnico de Setúbal, Portugal*.

Nyamwanza, L., Paketh, L, Makaza, F. and Moyo, N. 2016. An evaluation of the policies instituted by the government of Zimbabwe in promoting survival and growth of SMEs: The case of Glenview area 8 SMEs. *International Journal of Information, Business and Management* 8(4): 304–16.

Nyarku, K. M. and Oduro, S. 2018. Effect of legal and regulatory framework on SMEs growth in the Accra Metropolis of Ghana. *The International Journal of Entrepreneurship and Innovation*, 19(3): 207-217.

Nze, G. O. 2016. *Exploring fast moving consumer goods (FMCG) Small, Medium and Micro Enterprises (SMME) manufacturers need for innovation to achieve growth in KwaZulu-Natal* (Doctoral dissertation).

O'Regan, N., Ghobadian, A. and Sims, M. 2006. Fast tracking innovation in the manufacturing SMEs. *Technovation*, 26(5):251-261.

OCDE, O. 2014. *Job Creation and Local Economic Development*.

Ocloo, C. E., Akaba, S. and Worwui-Brown, D. K. 2014. Globalization and competitiveness: Challenges of small and medium enterprises (SMEs) in Accra, Ghana. *International Journal of Business and Social Science*, 5(4).

Oduntan, K. O. 2014. The role of small medium enterprises in economic development: The Nigerian experience. *International Conference Art Economic and Management*, 7(3): 75 80.

OECD. 2020. Coronavirus (COVID-19). SME policy responses. Available: https://read.oecd-ilibrary.org/view/?ref=119_119680-di6h3qgi4x&title=Covid-19_SME_Policy_Responses (Accessed 15 July2020).

Okello-Obura, C. and Matovu. J. 2011. *SMEs and business information provision strategies: analytical perspective*.

Ortiz-Villajos, J.M. and Sotoca, S., 2018. Innovation and business survival: A long-term approach. *Research policy*, 47(8), pp.1418-1436.

Osei, A., Yunfei, S., Appienti, W. A. and Forkuoh, S. K. 2016. Product innovation and SMEs performance in the manufacturing sector of Ghana. *Journal of Economics, Management and Trade*: 1-14.

Osuga, P. O. 2016. *The effects of strategic innovation on the performance of SMES in Nairobi County* (Doctoral dissertation, United States International University-Africa).

Otero- Neira, C., Lindman, M. T. and Fernández, M. J. 2009. Innovation and performance in SME furniture industries. *Marketing Intelligence & Planning*.

Oualalou, F. 2012. Report on the role of Small and Medium-Sized Enterprises in the Mediterrean. *Third Plenary Session Bari*.

Oyelaran-Oyeyinka, B. and Sampath, P. G. 2008. *The state and innovation policy in late development: evidence from South Africa and Malaysia*. Georgia Institute of Technology.

Papadopoulos, T., Baltas, K. N. and Balta, M. E. 2020. The use of digital technologies by small and medium enterprises during COVID-19: Implications for theory and practice. *International Journal of Information Management*: 102192.

Parahoo, K. 2014. *Nursing research: principles, process, and issues*. Basingstoke, Hampshire: Palgrave Macmillan.

Parida, V., Westerberg, M. and Frishammar, J. 2012. Inbound open innovation activities in high-tech SMEs: The impact on innovation performance. *Journal of Small Business Management*, 50(2): 283–309.

Patanakul, P. and Pinto, J. K. 2014. Examining the roles of government policy on innovation. *The Journal of High Technology Management Research*, 25(2): 97-107.

- Piening, E. P. and Salge, T. O. 2015. Understanding the antecedents, contingencies, and performance implications of process innovation: A dynamic capabilities perspective. *Journal of Product Innovation Management*, 32(1): 80-97.
- Pivcevic, S., Petric, L. 2011. Empirical Evidence on Innovation Activity in Tourism: The Hotel Sector Perspective. *The Business Review, Cambridge*, 17(1): 1-15.
- Popadiuk, S. and Choo, C. W. 2006. Innovation and knowledge creation: How are these concepts related? *International Journal of Information Management*, 26: 302-312.
- Popescu, N. E. 2014. Entrepreneurship and SMEs innovation in Romania. *Procedia Economics and Finance*, 16: 512-520.
- Portuguez Castro, M., Ross Scheede, C. and Gómez Zermelo, M.G. 2019. The impact of higher education on entrepreneurship and the innovation ecosystem: A case study in Mexico. *Sustainability*, 11(20): 5597.
- Prajogo, D. I., and Ahmed, P. K. 2006. Relationships between innovation stimulus, innovation capacity, and innovation performance. *R & D Management*, 36(5): 499–515.
- Prajogo, D. I. 2016. The strategic fit between innovation strategies and business environment in delivering business performance, *International Journal of Production Economics*, 171(1): 241-249.
- Punch, F. K. 2009. *Introduction to research methods in education*. London: Sage Publications.
- PWC. 2020. COVID-19. UK economic update. 2020. Available: <https://www.pwc.co.uk/premium/covid-19/uk-economic-update-covid-19.pdf> (Accessed 15 July 2020).
- Rabie, C., Cant, M. C. and Wiid, J. A. 2016. Training and development in SMEs: South Africa's key to survival and success? *Journal of Applied Business Research (JABR)*, 32(4): 1009-1024.

