UNIVERSITY OF KWAZULU-NATAL

INNOVATION AS A STRATEGY FOR SMALL TO MEDIUM ENTERPRISES' (SMES) SURVIVAL AND GROWTH IN MASHONALAND WEST PROVINCE, ZIMBABWE

By

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DECLARATION

I NELIA ETA MARIMA declare that

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DEDICATION

This research is dedicated to my parents, Mr F. Marima and the late Mrs M. Marima, children Malvin, Tendai, Tatenda and Takunda for their overwhelming support in this project. Above all, I dedicate this project to the Almighty God who gives me strength and wisdom.

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ABSTRACT

This study examines how innovation can be used as a strategy by SMEs in Zimbabwe to achieve both survival and growth. A sample of 385 employees and owner managers of the manufacturing SMEs in the Mashonaland West province of Zimbabwe was taken for the study using convenience and purposive sampling. In order to answer the research questions, a questionnaire which had both open-ended and closed-ended questions was designed and administered to the sample with a response rate of 85.7 per cent. The study found that most SMEs did not have innovation policies in their organisations although the majority of the SMEs claimed to be involved in open innovation. An interesting finding from the study was that most SMEs rewarded people who brought in innovative ideas to the company. The study also found that the SMEs were facing a number of challenges which were impairing their ability to be innovative. Consequently, these challenges were threatening their survival and growth. These challenges include capital shortages, lack of 'manpower', poor infrastructure, competition, lack of government support, strict and unconducive rules and regulations and technological problems. However, the challenge that seemed to be affecting the SMEs the most was that of capital shortage. The study recommended to the SMEs that they should not rely on only a few sources of funding but that they should have a large portfolio of funding sources. Additionally, the study recommended the government to take steps to increase the capacity of financial institutions to construct profitable SME lending programmes. In addition, to survive and grow SMEs also need to be involved in innovative activities such as product innovation, marketing innovation and organisational innovation. The study also found that there was need for SMEs to open new markets in order for them to achieve sustainable growth. Moreover, the study advised that the SMEs should hold refresher courses or training on innovation in their companies. It is hoped that future studies will help uncover how capital shortages affect the ability to innovate within small to medium enterprises.

KEYWORDS

SME; strategy; Innovation; Manufacturing SME; Innovation Strategy; SME Growth; SME Survival; Mashonaland West Province.

1 CHAPTER 1: INTRODUCTION

1.1 Introduction

Small and Medium Enterprises (SMEs) have gained recognition the world over as key players in economic growth and poverty alleviation. According to Gombarume and Mavhundutse (2014), SMEs are vital within the social and economic aspect of modern society because they enhance competition and entrepreneurship. Empirical data shows that SMEs are more productive than large enterprises and they advance employment creation as they are labour intensive (Monyau and Bandara, 2014; Schwab *et al*., 2018). This is particularly true in Zimbabwe where in the year 2014, it was estimated that, of the 7.1 million economically active persons, around 89% were employed in the SMEs sector (ZimStat 2015).

Given the pivotal role SMEs play in the national economy, the Government of Zimbabwe in the year 2000 established the Ministry of Small and Medium Enterprises and other support institutions to provide targeted support aimed at boosting the role played by SMEs in the national economy (Nyamwanza, Paketh, Makaza and Moyo, 2016). However, the majority of SMEs in Zimbabwe are confronted with harsh market conditions which have weakened their financial health (Nyoni and Bonga, 2018). Several studies also confirm that SMEs experience high failure rates and exhibit poor performance in spite of the business environment they operate in (Vanhaverbeke, Vermeersch and De Zutter, 2012; Gilmore, Galbraith and Mulvenna, 2013; Kambwale and Chisoro, 2015). Moyo and Moyo (2017) argue that, in Zimbabwe, only a few SMEs have managed to survive and grow into big firms. According to Nyoni and Bonga (2018), most SMEs in Zimbabwe are either born to die or remain in a state of perpetual infancy. As a consequence, there is a need for SMEs to chart their own destiny in order to prosper and survive in this challenging economic environment. The focus of this study is, therefore, to investigate the role of innovation as a strategy for the survival and growth of SMEs in Mashonaland West Province of Zimbabwe. This chapter presents the background to the research problem, objectives of the study as well as the justification, limitations and delimitations for this study. Furthermore, the structure of the thesis is outlined at the end of this chapter.

1.2 Background to the study

Gombarume and Mavhundutse (2014) posit that the volatility of the Zimbabwean economy can be attributed to a range of factors, in particular, the political crisis arising from the controversial 2008 general elections. The dollarisation of the Zimbabwean economy and the adoption of a multi-currency regime in 2009 worsened the situation. The majority of SMEs were negatively affected due to the limited access to hard currency in the economy. Mambo (2010) observes that SMEs in Zimbabwe hardly coped with the effects of the multi-currency regime and the preponderant use of the United States Dollar. In spite of the above, SMEs have continued to drive the Zimbabwean economy whose unemployment rate hovers above 70 per cent (Gombarume and Mavhundutse, 2014). Du Toit and

Motlatla, as cited in Gombarume and Mavhundutse (2014), report that in developing economies, SMEs are largely labour intensive than large corporates and are therefore predisposed to generate more job opportunities per unit of capital invested. In addition, Nyoni (2010) further maintains that SMEs play a significant role in poverty reduction and employment creation. This would further contribute to the nation's GDP. In 2012, out of 5.4 million working population in Zimbabwe, 84 per cent were absorbed by the informal sector while 11 per cent were employed by formal organisations. The remaining 5 per cent were in unclassified employment (ZimStat, 2015). The statistics affirm the dominant role of the SMEs sector in the Zimbabwean economy. It is therefore clear that SMEs are a vital cog in Zimbabwe's socio-economic engine. This is because these enterprises help to stabilise the economy and at the same time, they offer employment at the local, national, regional as well as international level. However, official figures on economic performance generally do not take into consideration people who are informally employed in the SMEs sector irrespective of the fact that they employ up to 89 per cent people for employment (Nyamwanza, 2014; ZimStat, 2015).

According to the Daily News (December 12, 2015):

> *"According to the Think Room Consulting research group's latest survey, Zimbabwe is the least country in Africa with a favourable environment for small to medium enterprises (SMEs) to start and operate a business. The study revealed that the variables in Zimbabwe did not favour start-ups despite the economy increasingly getting informal. According to the report, Zimbabwe was ranked number last out of 12 countries after the country scored 25 per cent terms in conduciveness of starting and conducting business. The study interrogated several variables including political stability, corruption, GDP trajectory, population below poverty datum line, literacy rate, overall ease of doing business, ease of starting a business and social hostilities."*

Given these findings, there is a need for interventions to help the SME sector. Nyathi *et al*. (2018) noted that government assistance to SMEs is crucial to address the prohibitive challenges which threaten the development of this sector. Several countries have sought to leverage the potential of SMEs in their quest for national economic development. In budding economies, strategies have been put in place to sustain SMEs (Nyamwanza, 2014). Such strategies include the establishment of a conducive economic environment through the enactment of favourable laws, rules and regulations, policies and procedures. The Zimbabwean Government has set up ministries to support SMEs, for example, the Ministry of Small to Medium Enterprises that was established in the year 2000 and other support institutions like Small Enterprises Development Corporation (SEDCO), the African Development Fund (ADF), the Venture Capital Company of Zimbabwe (VCCZ) and the Zimbabwe Investment Centre (ZIC), among others that offer support to SMEs (Zindiye *et al*., 2012).

However, the Zimbabwean government's effort to support SMEs has not always yielded the envisioned

outcomes as evidenced by the anaemic performance by many sectors which have benefitted from government intervention measures to improve agricultural production. Over the years, government's support in the form of the inputs and farm mechanisation has been unsuccessful in turning around the declining agricultural production which has caused the government to be overburdened by a huge food import bill. The pattern is also the same for other sectors which are managed by small to medium enterprises whose involvement in the national economy has failed to measure up to the Government's expectations. Despite the special treatment given to SMEs and the confidence that the policymakers have in them, they have not performed well. This suggests that the availability of resources alone does not guarantee the development of an economy. There is a need for enhanced entrepreneurial and managerial expertise and innovation, which ultimately give a positive impetus to business growth. Therefore, there is a need for SMEs to direct their own future, if they are to thrive and continue to exist in this difficult environment.

In February 2007 it was reported in the Zimbabwe Independent that the Zimbabwe Congress of Trade Unions (ZCTU) had highlighted a depressing portrait of economic pointers. Some of the pointers were hyperinflation of 1600 per cent, a swelling economic turndown of about 50 per cent during the past seven years, an untenable budget shortfall of 43 per cent of GDP, persistent scarcity of foreign currency, the irregular availability of fuel, deficiency in skilled manpower and accumulation in unemployment rate and a deterioration of workers' real income. This was in spite of a raft of strategies that sought to turn around the pattern and again pointing to matters of the innovative behaviour of organisations at international and national levels. The government continued to formulate strategies to sustain SMEs and business operations in general. For instance, the Ministry of Indigenisation, Youth Development and Employment Creation planned for monetary support for SMEs catering for the youth and the compulsory procurement of 50% of goods and services from Zimbabwean companies. Following the crush of the Zimbabwean financial system, the most important policy intervention after 2008 was the introduction of the multi-currency system and the drawing up of numerous economic schemes. The financial system realised some increase as businesses attempted to take advantage of the prevailing economic depression. In his 2013 budget statement, Zimbabwean Minister of Finance highlighted that:

> *"As a result of these policy measures, the years 2009-2011 saw serious economic rebound…. averaging 9.5 per cent, single digit inflation below 5 per cent."*

Table 1.1 overleaf outlines the economic performance of the SMEs sector:

Table 1.1: Sectoral Performances (% Growth) 2009-2015

	2009 Actual	2010 Actual	2011 Actual	2012 estimated	2013 projected	2014 projected	2015 projected
Agriculture, hunting and fishing	21.00	34.80	5.10	4.60	6.40	6.40	6.00
Mining and quarrying	33.30	60.10	25.10	10.10	17.10	22.00	15.00
Manufacturing	10.00	(4.50)	15.00	2.30	1.50	3.20	2.80
Electricity and water	1.90	19.10	7.80	0.30	2.20	6.60	5.40
Construction	2.10	5.40	6.20	4.90	6.20	5.20	5.20
Finance and insurance	4.50	5.60	2.00	5.10	6.00	7.50	6.30
Real Estate	2.00	5.40	3.10	4.90	6.20	5.20	5.20
Distribution, hotels and restaurants	6.50	8.80	4.30	3.90	4.00	4.60	4.20
Transport and communication	2.20	20.50	18.70	5.80	3.40	2.60	2.70
Public Administration	2.00	-	4.80	3.00	2.00	1.20	1.00
Education	2.80	0.50	0.50	1.40	0.50	1.00	1.30
Health	3.20	15.80	10.40	2.50	2.00	3.00	4.00
Domestic Services	2.20	6.70	0.40	1.50	1.50	1.50	3.00
Other services	2.30	14.60	10.90	5.00	2.50	2.50	3.00
GDP at market prices	**5.40**	**9.60**	**10.60**	**4.40**	**5.00**	**5.70**	**5.50**

Source: 2013 budget statement (Ministry of Finance, Zimbabwe Government)

As outlined in Table 1.1, there was a considerable growth during the period 2009 to 2011 which resulted

from the recovery of the economy after a long time without basic goods and services and the introduction of the multi-currency regime in the economy. However, there are indications of economic dormancy after this, with all areas indicating a downturn in overall growth and this could have been due to the considerable importation of readymade products which tend to compete with locally made products. Foreign businesses realised the potential for economies of scale by inundating Zimbabwean market with low-priced finished products and this ended up making the local industry uncompetitive and resulted in a decrease in production and demand for locally produced goods and services.

The economy of Zimbabwe remained in a delicate state, with an unsustainable high external debt and de-industrialisation and in-formalisation. The normal GDP growth rate of 7.5 per cent amid the economic rebound of 2009-12 was moderating. This lukewarm economic performance was caused by liquidity challenges, obsolete technologies, auxiliary bottlenecks that incorporate power shortages and infrastructure deficits, corruption and an unstable and delicate global financial conditions (Monyau and Bandara, 2014). Although a number of courses of action could be devised and implemented to deal with the current circumstances, the untenable state of the economy and very little fiscal legroom from the government side hindered the operationalisation of government initiated strategies. Therefore, the use of internal mechanisms by SMEs remains their only hope if they are to carry on and reach maturity. Gassmann *et al*. (2010) suggest that innovation is one such internal mechanism which has the potential to fuel growth in the SMEs sector. According to Parida *et al*. (2012), SMEs can realize greater profits from innovation than bigger organisations because the former have shorter reporting structures, are willing to take risks and have the ability to react to shifting environments swiftly, while the latter have longer reporting structures.

Mashonaland West Province is considered to be the poorest of the ten provinces in Zimbabwe. The province is endowed by high potential textile industries like David Whitehead, fish from Kariba Dam which can be processed and sold after value addition. There is also some research being done on the wild baobab fruit to make porridge and some other nutritious food for those in the rural areas. If there are such opportunities in the region then the question that disturbs the researcher remains; what is hindering these SMEs from being innovative? If they innovate, will they survive and grow to higher levels? As literature will show in chapter 2, SMEs are more flexible in nature hence there is more room for them to be innovative than in bigger firms. It is with this background in mind that the researcher sought to investigate the existing state of affairs on the ground and to come up with strategies for encouraging innovativeness among in SMEs. Therefore, this study investigated how innovation can be used as a strategy for the survival and growth of SMEs in Mashonaland West Province, Zimbabwe.

1.3 Motivation for the study

This study was motivated by the Small and Medium Sized Enterprise Association of Zimbabwe's

(SMEAZ) report on the future of Innovation in Zimbabwe's Manufacturing Sector. This report was commissioned by the United Nations Economic Commission for Africa (UNECA), and the Council for Scientific and Industrial Research (CSIR) in November 2012. The report was intended to help establish the role of innovation in Zimbabwe's manufacturing sector. However, there is a dearth of studies in the area despite the important contribution SMEs have in the Zimbabwean economy.

1.4 Statement of the problem

Developing good innovation schemes for the continued existence and growth of SMEs can assist in advancing the Zimbabwean economy. Studies have shown that up to 75 per cent of new businesses in Zimbabwe sooner or later fail (Chichoni, 2011). This is supported by Figure 1.1 which shows the number of manufacturing SMEs that listed and delisted with the SMEs Association of Zimbabwe (SMEAZ) since its commencement in 2012.

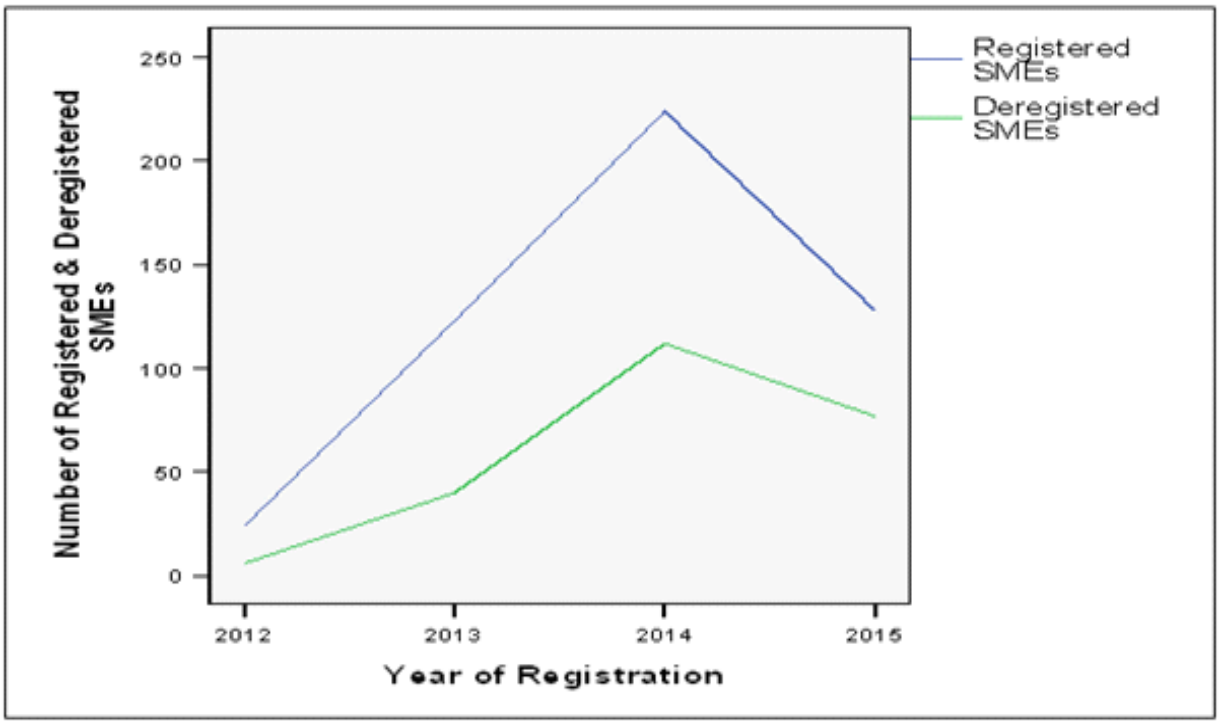


Figure 1.1: Registered and Deregistered small to medium manufacturing enterprises

Source: Adapted from the SMEs Association of Zimbabwe (2015)

As portrayed in Figure 1.1, the number of SMEs in the manufacturing sector that delisted with the SMEAZ has been on the rise as of 2012 to date. As highlighted by the SMEs Association of Zimbabwe, (2015), the bulk of these SMEs delisted since they were closing business. This is an apparent sign that several SMEs in the manufacturing sector are struggling to manage with the difficult economic environment in Zimbabwe. Mufudza *et al*. (2013) confirm that Zimbabwe's economic performance continues to deteriorate despite government policy interventions which are aim at providing a conducive

environment for SMEs. Thus, the SME's input to the national economy has fallen short of expectations in spite of the special treatment rendered to the sector and the confidence that the policy administrators have placed in them. Therefore, it is imperative for SMEs to utilize domestic mechanisms for them to survive and grow. According to Gassmann *et al*. (2010) innovation is one such internal mechanism which gives SMEs the potential means to overcome challenges and become more profitable. Innovation strategies are variables that SMEs have direct control over, unlike external elements like government policy. Innovation is thus a logical step for many SMEs to take. Therefore, there is a need to examine the nature of the innovation strategies within SMEs in Zimbabwe and to explore the relationship between these innovation strategies and the survival and growth of these SMEs.

1.5 Key research question

Can innovation be used as a strategy for the survival and growth of SMEs in Zimbabwe?

Formulation of good innovation strategies to promote entrepreneurship can help in the survival and growth of SMEs in Zimbabwe.

1.6 Objectives

1.6.1 To investigate the extent of innovativeness in SMEs in the manufacturing sector;

1.6.2 To explore the relationship between innovation and the growth of SMEs;

1.6.3 To assess the drivers of and the factors that hinder innovation in manufacturing SMEs;

1.6.4 To determine effective ways to manage innovation in SMEs in the manufacturing sector; and

1.6.5 To develop a theoretical framework showing how innovation can be applied successfully by SMEs in the manufacturing sector

1.7 Research questions

1.7.1 What is the degree of innovation in SMEs in the manufacturing sector?

1.7.2 Is there any relationship between innovation and growth in SMEs?

1.7.3 What are the drivers of and barriers to innovation in SMEs in the manufacturing sector?

1.7.4 What effects does innovation have on SMEs?

1.8 Justification for the study

Innovative activities play a major function in SMEs survival and growth in Zimbabwe and Africa as a whole. Results produced in this research brought to light some of the innovation strategies that SMEs

can employ to survive in this globalised and ever-changing business environment. Thus, the findings of this study are expected to encourage the adoption of innovation by SMEs, managers and owners so that they can handle the change. The study findings if adopted can assist in building robust and competitive firms Zimbabwe. Moreover, the study added more literature on SMEs particularly in Zimbabwe and Africa as a whole and should be of value to academics.

1.9 Delimitation

This study fixates on proprietor-managed SMEs that have been doing business for at least five years. Chid and Czeglegy as quoted in Peng *et al*. (2017) state that market-oriented institutions take a long time to create. This suggests institutions in their initial stages will be immature and inconsistent with the necessities of a market-driven framework. Massive distortions characterized the Zimbabwean economy during the previous decade and this makes it hard to make examinations over various economic phases. Nevertheless, this investigation concentrates on firms that have been in operation for a period of five years as highlighted in Peng *et al.*, (2017) observation that in the later stage of institutional transition new ways of doing business become strongly rooted as firms build up and mature. This is because as the organisation matures its leaders commit more time to build networks and formulate strategy in order to gain a competitive edge in the operating environment.

1.10 Structure of the Thesis

Chapter 1: Background of the study

The section introduced the thesis by presenting the main problem area as well as the rationale for undertaking the study. The chapter also establishes the limitations and delimitations of the study, its assumptions and the benefits to different stakeholders that accrue from its undertaking.

Chapter 2: Literature Review

The chapter reviewed related literature on the impact of innovation on the survival and development of SMEs. It also establishes the knowledge gap which this study was intended to fill.

Chapter 3: Theoretical Framework

This chapter presents different innovation models and explores how they work. The ultimate goal is to emerge at the end with a usable innovation model which can be taken up by SMEs in so that they achieve sustainable growth.

Chapter 4: Historical facts on Zimbabwe with particular attention to the Mashonaland West Province.

This section reviewed relevant literature on the history of Zimbabwe with particular attention to the Mashonaland West Province

Chapter 5: Research Methodology

The chapter outlines how the research was carried out with a special focus on the research design, targeted population and sources of data, sampling methods and data gathering instruments.

Chapter 6: Data Analysis and Presentation of Results

In this chapter, data was presented and analysed with a special focus on emerging trends and patterns. The main research findings were reported and examined in this chapter.

Chapter 7: Discussion of Results

The results of the study were discussed in this section.

Chapter 8: Conclusions and Recommendations

This section concluded the study and provided suggestions for further research.

1.11 Chapter Summary

This chapter has presented the background to the study, highlighted the main research problem and outlined the research questions and objectives; it further presented the justification for the study as well as its limitations and delimitations. The study revolves on innovation and its role in promoting business performance in the SMEs sector. It was concluded by stating the structure of this thesis. The next chapter examined the related literature on innovation and its role in the development, survival and growth of SMEs.

2 CHAPTER 2: INNOVATION IN SMALL TO MEDIUM ENTERPRISES

2.1 Introduction

Nyoni (2010) postulated that SMEs are essential since they help in job creation, poverty eradication and contribute to the Gross Domestic Product (GDP) of an economy. This was affirmed by findings of Gombarume and Mavhundutse's (2014) who uncovered that the Zimbabwean economy is currently being driven by SMEs as the country's unemployment is evaluated to be more than 70 per cent. SMEs are believed to be the panacea to the difficulties upsetting the Zimbabwean economy. Existing literature certify the view that SMEs can only survive the hostile market conditions if new and innovative ideas are introduced in the sector (Banterle *et al*., 2010). Hence, innovation offers a competitive edge for SMEs, thereby leveraging them for local and international competitiveness. Furthermore, organisational innovativeness enhances efficiency which ultimately reduces production costs and improves competitiveness. There is no denying the fact that innovativeness offers a platform from which firms can spring to greater competitive levels which spur them for growth and survival (Banterle *et al*., 2014). This chapter explores the existing literature on innovation, SMEs perspectives on innovation as a survival strategy, its influence on business performance and the envisaged impact on SME's growth in Zimbabwe. The narrative method which focuses on examining research throughout a period of time, often starting with the first time an issue, concept, theory, phenomena emerged in the literature, then tracing its evolution within the scholarship of innovation as a strategy was used.

2.2 The innovation concepts

The modern-day business organisation is premised on and driven by innovation (Teece, 2010). Innovation can be radiated in an organisation in a manner that enhances performance, value and competitiveness for the business (Yam *et al*., 2011). A review of innovation literature shows that different disciplines offer different definitions of the concept. This view is shared by Georgiadis and Bakouros (2012) who submit that innovation as a concept defies simple and straightforward definitions due to its complexity.

One of the earliest scholarly contributions to the notion of innovation is Schumpeter's (1984) micro-economic view on innovation whose specific focus was on entrepreneurial innovations. Schumpeter (1939) conveyed the term 'creative demolition' to capture the thought of creation and re-invention whose push is to obliterate the old and supplant it with new and novel methodologies. According to Hjalager (2010), innovation identifies with an institution's capacity to create novel and enhanced approaches to distinguish, secure, and actualize new ideas and assignments that assume unique forms (*i.e.* management and administration frameworks, internal cultures, processes, services, products, channels of distribution, and promotional techniques-segments) within the organisation. In the least complex terms, innovation can be depicted as either a creation which might be considered totally new,

a change of the current framework or potentially a change of the current *status quo* into another application (Dorf and Byers, 2008).

The concept of innovation comes from the Latin term '*innovare*', which means "to make something new" (Tuan *et al.* 2016, p. 413). Basically, innovation includes the formation of new organisation s within the current firm or the reestablishment of existing organisation s that might be plagued with stagnation and are desperate for revitalization (Banterle *et al.*, 2014). Although innovation is practised in various ways, Tomy and Pardede (2018, p. 612) note that it is difficult to make "accurate forecasts of the resources and the capital investments that are needed for the innovation projects and innovation process such as the availability of knowledge and skills, availability of expertise, in-house and external R&D expenditures, offices, machines, technology adoption, technology transfer, educating personnel, revenue streams, and cost structure." Therefore, questions normally arise with regards to the resources required, nature and timing of innovations and their outcomes over a given period of time.

Norman and Verganti (2014) observe that there are different kinds of innovation and their classification vary according to the object of innovation (e.g. innovation of socio-cultural systems, of ecosystems, of business models, of products, of services, of processes, of organisation s, of institutional arrangements), drivers of innovation and/or to the intensity of the innovation. Different sorts of innovation depend on specific attributes that are identified with competence-improving rather than competence-crushing and they are specialized instead of administrative (Forés and Camisón, 2016). Innovation can be considered on numerous levels and from differing points of view, depending on an organisation's strategy and its overarching market conditions (Gamero and Tamayo, 2011). All these factors identify with the business' ability to adjust proactively to changes in the operating environment (Martínez-Román *et al.*, 2015). According to Dewar and Dutton (1986, p. 1142) cited in Forés and Camisón (2016), innovations can be classified as either incremental (*i.e.* low uncertainty, utilises available technology, and enhance competitiveness within existing industry and market) or radical (*i.e.* high uncertainty, discover new technology, and vivid change inside existing or new industry and market). Radical innovations, according to Norman and Verganti (2014, p. 82) refer to fundamental changes that represent revolutionary changes, that is, "doing what we did not do before" whereas, incremental changes denote minor improvements or simple adjustments to the given frame of solutions, that is, "doing better what we already do."

Pervan *et al*. (2015) contend that innovation can be more encouraging and productive in new markets. Some of its advantages incorporate a significant change in the product category, industrial practices, and market flow (Dorf and Byers, 2008). Chichoni (2012) contend that innovation enables a firm to react expeditiously to rivalry in a manner that enhances success in competitive markets. A resource-construct view with respect to innovation maintains that an organisation gains competitive advantage through utilizing on resources, competencies and capabilities to achieve competitiveness (Gamero and

Tamayo, 2011). Fruitful innovation can be premised on "exploration competencies" which fundamentally identifies with an organisation's inclination to leverage ideas and accessible aptitude from various sources (Hafkesbrink and Schroll, 2014, p. 31). Similarly, Roth (2015) contends that systematic innovation prompts the solicitation of differing wellsprings of unique opportunities from the organisation's internal and external environments which is critical to the distinguishing proof of the unforeseen (*i.e.* unexpected opportunities), absurd (*i.e.* opportunity amongst actuality and conduct), industry and market rebuilds, socio-economic (*i.e.* shift in populace and discernment), process need, and restricted, embedded, and research-based knowledge. Implicit and inferred information are crucial wellsprings of innovation acquired through observations, imbued propensities, motivations, hunches, or different types of mindfulness that are not captured elsewhere. Such key factors leverage the firm giving it a particular edge over contenders who may depend on recorded information retained mentally or conveyed through educating and learning stages (Michna, 2018). Innovation can likewise be tapped from new knowledge and technological creations, scholastic and research institutions, demographic criticism and observation, and changes in the operating environment (Dorf and Byers, 2008).

2.3 Defining Innovation

There are several definitions of innovation in literature and a few will be discussed here. From a manufacturing sector viewpoint, Van den Hove *et al.* (2012) define innovation as the technical, design, assembling, administration and business exercises aimed at showcasing exceptional and novel or enhanced products or the reception for commercial purposes of a new or enhanced process, item or equipment. An earlier definition by Kogut and Zander (1992) provides a broader meaning of innovation compared to Van den Hove *et al.* (2012) by stressing not just the reception of novel ideas and processes, but additionally the successful launch and marketing of new products or services to the targeted clients. Gronum *et al*. (2012) further define innovation as the development of a new or notably improved product, service or process that creates competitive value for the firm, government or society. Kraiczy *et al*. (2015) claim that innovation is a technological product that is new to the firm and developed and introduced to the market by this firm. Kraiczy *et al*. (2015) add that a firm's innovativeness can range from incremental to radical for new products.

Van Gorp (2012) views innovation as the purposeful introduction and application of ideas, procedures, products, or systems that are new to the firm, intended to create an advantage. This point of view reverberates with the one shared by Tiwari and Herstatt (2012) who places that innovation is the execution of a novel or fundamentally enhanced product or process, new marketing technique, or a unique organisational style in a firm's operations and working environment. Tiwari and Herstatt (2012) take note of that the fundamental prerequisite for innovation is the novelty of the product, process, marketing technique or organisational strategy which the firm has embraced. Innovation epitomizes logical, technological, organisational, financial and commercial steps which are expected to prompt

reception and usage. On another note, Rowe *et al.* (2012) assert that the term innovation relates to an idea that has been converted into practical reality. They further add that in a business context, innovation refers to a product, process, or business concept, or a set triggered in the marketplace that has produced new gains and growth for the organisation. Wulfen (2016) argue that innovation is a feasible, applicable offering, for example, a product, service, process or involvement with a viable business model that is seen as new and is received by clients. Additionally, Steiber (2012) defines organisational innovation as a unique organisational method or process in the business' practices, organisational structure and stakeholder relations. Organisational innovation can be intentional to boost an organisation's productivity by minimising transaction costs or administrative costs, refining workplace fulfilment (and thus labour productivity), gaining access to non-tradable assets (such as non-codified external knowledge) or reducing the cost of supplies (Steiber, 2012).

The Organisation for Economic Cooperation and Development (OECD) as cited in Atkinson (2013, p. 4) characterizes innovation as "the execution of another or altogether improved product (that is, a physical good or service), comprising Research and Development (R&D) exchange (the change of the 'technology' to the production organisation), conception, R&D transfer (the shift of the 'technology' to the manufacturing organisation), production and deployment or marketplace usability". Atkinson (2013) reasons that R&D leads to the incubation of knowledge that predisposes innovative agents towards technological change.

With reference to Wirtz and Daiser (2017), innovation is considered to be the conception of new products and services, new production practices, unique marketing strategies, and new organisational or managerial structures. Crucial elements of innovation include new technology, intellectual property, and business and physical transformation. The economy's innovativeness can be augmented through an organisation of specialisation whereby bigger or more developed organisation s obtain innovative and prosperous smaller firms (Lindholm, 1994). Wirtz and Daiser (2017) contended that innovation is a key factor which guarantees a firm's enhanced performance and survival in a turbulent and competitive environment.

In view of the foregoing, there is apparently no universal agreement on the precise characterization of the term innovation as cited by Jensen *et al.* (2016). Schumpeter (1989) cited in Braunerhjelm (2010, p. 8) defined innovation as the dynamic motivating potency for growth. In his definition, Schumpeter (1989) defined five different types of innovation namely:

- New product development or qualitative enhancements in current products;
- Improvisation of new industrial methods;
- New market openings,

- Creation of new raw material sources or other new inputs; and
- New forms of industrial organisations (Braunerhjelm, 2010, p. 8).

Brouwer (1991) on the other hand, identified two categories of innovation namely: product and process innovation. Furthermore, Chen and Lu (2016) also proposed business model innovations, while Damanpour (1996) identifies managerial innovations and Higgins (1995) focused on organisational innovations. A study by Johne (2018) points out that there are four types of innovation levels which include process, product, marketing and organisational innovations.

The SMEs sector in Zimbabwe is characterized by stunted growth despite its sluggish development (Shumba, 2017). Innovation is, therefore, viewed as a solution to the growth and survival of the SME sector. However, the question which remains unanswered is can innovation be used as a strategy for the survival and growth of SMEs in Zimbabwe? The next subsection will briefly define the types of innovation levels.

2.3.1 Product Innovation

Product innovation refers to "the introduction of a new good or service or a significantly improved good or service with respect to its characteristics or intended use with the view to meet a customer or market demand" (Talegeta, 2014, p. 88). According to Ali and Park (2016), product innovation refers to the provision of a unique service that is notably enhanced in terms of its features or projected utility value. This includes significant improvements in technical specifications, components and materials, incorporated software, user-friendliness or other functional characteristics (Omachonu and Einspruch, 2010, p. 5).

Therefore, in today's competitive markets, Kanagal (2015, p. 10) recommend firms to invest in product innovations so as to cope with the competitive pressures, changing tastes and preferences, short product life cycles, technological advancement, varying demand patterns, and specialized requirements of customers. However, McDonald and McMillen (2011, p. 46) argue that after a certain period, competitors tend to produce similar products at the same or lower cost thereby requiring manufacturing companies to seek additional competitive advantages. Faced with such a predicament, one way to gain a competitive advantage is to redesign the processes in order to come up with a sustainability-related manufacturing strategy that increases efficiency, reduce time to market and improve outcomes.

2.3.2 Process Innovation

Process innovation according to Reguia (2014, p. 141) refers to "the adoption of new or significantly improved production methods". This includes significant changes in techniques, equipment and or software, for example, installation of new or improved manufacturing technology, such as automation equipment or real-time sensors that can adjust processes, computer-aided product development)

(Kraiczy, 2013, p. 36). Ali and Park (2016) further note that process innovation relates to the enactment of a novel or creatively enhanced manufacturing or delivery method. According to Jeston and Nelis (2006), process innovation occurs at various levels within the organisation and no organisation can depend solely upon innovation occurring at one level only. Therefore, as shown in Figure 2.1, successful organisations should have an innovation process working its way through all levels of the organisation.

Figure 2.1 shows the levels of process innovation

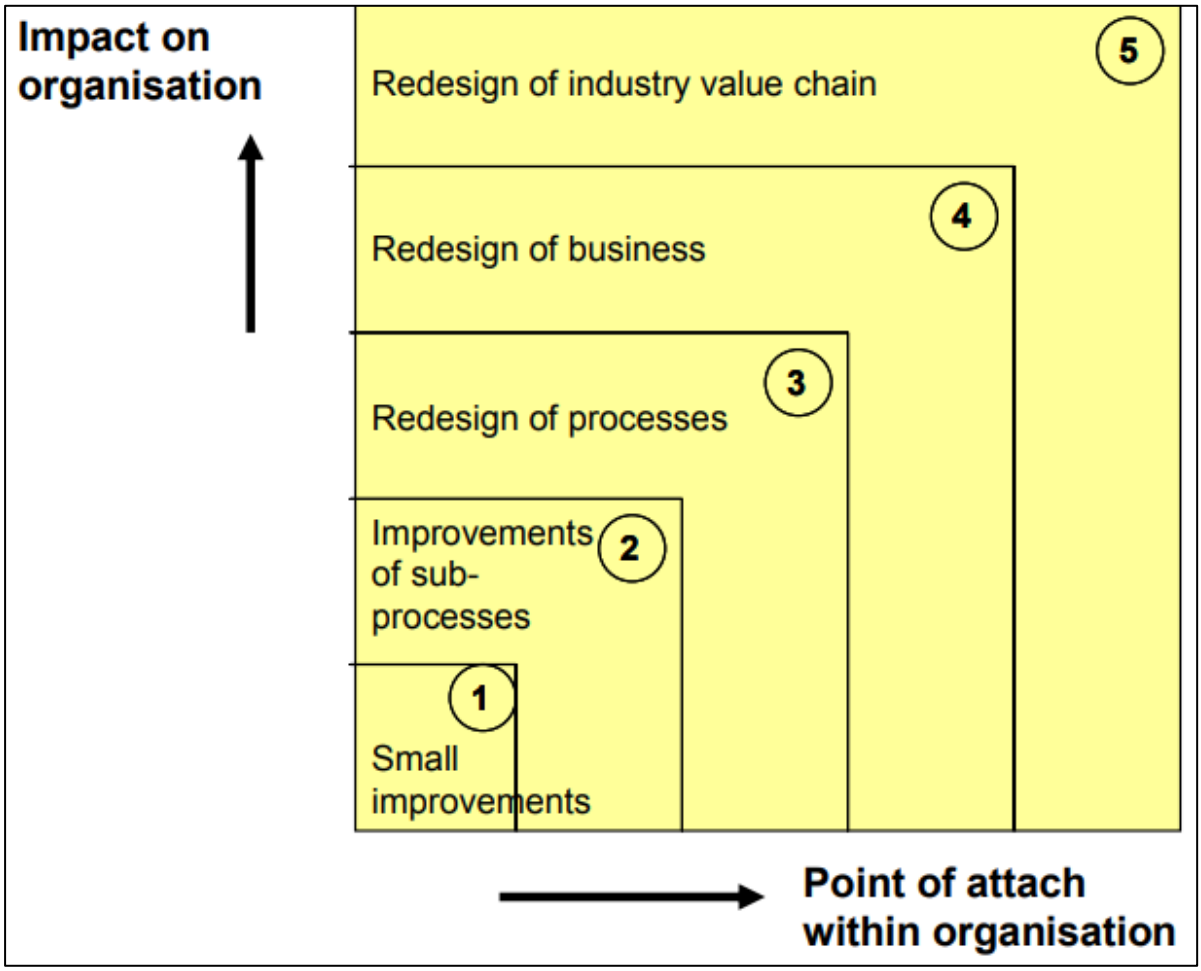


Figure 2.1: Levels of Process Innovation

Source: Jeston and Nelis (2006, p. 2)

As shown in Figure 2.1 process innovation goes through technological and organisational changes involving developing a firm's manufacturing processes (Frishammar *et al*., 2013). Process innovation requires both organisational and technological changes and is an important source of increased productivity in a firm and value delivery to the stakeholders. However, evolving business tactics and deployment of unique equipment require significant capital outlay which is unfortunately beyond the reach of many SMEs. However, changing techniques and equipment requires a lot of money whereas most of these SMEs have inadequate resources to make the necessary changes. Given the lack of resources among SMEs in Zimbabwe, it is important to understand the extent to which manufacturing

SMEs in Zimbabwe have embraced this type of innovation and how they can utilise this type of innovation to gain efficiency, reduce time to market and improve process outcomes.

2.3.3 Marketing Innovation

The OECD Oslo Manual cited in Wiechoczek (2016, p. 339) defines marketing innovation as "the deployment of unique marketing strategies involving creative modifications in product packaging or design, product promotion, product placement and pricing matrix." According to Rajapathirana and Hui (2018), marketing innovation refers to the introduction of new marketing methods involving significant changes in product design, product placement, and product promotion or pricing.

Marketing innovations target clientele satisfaction and carving of new niche markets (e.g. application of a substantial modification in the design of a furniture line to give it a new appearance and amplify its appeal). The main objective of the marketing innovation is to improve the way a firm addresses the needs of its customers, penetrate a new market or position its product on the market with the objective of increasing firm sales. Studies which investigated the impact of marketing innovation in multi-national companies show that marketing innovation has a positive effect on creating long-term competitive advantage and company growth. However, SMEs in Zimbabwe still have a lot to do for them to leverage on marketing innovation. This study, therefore, sought to explore the relationship between marketing innovation, as a strategy, have on growth and survival of SMEs in the manufacturing sector in Zimbabwe.

2.3.4 Organisational Innovation

Rajapathirana and Hui (2018, p. 46) define organisational innovation as the "implementation of a new organisational method in the firm's business practice, organisation or external relations". Ali and Park (2016) add that organisational innovations create avenues for admittance to non-tradable assets (such as non- codified external knowledge), enhancing workplace wellness (and thus labour productivity), and achieving reduced costs of purchases. The definitions suggest that organisational innovation expands the capabilities and vision of a firm, improves employee satisfaction, leads to organisational transformation. Therefore, organisational innovation can lead to improvement of the firm's performance by reducing administrative and transaction costs. Cost-cutting measures such as the first-time introduction of management systems for general production, effective supply chain management, lean production, business reengineering and total quality management system also form part of organisational innovation. The intention of organisational innovation is rather to improve workplace satisfaction. Overall, organisational innovation has a positive impact on "product quality and productivity, information exchange among business functions, improve information and technology usage capacity" (Günay, 2007, pp. 16-17). Given the foregoing assertion, organisational innovation is therefore not "only a significant form of making value (for the organisation in the market) but of capturing it as well (Teece, 2010).

2.4 Dimensions of Innovation

2.4.1 Radical Innovation

Hogeforster (2007) postulates that radical innovation generates drastic modifications in the competitive environment for a service or product or creates completely new businesses. Radical innovations transpire infrequently but can generate explosive growth in major new categories of products and services. Andrews (2013) contends that radical innovation is mainly about creating major alterations in something established. Emphasis is important in relation to this issue. Andrews (2013) further maintains that a modification can signify a radical innovation when viewed from a technological perspective, but the impact may only be incremental when observed at an organisational level. In Zimbabwe radical innovation has resulted in drastic changes to the competitive environment for most products and services of SMEs. An example of radical innovation is the introduction of Ecocash by Econet Wireless Zimbabwe which is one of the telecommunications giants in the country. Ecocash is a division of Econet which facilitates money transfers through technologies. A person can send or receive money from another person via Ecocash using their mobile device. Most SMEs now use Ecocash in their operations and customers can purchase products and services using this facility and this has increased the competence of most SMEs. Furthermore, with Ecocash, SMEs are also given a commission for any (cash in and cash out) transactions that customers make, and this has resulted in an increase in the revenues of most SMEs. This radical innovation has the effect of ensuring the survival and growth of SMEs.