- Rahi, S., 2017. Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics and Management Sciences*, 6(2), 1-5.
- Rahman, H. and Ramos, I. 2013. Challenges in adopting open innovation strategies in SMEs: an exploratory study in Portugal. In *Proceedings of the informing science and information technology education conference* (431-448). Informing Science Institute.
- Ramoroka, K. H., Booyens, I. and Jacobs T. P. 2017. *Innovation by local government for improved basic service delivery in South Africa, IPRDP Concept Paper #1*, Cape Town: HSRC.
- Ramya, N. and Ali, M. 2016. Factors affecting consumer buying behaviour. *International Journal of Applied Research* 2(10): 76-80.
- Rasinger, S. M. 2013. *Quantitative research in linguistics: An introduction*. A&C Black.
- Rhee, J., Park, T. and Lee, D.H. 2010. Drivers of innovativeness and performance for innovative SMEs in South Korea: Mediation of learning orientation. *Technovation*, 30(1): 65-75.
- Roper, S. and Turner, J. 2020. R&D and innovation after COVID-19: What can we expect? A review of prior research and data trends after the great financial crisis. *International Small Business Journal*, 38(6): 504-514.
- Roper, S., Du, J. and Love, J. H. 2008. Modelling the innovation value chain. *Research Policy*, 37(6-7): 961-977.
- Rosiek, J. and Gleason, T., 2017. Philosophy in research on teacher education: An ontoethical turn. *The SAGE handbook of research on teacher education*, pp.29-48.
- Rujirawanich, P., Addison R., and Smallman, C. 2011. The effects of cultural factors on innovation in a Thai SME. *Management Research Review*, 34(12): 1264-1279.

Rumanti, A. A., Samadhi, T. M. A. A. and Wiratmadja, I. I. 2016. Conceptual model for open innovation towards knowledge sharing in Indonesian SME, 2016 IEEE. *International Conference on Management of Innovation and Technology*: 243-248.

Rusu, D., Sandu, D. and Frangieh, M., 2020. Aspects of Innovation and Leadership in Small and Medium Enterprises. *Revista de Management Comparat International*, 21(5), pp.659-673.

Rustomjee, Z. 2015. *Infrastructure in South Africa, OECD economics department working papers*, OECD Publishing, Paris.

Saari, D. 2020. Challenges faced by SMEs when accessing loans from financial institutions in Nigeria.

Sahrom, N. S., Tan, C. L. and Yahya, S. 2016. Regulation, incentives and government policy: How does it stimulate R&D engineers 'innovative behaviours in Malaysian biotechnology SMEs? *Asian Academy of Management Journal*, 21.

Sahut, J. M. and Peris-Ortiz, M. 2014. Small business, innovation, and entrepreneurship. *Small Business Economics*, 42(4): 663-668.

Salisu, Y. and Abu Bakar, L. J. 2018. Strategic alliance and the performance of SMEs in developing economies: The mediating role of innovation strategy. *Asian Journal of Multidisciplinary Studies*, 6(2): 47-56.

Salome, I. O., Damilola, A. T. and Sunday, E. K. 2013. Gender influence on access to innovation resources in Nigeria. *International Journal of Humanities and Social Science*, 3(1): 216-227.

Santos, F. J., Romero, I. and Fernández-Serrano, J. 2012. SMEs and entrepreneurial quality from a macroeconomic perspective. *Management Decision*, 50(8): 1382-1395.

Sarmiento, M., Marques, S. and Galan-Ladero, M. 2019. Consumption dynamics during recession and recovery: A learning journey. *Journal of Retail and Consumer Services*, 50: 226-234.

Saunders, M., Lewis, P. and Thornhill, A. 2009. *Research methods for business students*. 5th ed. London: Prentice Hall.

Sawang, S. and Matthews, J. H. 2010. Positive relationships among collaboration for innovation, past innovation abandonment and future product introduction in manufacturing SMEs. *Interdisciplinary Journal of Contemporary Research in Business*, 2(6): 106-117.

Scarborough, N. M. 2011. *Essential of entrepreneurship and Small Business Management*. New Jersey: Prentice Hall.

Schachtebeck, C., Groenewald, D. and Nieuwenhuizen, C. 2019. Intrapreneurial orientation in SMEs: A South African perspective. *EuroEconomica*, 38(2).

Schein, E. H., and Schein, P. A. 2016. *Organizational culture and leadership* 5th ed. Hoboken, New Jersey: John Wiley and Sons, Inc.

Schenkel, M. T., Farmer, S. and Maslyn, J. M. 2019. Process improvement in SMEs: The impact of harmonious passion for entrepreneurship, employee creative self-efficacy, and time spent innovating. *Journal of Small Business Strategy*, 29(1): 71-84.

Schlegelmilch, B. B., Diamantopoulos, A. and Love, A. 1997. Characteristics affecting charitable donations: empirical evidence from Britain. *Journal of Marketing Practice: Applied Marketing Science*.

Schulz, O., Gott, J., Blaylock, A. and Zuazua, M. 2018. *Readiness for the future of production report 2018*. WEF in collaboration with A.T. Kearney.