2.4.2 Incremental Innovation

According to Brouwers (2010), incremental innovations are geared to alter existing products or services. Such innovative alterations are meant to effect changes to the technology and the business model in a manner that primarily protects market share and sustains profit margins. Competitive firms are more predisposed to respond timeously to incremental innovations. Olezyk (2011) maintains that while disruptive innovations often make headlines, many organisations prefer to steady the ship by spreading innovation-related risks associated with adopting piecemeal or incremental innovations to their products, processes and services. Corporates are not very keen on embracing disruptive innovations as they shy away from them since they prefer to adopt incremental innovation. The advantage of that cautious approach is that incremental innovation is bold enough to yield huge returns for the organisation. Castells (2010) supporting the above statement argues that besides using fewer resources, incremental innovations as an aggregation of SMEs consist of adoption measures which make them easier to manage than their larger equivalents. The same is true for Zimbabwe where incremental innovation has made positive changes to the existing services of most SMEs (Nyamwanza, 2014).

Incremental innovation in Zimbabwe has taken many forms. For example, most SMEs introduced the

big and flat screened television set to replace the old and small- screened television set system in their businesses as a way of attracting more customers through entertainment with soccer usually playing in the background. It is now rare to walk into a bar, restaurant and many other joints in Zimbabwe and not find a big and flat screened television set. This incremental innovation has seen some small changes in the growth of most of these SMEs particularly during the World Cup duration many people flooded into these establishments to watch the games and to buy the products being offered by SMEs thereby increasing their revenues.

Polder *et al*. (2010), however, on the contrary, expressed the view that an organisation may have to undertake additional innovation measures to steer the firm in a growth path. If a business effectively improvises satisfactory incremental innovations, then it can, episodically, escort to the analogous levels of development driven by the radical innovations. The drivers of incremental innovation initiatives can encompass approaches to continuous development such as total quality management, lean manufacturing and world-class manufacturing.

There are advantages and disadvantages to both radical and incremental innovations. Masso *et al*. (2010) uphold that radical innovation has the benefit of yielding huge growth and survival benefits for the firm. The downside, however, is that the level of risks heightened in the event of an unsuccessful implementation. Incremental innovation has lower risk although it yields small benefits. It must be noted that there could be many simultaneous incremental innovations which may yield short-term benefits. Therefore, the determination of a firm's innovativeness may be signified by the effort portfolio of innovations rather than just one precise project. Consequently, choices involving the innovation process are more difficult than normally envisaged.

2.5 Culture and Diffusion of Innovation

The analysis of available writings on innovation has yielded two significant research streams, research that pertains organisational processes, cultures, and individuals on innovation and research that culminates into the dispersion of innovation across organisations and industries (Cromer, *et al*., 2011). The first stream places emphasis on the internal culture of a firm which is envisaged to play a fundamental role to inculcate innovation and provide individuals with sufficient workroom to experiment and create prospects for serendipity and valuable learning (Johne, 2018). A conventional innovative philosophy in the organisation is fundamental for catalysing the frequency of conception and commercialization of innovative products (Wirtz and Daiser, 2017). The fundamental ingredients for creating an entrepreneurial and innovative culture within an organisation and how it overpowers the drag to innovativeness are advocated in Table 2.1.

Table 2.1: Entrepreneurial and innovation culture factors

Policy	• Innovation preserves and perpetuates the organisation • Innovation needs and its timeframe • Innovation plan with a specific objective • Systematic policy of abandoning obsolete things • Free people to innovate and seek new things • Requirements, areas, and timeframes
Managerial Practise	• Focus managerial vision on an opportunity (report problem vs. opportunity) • Generate entrepreneurial spirit through the entire management group • Top management meet with junior personnel
Innovation Performance Measurements	• Feedback from results to expectation in innovate project. • Systematic review and valuation (objectiveness vs. performance)
Framework	• Include structure, staffing, compensation, incentives, and rewards • People to be entrepreneurial and innovative rewarded not penalised • Separate new unit (innovative project) from the old unit • Assign a special manager for a new unit • Separate and apply different measurement for return on investment analysis • Accountability
The Don'ts	• Mix managerial units and entrepreneurial units • Diversify innovation, focus on a similar business field • Acquire a small entrepreneurial venture

Source: Adapted from Ansari (2014, p. 45)

Chang *et al*. (2017) categorize four typical attitudes that must prevail in business for an innovative culture to thrive and flourish. These include risk-taking creativity stimulation, members' participation, management, and sharing responsibility. A corporate culture that embraces innovation must infuse team spirit to deal with exemplary behaviour, goal commitment, team-work approach and customer-centeredness (Ali and Park, 2016).

Rogers (1995, p. 5) observe that the second stream is based on innovation dispersion as "the method by which an innovation is communicated through certain channels over time among the members of a social system". According to the innovation diffusion theory, innovation dispersion has four components: (1) an innovation (2) an effective communication system, (3) a social system that is essentially the diffusion process domain; and (4) time, which relates to the phase between the innovation responsiveness and the adoption overload in a social system (Rogers, 1995; De Vries, 2016). Adoption relates to the information collecting, conceptualization, and planning that culminates in the adoption of the innovation, whereas implementation comprises the entire events, actions, and decisions that results in putting innovation into practice and application. Ali (2016) argues that, in many instances, individuals are able to recognise and choose innovation and adopt it but lack the capacity to implement

the innovation. Table 2.2 shows features which must be taken into consideration for an organisation to adopt innovation more speedily.

Table 2.2: Features for adopting an innovation

Relative Advantage	Innovation degree perception is better than a superseded idea
Compatibility	Innovation degree perception is consistent with existing value, experience, and potential adopters
Complexity	Innovation degree perception is difficult to understand and use
Trialability	Innovation degree experimentation is on a limited basis
Observe-ability	Innovation results are visible to others

Source: Adapted from Rogers (1995, p. 207)

External stimuli are often needed to facilitate the internal dispersion of an innovation process within the organisation. The exterior stimuli might be in the form of the collective recalibration of the industry business model, the setting up of a critical ecosystem, complementary products, infrastructure, institutional process and the establishment of professional corporations (Ali, 2016). De Vries *et al*. (2016) frames the organisation's innovation as the extent to which the business is quick to adopt an innovation compared to its peers in the social system. Innovation is similarly measured against an individual's predisposition to acquire and generate new ideas and to remain abreast with emerging technologies. It denotes to the organisation 's propensity to acquire and deploy emerging products, technologies, and brands rather than to concentrate on the pre-existing substitutes (Hofstede, 1991). Mahemba and De Bruijn (2003) proposed a foundation of espousing innovation that is acquisitive, imitative, and 'incubative'. This calls for different necessities from the organisation for the maximization of benefits to be possible. Imitative ability refers to the capacity to duplicate innovation expeditiously when others develop it; acquisitive refers to the capacity to access innovation by acquisition, licensing, or merger, whilst incubative is the capability of the firm to fashion its identifiable innovations within or through joint ventures (Mahemba and De Bruijn, 2003).

2.6 The Potential Effects of Innovation

According to Mukherjee (2017), innovation is risky by its very nature. Thus, for a given input, there is no guaranteed output. However, the chances of achieving successful outputs can be improved by controlling the innovation process. Innovation is buttressed by Research and Development (R&D) centred on products and processes. Breakthrough innovations can cause dramatic shifts in the expectations of customers that can leave whole industries paralysed with no relevant products to offer. In these circumstance ways of working can change very rapidly in an entirely unpredictable manner.

For example, the invention of the light bulb placed gas lighting companies in a turmoil whilst more recently, the invention of the personal computer fundamentally changed the typewriter and the mainframe computer markets (Cooper, 2018). The digital photography market has developed in a little over 5 years and left many makers of conventional cameras in turmoil even including the one-time revolutionary 'Polaroid' products (Anthony and Tripsas, 2016). Breakthrough innovations can mean that long-established firms in well-developed markets can have their entire business model made obsolete in a very short period. These businesses are often very good businesses that have been acting in a rational way developing incremental improvements to their products as a way to respond to their customers' feedback. This could lead to the argument that it is worthless to make such improvements as the value of the business could be destroyed at any moment by a disruptive breakthrough. However, it is clear that this argument is at best irrational. What these businesses did wrong was to have a myopic approach to their innovation. They ignored new technologies that may have been relevant to their business in the future and treated these developments often with hostile contempt whilst remaining arrogant about their own prospects. The failure to think strategically with regards to technological development and the ability to adapt and innovate is an attitude that has led to a subsequent business failure. This is often referred to as marketing myopia and is widely documented.

Christensen (2013) makes the distinction between sustaining and disruptive technologies whereby the former offer improved product performance and the latter bring to market a very different value proposition. The economic advantage of innovation and 'sound business ideas' has clearly been demonstrated by several case studies and reviews. For example, Porter's (1990) noted that the competitive advantages of nations were swiftly followed by a second study of how states compete and where their industrial wealth comes from. An example was Sweden which is a country of a few million people and has two major automotive manufacturers, aerospace, and major commercial vehicle and off-road manufacturers. The main conclusion is that Sweden had more than its fair share of creative innovative individuals. In summary, innovation can lead to several outcomes:

- An incremental improvement to products and processes and a corresponding growth in business;
- Disruptive developments in products and processes that can prompt entire markets to change; and
- Economic growth and prosperity at a local, regional and national level where the value of innovative ideas can successfully be converted into saleable goods and services.

2.7 Innovation and its Role in Promoting Business Growth

A study by Ackelsberg and McGinnis (2011) clearly shows a strong correlation between innovation and growth. Ackelsberg and McGinnis (2011) rated a total of 1757 businesses that participated in the study

to reach at a top 20 per cent segment of the most innovative companies founded on their responses to six dissimilar questions. Using readily-available evidence, he traced the revenue growth of this top 20 per cent over a period of three years and matched it with the performance of the bottom 20 per cent. The findings indicate that the highly innovative 20 per cent grew at a rate of 16 per cent higher than the least innovative. This equates, on a standard to each of the most innovative companies bringing $0.25bn of supplementary revenue over the last three years, matched with the least innovative. However, information on the correlation between innovation and growth in the Zimbabwean context was difficult to find due to the unavailability of researchers in this area. There are also no statistics to provide an insight into the correlation between innovation and growth among SMEs in Zimbabwe. For example, ZimStats, the government body which is responsible for providing statistical information about the country, does not have this information. However, using the above study by Ackelsberg and McGinnis (2011) which clearly shows that there is a clear positive correlation between innovation and growth, it is plausible to assume that the same is true for SMEs in Zimbabwe. Thus, if these SMEs are to adopt innovation as a strategy, they are more likely to grow and survive the challenging economic environment in Zimbabwe. This study, therefore, seeks to whether innovation can be used as a strategy for survival and growth of SMEs in Zimbabwe.

The role of the innovation process has been one major theme in studies on SME growth and development in recent years. Numerous pointers for organisational performance have been used such as an increase in revenue generated with product innovation to be tighter than that of employed growth and innovation. Masso (2012) is of the view that new products should lead to a short term rise in the revenue generated from sales of the innovator which ought to vanish as soon as the other players react by also innovating or copying. Castells (2010) argued that the influence of product innovation on employment growth on a universal scale can either be positive or negative. As far as new products are accompanied by the use of new machinery, process innovations will enable the rationalization of the production process. According to Gunday *et al*. (2009), the key for innovativeness is the aspiration of firms is to achieve increased firm's performance and amplified competitive edge.

2.8 Driving Forces and Determinants of Innovation

Hjalager (2010) contends that innovation in organisations, including SMEs, derive inspiration, and get affected by numerous internal and external factors. Ansari (2014) argues that an organisation benefits from identifying the factors that have a bearing on its innovativeness in order to realise its full potential. Ansari (2014) identifies three theoretical schools from factors influencing innovation are approached. These include the Marshallian view, Schumpeterian view and the technology- push/market-pull view. The Marshallian view (1920) approaches innovation from the concept of industrial districts which are constituted by elements of inherited business practices, particular infrastructure, capabilities and skills, and trade systems. The Schumpeterian view (1934) relates innovation to a scenario where an

entrepreneur causes a disruption to the balance of the market by making radical contributions to innovative dynamics (Ansari, 2014). Schumpeter (1934) as cited in Ansari (2014) characterises entrepreneurs as creative disruptors, who have a propensity to disruptively transform and shift the first choices of their consumers owing to their novel ideas and concepts which help introduce new and innovative standards.

The firm-level perspective focuses on the notion that firms are in constant state of searching for new resources and capabilities to effectively leverage their competencies and innovative propensities. Firms may also imitate their more innovative competitors. Such a process can lead to creative destruction (Schumpeter 1934 as cited in Ansari 2014). This has the potential of setting in motion radical changes in the organisation and the operating environment whose net effect if properly managed is increased profits and a cutting edge competitive advantage (Cromer *et al*., 2011, p. 25). The foregoing perspective is in sync with Teixeira and Werther's (2013) claim that organisations must cultivate the capacity and competency for developing and transforming intellectual, informational, financial, technological and other human resource capabilities for the benefit of the organisation. This engenders constant self-renewal and permanent state of innovativeness which guarantees success and competitiveness for the firm. The technology – push /market – pull view contends that the firm's rate and direction of innovation are technologically determined. The technological determinism is given impetus by constant scientific and technological shifts and unsatisfied customer needs (Ali, 2016). Such innovation inclined firms feel duty bound to search for novel ways of doing business in order to emerge with an improved or unique product and services which deliver satisfaction to new and existing clients (Brem and Voigt, 2009).

Technology–push is captured as radical innovation characterised by unique technical prowess which yields commercial benefits (De Vries *et al*., 2016; Boon and Elder, 2018). Market–pull, on the other hand, relates to incremental innovation which aims to cater for different segments of the market (Teixeira and Werther, 2013). Furthermore, technology-push is critical and more ideal at the initial stages of the product life cycle whilst market-pull is more ideal at the diffusion stage. Currently, organisations are grappling with an inevitable shift from technology-push to market-pull owing to increased and variegated customer sophistication and needs (Wirtz and Daiser, 2017). As a result, businesses which develop new products and offer unique services are reacting more to market-pull rather than technology-push as this guarantees successful innovation for adept entrepreneurs (Ansari, 2014). In view of the foregoing, it is prudent to state that enduring innovation involves scientific, technical and market opportunities which the firm opportunely capitalises on (Ellonen *et al*., 2011).

2.9 Challenges to Business Innovation

According to Al-Ansari *et al*. (2013) firms operating in competitive and dynamic environments face daunting challenges relating to innovation. These challenges have to be fully comprehended and tackled

in order to create an enabling environment for innovation to thrive (Hadjimanolis, 2003). Kelly and Littman (2001) identify some impediments to innovation chief among them include:

- Hierarchy;
- Bureaucracy;
- A clean environment; and
- Expertise.

Organisations with long hierarchical structures impose structural barriers to the pursuit of innovation due to unnecessary bottlenecks and slow decision-making processes (O'Sullivan and Dooley, 2009). Flat or de-layered firms are more attuned to embrace innovative ideas and initiatives activities (Beaver and Price, 2000). Numerous scholars observe that bureaucracy has an inimical effect on innovation as it kills the impetus needed to drive innovation and organisational success (Quinn, 1985; Pavitt, 1991). Innovation, as O'Sullivan and Dooley (2009) observe, thrives in an environment where a heightened degree of autonomy is a characteristic feature. Given the above, it is critical to note that there is a permissible degree of chaos which must be allowed to prevail in the firm so that individuals feel free to experiment with the unconventional materials and indulge in the unexpected.

Other constraints to innovation were outlined by Sheth and Ram (1987) as cited in Ansari, (2014) and they include:

- Resources;
- Operations;
- Regulations;
- Expertise outside main activities; and
- Market access.

Ansari (2014) observes that organisations that are less flexible in terms of their skills base and expertise impose limitations on the quest to innovate as the dominant culture tends to censure behaviours that are outside the norm. Thus, the tendency to stick to core services and products stifle innovative propensities. Gill and Biger (2012) reinforce the assertion that small firms also face the challenge of accessing funds, limited capacity to comply with legal ramifications of innovative endeavours, competition and limited management expertise. Additionally, resources are constraints when funds are inadequate (Ansari, 2014). Mas-Tur and Soriano (2013) contend that emerging innovative organisations are hamstrung by scarce internal resources and capabilities as well as access to trending technologies. Another constraint

is in crafting a set of laws where the governments and industrial agencies want to maintain the *status quo*. Market access as an obstacle exists where an organisation is incapable to access prospective clients because of physical distances and policy (O'Sullivan and Dooley, 2009).

2.10 The Innovative Firm and its Environment

Contemporary firms navigate choppy waters due to the complexity of doing business in this age. Competition is cutthroat, and uncertainty is the order of the day as aptly observed by Wang *et al*. (2013). The constant state of flux in the business world is a product of the globalisation of the market economy, the uncertain demographic and macro-economic fundamentals, ICTs, shorter product life cycles, uneven distribution of resources and constantly shifting customer demands. Firms that can ride on the crest of these turbulent forces gain a competitive edge over their peers (Slater, 1997). These challenges are more confounding to SMEs due to their inability to enjoy economies of scale and constrained resources. Smaller firms can capitalise on their size and simple structures and register more successes on the innovation front due to the responsiveness guaranteed by less complex organisational structures (De Vries *et al*., 2016). Porter (1998) cautions that focus on input-uses, as opposed to input-costs guarantees, sustained innovation. Brem and Voigt (2009) stated that the dynamic global environment compels businesses to permanently search for models and paradigms to adopt in their quest to embrace and maximise their innovative capabilities. Such approaches to business will help businesses to invent new products and improve existing ones for greater customer satisfaction which ultimately delivers competitiveness to the firm. It is vital to appreciate the fundamental factors behind such organisational dynamics to be more innovative. Teece (2010) argues that economics predicts almost accurately the consequences of technological change, but no so successfully on its effects on firms and other market determinants. Innovation economics emphasise on the theory of economic growth that affects the organisation's theory and decision-making process in cases where the marginal increase of production can no longer be described only by the increase of inputs used during production.

Innovation can be approached from the systems model influenced by the theories of the firm. Slater (1997) explains that "innovation may be concerned with the creation of new businesses within the existing business or the renewal of ongoing businesses that have become stagnant or in need of transformation". The only effective guarantee for survival in the cutthroat competitive business world we face today is innovation rather than the unimaginative tweaking of prices and quantities as Porter (1990) established several decades back. Firms need to comprehend the interface of organisational factors such as behavioural, cognitive, and strategic which apparently have no meaningful role in the neoclassical theory, or in the transformation of industrial conditions (*i.e.* technological and market) as being described in the theory of innovative enterprise (Lazonick and O'Sullivan, 2000). Lazonick and O'Sullivan (2000) depict the innovative firm as one that is committed to the transformation of normative industrial conventions through the generation of unique products and services using unconventional but

effective means that results in quality and affordability. The transformation of industrial conditions that the firm grapples with calls for the revamping of prevailing institutional conditions which impact on an individuals' cognitive realignment, behavioural reset and strategic reconfiguration for a more innovation-oriented organisation. The innovative "firm is not concerned with cost increases and is constrained by the market to minimise profit outputs in cases where marginal cost is equal to marginal revenue in the long-term" (Ansari, 2014, p. 34).

Re-calibration of technological and market environment can cause costs to spike in the short-term. Instead of bemoaning these conditions as limitations to a firm's operations, the innovating firm must celebrate the high-quality product and service outputs that come along with innovation, as well as subsequent cost reductions that accrue as market shares are boosted. The innovating firm dominates by overhauling industry cost and by gaining a larger market share which leads to further investment in emerging technologies. This capacitates the firm to outdo its competitors. However, the innovating organisation is not immune to challenges. Some of the nagging challenges include the crafting and implementation of innovation opportunities (Teece, 2010). The firm's strategies and mechanisms have a bearing on the firm's structure, behavioural activity, market relationships and its performance and growth as aptly observed by Laforet and Tann (2006). Teece (2010) identifies strategies and mechanisms that the innovating firm deploys to address challenges and promote unique corporate capabilities and norms geared to enhance business performances. The provision of an enabling framework allows corporate executives to bring together specific matching and co- specialised assets and locate opportunities for inventing innovative and valuable products and services which guarantee profitability and customer satisfaction.

2.11 The Concept of Business Strategy

Karami (2016) acknowledges the multiple definitions of the firm's strategy. He, however, observes that the definitions share the common notion that a strategy is an action to be implemented in short- term or long-term future. Mintzberg and Waters (1985) view a firm's strategy as a socially constructed political process. Porter (1996, p. 68) defines strategy as "...the creation of a unique and variable position, involving a different set of activities." He further elaborates that the crux of the matter for any strategy proactive disposition which priorities the performance of activities in a manner that is unique from what generally obtains in the industry. In addition, pro-innovation firms ought to consider strategic positioning and strategic fit in the strategy design stage. Barney (2002, p. 6) defines the strategy as "a firm's theory about how to compete successfully." In contemporary business contexts, a strategy can be construed as a distillation of the organisation's vision, policies, objectives, and plans. These characterise a firm's guiding principles in dealing with confounding competitive business environments (Ansuri, 2014). A sound strategy encapsulates the resources and plans of the firm and directs attention to technological and product development (Rothwell, 1994). A strategy's anticipated outcome is cutting

edge competitiveness which outpaces competitors in the market (Karami, 2016).

In concurrence with the contingency viewpoint, an organisation can craft a brilliant strategy by ensuring congruence between its organisational approaches and its rate of environmental contexts (Ginsberg and Venkatraman, 1985). The firm ought to curve space in the industry and protect it against competitors by responding creatively to dynamic market forces (Porter, 1980). The focus must be directed on the firm's resources and competitive capabilities which it must leverage on to prevail against the innovative attempts by competitors (Barney, 1991). However, firms inevitably differ in how they conduct strategy building operations. The firm's strategy is not merely about putting forward a precast set of things to do the quest to transform business environments (Sim and Teoh, 2011). The strategy has to be timeously adjusted to suit the changing external and internal environments (Wang *et al*., 2013). In the course of action, the strategy has to be closely guarded so that chances of it being detected or pilfered by competitors are minimised. This safeguards a firm's market advantage (Sim and Teoh, 2011). It is fundamental for the firm to control its strategic assets, which are, innovative capabilities since failure to do so can lead to poor value creation and replication by competitors (Brouthers and Filatotchev, 2013). Competitive advantage can be construed as a firm's distinctive asset which gives it a favourable platform from which to outwit competitors (Byers, 2014). Barney (1991) views an organisation as competitive when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when others are unable to duplicate benefits. A competitive firm stays ahead by constantly exploring novel processes and technologies so as to satisfy clientele demands (Otero-Neira *et al*., 2009).

2.11.1 Management Strategic Orientation and Miles-Snow Typology

The strategic predisposition of an organisation or business venture is the catalyst critical in stimulating its innovative impulses and give position for enduring competitiveness and market leadership. This may not be easy for SMEs due to increased competition emanating from the phenomenon of globalisation which has brought global players at the doorstep of small businesses. This is compounded by compressed innovation lifecycles courtesy of heightened competitiveness in the business environment (Sim and Teoh, 2011). Successful strategic management is premised on the firm's ability to strike a balance among a set of competitive components that are both external and internal to a firm. Such a balance promotes competent business execution (Blumentritt and Danis, 2006). As Child (1972) observes the strategic choice perspective places the top management's positive predisposition towards strategic innovation and sets the tempo for the adoption and implementation of innovations. The firm achieves strategic alignment by supporting its assets, such as physical, financial, human, and organisational; and abilities, such as skills and processes, and competencies according to the changes in environmental prospects and challenges (Dorf and Byers, 2008). This underlines the interface linking the organisation and its surroundings.

Taking up multiple business-level strategic positions and directions can also come as an option for a firm (Snow *et al*., 2011). Firstly, from a competitive perspective, Porter (1980, 1985) argues that a firm needs to aggressively pursue cost-cutting measures in its productive efforts but at the same time differentiating itself as a unique enterprise with exceptional services and products. Secondly, Miles and Snow (1978) have the view that a firm is a wholesome entity which actively interacts with its environment. This denotes that the firm's general strategy should dovetail with macro and microenvironments of the whole firm so that it remains in a constant state of flux in order to sync with current changes and trends. The blue ocean strategy creates and cultivates new demand hence leads to the curving of new markets and eradicate competition. The contradictory of that is the red ocean strategy which takes the firm into direct competition for existing clients and into attempting to outdo the competition by investing hugely on the promotion of products research and development (Mauborgne and Kim, 2005). According to Miles and Snow's (1978) business-level views a firm is characterised as an incorporated system in an active process interacting with its surroundings (i.e. adaptive cycle) (Ghoshal *et al*., 2003). Blumentritt and Danis (2006, p. 21) assert that "organisational effectiveness hinges largely on top managements' perceptions of environmental conditions and their decisions about how to cope with these conditions".

An organisation can implement this business-level typology that captures the strategic preference and vibrant abilities of the entity as it manoeuvres through its adaptive cycle as cited by Snow *et al*. (2011). Four different archetypal strategic courses characterise the business-level typology, namely: the defender, prospector, analyser, and reactor as highlighted by Sim and Teoh (2011) and Snow *et al*. (2011). These are theoretically tested and empirically validated (Slater *et al*., 2006). The prospector organisation navigates in a vibrant environment wherein it constantly looks for unique market prospects. It thrives because of its flexible structures and technologies which capacitates it to develop innovative processes, products, and services. Second, the defender functions in a business environment characterised by stability which predisposes it to focus on constricted and inadequate product-market-domains. It seldom creates structural, process or technological changes as its attention is primarily on improving effectiveness and defending existing market share. The third, the analyser, exhibits both centralisation and decentralisation characteristics as the firm acts to prospect or defend its position. It solely depends on the balance between the environmental situation and efficiency-and-innovation stability. Lastly, the reactor is anchored on unwavering processes, goods, and services which makes it ill-disposed to effectively respond to market competition and environmental changes. This is caused by its constant state of instability and inconsistency and its recourse to a non-viable strategy that is ill-equipped to guarantee acceptable performance. In most cases, the prospector and defender assume the polar position of the strategic spectrum; the analyser assumes a middle location (Sim and Teoh, 2011).

2.11.2 Strategic Choice and Environmental Determinism

Innovation is a vital determinant factor on how the organisation deals with movements and constraints in the business and market environment which call for total adjustments (Cromer *et al*., 2011). The environmental determinism approach impacts on variables such as objectives, structures, and technical expertise of the strategic preference of the firm as highlighted by Child (1972). Sadler and Barry and Sadler (1970) maintain that firms ought to bow to the constraints imposed on it by the nature of its relationship with its environment. The organisation can be construed as an open system in an equilibrium that is in a state of constant flux wherein strategies are sought to transform challenges and opportunities into positive growth benefits for the firm (Bourgeois, 1986). Hrebiniak and Joyce (1985) aver that under the open system standpoint, the term 'equifinality' captures the possibility for multiple ways which an organisation can use to access multiple resources and capabilities that are leveraged to achieve the desired organisational results. They go on to support the concept of 'equifinality' in which an "organisational choice nonetheless exists as a separate, independent variable important to the development of dynamic equilibrium with the external environment, where choice can be separated from environmental determinism in a logical way". Miller (1988) argues that the degree of variation and complexity in the business environment are prone to affect the firm's strategy instead of the firm itself having an influence on the environment. The deterministic approach is plagued by some shortcomings, as Child (1972) argues. A business may choose to operate in a particular environment already dominated by big corporates with undue influence on the overall business context. In such a scenario human agent choice predisposes the firm to distinguish itself from its competitors. Given the external and the internal constraints the firm faces, it is incumbent upon managers to exercise due diligence in selecting a firm's operating environment so as to effectively position itself for growth (Bourgeois 1986). The interface between strategic choice and environmental determinism culminates in four kinds of organisational conditions (Hrebiniak and Joyce, 1985).

Firstly, there is the condition of low strategic choice and high environmental determinism which calls for the organisation to have appropriate variations and adaptations failure of which a firm risk being outpaced by competitors. In markets characterised by cutthroat competition, the organisation has to keep pace with evolving technological and market shifts so as to maintain a competitive edge. The desired competitive edge driven by strategic choice and managerial action can, however, be hamstrung by a high level of environmental control, technological inventions and other innovations that may render existing practices less competitive. Secondly, high choice and high determinism capacitate the organisation to craft multiple strategic alternatives, pursue differentiation or focus strategies, select viable niche markets, and/or reflect on effective conventional strategies. This is still possible regardless of the prevalence of external forces and conditions. Thirdly, the condition of high choice and low determinism (strategic choice, maximum choice and adaptation by design) calls for the acquisition of resource reliance and supremacy which gives the firm a competitive edge over other market players.

This further gives the firm the impetus to navigate with relative ease within and among market segments. This tendency is typically exhibited by a highly innovative prospector. Lastly, the condition of low choice and low determinism (undifferentiated, incremental choice and adaptation by chance) paves way for the business to exhibit an apparently incoherent strategy which enables it to capitalise on existing environmental conditions. However, such a disposition is less amenable to fashioning dependencies or alterations that favour impacting on either organisation or environment. This is best exhibited by a reactor with low innovation. As Hrebiniak and Joyce (1985) argue, the firm's adoption process is inherently in a state of constant flux and tends to shift among typologies in keeping with its strategic choices or external environmental dynamics. However, the organisation's innovation strategy risks failing unless the appropriate structures are set to tackle to expeditiously respond to environmental dynamics (Miller, 1988).

2.11.3 Size Implication and Strategic Adaptation

The size of a firm has a bearing on the type of external factors it must grapple with. Size also has a bearing on the firm's ability to tackle these external environmental challenges (Curran, 1996). SMEs are encumbered by scarce resources whereas larger corporates can leverage on their bountiful resources to scan, evaluate, and react to pressing environmental turbulences (Smallbone *et al*., 1999, p. 33). Although small firms are susceptible to market dynamics than bigger corporates, some researchers have noted that small firms endure less virulent forces than larger firms (Shama, 1993). The small firms are inhibited in their quest to effectively respond to environmental changes as they may not be able to quickly adjust to prevailing market forces. This is in spite of their supposed flexibility- a very fundamental advantage which they ought to fully utilise by adjusting inputs, processes, products, and prices to guarantee survival and competitiveness (Reid and Musyck, 2007). SMEs are however more inclined to engage in risky business ventures and innovative experiments than larger firms- a trait which when properly cultivated is sure to bring huge business benefits (Wang *et al*., 2013). In business environments that are less populated, variations exist on how firms cope with challenges associated with adaptation strategies as highlighted by Blackburn and Jennings (1996). Some businesses proactively adapt through innovation, investment, and market diversification whereas some revert to strategic scale downs. Some may resort to a combination of the two strategic approaches. Alternative actions may incorporate cost and/or price reduction reactions (European Commission, 2004).

SMEs are different from big corporates due to their susceptibility to external forces and inadequate time to assemble the much-needed resources which renders them more dependent on other institutions such as banks and microfinance organisations. Discovering and developing novel innovation pose serious challenges for most firms that are focused on growth (Cohn *et al*., 2008). The firm's innovation efforts and the success it can register are determined by size. Interestingly, at the extreme end of the spectrum, the largest firm (more than 50,000 workers) and the smallest one (less than 500 workers) are

likely to register more successes on the innovation front. On the other hand, medium-sized (5,000 to 10,000 workers) firms struggle with their innovation endeavours (Emerald Group, 2007). According to Rothwell and Zegveld (1982), the innovation index of a firm is a product of factors that include industry-specific constraints some of which emanate from government policies, technologies and market volatilities. Another determinant variable on the firm's Innovation index of the firm is its size as already noted above (Piatier, 1984; Mohnen and Rosa, 2000; Hadjimanolis, 2003). Vossen (1998) attributes key innovation barriers in large corporates to internal challenges related to bureaucracy and resources. Large firms are normally endowed with adequate resources and the technical expertise to prevail against prevailing external blockades such as market access and regulation. Hadjimanolis (2003) avers that external obstacles are very important in small firms, whilst internal-resources-related ones can also be vital to their triumph and business growth and survival.

2.11.4 Strategic Response to Financial and Economic Crisis

Financial and economic conditions periodically change owing to numerous macroeconomic factors which may range from declining GDPs and sector-specific shocks. Analysts attribute economic downturns to a variety of factors namely; plummeting demand, low investment inflows and generic market characteristics associated with periodic upswings and downswings (Nijkamp, 1987). Severe shifts in global financial systems such as the 2008 economic crisis pause debateable consequences to local institutions as pointed out by Wong (2009). Nevertheless, the instant trigger can be correlated to the under-regulated monetary market that began with banks and other financial bodies, prompted by the prevalent non-payment of mortgage owners in the United States coupled with other circumstances, for example, the inadequate reach of governing framework; the accessibility of resources to financial markets; the upsurge of a 'shadow banking system'; the worldwide dealing of securities; the malfunctioning of credit evaluation institutions and auditors; the funding of debt; and the housing and asset bubbles (Wong, 2009). Challenging financial and economic conditions cause the firm to experience a deep sense of disease as highlighted by Chastain (1982).

The 'pit-stop' concept of business behaviour points out that during complicated circumstances an organisation would be keener to boost investment and to innovate owing to the opportunity costs of foregoing the action (Mensch, 1979). Cyert and March (1963) argue that the inability to innovate causes culpable organisations to grapple for alternative ways of doing business. In situations like these, an organisation may propose investment and innovation plans aimed at leveraging on its resources for improved business performance. This emphasises the necessity of embracing innovation as an integral part of a firm's strategy as Madrid-Guijarra *et al.* (2013) aptly point out. A firm can adopt multiple innovation strategies. Retrenchment strategy which basically entails downsizing running costs and investments on non-core assets emerge to be a widely used short-term solution taken up to counter challenging conditions as pointed out by Michael and Robbins (1998). An investment strategy centres

on deploying funds and resources on innovation and market diversification. This presents an opportunity to operationalize innovative strategic changes (Su and Tang, 2016). Lastly, an ingenious approach incorporates cost-cutting and investment strategies. It is prospective that firms acclimate through well-judged cost-cutting activities and by means of investing in innovation and market enlargement.

Opting for the correct strategic mix which cuts on costs during challenging conditions is critical (Raisch and Birkinshaw, 2008). However, effective sustainable strategies are integral to the production of a sound strategic plan. While many scholars advocate the creation of an empowering environment and direct support from the government, Urban (2004) maintains that "government initiatives, which do not focus on a 'do it alone' basis, tend to stimulate an entitlement mentality to emerge. The success of entrepreneurs is dependent on personal motivation and a will to succeed." Thus, the point of departure should be marked by having a sustainable strategy driven by clear whose fulfilment catalyses the organisation to succeed (Sultan *et al*., 2007). The prerogative approach takes accountability for the achievement of individual firms out of the hands of the proprietors and leaves it with government and other institutions. Commonly SMEs are predisposed to apportion responsibility for the success of their firms to other parties especially the government. The downside of that is that it engenders a dependence syndrome. For success to be guaranteed, SMEs must be in the driving seat and be keen to initiate innovative strategies (Sultan *et al*., 2007). Urban (2004) goes further to assert that SMEs must not wait for massive capital injections to enhance their productivity, but should instead rely on whatever resources they have at their disposal to innovate for entrepreneurial growth. It is incumbent upon small business owners to take their destinies into their own hands through crafting strategies which they can own and feel duty bound to steer to success. An entrepreneur who has a strong sense of belief in his or her vision and goals will have the self-drive to achieve and excel. It is thus a major cause of concern for Zimbabwean entrepreneurs to continue relentlessly winning for unremitting government support (Sultan *et al*., 2007). Sultan *et al*. (2007) also add that small to medium enterprises tend to situate insignificant efforts to accomplish self-set objectives so that they can be eligible for aid programmes; this is revealed by businesses that were promised financial backing through the Distressed and Marginalised Areas Fund (Dimaf) programme initiated by the Zimbabwean Government.

There is certain lethargy in the SMEs sector which has largely resulted in business owners failing to take the initiative to bolster success chances for their ventures as they always look up to the government for support. The lack of self-drive and innovativeness limit the capacity to craft sound strategies among the SMEs sector in Zimbabwe (Sultan *et al*., 2007). The survival of both small business enterprises and large corporates in the context of stiff completion hinges on effective planning and quality improvement on a firm's services and products (Su and Tang, 2016). This perspective is echoed by Leceta *et al*. (2017) who concurs that numerous conceptual frameworks were put forward with the aim of clarifying the processes involved in 'strategy formulation' earmarked for the firm's success and growth. For local

SMEs to succeed, it is critical for the players to come up with long term strategies.

Benefits that accrue from such strategic planning are not difficult to envisage. According to Schwab *et al*. (2018), SMEs must shoulder the responsibility to develop their own strategies in order to set themselves in a growth trajectory. Be that as it may, Mazonde and Carmichael (2015) bemoan the reactive predisposition of SMEs in their approach to business. This means that in their business operations they clearly lack long-term perspectives on where they want to take their businesses in future. Consequently, they reactively respond to emerging challenging circumstances which inevitably compromise their ability to ride on the crest of the challenges. This is a sure recipe for failure in business ventures. To put the notion of strategy formulation in its proper context Kraus *et al.* (2006, p. 336) present the attributes listed below as fundamental to the strategic planning process:

- A long-term view;
- Strategies in written form; and
- Evaluation and control

This appears to be inconsistent with the opinion highlighted by Mboko and Smith-Hunter (2009) in veneration of Zimbabwean SMEs who they say are focused on the short-term. Nyamwanza (2014) note that in addition to the above, the strategic planning instruments are an important element of strategic planning.

Their paper fixated on the above principle to evaluate the connection linking planning and performance, yet performance is the consequence of strategy execution. As highlighted by Mboko and Smith- Hunter (2009) that Zimbabwean SMEs are still in the premature phase of strategy invention, it is questionable that they are utilising strategic planning methods. Operative strategy formulation entails the effective setting of goals, the recognition and assessment of substitute course of action and the carrying out of the nominated preference as explained by Bryson (2018). The above-delineated form of planning could be implausible in the Zimbabwean scenario as it is against what currently happens in SMEs. According to Mboko and Hunter-Smith (2009), SMEs' planning is restricted to vision and objective formulation. Such a scenario could have an effect on differences in the execution approach prescribed by the economic environment in Zimbabwe. Not much is known regarding how SMEs in Zimbabwe really plan and execute for sustenance and development. Nwankwo, Akumuri and Madichia (2010) highlighted that there is little consistent data on SMEs, in particular, the black-owned businesses despite recent but growing interest on the topic especially in the UK.

There is limited literature as to how Zimbabwean SMEs plan, let alone how they finally execute the strategies. Since the strategy crafting stage is a crucial step in strategy execution, Crittenden and Crittenden, as quoted by Nyamwanza (2014) vie that strategic planning ought to standardise the

procedures to facilitate the firm to attain its goals and objectives. Nevertheless, with SMEs, the accent might be somewhere else and the stages to be covered might be excessively burdensome. The above-mentioned authors go on to state that there are five phases in the strategic planning procedure inclusive of objective formulation, investigating the surrounding circumstances, alternate considerations, execution and assessment. The phases appear not to be ostensible in the literature on strategic planning and also the methodologies that SMEs proprietors practise to convey action plans are not self-evident. Consequently, SMEs in Zimbabwe are appropriating strategies that are employed by other firms and taking them as their own. The SMEs could be operating blindly without any clearly defined approach in their effort to keep the firm going, which is known as a survival mode. They have no drive to follow the copied objectives since both the employer and workers have no obligation to stick to the outlined strategies. Naicker and Saungweme (2009) indicated that SMEs who embraced strategic alliances as a strategy so survive failed by a rate which was as high as 75 per cent. This is attributed to the fact that SMEs embraced strategies that they did not formulate themselves, and neither were they clearly spelt out to them.

Dandira (2011) outlines that matters to do with the connection of implementers could be the omitted linkage in the effective implementation of the strategy. Does the duplication of strategy that fits well in a specific firm or geographical area lead to the exceptional performance of the firm that has just copied and executed the strategy without contributing to its formulation? Does the effectiveness of a strategy depend on the matching infrastructure of two different organisations that adopted and implement the same strategy? Resilient confirmation in the literature shows that SMEs are indeed practising strategic planning. According to Stonehouse and Pemberton (2000), the vast of firms operating in the services sector appears to plan strategically in the sense that they have an unmistakeably clearly outlined vision and mission statements which are reinforced by business intentions. This opinion supplementary authorises the acceptance of strategic planning amongst SMEs owners. Stonehouse and Pemberton (2000) report that firms also established strategic goals in relationship to sales, costs, and profits with the production sector enlisting greater importance on these issues than service-oriented organisations. Does this method have the volume to make these firms exceptional leaders? The contemporary strategy outlines and techniques appear to centre on a broad course and the institution of production objectives as highlighted by Tan and Platts (2006). Conversely, there is no symptom in these researches which show whether or not SMEs really put into action these visions or objectives and how the objectives were put into action. Stonehouse and Pemberton (2002)in their study highlighted faintness in strategic planning. They argue that despite a sizeable majority of respondents signifying that their organisations regard strategic planning as extremely imperative and that they articulated this through vision and mission statements, there is inadequate evidence of practical strategic planning in the sense of setting long term business objectives and the use of strategic planning tools.

Businesses that embrace other firms' strategies are not worried about long-term survival and are only

concerned about issues that can rescue them from their current circumstances. A peculiar example is that of 'burning of cash' as noted by Mufudza *et al*. (2013), which was done by Zimbabweans in the aim of addressing the liquidity crisis, which was short-lived and ultimately destroyed by the acceptance of multi-currency system. Nevertheless, Suominen and Mantere (2010) contend that it is outstanding to identify a firm that operates without plans or goals referred to as 'strategic', and this is common in all sectors. The strategy has penetrated each and every single firm, helping managers to align and surrender themselves to the ideologies of strategic management. Do these plans have value? Poor quality plans are detrimental to the firm since they yield inferior outcomes and people will not be eager to implement them. Strategic planning alone does not necessarily guarantee or regulate in itself the performance of SMEs.

There are numerous challenges that have caused SMEs to fail to convey their plans. The success of the execution of the strategic plan is determined by the methodology used during the formulation stage. Bouzdine-Chameeva (2006) contends that framing a dependable strategy is unequivocally centred on analysing unique capabilities that are distinctive to a firm, problematic to duplicate and could be employed to make use of opportunities and make collaborations so that distinct strengths can be delivered, thus facilitating to produce considerable profits as well and also to moderate risks. The mainstream of SMEs might experience challenges when it comes to having enabling capabilities for strategy preparation and implementation, taking into consideration the enormous brain drain that was experienced by Zimbabwe during the post-2000 era.