Schumpeter, J. 1942. Creative destruction. *Capitalism, socialism and democracy*, 825: 82-85.

Schumpeter, J. 1949. *Economic theory and entrepreneurial history*. Reprint in. R. V.

Schumpeter, J. A. 1934. *The Theory of Economic Development*. Cambridge, Massachusetts: Harvard University Press.

Schumpeter, J. A. 1961. *The Theory of Economic Development*, (English Translation of the Theorie der WirtschaflichenEntwicklung 1912) Oxford: Oxford University Press.

Scott, A., Darko, E., Lemma, A. and Rud, J.-P. 2014. *How does electricity insecurity affect businesses in low and middle income countries?* London: Creative Commons Attribution.

Sekaran, U. and Bougie, R. 2016. *Research methods for business: A skill building approach*. John Wiley & Sons.

Sendawula, K., Turyakira, P. and Bananuka, J. 2018. Adoption of sustainable entrepreneurship in small and medium enterprises (SMEs) in developing countries: Literature review. *Journal of Advances in Social Science and Humanities*, 4(2): 1-7.

Serei, T. 2017. The perceived effectiveness of the role of government in SME development (Doctoral dissertation, University of Pretoria).

Sevrani, K., and Elmazi, L. 2008. ICT and the changing landscape of tourism distribution –new dimension of tourism in the global conditions. *Journal of tourism Studies and Research in Tourism*, 6(6): 22-29.

Sexton, M., and Barrett, P. 2003. A literature synthesis of innovation in small construction forms: Insights, ambiguities and questions. *Construction Management and Economics*, 21: 613–622.

Sharif, N. 2012. Facilitating and promoting innovative entrepreneurship in Hong Kong: Theory and practice. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 29(2): 139-153.

Sharma, A. and Dave, S. 2011. Entrepreneurial orientation: Performance level. *SCMS Journal of Indian Management*, 8(4): 43.

Sharp, B. E. and Miller, S. A. 2016. Potential for integrating diffusion of innovation principles into life cycle assessment of emerging technologies. *Environmental science & technology*, 50(6): 2771-2781.

- Shelton, J., Martek, I. and Chen, C. 2016. Implementation of innovative technologies in small-scale construction firms: Five Australian case studies. *Engineering, Construction and Architectural Management*, 23(2): 177-91.
- Shirokova, G., Bogatyreva, K., Beliaeva, T. and Puffer, S. 2016. Entrepreneurial orientation and firm performance in different environmental settings. *Journal of Small Business and Enterprise Development*.
- Shu, C., Zhou, K. Z., Xiao, Y. and Gao, S. 2014. How green management influences product innovation in China: The role of institutional benefits. *Journal of Business Ethics*: 1–15.
- Sibanda, M. M. 2013. Small Medium and Micro-Enterprises in local economic development: A South African local government perspective: *Journal of Public Administration*, 48(8): 656-670.
- Sibiya, V. and Kele, T. 2019. Barriers and public policies impeding SMEs international market expansion: A South African perspective. *International Journal of Entrepreneurship*.
- Silva, M. 2007. *Barriers to Innovation faced by manufacturing firms in Portugal: How to overcome it?* MPRA Paper 5408.
- Silverman, D. 2017. *Doing qualitative research*. Sage Publications Limited. London.
- Sin, K. Y., Osman, A., Salahuddin, S. N., Abdullah, S., Lim, Y. J. and Sim, C. L. 2016. Relative advantage and competitive pressure towards implementation of e-commerce: Overview of small and medium enterprises (SMEs). *Procedia Economics and Finance*, 35: 434-443.
- Sitharam, S. and Hoque, M. 2016. Factors affecting the performance of small and medium enterprises in KwaZulu-Natal, South Africa. *Problems and perspectives in Management*, 14(2): 277-288.
- Sithole, M. L. 2015. *The relationship between service and product quality, and SME success in South Africa*. University of Witwatersrand.

Small Business Programme (SBP) SME Growth Index 2013. Available: <http://sbp.org.za/index.php?id=25>. Accessed 2 June 2019.

Small Enterprises Development Agency (SEDA) 2020. Covid-19 support for SMMES. Available: <http://www.seda.org.za/WhatsHappening/Shared%20Documents/Important%20Contact%20Info%20-%20SMME%20COVID%2019%20Support.pdf> (Accessed 02 August 2020).

Small Enterprise Funding Agency (SEFA). 2013. Covid-19 response programme. Available: <https://www.sefa.org.za/services/covidfunds> (Accessed 15 September 2020).

Small, P. A. 2018. The influence of entrepreneurial innovativeness on firm performance among Small and Medium-Sized Enterprises in KENYA Gilbert Kimutai Arap Bor.

Snyman, H. A., Kennon, D., Schutte, C. S. and Von Leipzig, K. 2014. A strategic framework to utilise venture capital funding to develop manufacturing SMEs in South Africa. *South African Journal of Industrial Engineering*, 25(2): 161-181.

Song, C., and Oh, W. 2015. Determinants of innovation in energy intensive industry and implications for energy policy. *Energy Policy*, 81: 122-130.

Songling, Y., Ishtiaq, M., Anwar, M. and Ahmed, H. 2018. The role of government support in sustainable competitive position and firm performance. *Sustainability*, 10(10): 3495.