Notwithstanding this professed inadequacy, there is still a need for SMEs to formulate and implement strategies for them to survive. Are SMEs capacitated enough to be able to bring up reliable strategic plans and to implement them? Temtime and Pansiri (2006) recognise indicators that add to general performance. "These include the use of external advisors, a focus on strategic formulation rather than focusing on operational bits and pieces, aiming for long-term competitive advantage rather than short term profits and developing a strong interest in non-financial benefits such as the need for achievement and recognition" (Temtime and Pansiri, 2006). Are the above-mentioned factors true to the Zimbabwean environment, or their impact is only limited to strategy implementation in industrialized economies? Basing on the Zimbabwean operating environment and its local dynamics, it would be far-fetched to envision the SMEs securing their business in the majority of the factors raised by Temtime and Pansiri (2006). Just like in any other country, Zimbabwean SMEs tend to emphasise on the current, where execution (Temtime and Pansiri, 2006) is motivated by short-term goals, especially returns. The income drive appears to steer strategic planning and execution in Zimbabwe at the outlay of other features of strategic management. SMEs consequently tend to go for shortcuts in strategy implementation. According to Ashill, Frederikson and Davies (2003) corporate strategy centres on internal resource distribution, which impacts the short-term performance insisted by controlling investors. The majority of SMEs are worried about short-term performance objectives and not by what

Ashill *et al*. (2003) termed 'robust strategies' which focus on long-term growth by warranting that actions are taken to respond to probable threats. The SMEs need to shift their focus and become accountable for their personal fate. It is in this regard that McNamee, O'Reily and Shiels (2003, p. 286) suggested:

> *"The SMEs themselves (rather than government agencies) can be instrumental in affecting convergence when they have and act upon the strategic information to achieve competitive advantages."*

Zimbabwean SMEs avert accountability for their individual chance and are not alacritous to get out of their shells to build up their own firms. They find comfort in the belief that they do not have control over what transpires in their firms. The key obstacle which is frequently referred to by SMEs in Zimbabwe is the ostensible scarcity of resources and other forms of direct and indirect backing. SMEs do not do much towards developing and implementing strategies, hence they are always expecting to receive external support. Such philosophy tends to shift the accountability for company survival and growth away from the proprietor to external influences. Szamosi *et al*. (2004, p. 445) state that:

> *"While not discounting the importance of financial capital necessary to operate an SME, it has been posited by a number of authors that the strength of an SME is based on its human capital resources."*

With regards to strategy implementation, the employment of Total Quality Management (TQM) which is proficient by means of a set of philosophical practices which dictates that practices operate as a co-dependent system that can syndicate other organisational assets and resources to produce competitive advantage (Douglas and Judge in Temtime, 2003). These practices are born out of a full and inclusive understanding of the dynamic forces tangled in strategic planning. It will be interesting to scrutinise this route since it will form the basis to comprehend how entrepreneurs connect the processes of strategy formulation and implementation. Deficiency of coordinated effort might compromise the authentic effort to implement the strategy.

The challenge with most SMEs, particularly in Zimbabwe, is that they incline to copy strategies adopted by other organisations and hope that they will be successful; however, the root of the matter is based on how these strategies are implemented. It was established that SMEs should evade ambitious thinking that business planning and TQM will fix short-term glitches and speedily improve business (Temtime, 2003). In the context of Zimbabwe's volatile operating environment, will this opinion hold true, given Mufudza *et al*.'s (2013) reflection that organisations in Zimbabwe tend to fine-tune strategies at least four times a week in the hyperinflationary environment? This approach presents a uniquely Zimbabwean approach to strategy implementation which does not allow for strategies to be wedded to the psyche of the organisation concerned.

There is gravity to react (Mboko and Smith-Hunter, 2009) and this might generally affect how SMEs in Zimbabwe device strategies in the long-term given the short-term orientation of some businesses. However, Temtime (2003) recommends that TQM (and strategic planning for this study) is not a destination but a journey, demanding long-term strategic planning and the firm's commitment to improving products, services and processes. The variations in the business environment, principally in Zimbabwe, might not permit for such a commitment. Benneworth (2017) established that companies that used a formalised strategic scheme had more prospectives to survive than those that functioned without such a system. This is confirmed by Kraus *et al*. (2006, p. 335) whose literature examination provisions a positive connection between strategic planning and performance. Seventy per cent of the studies in their examination identified a positive relationship, which suggests broad support for the performance impact of strategic planning. Raymond and Crouteau (2006) however, are of the opinion that there is very bantam evidence that these systems have in fact become enablers for the development and growth of SMEs. They dispute that considering this issue from a contingency theory perspective; one could surmise that the business value of advanced technology is leveraged to the magnitude that it is in alignment with product, market and network strategies. The long and short of this statement is that the attainment of strategic planning hinges strongly on how it is applied.

Temtime (2003) opinions that although numerous proponents of TQM (strategic planning for the purposes of this study) acquiescently praise it; others (e.g. Kunst, 2000) have recognised significant costs and implementation impediments. The obtainability of a plan does not in itself decode to effective implementation because, as Chen *et al*. (2008) argue, organisational implementation regulates the implementation and operational consequences of an organisation's strategy. Implementation, with reference to Chen *et al*. (2008) is essential to the competitiveness of an organisation and regulates its development. Therefore, having a plan does not guarantee organisational success. Rather, the processes and conduct in the organisation will ultimately regulate success or failure. It is indispensable to ascertain these and to contest them to strategy implementation. Ninety-six per cent of the respondents in Temtime's (2003) research specified that it was not conceivable to operate effectively without business plans. However, eighty-nine per cent indicated that these plans were organised by external consultants mainly for the purposes of external validation by government agencies, banks, and other SME support agencies and financial institutions.

This suggests that business planning is a vehicle to secure resources and for implementation purposes. It is likely that SMEs functioned on the basis of informal business planning which was not buttressed by structures. To develop successfully over a lengthy period, firms need to develop their in-house structures in ways that permit the leader of the firm to envoy responsibility for operational tasks and to focus more on planning and higher-order planning (Dobbs and Hamilton, 2007). Although there is a validation of planning as an activity, Suominen and Mantere (2010) designate that, traditionally, industries have used robust approaches of strategic planning. In the present environment, strategy

implementation is getting more interest and resources. SMEs are understood to have formal or informal visions and missions (Mboko and Hunter-Smith, 2009; and Naicker and Saungweme, 2006), but there is limited literature on strategy implementation in the Zimbabwean context. The (re)production of strategy is principal, apparent and noticeable (Souminen and Mantere, 2010), but few studies emphasise on the implementation side. This could have tortuously deemphasised the significance of implementation in strategic management, yet it is vital to drive performance.

Thakka and Kanda (2009) as cited by Nyamwanza (2014) signpost that SMEs' resource limitations mean that their focus is on reducing wastage and on guaranteeing high levels of productivity. It is probable that most SMEs would disregard certain key variables in their planning, which might compromise effective strategy implementation. Pasanen and Laukkanen (2006) annotation that firm performance is an essential issue in strategic management but that, to date, the literature has not delivered a comprehensive explanation for SMEs' growth and performance. They further argue that the UE (Upper Echelons) perspective is a theoretical framework for envisaging that organisations are a reflection of their top management, which also plays a central role in shaping major organisational outcomes. This might reflect that plans by SMEs' are dictated by their owner/managers deprived of consideration of other elements affecting the firm. When such a methodology is embraced, complications will be encountered in implementation. As a consequence, performance is diminutive because the plans will not be lifelike or are at variance with reality. Though the strategy is nearly unanimously recognised as a management discipline in different organisations, the way it is used by managers in their everyday life is very context-specific and largely based on their individual needs (Souminen and Mantere, 2010). This validates that strategy is an unlimited, versatile and maybe even precarious exercise for managers (Whittington, 2003) and that they use and consume this practice in manifold methods with multiple means which may proceed from the ideals they themselves embrace (Souminen and Mantere, 2010).

Diverse kinds of standards and models can be used creatively by managers, contingent on their prevailing situation and needs. These findings show that the strategic actions of managers may not necessarily arise from intended and unintended strategies, as sensible thought would suggest. Rather, they materialise from every day 'practical coping' and "discretion of managers when things are labelled and regarded as strategic" (Chia and Hitt, 2009, cited in Suominen and Mantere, 2010, p. 33). This proposes that strategy implementation is not essentially linear due to superseding issues during implementation and that the way in which implementation is carried out might be cognisant or not informed by strategy origination. The implementation might, therefore, be inconsistent with what was formulated to encounter the dictates of the environment. SMEs in Zimbabwe face these challenges in a dynamic environment.

2.12 Types of business strategies

2.12.1 Generic Strategy: Types of Competitive Advantage

Literature suggests that strategy is basically about determining the direction you want your business to go, and deciding the methods to get there. A more complete definition is based on competitive advantage, the objective of most corporate strategy. Competitive advantage develops out of value a firm is able to build for its buyers that exceed the firm's cost of making it (Porter, 1980). Value is what buyers are eager to pay for, and superior value stems from offering lower prices than competitors for equivalent paybacks or providing matchless benefits that more than offset a higher price. There are two elementary types of competitive advantage: cost leadership and differentiation (Porter, 1985). According to Porter (1985), a firm's relative comparative situation within an industry is given by its assortment of competitive advantage (cost leadership vs. differentiation) and its choice of competitive scope. Porter argues that competitive scope differentiates between firms targeting broad industry segments and firms concentrating on a narrow segment. Generic strategies are beneficial because they characterise strategic positions at the meekest and broadest level. Porter maintains that achieving competitive advantage requires a firm to make a choice about the type and scope of its competitive advantage. Figure 2.2 defines the choices of 'generic strategy' a firm can follow.

Target/Market Scope	*Advantage*	
	Low Cost	*Product/Service Uniqueness*
Broad (Industry Wide)	Cost Leadership Strategy	Differentiation Strategy
Narrow (Market Segment)	Focus Strategy (low cost)	Focus Strategy (differentiation)

Figure 2.2: Porter's Generic Strategies

Source: Porter (1985, p. 12)

a) Cost leadership strategy

A cost leadership strategy entails a serious obligation to tumbling expenses that, in turn, sink the price or the items sold in a comparatively broad array of market segments. One way is by acquiring raw materials from a lower-cost contractor. Also, substantial investments in capital equipment may be

essential to improve the production or the distribution process to realize these lower unit costs. The cost leader still must have sufficient quality levels. Cost leadership is a security strategy because:

- It defends the firm against powerful buyers;
- Buyers can drive the price down only to the level of the next most efficient producer; and.
- It defends against powerful suppliers (Kaya, 2015).

Cost leadership make available suppleness to absorb an increase in input costs, whereas competitors may not have this flexibility (Porter, 1985). The elements that lead to cost leadership also deliver entry barricades in many instances. Economies of scale oblige potential rivals to come into the industry with considerable capacity to produce, and this means the cost of entry may be prohibitive to many potential competitors.

b) Differentiation strategy

A differentiation approach necessitates innovation and significant points of difference in product offerings, brand image, higher quality, advanced technology, or superior service in a comparatively broad array of market segments. This sanctions the firm to charge a price premium. There are several approaches to differentiation:

- Different design;
- Brand image;
- Number of features;
- New technology; and.
- Cost focus strategy (Zehir, Can and Karaboga, 2015).

A cost-focus strategy embroils controlling expenses and, in turn, lower prices, in a narrow range of market segments.

c) Differentiation focus

A differentiation focus strategy exploits substantial points of the variance in one or only a few market segments. Porter (1985) postulated that the tenacity of a business-level strategy is to construct differences between the company's position and those of its competitors. Therefore, when a company selects to perform its activities differently from the way in which they are performed by its competitors then this is the essence of its business-level strategy (Porter, 1985, 1996). According to Njogu (2015), a chosen business level strategy succours a company to establish and exploit a specific competitive

advantage within a particular competitive scope. This strategic advantage should be utilisable as soon as probable and last as long as conceivable. Its purpose is to produce profits above the industry average and to gain market share and create variances between a company's position and those of its contenders (Porter, 1996). Beard and Dess (1981) propounded that an organisation should have a separate business-level strategy for every industry in which it participates, and the appropriate features of the firm's business-level strategy would be measured comparative to the assortment and norms on each characteristic in each of its industries. Hofer and Schendel (1978, p. 154) framework this view, thus: "at the business level, the strategy focuses on how to compete in a particular industry or product-market segment. Thus, distinctive competencies and competitive advantage are usually the most important components of strategy at this level"

Competitive strategy is consequently demarcated in terms of the scopes in which a company has preferred to participate in their industry with the determination of nourishing itself and of growing efficaciously (Hayes and Weelwright, 1984). Competitive strategies can have numerous magnitudes and characteristics. For example, companies can attain a competitive advantage by diminishing their prices (Michail, 2011) or by attaining high levels of differentiation (Porter, 1985). One of the central works in the competitive strategy field is that of Miles *et al*. (1978) that recognizes four strategic types:

- Prospectors are companies that sustain a level of flexibility and utilise innovation practices to deal with uncertainty and environmental changes;
- Defenders pursue constancy and control in their operations with the purpose of achieving maximum efficiency;
- Analysers are companies which conglomerate components of the above two categories and stress in cooperation stability and flexibility; and
- Reactors do poorly and lack strategy.

2.12.2 Network and Cluster Strategy

The SMEs attaching to networks and clusters are often more competitive and innovative than those operating in sequestration (OECD, 2000). Particular clusters are structured and formal, while others are informal. Some clusters stake common information, while others deal with more specific objectives. Networking licenses the SMEs to syndicate the benefits of smaller scale and greater suppleness with economies of scale and scope in larger markets regionally, nationally and globally. Competitiveness of small firms is strongly predisposed by the level of the inter-firm alliances (Gunawan, Jacob and Duysters, 2016). The links take dissimilar shapes in which diverse firms join together to co-produce, co-market, or co-purchase, cooperate in new product development or disseminate information. While networking is regarded as a fundamental prerequisite in enterprises of all sizes, these learning prospects

are arguably of precise importance to small firms' imperative to offset the vulnerability of size, acting as the key component of organisational success. Greco *et al*. (2017) contended that the alliance between universities and the SME companies should be originated on a small-projects base. These projects must be fixated in localised and specific challenging areas in the industrial companies. Njogu (2015) provide an enriched understanding of the form of intangible benefits that businesses obtain from advice.

2.12.3 Flexibility Strategy

Sultan *et al.* (2007) state that SMEs have the aptitude to change course speedily at a low cost. Small businesses offer some of the preeminent alternatives for creating meaningful productivity gains in the global marketplace founded on their flexibility and speed in adapting to market dynamism. According to Vatne and Taylor (2018), organisational flexibility is the crucial cradle of competitive advantage for most SMEs. The authors consider that the innovative advantages of small firms are consequential from their flexible managerial structures, which are more receptive to changes in the marketplace. However, smaller firms have little obligation to R&D and are information-constrained which make them highly reliant on external knowledge foundations. Robso *et al.* (2016) note that the SMEs are habitually observed as more innovative than larger firms. The SMEs espouse high quality, flexibility, and responsiveness to customer needs as a means of contending with large-scale mass producers. However, because of their relatively restricted base of resources, the contribution of innovations in productivity regularly takes more time than in larger firms.

2.12.4 Innovation Strategy

It should be noted that this study focuses on innovation as a strategy. Innovation is a broad term that encompasses any new improvement in firms (OECD 2000). It can embroil fashioning or reengineering products or services to meet new market demands, introducing new processes to enhance productivity, developing or improvising new marketing methodologies to enlarge sales opportunities, and incorporating new methods of management systems and techniques to improve operational efficiency (Porter and Stern, 2001). The most vital deficiencies to innovation in the SMEs (OECD 2000, p. 78) are:

- Limited resources within many SMEs for conducting research and development;
- Investing in innovative knowledge is a risky activity that most SMEs fail to justify;
- Access to new technologies and know-how; and
- Ineffective procedures, rules, education and training programmes

Porter and Stern (2001) unveiled that innovation is a process rather than a solitary event and the internal elements that drive innovation are irrefutable, but the external environment for innovation has, at the

minimum, the same importance. One of the most methodical examinations of innovation in the SMEs exploits the resource-based theory, which stresses the way in which internal elements including knowledge, skills, designs, patents and brands are combined in unique ways by means of managerial capabilities (Barney, 2002). This amalgamation of resources and capabilities leads to the conception of core capabilities, which help institute the firm's competitive advantage. Robso *et al*. (2016) debated an assortment of mechanisms for measuring both innovation output and organisational performance, which are pertinent to smaller firms. Youtie *et al.* (2018) in their study exploring links between innovation and profitability in Georgia manufacturers found positive associations between SME's innovation and profitability.

Freel (2000) utilised data from a postal questionnaire to investigate the blockades to innovation in 238 manufacturing SMEs based in the West Midlands. Freel (2000) advocates that there are four constraints on the ability of SMEs to innovate. These constrictions are labour, management and marketing, finance, and information. Bagch-Sen (2001) carried out a questionnaire survey of SMEs in the Niagara region of Canada. The research was intended to investigate the connection between innovation and competitive advantage. The SMEs were categorized as either high or low innovators according to the number of new or reviewed products they had introduced in the previous five-year retro. It was noted that innovators performed better in terms of sales and exports. Correspondingly, there were direct acquaintances between increased R&D expenditure and innovativeness in terms of the introduction of new products and in higher levels of export intensity. Furthermore, specialisation, quality, the speed of delivery and after-sales services were considered as much more imperative in terms of enhanced competitiveness by innovators by contrast to non-innovators who inclined to concentrate on low-cost leadership strategies. Moreover, high innovators positioned extra emphasis on a wide range of network connexions to access services such as advertising, legal, market research, banking, insurance and technical support. Scozzi *et al*. (2005) present the complications the SMEs are facing in innovation processes and the conceivable support offered by business modelling practices. Though approaches and models unaccompanied do not guarantee the success in the innovation development process, they are empowering elements and can support the reasoning, the conception of strategies, insights and communication (Sultan *et al*., 2007).

Hang Do *et al*. (2014) articulates that innovation strategy plays a substantial role in shaping the firm's innovative capability and commitment to innovation investments. De Jong and Brouwer (1999) commented that the innovation strategy is a foremost directional and motivating mechanism for developing innovative certainty. As such, the innovation strategy is an integrative fragment of the objectives, mission, and budgets for innovation and has a positive influence on corporate financial performance (Markham, 2013). Several scholars established the positive properties of innovation strategy on innovation (De Jong and Vermeulen, 2006). As an outcome, the planning and implementing of an innovation strategy is an important element in shaping the level of innovativeness, which then

drives the firm's financial performance (Crespell and Hansen, 2008). Present day fluctuating and competitive business and market atmospheres prompt the firm to rely on innovations to build customer value, stand out from competitors, and quicken business growth performance (Yanadori and Cui, 2013). It is important for a firm to scheme a competitive strategy through innovation by antedating customer needs, market trends, and competitor actions, which is considered as part of a firm's roadmap and a crucial component of its approach to success and growth (Parrilli and Elola 2011, p. 24). Dorf and Byers (2008) advocate that the firm pursues to construct an innovation strategy that contains ideas, new technologies, and creativities that lead to invention and finally commercialization.

Innovation is extensively considered as fundamental to the firm's strategy for generating and supporting long-term growth and survival in different environments (Amabile and Khaire, 2008). For this cause, strategy and innovation are entangled to realise better business routine and sustainable competitive advantage (Knott, 2003). Normann and Ramirez (1993) identify innovation strategy as an imperative key to cultivating business performance and to creating customer value by providing conceptual models, intellectual frameworks, and governing concepts and by permitting management to recognise opportunities for bringing value to customers and for delivering that value at a profit to the market. Robso *et al*. (2016) contend that innovation is the most essential component of a firm's strategy. Innovation is no longer just an instrument for the implementation of the strategy but essentially is the strategy (Ansoff *et al*., 2019). Jaruzelski and Dehoff (2007) disclose three distinctive innovation strategies the organisation can embrace to be more customer-driven: need seekers (i.e. involve current and potential customers), market readers (i.e. watch market and create value through incremental change), and technology drivers (i.e. apply own technological capabilities, leverage investments in research and development, and disentangle unarticulated customer needs). Supplementary, Lee *et al*. (2016) stipulate four dimensions of innovation strategy, comprising objective or goal (why?), scope or focus (where?), boundary or limit (with whom?), and intensity level (how much?).

Earlier research studies have recognised various critical success factors for innovative strategy at the level of SMEs (Laforet, 2016), which are creating a structure and a process (to reflect the use of systems and technology and to invest in individuals), stimulating a shared culture, analysing a competitor, and developing an alliance and a network. The business model, alternatively, describes the firm's organisational and financial architecture that is integrated into a consistent approach with a strategy toward its rivals (Teece 2010). When the organisation is pursuing to develop through innovation, it is imperative to cultivate a robust business model and good cross-functional capabilities throughout by inaugurating the features of products and services, benefits (i.e. value proposition) of using products and services, target market segments, design of revenue streams and cost structures, ways of offering products and services to customers and, mechanisms of capturing values (Teece, 2010). The business model contains four interconnecting components that taken together can make and deliver value to firms and their customers, which include resources, customer value proposition, processes, and the profit

formula (Christensen and Kagermann, 2008 in Guo and Ahlstrom, 2016). Lafley and Charan (2008) as cited in Villaluz and Hechanova (2018) contend that the heart of a company's business model should be game-changing innovation, which is not just the invention of new products and services; however, the innovation business models aptitude to systematically translate concepts into new offerings that modify the business context, restructure industry and marketplace, and redistribute values that should be based on technologies, unique competencies, or both (Dorf and Byers, 2008).

The innovation archetypal, suggested by William Abernathy in 1974, exhibits the dynamic links between modifications in the process and product innovation and in the organisational structure which transpires in configurations that are recognisable across the industry and the marketplace. The innovation business model should supplementary take into contemplation marketplace veracities and competitive environments, which contain three phases - fluid, transmission, and specificity - in dealing with innovation dynamics (Utterback, 1994). The understanding of innovation model development has developed over time. Hargadon and Sutton (2001) as cited Dell'Era *et al*. (2018) designate the best innovators as ones who use old ideas as raw materials for new ideas in a scheme that is called the 'knowledge-brokering cycle'. The system includes four parts: keeping ideas alive, imagining new uses for old ideas, capturing good ideas, and putting promising concepts to the test.

2.13 Defining Small to Medium Enterprises (SMEs)

Confirmation from literature discloses that there is no commonly agreed upon definition of an SME across all academic disciplines. According to Olusegun (2012), the collective principles for describing SMEs include the number of employees, size, employment, industry, and country and asset value. However, in Zimbabwe according to Small and Medium Enterprises Institute, SMEs are defined as a registered enterprise with employment levels fluctuating from 30 to 70 contingents on the types of industry. It furthermore advocates that enterprises that are not formalised through a legal structure such as registration in terms of the Companies Act or a Partnership Agreement are referred to as 'micro-enterprises'.

Jasra *et al*. (2011) postulated that SMEs signify a business and not a public company. They further reinforce that SMEs are businesses not having less than 250 employees on the occasion of manufacturing and service industries together with trading businesses. Small Enterprises Development Corporation (2010) describes a small and medium enterprise as a firm that has not more than 100 employees and a maximum sales turnover of $US1830 000. The government of Zimbabwe (2000) delineates a small enterprise as one that hires not more than 50 people and acts as a registered entity. Medium enterprises are firms employing up to 75 and 100 people. Gilmore (2001) defined the small to medium enterprises as business ventures that have limited resources such as finance, time and market knowledge and lack of specialised expertise. These definitions show that there is no agreed definition

of a small to medium enterprise. Analoui and Karami (2002, p. 156) utilised Storey's definition for SMEs as follows: "The SMEs sector is disaggregated into three components:

- Medium enterprises: the firms with 100 to 499 employees."
- Small enterprises: the firms with between 10 to 99 employees
- Micro-enterprises: the firms with between 0 and 9 employees

This definition would be on the high side for a developing country like Zimbabwe and would be most appropriate for developed countries. The Australian Bureau of Statistics' definition of one to 99 employees noted by Rahman (2002) is matching the Zimbabwean standard for SMEs, as the Government of Zimbabwe (2004) policy framework for SMEs categorises SMEs as employing less than 100 employees.

2.13.1 Quantitative Definition of SMEs

It is imperative to deliver a working definition of SMEs in Zimbabwe. Terziovski *et al*. as cited by Nyamwanza (2014, p. 19) take into account that "businesses generally are demarcated or classified on quantifiable features such as sales volume, the number of employees or worth of assets. However, the categorisation based on the number of employees is commonly used in management research." For the tenacities of this research study, the standard used is the number of employees since other variables were rendered useless by the unsteady environment and the serious undervaluation of assets following the dollarization of the Zimbabwean economy. In addition to the sombre delinquency of low capacity utilisation in numerous businesses due to undercapitalisation, it would be challenging to use definitions that syndicate these measures in the situation of Zimbabwe, given that the usage of assets or low turnover can misdirect one to the wrong institutions. It is recognised that the definition of an SME diverges according to the sector, geographical location and the researcher (Nicholas *et al.*, 2011). For the tenacities of this study, these variables will be ignored due to the difficulties cited above.

2.13.2 Qualitative definition of SMEs

In other cases, SMEs are labelled by their physiognomies. Such features are relevant in situating SMEs and are vital to their success. Given their influence on the performance of SMEs, these features influence either positively or negatively on their innovativeness. Hudson *et al*. as cited in Nyamwanza (2014, p. 23) note that SMEs may be distinguished from larger companies by a number of individualities which include:

- Personalised management with diminutive devolution of authority;
- Unembellished resource limitations in terms of management and manpower, as well as finance;

- Dependence on a small number of customers and operating in limited markets;
- Flat, flexible structures;
- High innovative potential;
- Reactive, 'firefighting' mentality; and
- Informal, dynamic strategies.

These physiognomies support in defining SMEs and more importantly the approaches these organisations adopt in their innovative activities. They have a substantial influence on how SMEs go about implementing strategies. A majority of SMEs in Zimbabwe are anticipated to have such features. Raymond and Crouteau, quoted in Nyamwanza (2014), contend that SMEs are often less endowed with financial, human and technological assets than large enterprises. Will atmospheres in developed countries be replicated in a country that is at a crossway in terms of economic development? How do these physiognomies affect the innovative activities which might be dissimilar from those witnessed in the developed countries that comprise the bulk of this literature? Such a study has not been done in the contest of SMEs normally in developing countries and in detail, Zimbabwe. However, these features are fundamental factors of SMEs innovativeness. Mboko Smith-Hunter (2009) established that the micro and small enterprises surveyed showed different growth patterns that could be interconnected to the qualitative physiognomies of such businesses in Zimbabwe, given the deficiency of growth of Zimbabwean SMEs. One would be interested in determining whether or not the qualitative characteristics affected SMEs innovation in any way. Although Mboko and Smith-Hunter (2009) highlighted these differences in growth, it was not clearly stated how these features affected SMEs innovativeness and finally their survival or growth which this study seeks to establish.

2.14 The Characteristics of SMEs

SMEs have dissimilar structures and can perform differently in analysing and interacting with their environs as equated to large firms. They can be confronted with contests, comprising limitation of resources and capabilities, the lack of economies of scale, market shifts, environmental shocks, operation scales and scope, and smaller market size (Galbraith and Mulvenna, 2013). Organisations of all sizes have dissimilar features in relation to management (Dell'Era *et al*., 2018), strategic orientations (Dey *et al*., 2017), internal structures and learning cultures (Collins and Porras, 1994; Markides, 1998; Johnson and Scholes, 2002; O'Sullivan and Dooley, 2009), resources and portfolios (O'Sullivan and Dooley, 2009), product and service offerings (Cooper, 1998), technologies and innovations (Haour 2004; Aragon- Sanchez and Sanchez-Marin, 2005), and closeness to customers and marketing canals (Deschamps, 2005). For this purpose, embracing different characteristics can have positive influences on the reputation and business performance of organisations of different sizes and especially SMEs

alongside encouraging creativity and innovation to become outstanding ones in the marketplace. SMEs can be observed through three major features and magnitudes, which might have dissimilar impacts on their choices to adopt and/or create innovations for their strategic orientations and competitive advantages. These are:

(1) Psycho-sociological factors. Owners/managers have principal roles in SMEs associated with business strategies, decision-making and internal structures and cultures (Miller *et al*., 1982);

(2) Environmental uncertainties, such as government policies and regulations, competitions, market downturns, and inflation and interest rates, which can have major impacts on small firms with limited financial resources and market shares (Williams and Savage, 2000); and

(3) Organisational decision-making.

SMEs can have an unpretentious, flexible and centralised management structure with multifunctional management teams, have low employee turnover rates, and have short timeframes and intuitional decision-making processes (Williams and Savage, 2000). Small and medium firms are different from large firms in their innovative behaviours and actions (OECD 2010) and it is relevant to scrutinise their innovation activities (Grundstrom *et al*., 2011). SMEs are not lesser versions of large firms and have matchless features and qualities regarding innovation activities, which include high adaptation abilities, fast movers, informal structures and flexible cultures, less reluctant to explore new technologies, specialised marketing and technical expertise, and near market proximities (Ghobadian and Gallear, 2006). However, these firms have inadequate technical and financial resources to put on research and development and a lesser amount of sufficient budgetary control (Rizos *et al*., 2016). SMEs also lack presence in large markets and have less well-recognised brands (Allocca and Kessler, 2006). In comparison to large firms, small and medium firm's owners and managers are less-experienced, follow less-formal processes, informal strategic planning and communications and flexible organisational cultures (Melander *et al*., 2018).

Further, the innovative qualities of the organisation can be scrutinised through two stages: the organisational and management levels. At the organisational level, qualities, for example, structure, administrative intensity, managerial characteristic, resources, and internal and external communications can differentiate innovative and non-innovative firms but insufficient descriptive variables have emerged (Abosede *et al.*, 2016). The attributes of vision, and aspiration, risk-taking, systematised for innovation and networked (internally and externally), are part of the innovative firm whereas the successful ones constantly seek advice from industry participants (Marullo *et al*., 2018). Innovative organisations share common characters that are: defining leaders' role and commitment in the innovation process; setting aspirations to drive innovation; generating ideas and selecting winners; capturing value through utilisation of strong cross-functional teams; and creating an innovative

environment. Félix and dos Santos (2018) proposed that it is a contest to delineate the ideal environment that indorses innovation. Nonetheless, prosperous firms are more prospective to construct their informal networks to hire the right individuals, nurture innovation, and provide rewards and incentives. At the management level, the physiognomies of the innovative firm are known for their aptitude to channel a team's discontent; to address a number of ingenuities concomitantly, and to openly encourage inquiry and reflection from others (Rezai *et al*., 2016). Rezai *et al*. (2016) highlight that SMEs are small businesses by nature, those firms are privileged that most individuals might have direct admittance to customers and deliver feedback on their needs and consequently provide improved solutions to problems.

2.15 The contribution of SMEs to Innovation

Innovation is not delimited to large firms; small and medium firms are vital engines for innovation and technological advancement (D'Angelo, 2012). SMEs, therefore, have a number of roles to play in supporting innovation. They are key players in the innovation process crossways different sectors (OECD, 2010). These roles include bringing new ideas and initiatives to the market; upgrading the aggregate productivity of the economy; enabling the commercialisation of knowledge; being active in breakthrough innovation; and participating in the flow of knowledge within the innovation system (OECD, 2010). SMEs are appreciated as agents which bring change to the local economy by introducing new products, and services, processes, and more efficient ways of working. Regardless of their low expenditures on research and development, Robbins and O'Gorman (2016) argue that SMEs account for a disproportionate share of new product innovation. Hence, the influence of SMEs to innovation is arguable. The literature encompasses numerous arguments connected to the comparative involvement of firms of different sizes (i.e. small, medium, and large) to innovation (Asheim *et al*., 2003). The argument appears to remain because diverse research studies stereotypically use different databases and methods to examine the researched issue. Storey (1994) puts more emphasis on the ability of SMEs to make incremental innovations due to their niche roles in the marketplace.

Arguably, SMEs have the potential to be the embodiment of innovation in modern society (Haour 2004). Tether *et al*. (1997) dispute that there is no ideal size for firms to innovate across all industry sectors and dynamic complementarities can exist among different firms. Hassink (1996) has developed a typology to distinguish between three types of technology-based SMEs, they are technology driven SMEs keeping abreast of leading-edge technologies; technology-following SMEs obtaining available technology, and technology-indifferent SMEs rarely investing in new technology. Asheim *et al*. (2003) support the notion that small firms can be a source of important innovation, which can be commercialised by large firms. Asheim *et al*. (2003) have further classified small and medium firms into two types with respect to innovation. One type is a conservatively managed traditional SMEs operating in a niche market that is relatively untouched by technological and market changes, in which

innovation is not an issue for their managers. Another type is highly innovative and technology-based SMEs with a knowledge-based approach that makes these firms potential leaders in a specific field in the marketplace. The role of innovation plays in the competitiveness and business performance of SMEs can vary among industries and markets, which can have implications for what innovation means in practice and for the policy support that is appropriate for these firms.

2.16 Importance of SMEs to the economy

Ackah and Vuvor (2011) noted that economic development is an enlargement of economic conversion involving the structural transformation of an economy through industrialisation, rising GNP, and income per capita. Economic growth alternatively, contributes to the prosperity of the economy and is essential because it enables the economy to consume and contribute to more goods and services by increasing investment, increasing the labour force, making efficient use of inputs to expand outputs, and by being technologically progressive. Any nation that experiences economic development and growth will profit from improvements in the living standards especially if the Government is able to assist in growth by affecting complementary and growth-enhancing monetary and fiscal policies (Shi-Yong and Wen-Bo, 2018).

It is presumed that small businesses are the instruments for the growth and development of the economies of numerous countries in the world and Zimbabwe is no exception. Thus, the importance of these small enterprises warrants an evaluation of literature since it is management that matters to a firm that should eventually contribute to the national objectives of a country. However, limited studies have been conducted in the field of the importance of small enterprises. One of the notable research studies in this field is the study by Maunganidze (2013) which explored the role of government in the formation and development of SMEs in Zimbabwe. The study utilised purposive sampling to select the participants for the study. Managers of enterprises were interviewed while data gathered was presented qualitatively. The study established that SMEs have contributed significantly to the reduction of unemployment since the sector has become the main employer in an economy which is confronted with high closure of larger corporations. The government has shown obligation to the growth and development of the small enterprise sector by establishing a ministry called Ministry of Small and Medium Enterprises which works together with the small firms trying to help them in how business has to be done in the contemporary style.

Literature by (Abduli, 2013) accounts that small enterprises play a very indispensable role in the development of the nation. For example, in Nigeria, about 97 per cent of the whole economy is in the control of small enterprises in as far as employment generation, poverty alleviation and national growth are concerned (Muogbo, 2013). On another note, Ojeka (2011) claimed that although the small businesses are important to the country's economy some strategies that are put in place by some

governments in developing countries contradict their development and growth. Ojeka (2011) considered the tax policy as one significant policy that works against the development and growth of the small businesses. He further advocated that the tax policies of the developing countries should be suitable such that the policy will neither be a deterrent to the operations of the firms nor a discouragement to voluntary compliance. Johari (2012) also contended in his study of the role of small and medium enterprises in the country's economic development, that the importance of these enterprises has been increasing in developing countries where the rate of unemployment is high. One of the main characteristics of a flourishing and developing economy is a booming and thriving small enterprise sector. The progress of this sector contributes to the generation of prospective entrepreneurs.

Nkwe (2012) recognised that small enterprises continually prove to be the engine of growth and sources of technological innovations. In sustenance of this, Ibarra (2012, p. 164) states that "the role of business enterprises is vital in pulling up the country's economic development and MSEs exert a strong influence on the economies of all countries, particularly in developing countries MSEs are the backbone of any economy as they not only create new jobs, but they are considered as major channels of innovation and technological change." The current study united views with the study that was carried out by Nkwe (2012) in that the settings of the study are analogous in that both Botswana and Zimbabwe are developing countries that are characterised by challenges of unemployment and poverty where these countries have to grapple with discovering lasting resolutions to the challenges. In order for the developing countries to overcome the challenges of unemployment and poverty, they have to prioritise growth and development of small businesses (Dumbu, 2014). Venkatesh and Muthuiah (2012) also urged that small businesses contribute to export earnings.

In their study, Venkatesh and Muthuiah (2012) investigated SMEs in India in an attempt to find out how these contributed to national development. The researchers established that the government of India comprehended the importance of the sector and showed this by including it in the five-year economic plan for the country. They further contended that small businesses play an imperative role in efficiently distributing the enormous labour supply and scarce capital by implementing labour-intensive production processes. Small businesses trigger private ownership, boost entrepreneurship skills and their flexibility in responding rapidly to changing market demand and supply conditions is remarkable (Okwu *et al*., 2013) hence the need to appraise their management practices. In this section, the reviewed research on the importance of the small enterprises argued continually that small firms contribute to the mainstay of the economy. What emerged from literature is that the small enterprises contribute immensely in the areas of poverty reduction, income dissemination and generation of employment. As a result of their importance, there is a need to examine how these firms are managed so that they remain vibrant in the competitive business milieu. The SME sector is regarded as very important in many economies because they deliver jobs, pay taxes, are innovative and very instrumental in a country's involvement in the global market.

Beck and Kunt (2006) pointed out that SME activity and economic growth are significant because of the comparatively large share of the SME sector in most developing nations and the considerable international resources from sources like the World Bank group, which have been channelled into the SME sector of these nations. SMEs account for nearly 93 per cent of the registered companies in countries like Ghana and therefore play an imperative role in economic development by providing employment opportunities, creating up new business openings, enhancing entrepreneurship, and fostering creativity among many other things. Kayanula and Quartey (2000) as cited in Ansong-Kumah (2016) identify them as the engines through which the growth objectives of developing countries can be achieved and are potential sources of employment and income in many developing countries. Mensah (2005) makes the analogy that SMEs act like sponges by soaking up surplus labour to provide a large share of employment and income in Ghana. Numerous researchers have perceived that SMEs enhance competition and entrepreneurship, therefore, they suggest that direct government provisions can boost economic growth and development. Also, SMEs growth boosts employment more than large firms because they are labour intensive and make better use of scarce resources with a very small amount of capital. Arthur (2016) also noted that developing countries should be attentive to SMEs because they account for a large share of firms and development in these countries.

SMEs are not only important because they are a source of employment but also because they are a source of efficiency, growth and economic decentralisation. Finally, they are very important in the fight against poverty as they help in the poverty-reduction policy for most governments, especially those in the developing countries where poverty is most severe. Since they employ poor and low-income workers and are sometimes the only source of employment in the rural area, their contribution cannot be discounted. Havenga (2001) argues that the natural home of the business entrepreneur is the SME sector, which in recent times has assumed a position of universal orthodoxy. SMEs feature as a dominant force in all the successful economies of the world. The impressive industrial performance of some Asian countries such as Taiwan, Singapore, Hong Kong, Korea, Japan and Western countries has focussed the attention of policymakers and academic analysts on the prominent role played by SMEs in industrial development (Kumar, 2017). Data from various countries across the world show that SMEs are a dominant force in the industrial and economic development of most economies.

2.17 The role of SMEs in the Zimbabwean economy

Zindiye *et al*. (2012) assertions that there has been an increasing awareness by governments in the developing world of the role played by SMEs and their impact on the economy in recent years. In the Zimbabwean condition, the development of the small business sector is considered vital for the achievement of broader development objectives. These objectives include poverty mitigation, spreading employment to rural areas, improving the situation of women and increasing indigenous ownership of investment in the economy (Nyoni, 2002, p. 1). As conventional sources of employment are shrinking,

formal employment opportunities are becoming gradually limited in Zimbabwe (Zindiye *et al*., 2012). The medium-term experience in the economy has been that investment levels are not adequate to generate employment for the 300 000 graduates in Zimbabwe on a yearly basis (Rwafa, 2006). The lack of employment opportunities in Zimbabwe turns the focus on the SME sector as the potential for investment and for making a meaningful and considerable contribution to employment generation. As the prime, employment-creating sector of the Zimbabwean economy, small businesses are liable for the livelihood of millions of Zimbabweans as they employ the largest number of people which outcomes in them having disposable income (Ndlovu and Ngwenya, 2003). Zindiye *et al*. (2012) found that the Zimbabwean government has recognised SMEs as the engine for national growth and a vehicle for economic development since SMEs contribute more than 50 per cent of the GDP of the country. This is the outcome of a macroeconomic meltdown that has seen, in the past 5 years, Zimbabwe experienced a 50 per cent decline in economic growth, 60 per cent closure in factories, a 60 per cent formal unemployment rate and a near 100 per cent decline in foreign currency reserves. Inevitably, this has led to a rise in informal trading, with each and every vacant space in urban areas altered into a flea market, with fruit vendors, carpentry or iron craft workshops and so on. Zimbabwean craft ware has found its way to top galleries from Cape Town to Cologne, all through the ingenious inventiveness of SMEs (Ngwenya and Hagmann, 2011). SMEs play an imperative role in economic growth, social development and overall poverty eradication. Economic growth is achieved through the institution of successful entrepreneurial ventures. These ventures will create employment opportunities for the people in the society in which they will be operating. Employment opportunities 60 will result in people having disposable income which leads to the demand for goods and services and ultimately purchase of the commodities in demand. Disposable income will lead to enhanced standards of living and this will also result in the decrease of poverty levels in the country (Liu, 2018).

The SME sector in Zimbabwe is also an essential role player in national development, employment creation, uplifting of the standards of living for urbanites, as well as the promotion of urban economies. This has been necessitated by rural-urban migration which has resulted in many people voyaging to urban areas. Due to SMEs diversity in nature, character and business exploits, SMEs have become a vehicle for economic emancipation and sustainable development. As a result, local authorities have taken a firm stance in implementing government policy to stimulate SME growth, which will ultimately result in economic growth (Simbi, 2004, p. 16). SMEs have become increasingly important to Zimbabwe's economic growth. Given the number of retrenchments due to the economic downturn, Zimbabwe has experienced since 2000, SMEs offer the best alternative means of livelihood for the majority of the people in the country. As a result, there is a definite need to support the growth of the SME sector in Zimbabwe so that it donates more meaningfully to national economic development.