South Africa. 2004. National Small Business Amendment Act (Act 29 of 2004). *Government Gazette*, 474(27101).

South African Department of Science and Technology. 2018. *Draft white paper on science, technology and innovation*. Available: https://www.gov.za/sites/default/files/gcis_document/201809/41909gon954.pdf (Accessed 10 July 2020).

South African Innovation Survey 2008. Main Results. Available: <file:///C:/Users/Student/Downloads/6996.pdf> (Accessed 14 June 2020).

South African Business Innovation Survey. 2014-2016. Available: http://hsr.ac.za/uploads/pageContent/8566/BUSINESS%20INNOVATION%20SURVEY%202014-2016%20_BROCHURE.pdf (Accessed 14 June 2019).

Srisathan, W.A., Ketkaew, C. and Naruetharadhol, P. 2020. The intervention of organizational sustainability in the effect of organizational culture on open innovation performance: A case of Thai and Chinese SMEs. *Cogent Business & Management*, 1717408.

Statistics South Africa. 2011. *Census 2011*. Available: <https://www.statssa.gov.za/publications/P03014/P030142011.pdf> (Accessed 25 April 2019).

Statistics South Africa. 2017. *Quarterly labour force survey: Quarter 2 (April to June)*. Pretoria: Government Printer.

Statistics South Africa. 2019. Unemployment rises slightly in third quarter of 2019. Available: <http://www.statssa.gov.za/?p=12689>. (Accessed 17 November 2019).

Statistics South Africa. 2020a. *Economy slips into recession*. Available: <http://www.statssa.gov.za/?p=13049>. (Accessed 12 April 2020).

Statistics South Africa. 2020b. SA economy sheds 2,2 million jobs in Q2 but unemployment levels drop. Available: <http://www.statssa.gov.za/?p=13633>. (Accessed 29 September 2020).

Stokes, P. 2011. *Key concepts in business and management research methods*. New York: Palgrave Macmillan.

Strobel, N. and Kratzer, J. 2017. Obstacles to innovation for SMEs: Evidence from Germany. *International Journal of Innovation Management*, 21(03): 1750030.

Struwig, F. W. and Stead, G. B. 2013. *Research: planning, design and reporting*. Boston. Pearson Education.

Su, N., 2018. Positivist qualitative methods. *The Sage handbook of qualitative business and management research methods*, pp.17-32.

Subrahmanya, B. M. H. 2009. Nature and strategy of product innovations in SMEs: A case study-based comparative perspective of Japan and India, *Innovation: management, policy and practice*, 11: 104-113.

Subrahmanya, M. H., Mathirajan, M. and Krishnaswamy, K. N. 2010. *Importance of technological innovation for SME growth: Evidence from India* (No. 2010/03). WIDER Working Paper.

Syahadiyanti, L. and Subriadi, A.P., 2018. Diffusion of Innovation Theory Utilization Online Financial Transaction: Literature Review. *International Journal of Economics and Financial Issues*, 8(3), p.219.

Syriopoulos, K. 2020. The impact of Covid-19 on entrepreneurship and SMES. *Journal of the International Academy for Case Studies*, 26(2): 1-2.

Tabachnick, B.G., Fidell, L.S. and Ullman, J.B., 2007. *Using multivariate statistics* (Vol. 5, pp. 481-498). Boston, MA: Pearson.

Talukder, M., Quazi, A. and Djatikusumol, D. 2020. Social media and SMEs: A study of drivers of adoption of innovation in organizational setting. *In Disruptive Technology: Concepts, Methodologies, Tools, and Applications*, 878-908.

Taneja, S., Pryor, M. G. and Hayek, M. 2016. Leaping innovation barriers to small business longevity. *Journal of Business Strategy*, 37(3): 44-51.

Tashakkori, A. and Teddlie, C. 2009. Integrating qualitative and quantitative approaches to research. *The SAGE Handbook of Applied Social Research Methods*, 2: 283-317.

Taylor, P. 2013. The effect of entrepreneurial orientation on the internationalisation of SMEs in developing countries. *African Journal of Business Management*, 7(19): 1927 – 1937, 21.

- Terziovski, M. 2010. Innovation practice and its performance implications in small and medium enterprises (SMEs) in the manufacturing sector: A resource- based view. *Strategic Management Journal*, 31(8): 892-902.
- Thorgren, S. and Williams, T. A. 2020. Staying alive during an unfolding crisis: How SMEs ward off impending disaster. *Journal of Business Venturing Insights*, 14: 00187.
- Tian, P. and Lin, B. 2019. Impact of financing constraints on firm's environmental performance: Evidence from China with survey data. *Journal of Cleaner Production*, 217: 432-439.
- Tong, P., Zhao, C. and Wang, H. 2019. Research on the survival and sustainable development of Small and Medium-Sized Enterprises in China under the background of low-carbon economy. *Sustainability*, 11(5): 1221.
- Tran, T. D. 2020. The impact of the COVID-19 pandemic on the Vietnamese economy and coping solutions. *Journal of Economics and Development*, 274: 14-22.
- Triguero, Á. and Córcoles, D. 2013. Understanding innovation: An analysis of persistence for Spanish manufacturing firms. *Research Policy*, 42(2): 340-352.
- Tseng, L. M. 2019. How customer orientation leads to customer satisfaction: Mediating mechanisms of service workers' etiquette and creativity. *International Journal of Bank Marketing*, 37(1): 210-225.
- Tseng, S. M., and Lee, P. S. 2014. The effect of knowledge management capability and dynamic capability on organizational performance. *Journal of Enterprise Information Management*, 27(2): 158-179.
- Udriyah, U., Tham, J. and Azam, S., 2019. The effects of market orientation and innovation on competitive advantage and business performance of textile SMEs. *Management Science Letters*, 9(9), pp.1419-1428.

Umar, B. B. and Kunda-Wamuwi, C. F. 2019. Socio-economic effects of load shedding on poor urban households and small business enterprises in Lusaka, Zambia. *Energy and Environment Research*, 9(2): 20.

Urbancova, H. 2013. Competitive advantage achievement through innovation and knowledge. *Journal of competitiveness*, 5(1).

Urriago, U. R. V., Modrego, A., Barge-Gil, A. and Paraskevopoulou, E. 2010. *The impact of science and technology parks on firms' radical product innovation: Empirical evidence from Spain*. (Paper read at the DRUID conference, June 16-18, Imperial College Business School, London. Available: <http://www2.druid.dk/conferences/viewpaper.php?id=500976&cf=43> (Accessed 05 May 2019).

Van Scheers, L. 2018. Strategies of global recession for small business enterprises in emerging markets: Case of South Africa. *Journal of Business and Retail Management Research*, 12(2).

Van Scheers, L. and Makhitha, K. M. 2016. Are Small and Medium Enterprises (SMEs) planning for strategic marketing in South Africa? *Foundations of Management*, 8(1): 243-250.

Vehovar, V., Toepoel, V. and Steinmetz, S. 2016. Non-probability sampling. *The Sage Handbook of Survey Methods*: 329-345.

Viljamaa, A. 2011. Exploring small manufacturing firms' process of accessing external expertise. *International Small Business Journal*, 29(5): 472-488.

Volchek, D., Jantunen, A., Saarenketo, S. 2013. The institutional environment for international entrepreneurship in Russia: Reflections on growth decisions and performance in SMEs. *Journal of International Entrepreneurship*, 11: 320-350.

Vrgovic, P., Vidicki, P., Glassman, B. and Walton, A. 2012. Open innovation for SMEs in developing countries—An intermediated communication network model for collaboration beyond obstacles. *Innovation*, 14(3): 290-302.

Wahab, N. A. A. and Jabar, J. 2017. Organizational innovation strategy towards Small Medium Enterprise performance in Malaysia. *International Journal of Arts Humanities and Social Sciences*, 2(7): 1-9.

Walliman, N. 2011. *Research project*. 3rd ed. California: Sage Publications.

Wang, D. 2016. *Study on effectiveness of technological innovations on the development of SMEs*. In 2016 2nd International conference on education technology, Management and Humanities Science. Atlantis Press.

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.

Welman, C., Kruger, F. and Mitchell, B. 2005. *Research methodology*. Cape Town: Oxford.

Wild, S. 2015. *Innovation: Shaping South Africa through science*. Johannesburg: Macmillan.

Witell, L., Snyder, H., Gustafsson, A., Fombelle, P. and Kristensson, P. 2016. Defining service innovation: A review and synthesis. *Journal of Business Research*, 69(8): 2863-2872.

Wonglimpiyarat, J. 2015a. Challenges of SMEs innovation and entrepreneurial financing. *World Journal of Entrepreneurship, Management and Sustainable Development*, 11(4): 295-311.

Wonglimpiyarat, J. 2015b. New economics of innovation: Strategies to support high-tech SMEs. *The Journal of High Technology Management Research*, 26(2): 186-195.

World Bank. 2010. World Development Indicator Database. Available: <http://worldbank.org/wbsite/external/datastatistics>. (Accessed 18 November 2019).

World Bank. 2018. *Overcoming Poverty and Inequality in South Africa: An Assessment of Drivers, Constraints and Opportunities* ' Washington, DC: World Bank.

World Economic Forum (WEF). 2018. Centre for the Fourth Industrial Revolution. Available: <https://weforum.ent.box.com/v/C4IR-Brochure>. Accessed: 02 February 2020.

World Health Organization (WHO). 2020. WHO Director-General's opening remarks at the Mission briefing on COVID-19 – 12 March 2020. Available: <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-mission-briefing-on-covid-19---12-march-2020>. Accessed 29 August 2020.

Woschke, T., Haase, H., and Kratzer, J. 2017. Resource scarcity in SMEs: Effects on incremental and radical innovations. *Management Research Review* 40(2): 195–217.

World Trade Organisation (WTO). 2016. *World trade report 2016: levelling the trading field for SMEs*. WTO, Geneva.

Wu, Y. W., Lin, Y. A., Wen, M. H., Perng, Y. H., and Hsu, I. T. 2016. Design, analysis and user acceptance of architectural design education in learning system based on knowledge management theory. *Eurasia Journal of Mathematics, Science & Technology Education*, 12(11): 2835-2849.