2.18 Studies carried out on Small to Medium Enterprises

A study by Sharma and Gounder (2012) explored the obstacles to financing Small to Medium Enterprises. The authors were motivated by the lack of systematic documentation in the literature on the resourcing of the SMEs. This is because lack of capital resources may impede the performance of the SMEs resulting in relatively restricted economic activity by these types of enterprises (Sharma and Gounder, 2012). The research by Sharma and Gounder (2012) investigated the reasons for the financial constraints of SMEs with a particular focus on bank credit. The investigation is rooted in the Resource-Based Entrepreneurship Theory's Liquidity Theory of Entrepreneurship (LTE). According to Ayyagari *et al*. (2003), capital resources constrain the success of MSEs in the manufacturing sector. The study by Sharma and Gounder (2012) used a survey method to collect data on SMEs in Fuji. The study established that founders of SMEs use own capital as the main source of capital resources for their businesses and that the access to capital resources was constrained by bank's interest rates, fee charges and demand for collateral. The study by Sharma and Gounder (2012) focused on the financial constraints affecting the operations of small firms. My study differs from this study in that it focused on the evaluation of the management of the SMEs in the manufacturing sector. The intention of the study was to establish the management practices and principles which 61 affect the sound operations of the SMEs in the manufacturing sector rather than to look only at the one aspect (financial constraints) as was the case in the study undertaken by Sharma and Gounder (2012).

A recent study on SMEs in Brazil by Oriaku (2012) on the current challenges facing small businesses aimed at establishing whether or not lack of resources and strategic planning are the major impediments to the growth and success of small businesses. A similar study was also carried out by Siringoringo *et al*. (2009) with the objective of identifying and analysing the problems faced by SMEs and it confirmed that lack of resources is a serious challenge to the success and survival of the SMEs. Both studies, by Oriaku (2012) and by Siringoringo *et al*. (2009) used a questionnaire as a research instrument to collect data. In support of the above studies, Chipangura and Kaseke (2012) established that MSEs are affected by lack of human knowledge. This links with the RBET theory, the main grounding theory of the current research's Human Capital Theory of Entrepreneurship (HCTE). The study by Oriaku (2012) indicated that there is a correlation between the generic management principles of planning, organising, leading and control. The investigation carried out by Oriaku (2012) confirms the above notion that the SMEs are usually affected by the lack of well- developed organisational vision, mission and objectives. SMEs lack good management skills (Pillai, 2010) while management skills are the bedrock for any business person (Bekele and Muchie, 2009, Yusuf *et al*., 2017).

A worrying issue emerging from research carried out by Sharma and Gounder (2012) and Oriaku (2012), which were carried out in developing countries, was that many SMEs' failures were a result of lack of resources. SMEs failures seem to be higher than those of the larger firms (OECD, 2004) and the

operations of the SMEs tend to be considered risky by the financial service providers (Wanjau *et al*., 2012). Research by Kantabutra and Avery (2003) focused particularly on the effective vision of leadership in SMEs. The study argued that in the fast-changing world, the question is what kind of leadership is needed for organisations, particularly SMEs to survive and remain competitive? In furthering the same idea (Wanju *et al*., 2012) established that visionary attributes of brevity, clarity, future orientation, stability, challenge and ability to inspire have a major impact on venture growth through communicating the vision. Research into other challenges faced by SMEs established that SMEs face challenges related to their liabilities of smallness, newness and isolation (Abor and Quartey, 2010; Pillai, 2010). It was also discovered in that study that for SMEs to get out of their liabilities of smallness and newness, they must first overcome their liabilities of isolation by engaging in linkages or networks. The assumption here is that linkages allow firms to rely on others' experiences of learning. The success of networks is engendered by positive synergistic effects that are created by such linkages and that are necessary for the firm to have a competitive edge in a complex and uncertain environment (Abduli, 2013). Hence, the issue of Social Network Theory of Entrepreneurship is supported as being of paramount importance to the successful running of manufacturing SMEs. But Yan (2010) argues that studies in the SMEs have focused their attention only on the developed or advanced market economies. Chadamoyo and Dumbu (2012) state that SMEs in developing countries like Zimbabwe remain by and large an unexplored area in terms of empirical research. The Zimbabwean SMEs sector faces a dynamic and competitive business environment (Chidoko *et al*., 2011). They are, however, the seedbeds for indigenous entrepreneurship as they are responsible for mobilising un-generated capacity (Charantimath, 2006) and contribute to the decentralisation of industry (Hutchinson and Quintas, 2008). In Zimbabwe research on SMEs has been carried out but not as extensively as in developed countries. Muranda (2003) investigated the relationship between firms' characteristics and export constraints in SMEs whereas Zindiye (2008) and Mudavanhu *et al*. (2011) investigated the determinants of small and medium enterprise failure in Harare and Bindura respectively. Maseko *et al*. (2011) analysed the impact of targeted government support on SMEs growth and development in Zimbabwe surveying Mashonaland Central province; Chipangura and Kaseke (2012) studied the growth constraints of Small and Medium Enterprises at Glenview Furniture Complex in Harare. Chidoko *et al*. (2011) studied the impact of the informal sector on the current Zimbabwean economic environment.

Another critical study on SMEs in Zimbabwe is the investigation carried by Mudavanhu *et al*. (2011). The study focused on the determinants of small enterprises failure in Zimbabwe, a case study of Bindura. The objective of the study was to establish the major causes of SMEs failure. The study used a case study research design and the data were gathered through interviews and a questionnaire with the randomly selected SMEs. Results of the study showed that lack of general business management, unavailability of credit and the high cost of raw materials were the major causes of failure of the SMEs in Zimbabwe. In support of the research by Mudavanhu *et al*. (2011), Chipangura and Kaseke (2012)

in their study on the growth constraints of small businesses at Glenview Complex in Harare, using a qualitative research paradigm, generated data using a questionnaire. They found out that SMEs were constrained by limited access to resources. An exception is a study by Maseko *et al*. (2011), which did not mention a lack of management skills as a major factor affecting the operations of the SMEs. The 63 outcomes of the research show that SMEs in Zimbabwe lack experience in business conduct (Muranda, 2003). Results of the studies showed that lack of general knowledge on business management is a major source of SMEs failure in Zimbabwe (Mudavanhu *et al*., 2011). In light of the above- mentioned studies, the current study seeks to address the management practices of the manufacturing SMEs using a qualitative research approach. However, the afore-mentioned researches did not cover how innovation can be used as a strategy for the growth and survival of SMEs, particularly in the manufacturing sector. Moreover, most of the research work did not refer to the Mashonaland West Province of Zimbabwe. Thus, a void has been left in most of the studies on SMEs in the country and my research is going to fill in the gap by examining how innovation can be used as a strategy for the growth and survival of SMEs in the manufacturing sector in the Mashonaland West Province. Southiseng and Walsh (2010) concur that there is not much research on SMEs in developing countries in general.

2.19 SMEs and the Operating Environment

The economic environment in Zimbabwe has experienced major swings over the years. Barllett and Ghoshal (1989) as cited by Govindarajan and Ramamurti (2016) characterise the new economy as being information-based, knowledge-driven and service intensive. They argue that appropriate responses to these discontinuities require organisations to be flexible and adaptable. The only constant in the business environment is change. Change can be defined as the effect of uncertainty on parameter variations and adjustments made to reflect the current status of a manufacturing system within a production and control system (Koh and Simpson, 2007). Koh and Simpson (2007) add that manufacturing enterprises' customers often demand shorter lead-times, near perfect or even perfect delivery, a reduction of the product life cycle and increasing customisation. Managers are under pressure to improve enterprise performance rapidly and to adapt to change and uncertainty in order to maintain a competitive advantage. This operating environment poses serious challenges to SMEs anywhere in the world. SMEs are generally handicapped in their ability to respond to these changes and to exploit the opportunities that present themselves. Bouzdine-Chameeva (2006) maintains that managers have to assimilate changing environments, take account of market instability and ensure that they are constantly up-to-date on new information and developments, even though such information is necessarily incomplete and in a rapidly evolving world quickly becomes obsolete. This requires institutions to formulate strategies and to be committed to their implementation. The Zimbabwean economic environment is currently bedevilled by the rapid change which impacts negatively on both strategic planning and the implementation of chosen strategies. The environment in Zimbabwe was

characterised by hyperinflation from 2000, to stabilisation and modest growth post-February 2009. Business owners regard this environment as a hostile one that cannot be controlled by the entrepreneur and one that is continually changing (Mboko and Smith-Hunter, 2009). If these factors cannot be controlled by the entrepreneur, the most appropriate response would be to address factors that are under the control of SMEs owners, such as their business strategies. The formulation of plans is made complex by a challenging environment which business owners have little control over. The failure to control environmental factors is compounded by an apparent lack of information infrastructure which is said to lag 20 years behind local economies in the SADC region (Mboko and Smith-Hunter, 2009). Most of the required information is simply not available to SMEs and this makes strategy formulation very difficult and affects strategy implementation. Strategy formulation becomes intuitive. It should be noted that the quality of strategic plans affects strategy implementation (Shah, 2005). This is compounded by the policy shifts pursued by the government and government agencies, creating uncertainty in the business environment.

According to Mboko and Smith-Hunter (2009), entrepreneurs adopt the business strategies that they consider most appropriate to the environment. However, these strategies have to be implemented in the situation of uncertainty which characterises the Zimbabwean business-operating environment. Uncertainty can be defined as unpredictable events in the manufacturing environment that disturb the operations and performance of an enterprise (Koh and Saad, 2002). Koh and Simpson note that other studies have referred to this uncertainty as 'disturbance'. Thoburn *et al*. (2000) observe that many products are now judged according to global standards and, that, components are now sourced at a global level. They caution that failure to meet global demand and supply either by over or undersupply may have profound effects not only on manufacturers but on even minor players in the supply chain and sometimes entire economies, including their service sector. To a large extent, matching global demand and supply is a consequence of strategic planning, which is a significant variable in business success. In conclusion, Thoburn *et al*. (2000) advise that many world-class companies that are highly operationally efficient have nevertheless confronted trading difficulties. Given the lack of resources, it might be very difficult for SMEs in Zimbabwe to embrace this advice; they have to find novel ways to survive and grow. O'Regan and Ghobadian (2004, p. 56) state that "SMEs … tend to be more vulnerable to environmental forces compared with larger organisations in aspects such as access to financial capital, strong reliance on a narrow range of products, and more limited market presence". Given these challenges, there is a need for proper planning and effective implementation of strategies in order to maximise performance in the face of limited resources. Institutional transitions thus entail fundamental and comprehensive changes to the formal and informal rules of the game that affect organisations (Danis *et al*., 2009). Mboko and Smith-Hunter (2009) point out that the high-income firms do not necessarily adopt the type of strategic plans presented in the strategy literature, but do have a clear, predetermined sense of direction that guides their goal orientation, particularly with regard to markets and products.

An interesting finding of their study is that while firms that adopted a comprehensive planning approach had a vision, this focused on the short-term and they had high situational responsiveness.

On the other hand, low-output firms emphasised environmental considerations over the direction of the firm and the way they operate is a direct response to environmental considerations i.e. a reactive strategy (Mboko and Smith-Hunter, 2009). This has translated into low-output firms reacting by reducing costs. However, it is not clear from Mboko and Smith-Hunter's (2009) study how they go about reducing costs. They found a similarity across the cases in dealing with day-to-day operations in that they all used critical point strategy which is a survivalist. In Zimbabwe, the ability to survive in the business environment is critical, but it is also important to grow these enterprises. Mboko and Smith-Hunter (2009) concede that entrepreneurs can respond differently to the environment even when their perceptions of it are the same. The bottom line in both cases is that entrepreneurs have a strong desire for their enterprises to succeed, are hardworking, creative and have the ability to seek out opportunities (Mboko and Hunter- Smith, 2009). The question that arises is whether hard work is sufficient for the continued growth of the business. What impact does centralisation have on the actual implementation of strategies, especially in the Zimbabwean environment where much still needs to be done to develop SMEs?

Naicker and Saungweme (2009) acknowledge that today's business environment is characterised by more volatility and uncertainty than ever before, with globalisation being the order of the day and a reality for all players on the domestic and international scene. Given this scenario, hard work, creativity and the ability to seek out opportunities might not be sufficient to grow a business, let alone survive. They point out that businesses have to focus on developing their internal value chain capabilities in order to compete and to adapt to the changing environment, which confirms the cost-cutting approach referred to by Mboko and Smith-Hunter (2009). Despite the purported changes in strategies, SMEs in Zimbabwe seem to have continued to struggle, with their contribution not being recognised in official statistics. This might boil down to their approaches to strategy formulation and implementation which focus on competing on the basis of price at the expense of other variables. Jarzembowski and Kaplan (2010) note the need for the transformation of SMEs and suggest that there is a need to unpack the human agency, bringing to the fore the potential for transformation. The decisions made by SMEs owners will determine whether or not they move, grow, stagnate or decline. This implies that the practice theory should be the primary theoretical framework for conceptualising the role that action plays in SMEs' success. It should be noted that the results that we obtain are a result of the actions that we take as individuals and organisations; hence the need to examine strategy implementation, but action should arise from the thought processes that individuals engage in. Do SMEs in Zimbabwe plan their actions, or do they continue to do more of the same, despite changes in the environment? How do changes in the environment impact on strategy implementation in the Zimbabwean situation?

Although the environmental issues have been alluded to in this literature review, they will not form part of this study, since this is a variable outside the control of the entrepreneurs despite it being critical to strategy implementation. Only factors under entrepreneurs' control, i.e. internal factors, will be considered for this study. The new economy entails e-business and knowledge-driven enterprises that could lead to more responsive and agile methods to deal with change and uncertainty. Koh and Simpson (2007) identify such methods as key competitive advantages for manufacturing enterprises. South African products now dominate every sector in Zimbabwe, increasing competitive pressures on SMEs. Competition is destroying the market share of local products. This calls for strategic responses that must be supported by appropriate strategies. Recapitalisation and retooling of business have been difficult to achieve in the Zimbabwean context, thereby leaving most businesses ill-equipped for the new challenges. The lack of resources could affect SMEs' ability to adopt concepts such as agile manufacturing and they might, therefore, fail to deal adequately with the changes in the environment. Their focus might be on mere survival rather than on reacting to changing markets as dictated by customers' needs. They could be ill-equipped to deal with an environment that is subject to major changes that affect their ability to formulate and implement strategies.

Thoburn *et al.* (2000) contend that companies have had to reduce the time devoted to marketing their products and maximise the flexibility of their production systems in order to manufacture high-quality products in low volumes at a modest price. Without the necessary access 67 to various resources, the ability of SMEs to respond to environmental changes might be strongly compromised. Adapting to such changes requires a proactive approach to strategy, but the majority of SMEs adopt a reactive approach due to several internal deficiencies. This will impact on both survival and growth. Gindy, as quoted by Koh and Simpson (2007, p. 47) explains that "manufacturing responsiveness relates to the ability of manufacturing systems to make a rapid and balanced response to the predictable and unpredictable changes that characterise today's manufacturing environments." Responsiveness entails some form of control to ensure that there is a link between what was planned and what is being done.

The unpredictability of the environment brings uncertainty to SMEs' operations. Some SMEs in Zimbabwe cannot be defined as agile and flexible as they tend to take a long time to make the necessary adjustments or simply call on the government to intervene in the face of mounting competition. For example, the poultry industry and other manufacturers complained about the uneven playing field when imports were brought into the country to assist the poor, instead of streamlining operations and strategies in order to compete effectively with products from outside the country. This is a reactive strategy that relies on tried and trusted ways of doing business to save them in the long term. Some authors have argued that most businesses fail due to management deficiencies. De Waal (2007) argues that, in the five years prior to his study, more shareholder value was destroyed as a result of mismanagement, wrong decisions and poor execution of strategy than through compliance standards and scandals combined. He cites the Booz Allen Survey of 1 200 large corporations that found that of

the 360 worst performers, 87 per cent of value destroyed was caused by strategic blunders and operational ineffectiveness. This finding is not restricted to large organisations but is prevalent in all types of organisations including SMEs. These issues relate to strategy formulation and implementation issues which lead to most companies operating well below their true capability. In view of the foregoing, the absence of deliberate steps to cope with environmental changes will mean that SMEs might continue to underperform, resulting in business failure. Operational ineffectiveness results in strategies not being implemented properly, leading to the destruction of value. An investigation into how SMEs can use the innovation strategy would be useful in avoiding operational ineffectiveness which can stunt survival and growth.

2.20 Factors Influencing the Growth of SMEs

Lots of documents and studies have been generated to find factors that impact on the effectiveness of SMEs growth (Roigas, 2010; D' Angelo, 2012; Gronum *et al*., 2012; Al-Ansari *et al*., 2013; Bouazza *et al*., 2015; Su and Tang, 2016). The studies found out that the factors are too many and varied, but there is a general view that the major factors are the entrepreneur characteristics, the organisational context and the external environment. The effectiveness of an SME can be seen in its ability to achieve its objectives. Although McCann and Ortega-Argilés (2016) argue that SMEs have different objectives, Singh *et al*. (2016) show that financial profitability and growth are the common measures of organisational success. Each factor has an impact on the growth of SMEs. It is the inter-relationship of the entrepreneurial traits, the external and internal environments that determine the success or failure of SMEs wherever they are located. Stokes *et al*. (2010) summarised the factors that impact on the survival and sustainability of SME in terms of two major factors as shown in Figure 2.3.

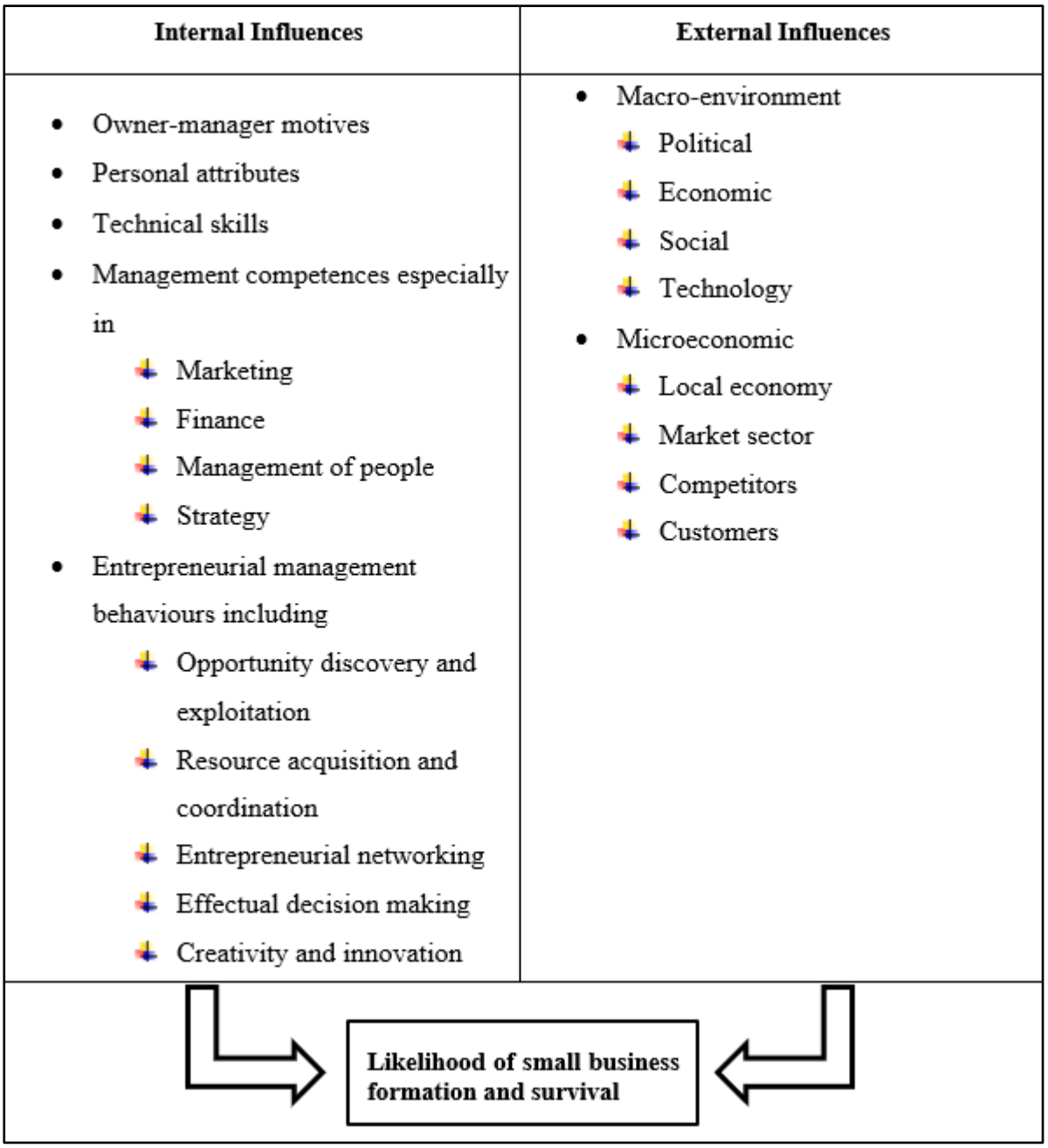


Figure 2.3: Internal and External Influences on Small Firm Formation and Survival

Source: Stokes, Wilson and Wilson (2010, p. 70)

Figure 2.3 indicates how internal and external factors influence the growth of SMEs.