Xie, X. M., Zeng, S. X., and Tam, C. M. 2010. Overcoming barriers to innovation in SMEs in China: A perspective based cooperation network. *Innovation*, 12(3): 298-310.

Xie, X., Zeng, S., Peng, Y., Tam, C. 2013. What affects the innovation performance of small and medium-sized enterprises in China? *Innovation: Management, Policy & Practice*, 15(3): 271-286.

Yanadori, Y., and Cui, V. 2013. Creating incentives for innovation? The relationship between pay dispersion in R&D groups and firm innovation performance. *Strategic Management Journal*, 34 (12): 1502- 1511.

Yang, J. 2011. The determinants of corporate growth: evidence from Chinese high technology firms. *International Journal of Technology Management*, 56(1): 40–52.

Yin, R. K. 2014. *Case study research, design and methods*. 5th ed. Sage, Los Angeles.

Yong, A. G. and Pearce, S. 2013. A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in quantitative methods for psychology*, 9(2): 79-94.

Yu, X., Yan, J., and Assimakopoulos, D. 2015. Case analysis of imitative innovation in Chinese manufacturing SMEs: Products, features, barriers and competences for transition. *International Journal of Information Management*, 35(4): 520-525.

Zanello, G., Fu, X., Mohnen, P. and Ventresca, M. 2016. The creation and diffusion of innovation in developing countries: A systematic literature review. *Journal of Economic Surveys*, 30(5): 884-912.

Zemplinerová, A., 2010. Inovační aktivita firem a konkurence. *Politická ekonomie*, 58(6): 747-760.

Zikmund, W. G., Babin, B. J., Carr, J. C. and Griffin, M. 2013. *Business Research Methods*. 9th ed. USA: South-Western.

Zikmund, W. G., Carr, J. C. and Griffin, M. 2013. *Business Research Methods* (Book Only). Cengage Learning.

Zimmermann, V. 2012. Barriers to innovation in SMEs. *KfW Economic Research* 6: 4.

Zu, Z. Y., Jiang, M. D., Xu, P. P., Chen, W., Ni, Q. Q., Lu, G. M. and Zhang, L. J. 2020. Coronavirus disease 2019 (COVID-19): A perspective from China. *Radiology*: 200490.

ANNEXURE A: CONSENT FORM



Faculty of Management Sciences

Department of Entrepreneurial Studies and Management

Date 08 July 2019

Dear Participant

My name is Kudzai Nigel Makuwe and I am a masters' student at the Durban University of Technology. For the fulfilment of my study, I am inviting you to participate in this research study by completing the attached questionnaires.

The questionnaire will require approximately 15 minutes to be completed. There is no compensation for responding nor is there any known risk. In order to ensure that all information will remain confidential, please do not include your name. Copies of the project will be provided to Durban University of Technology and my supervisor. If you choose to participate in this project, please answer all questions as honestly as possible. Participation is strictly voluntary, and you may refuse to participate at any time.

Thank you for taking the time to assist me in the completion of this questionnaire. The data collected will provide useful information regarding how innovation strategies can be used to achieve economic growth in the KwaZulu-Natal province of South Africa. Completion and return of the questionnaire will indicate your willingness to participate in this study. If you require additional information or have questions, please contact me through the details listed below.

Kudzai Nigel Makuwe (Mr)

21344425@dut4life.ac.za

084 3939393

Researcher

Dr Lawrence Mpele Lekhanya

lawrencel@dut.ac.za

031 373 5835

Supervisor

ANNEXURE B: QUESTIONNAIRE

SECTION A: GENERAL INFORMATION

INSTRUCTIONS TO RESPONDENTS:

1. Please select **ONLY ONE** response with a tick ✓ for each question.
2. Answer **ALL** the pre-coded questions in this section.
3. Please **DO NOT** leave any question blank.

1. Please indicate whether you are the owner or manager.

1.1	Owner	1
1.2	Manager	2

2. Please indicate which ONE of the following SECTORS is applicable to you:

2.1	Manufacturing	1
2.2	Retail	2
2.3	Telecommunications	3
2.4	Finance	4
2.5	Transport	5
2.6	Other	6

3. Please indicate your gender:

3.1	Male	1
3.2	Female	2

4. Please indicate number of employees

4.1	Less than 20 employees	1
4.2	21 to 50 employees	2
4.3	51 to 100 employees	3
4.4	101 to 150 employees	4
4.5	151 to 200 employees	5

5. For how long have you been owning/managing the business.

5.1	1-5 years	1
5.2	6-10 years	2
5.3	11-15 years	3
5.4	16-20 years	4
5.5	21-25 years	5
5.6	>26 years	6

6. Please indicate your highest level of qualification:

6.1	Matric/ Certificate	1
6.2	Diploma / Bachelor's degree	2
6.3	Honours degree / B.Tech	3
6.4	Masters	4
6.5	Doctorate	5

SECTION B: Variable 1 Factors Influencing SMEs Innovation Strategies

An innovation strategy is a plan to grow market share or profits through product and service innovation.

INSTRUCTIONS TO RESPONDENTS:

1. Please select **ONLY ONE** response with a tick ✓ for each Likert Scale statement below.
2. Answer **ALL** the pre-coded statements in this section.
3. Please **DO NOT** leave any statement blank.

KEY: SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree

		SD	D	N	A	SA
7	Financial factors					
7.1	I believe finance is critical in shaping an organisation innovation strategy.	1	2	3	4	5
7.2	Without financial access small firms will find it difficult to innovate.	1	2	3	4	5
7.3	The government provides financial incentives to small businesses.	1	2	3	4	5
7.4	The organisation innovative strategy depends on the availability of finance.	1	2	3	4	5
7.5	Access to financial incentives influence the enterprises innovation strategies.	1	2	3	4	5
8	Firm size					
8.1	I believe the size of the organisation influence our innovation strategies.	1	2	3	4	5
8.2	The size of our enterprise impacts on our innovation strategies.	1	2	3	4	5
8.3	I believe larger organisations innovate more compared to SMEs.	1	2	3	4	5
8.4	Innovation strategy is not influenced by the size of the organisation.	1	2	3	4	5
9	Economic situation of a country					
9.1	The prevailing economic situation in our country impacts on our innovation capabilities.	1	2	3	4	5
9.2	Economic situation of a country influence SMEs innovation strategies.	1	2	3	4	5
9.3	Country's economic situation impact on the business' ability to produce innovative new products or service.	1	2	3	4	5
9.4	The poor economic growth in the country is affecting the business ability to introduce new products/ service and marketing.	1	2	3	4	5
9.5	I believe economic factors do not affect the business innovation strategy.	1	2	3	4	5
10	Management entrepreneurial innovation competence					
10.1	The manager/ owner is qualified to run the business.	1	2	3	4	5
10.2	I believe I have the required competences to operate the business.	1	2	3	4	5
10.3	Because of my managerial skills, the organisation is innovative.	1	2	3	4	5
10.4	My management style involves providing a conducive environment for employees to share ideas.	1	2	3	4	5
10.5	Qualification play a pivotal role in determining the organisation innovation strategy.	1	2	3	4	5
10.6	Without adequate management skills small firms will find it difficult to be innovative.	1	2	3	4	5

11	SMEs innovation culture	SD	D	N	A	SA
11.1	The owner/ manager attends innovation workshops.	1	2	3	4	5
11.2	The business invests in technology.	1	2	3	4	5
11.3	The firm provides services or products that are satisfy the consumer.	1	2	3	4	5
11.4	I believe the business promotes creative skills.	1	2	3	4	5
11.5	Innovation is part of the overall business culture.	1	2	3	4	5
12	Government support and innovation policies					
12.1	The government supports SMEs to be innovative.	1	2	3	4	5
12.2	The policies of the government are pro-innovation.	1	2	3	4	5
12.3	The government provide incentives to SMEs that deliver new products or services.	1	2	3	4	5
12.4	The business environment provided by the government is conducive for small firms to innovate.	1	2	3	4	5
13	SMEs technological capability					
13.1	The organisation uses technological equipment.	1	2	3	4	5
13.2	I believe a positive relationship between technology and business innovation strategy exists.	1	2	3	4	5
13.3	The business relies on latest technologies to produce new products or services.	1	2	3	4	5
13.4	I believe technology makes the running of the business easier.	1	2	3	4	5
14	Market orientation and customer behaviour					
14.1	The owner/ manager understands the needs of the customers.	1	2	3	4	5
14.2	The products/ service that we offer adds value to the customer.	1	2	3	4	5
14.3	Because of Covid-19 the buying patterns of consumers has changed.	1	2	3	4	5
14.4	The business fully understands customer preferences.	1	2	3	4	5
14.5	The needs of the customers is the business' main priority.	1	2	3	4	5
14.6	The business innovation strategy is influenced by the need to offer a consumer-oriented product/ service.	1	2	3	4	5
15	The resource-based view					
15.1	The availability of resources contributes to new innovation strategies.	1	2	3	4	5
15.2	The business has enough resources to support the innovation strategies of the enterprise.	1	2	3	4	5

15.3	Due to limited financial resources the business is unable to be innovative.	1	2	3	4	5
15.4	If the business can acquire more resources, it can help achieve creativity.	1	2	3	4	5
16	SMEs awareness of the Covid-19 relief fund	SD	D	N	A	SA
16.1	The owner/manager is aware of the SMEs Covid-19 relief fund.	1	2	3	4	5
16.2	The owner/manager applied for the SMEs Covid-19 relief fund.	SD	D	N	A	SA

		1	2	3	4	5
16.3	The Covid-19 relief is assisting the business during the pandemic.	1	2	3	4	5
16.4	With the Covid-19 relief fund the business innovation strategy is being supported.	1	2	3	4	5
16.5	It is easy for the business to apply and receive the Covid-19 relief fund.	1	2	3	4	5
17	Human capital					
17.1	The business employees the most qualified personnel.	1	2	3	4	5
17.2	Qualification is one of the requirements when applying for a job at our organisation.	1	2	3	4	5
17.3	The firm employees' people with the right experience.	1	2	3	4	5
17.4	The organisation invests in employee training and development.	1	2	3	4	5
17.5	I believe skilled employees positively influence the business innovation strategy.	1	2	3	4	5
18	Competitive advantage					
18.1	Our innovation strategy is inspired by the organisation desire to be ahead of competitors.	1	2	3	4	5
18.2	The business innovates in order to maintain a competitive advantage.	1	2	3	4	5
18.3	Innovation as a strategy ensures that the business outperforms competitors.	1	2	3	4	5
18.4	Through the business innovation strategy, the business gained market share.	1	2	3	4	5

SECTION C: Variable 2 Innovative Small and Medium Enterprises

According to the Small Business Act No 102 of 1996, small medium enterprises are those enterprises employing more than 20 but no more than 200 people or with a total annual turnover of less than R100 million.

		SD	D	N	A	SA
19.1	I believe innovative SMEs improve economic growth.	1	2	3	4	5
19.2	I believe innovative SMEs helps create employment.	1	2	3	4	5
19.3	Without innovation strategies SMEs cannot survive.	1	2	3	4	5
19.4	The performance of SMEs and survival is dependent on innovation.	1	2	3	4	5
19.5	Innovation is a necessity for SMEs sector growth.	1	2	3	4	5
19.6	SMEs in Durban are largely innovative	1	2	3	4	5
19.7	Funding is available to support small businesses.	1	2	3	4	5
19.8	Innovations drives SMEs growth.	1	2	3	4	5
19.9	I believe innovative small businesses help to alleviate poverty.	1	2	3	4	5
19.10	Small firms are the backbone of the economy.	1	2	3	4	5

ANNEXURE C: ETHICAL CLEARANCE



MANAGEMENT SCIENCES: FACULTY RESEARCH ETHICS COMMITTEE (FREC)

27 November 2019

Student Name: **Mr K.N. Makuwe**

Student No: 21344425

Dear Mr K.N. Makuwe

MASTER OF MANAGEMENT SCIENCES: BUSINESS ADMINISTRATION

TITLE: Factors Influencing Small and Medium Enterprises Innovation Strategies in Durban.

Please be advised that the FREC Committee has reviewed your proposal and the following decision was made: **Approved – Ethics Level 2**

Date of FRC Approval: 27 November 2019

Approval has been granted for a period of two years from the above FRC date, after which you are required to apply for safety monitoring and annual recertification. Please use the form located at the Faculty. This form must be submitted to the FREC at least 3 months before the ethics approval for the study expires.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the FREC according to the FREC SOP's. Please note that ANY amendments in the approved proposal require the approval of the FREC as outlined in the FREC SOP's.

Yours sincerely

Prof JP Govender Chairperson: Faculty Research Ethics Committee

ANNEXURE D: LANGUAGE EDITING CERTIFICATE

Helen Richter
Advanced Editing, Proofreading
& Copywriting
feetjieding@gmail.com
+27 729538169

14 November 2020

To whom it may concern

CERTIFICATE OF EDITING & AUTHENTICATION

I have proofread and language edited the MTech thesis titled:

“Factors Influencing Small and Medium Enterprises’ Innovation Strategies in Durban”

by

Kudzai Nigel Makuwe

To the best of my knowledge, the work remains free of spelling, grammar, structural and stylistic errors and the contents are certified as the authors’ own work.

With thanks.

H. S. Richter

Factors Influencing SMEs Innovation Strategies in Durban

by Kudzai Nigel Makuwe

Submission date: 17-Nov-2020 04:02PM (UTC+0200)

Submission ID: 1378814838

File name: FACTORS_INFLUENCING_SMALL_AND_MEDIUM_ENTERPRISES_Turn_it_in.docx (51.63M)

Word count: 37397

Character count: 211913

Factors Influencing SMEs Innovation Strategies in Durban

ORIGINALITY REPORT

10%	9%	2%	5%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to University of KwaZulu-Natal Student Paper	1%
2	ir.dut.ac.za Internet Source	1%
3	Submitted to Durban University of Technology Student Paper	1%
4	Submitted to Mancosa Student Paper	1%
5	openscholar.dut.ac.za Internet Source	<1%

Exclude quotes On
Exclude bibliography On

Exclude matches < 10 words



Letter of Acceptance

26th April 2021

Dear Dr. Kudzai Nigel Makuwe and Lawrence Mpele Lekhanya,

Durban University of Technology, South Africa.

Your manuscript entitled: **"Factors Influencing Small Medium Enterprises Innovation Strategies in Durban "** has been published under **Academy of Entrepreneurship Journal (AEJ) Volume 27 Issue 2 2021.**

In order for your manuscript to be published, you must accomplish the following:

- 1) Once you receive the Galley Proof from our end and along with your revision, you have to send us the article back within 72 hours. Please note that the revisions are only allowed in case you find any grammatical, punctuation, sentence formation errors. Revisions towards altering the methods, figures, facts, data, tables etc. aren't allowed. Any breach of the later point may enforce rejection of the said article.
- 2) As a small charge towards payment, there is no membership fees applicable. However, you need to pay the amount raised and sent as an attachment with the E-mail towards article processing charges.
- 3) Each author must read and agree to the terms mentioned above to publish their articles.
- 4) Article will only be published once the payment is completed.

Should you have any questions about the membership, new deals, new projects, article related issues, please E-mail the [Executive Director](#). We look forward to receiving your further manuscripts and we congratulate you on your work!

Sincerely,


Editorial Office
Allied Business Academies
40 Bloomsbury Way Lower Ground Floor
London, United Kingdom
WC1A 2SE