2.20.1 Internal Factors Affecting Growth of SMEs

Levy, Powell and Worrall (2005) claimed that growth is determined by an amalgamation of the entrepreneur, strategy and the firm's organisation. The author defined key influences on SMEs growth, internal factors that reveal how decisions and features affect the growth of a firm. Entrepreneurial influence firm's growth is reliant on the managerial knowledge (Macpherson and Holt, 2007). Training

is vital for the productivity and quality as well as it impacts the effectiveness, efficiency and motivation of the employees, (Thassanabanjong *et al.*, 2009). The SME owner has substantial personal influence over a firm's strategies, tactics and operations to employ in the decision- making process across the firm. As a result, although a flat, informal organisational structure is likely to exist, decision -making tends to be quite centralised around the owner. The entrepreneurs' personality and behaviour are to be fundamental factors for or against growth-orientated achievement. It is distinguishing of small business that power decisions are centralised at the level of the owner-manager, so his or her personality, skills, responsibilities, attitude and behaviour will have a decisive influence on business strategy (Levy *et al*., 2005). Market competition has a major consequence on the SMEs chance of survival and uncertainty is high as most of the smaller companies tend to have a smaller share of the capital. This leads SMEs to have one or two major customers that do not have much bargaining power on prices. Larger companies with higher market share usually determine prices (Levy *et al*., 2005). SMEs face complications employing and retaining skilled graduates because they prefer to work for large enterprises that can offer a higher salary, job security and career possibilities. In order to encounter the demands of the fast-changing work environment which is typically related with SMEs it is essential that smaller firms guarantee that they are able to attract, retain and motivate high-quality employees with effective transferable skills through the existence of a strategic training plan and a specific budget for training (Baporikar *et al*., 2016). According to Brush *et al*. (2009), marketing is another complication for companies to grow since many businesses provoke challenges establishing effective distribution channels, communicating product features, pricing products and services in an attractive way, implementing sales and marketing efforts to win and retain customers and undertaking continuous product development in order to sustain sales. SMEs generally do not have the knowledge or information about other markets, thus, this confines their ability to market their products to larger groups of customers and to expand their business. The outcome of using inefficient technology, not maximising machinery utility and not improving technology in SMEs tends to lead to low productivity and reduced competitiveness. The lack of capability to update technology is due to the constraint of funding and most SMEs are main users of technology, not adaptors of technology (Office of Small and Medium Enterprise Promotion (OSMEP), 2007). The World Bank (2009) assertions that investments in technology are essential in order to build up existing capacity and to improve the quality and productivity of production which will generate higher value-added products that will improve the competitiveness for firms.

Innovation also plays a critical role in current business practice and it is regarded as a key characteristic of SMEs, mainly due to the attitude of the manager. Innovative companies are able to respond within the bounds of the knowledge about existing products or services to changes required by the customer within their niche market (Levy *et al*., 2005). The impacts of globalisation have overstretched SMEs by imposing greater demands. Innovation relies on bringing together different types of research and on

utilising this knowledge to design new products; therefore, innovation greatly relies on research and development investments. Normally, developed countries apportion about 3 per cent of GDP to R&D activities. Some developing countries, including China, India and Brazil, have rapidly increased their R&D expenditure, to levels that match those of the world's most developed countries (Morrison, 2006, p. 52).

2.20.2 External Factors Affecting the Growth of SMEs

The firm's external environment is difficult to define as it represents anything that is outside the organisation. Drucker (1997) notes that the external environmental influences such as socioeconomic forces can set limits on what entrepreneurs can do, as well as create opportunities for entrepreneurs. He argued that the economic forces do not themselves determine what business is or what it does. It is the responsibility of entrepreneurs to identify these forces and to adapt to the forces of the environment. According to Longenecker *et al*. (2006), the success or failure of SMEs depends on the entrepreneur's ability to assess the environment. The external environment consists of the macro-environment normally referred to as the industrial environment. This forms the context in which the firm and its operating environment exist. The most important elements in the general environment, as they relate to the business organisation and its environment are the socio-cultural influences, the global economic influences and the political influences.

2.20.2.1 The Socio-Cultural Factors

Longenecker *et al*. (2006, p. 37) put forward the view that the socio-cultural context is composed of individuals who make up the particular geographical regions.

Analysis of the societal trends is important for the following reasons;

i. Broad societal influences can create opportunities for organisations;
ii. Awareness of and compliance with the attitudes of society can help an organisation to avoid problems;
iii. Correct assessment of the societal trends can help the business avoid restrictive legislation which can be a threat to the organisation; and
iv. Positive organisational reputation among stakeholders such as customers and suppliers may increase demand for products and services leading to increased business opportunities. In areas where the majority of the populations are Seventh Day Adventists, for example, the sale of liquor is very difficult, hence cultural and religious beliefs influence the nature of business in every geographical area.

2.20.2.2 The Economic Factors

Economic forces can have a profound influence on the organisational behaviour and performance of

SMEs. Economic forces that create growth and profit opportunities allow organisations to take actions that satisfy many stakeholders simultaneously, particularly owners and suppliers. On the other hand, when the economic trends are negative; managers face tremendous pressure as they balance potentially conflicting stakeholders' interests. Economic growth, interest rates, availability of credit, inflation rates and foreign exchange are among the factors that influence the survival and sustainability of SMEs.

2.20.2.3 The Political-Legal Factors

Political forces both at home and abroad are the most significant determinants of organisations' success. The government provides and enforces rules by which organisations operate. These rules include laws, regulations and policies. The government can encourage new business formation through tax incentives and subsidies. The economic decline in Zimbabwe during the period 2000 to 20008 was unprecedented. Gono (2006) put the rate of inflation in Zimbabwe at above 1000 per cent. The inflation rate had a tremendous impact on the general performance of SMEs in Chinhoyi. The problems associated with high inflation rates such as the high cost of borrowing money and the depressed market among other factors impacted negatively on the general performance of small businesses. Strokes *et al*. (2010) argue that any business wishing to start-up encounters a series of potential problems. Certain industries are controlled by national or local government regulations which might create barriers for the establishment of SMEs. Other regulations increase the cost of market entry. Conforming to health and safety regulations often requires the expenditure in adapting premises.

2.20.2.4 The Technological Factors

A change in technology creates new products and services and, in some instances, an entirely new industry is created. It can also change the way society behaves and what society expects. Examples of such changes are the use of compact discs, players, and satellite systems and cellular telephones. Changes in technology can create new opportunities for entrepreneurs who regularly scan their environment and can also destroy some of the businesses which are slow to change the way they operate. (Longnecker *et al*., 2006).

2.20.3 The Operating Environment

The operating environment consists of stakeholders, with whom the organisation interacts on a regular basis, including customers, suppliers, competitors, government agencies and administrators, local communities' activist groups, unions, the media and financial intermediaries. For a small business to succeed it must scan the operating environment in order to put appropriate strategies in place which will put their business on a sound footing. The industrial environment can be analysed effectively by using Porter's Five Forces Model of Industrial competition, illustrated below:

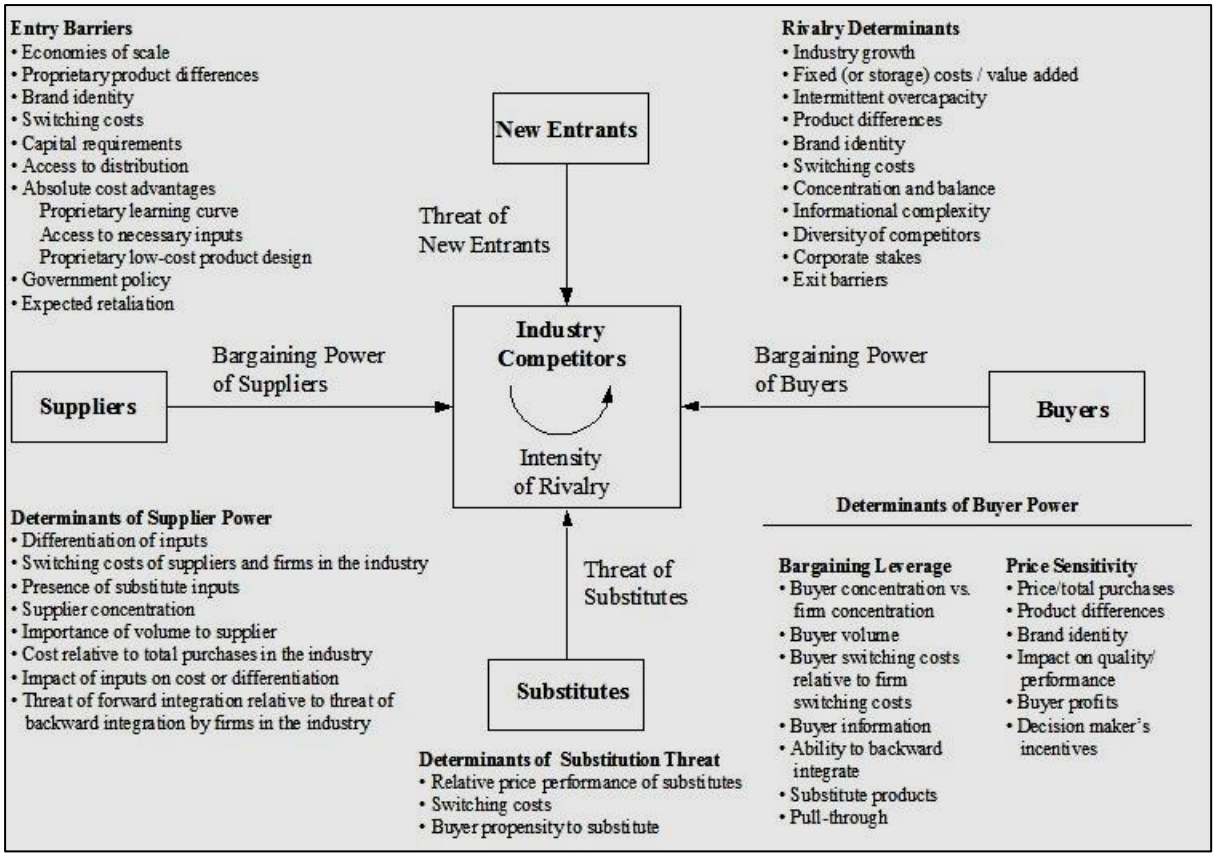


Figure 2.4: Competitive Forces that Determine Industry Profitability

Source: Porter (1985, p. 6)

The figure above illustrates the forces that are operating within a market. The small business owner should analyse all the forces in the market place and put in place strategies that will enable the business venture to survive the competition. Harrison (2003) put forward the view that Porter developed a model that helps managers to evaluate the industrial competition. The industry refers to the organisations that compete directly with each other to win orders or sales in the marketplace. Porter described how the economic power of the customers and suppliers influence the ability of the firm to achieve economic success. He also noted how the entry barriers and strength of substitute products increase or decrease the level of competition. An analysis of the five forces is useful from several perspectives. By understanding how the five forces influence competition and probability in the industry, a firm can better understand how to position itself relative to these forces. Furthermore, for a small business, a five- force analysis can reveal opportunities in the market that will attract the attention of the large enterprises and also determine the sector's attractiveness. The analysis can serve as a basis for deciding whether or not to leave the market or to alter the five forces through specific actions.

2.20.3.1 The Economic Power of Customers

The customers provide demand for products and services. The customers also withhold the demand if they have bargaining power and can influence the firm's behaviour. According to Porter (1980),

customers tend to exhibit greater bargaining power under the following conditions if they are;

- Few in number;
- Make high volume purchases;
- Buying products that are not differentiated or plentiful;
- Not concerned about the quality of the products they are buying;
- Having the information advantage relative to the firm they are buying from; and
- Organised. Weaker customers come together to increase their bargaining power.

2.20.3.2 The Economic Power of Suppliers

Powerful suppliers can raise their prices and therefore reduce profitability levels in the buying industry. Suppliers may exert their influence and increase the environment's uncertainty by threatening to raise prices. The environment in which suppliers can have influence is the same as the environment for customers.

2.20.3.3 Entry Barriers and Substitutes

New entrants increase competition in a sector which may drive prices and profits down. They may bring new products or processes and perceptions which may work to drive down the prices or increase costs or both. Substitutes provide competition and if the firm's products are easily substituted these organisations become indirect competitors. Stokes (2000) articulated a number of barriers to the market industry that hinder the formation of a new business venture. The figure below shows the barriers to market entry for small firms.

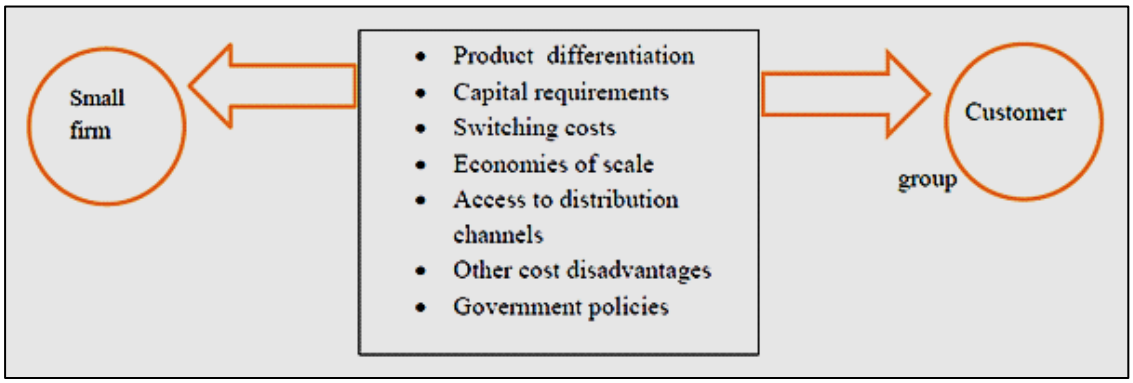


Figure 2.5: Barriers to market entry for a small business

Source: Stokes (2000, p. 67)

Before a small business can do business with its chosen customer group, it faces the following

competitive, structural and regulatory issues, economies of scale, technological and infrastructural factors.

a) Economies of Scale

The existence of economies of scale may give small firms challenges. Large industries enjoying economies of scale may use the cost advantage in a number of ways to out-wit small firms in the marketplace. They can establish low market prices which might force competitors to operate at low a profit margin which makes it unattractive for new entrants. This fact is particularly true for small businesses that are into manufacturing in the Chinhoyi district where statistics show that the majority of small firms are into businesses that provide the basic services to the local people. The cost of production in manufacturing industries is high hence their prices are high, and their products are shunned by customers.

b) Product Differentiation

According to stokes (2000), established companies build up loyalties with customers who identify with their particular product or service. The differentiation of products and services take time and money and therefore represent a significant barrier for new entrants to overcome. Direct competition with a nationally branded product, supported by a large company, is not feasible for small firms.

c) Capital Requirements

Financial requirements are a very tangible barrier for entry into some markets if large set-up costs are involved. Chinhoyi is endowed with vast mineral deposits which small firms can take advantage of, but the capital requirement in the mining sector is high and as such very few small firms venture into this sector? Financial Support According to Guffey (2008) a business plan is important when you start your own business. Except you can count on the bank or your relatives you will need financial support such as a bank loan or venture capital provided by investors. A business plan is vital for securing financial support. (Guffey, 2008, p. 401). All over the region, SMEs do not have easy access to credit and equity finance. This is because of the pathetic banking institutions in the region, the lack of capital markets, and the weak legal framework for credit and collateral. Finance, in general, is an important issue for growing businesses, forming the primary resource base from which other factor inputs are acquired. There are various ways the business owners can finance the growth of their firms, but the fundamental decision is whether or not to accept external equity finance in return for part ownership of the business. If owners allow external equity finance, they choose to surrender part of their control to either a financial institution or to other individuals. Financing the firm is essential and getting access to finance plays a crucial role in the firm's growth process. For many lenders, it is almost unbearable to assess the risks of an investment and this is mainly because of the high level of uncertainty (World Bank, 2001).

d) Business Location

The location a business must be reachable to the customer base and should be built to ensure efficient accessibility for impending clients. When choosing a location, the business must take into consideration the costs of moving or establishing their business in the location. According to one online article source (Ezinearticles), when choosing locations several different factors must be taken into account. The labour costs, transport, proximity to suppliers, workforce disruption, language factors, and exchange rates are some of the essential location factors. According to Herzong *et al*. (1991), the modification that initiates a location search is the need for new production capacity to meet market demand. The change that initiates a location search could be alterations in perceived market opportunities or changes in the entrepreneur's own situation. After location contemplation, the decision -makers can collect information on the tax levels, wage-rate levels, and other cost levels at various locations (Herzong *et al*., 1991).

e) Competition

Describing competition can be done in several ways. It is important that in any discussion of competition one should identify that, entering into competition an organisation is seeking competitive gain; this competitive advantage is the key to corporate success, (Walley 1998).

Globalization Conceivably the most substantial source of change affecting many organisation s today is the increasing globalisation of organisations and management. This transpires because firms need to control costs, especially to reduce labour costs. Another motivation why firms are becoming more global is the response to competition. (Griffin and Moorhead, 2009, 28) SMEs that are internationally active are generally developing faster than their domestic equivalents. This creates pressure on SMEs to develop environmental strategies to remain competitive. Many SMEs lack the resources to meet the global challenge to internationalise.

2.21 Manufacturing in an agglomeration of firms

Muponda (2012) concedes that generally, small-scale enterprises operating in isolation may face several disadvantages, which are detrimental to their competitiveness. The shortcomings include limitations in scope and scale. Muponda (2012), however, adds that firms operating as part of a group in geographical proximity may compensate for these handicaps through their interaction with each other and with other agencies, such as traders, or other organisations. A recent development in Zimbabwe has been the sprouting of large clusters of small firms operating in spatial proximity to each other (Muponda, 2012). The historical presence of an industry in a neighbourhood develops the quality of local entrepreneurship and labour skills. A relatively high density of similar activities in the area translates into a comparatively large local demand for certain goods and services, increasing their supply. Small firms also recompense

for their disadvantages with flexibility in behaviour (Visser, 2004). They are sensitive to opportunities offered in their environment and may develop functional relations whereby the macroeconomic environment provides the incentives and bounds are set by the availability of institutions to guide inter-firm linkages (O'Dwyer *et al*., 2011). Small firms are able to enhance their competitiveness to a greater extent from external economies. This is primarily because they have different structures and can behave differently in analysing and interacting with their environments when they are equated to large firms. It is for these reasons that studies on small-firm agglomeration have tended to focus on the relations between firms. Marshall (1986) cited in McDonald and McMillen (2011, p. 46) argue that, "when an industry has thus chosen a locality for itself it is likely to stay there long: so great are the advantages which people following the same skilled trade get from near neighbourhood to one another ... the mysteries of the trade become no mysteries". Therefore, the geographical concentration of small firms carrying out similar activities would result in the division of labour, thus creating more efficiency. The specialised knowledge that develops within the district would also be reinforced by a common set of cultural and social values. Thus, skills and information would be found 'in the air', fostering entrepreneurial activity and innovation.

2.21.1 Characteristics of industrial districts

Hodgkinson, as quoted in Muponda (2012), proposed that in order for a cluster of firms to conform to the typical Marshallian industrial district, some key components must exist. Firstly, there must exist a strong, comparatively homogeneous cultural and social background linking the agents in the cluster, creating a mutual, widely accepted behavioural code, which is occasionally explicit, but often implicit. Secondly, there must be a thorough set of backward, forward and horizontal linkages and information exchange among the firms, institutions and individuals within the cluster, giving rise to a creative or innovative milieu. Clustering brings with it various types of inter-firm relationships, ranging from the total absence of co-operation to situations with extensive collaborative arrangements in production (Gunawan *et al*., 2016). Thirdly, a local pool of skilled labour, from which all cluster members can source their labour supplies, is necessary. Finally, a network of public and private local organisations supporting the economic agents within and outside the cluster is also required. In addition, Muponda (2012) contends that some studies have also added the element of trust to these characteristics. A case that comes to mind is a study on Nairobi's garment manufacturers in Kenya by McCormick (1997) who stated that in an industrial district, the firms share a set of values and knowledge that is so important that they define a cultural environment and are connected to one another by very specific relations in a complex mix of competition and cooperation. Van Dijik and Rabellotti (1997) have described the industrial district as a moral community where the limits to trust and self-interest are understood and backed up by public opinion. It is characterised by well -established and accepted social norms, frequent and long-term interactions among a large number of economic agents who may know each other quite well, and by the pervasive distribution of information. Rules and regulations may not be written but

they are known and self-enforced and the social sanctions for deviant behaviour can be hefty such as social exclusion (Nadvi, 1999). In the same vein, Becattini (2002), with reference to Italian industrial districts, also described the Marshallian district as a socio- territorial entity which is characterised by the active presence of both a community of people and a population of firms in one naturally and historically bounded area. In the industrial district, community and firms tend to 'merge', hemmed in by extra-economic factors, particularly social.

2.21.2 Success factors for firms located in industrial districts

According to Muponda (2012, p. 64), certain factors are essential for the success of firms operating in districts and these include the territorial environment, collective efficiency, flexible specialisation, and the acquisition and diffusion of knowledge. These are reviewed in the following subsections.

2.21.2.1 Territorial environment

A study by Visser (2004) on the Peruvian small-scale clothing industry in the Lima district of Gamarra identifies the territorial milieu as a vital success element for firms operating within an industrial district. The territorial environment refers to both the functional and institutional settings at a specific location (Muponda, 2012). Location can be pronounced in terms of the density of economic activity. This is the relative concentration of similar or dissimilar firms. The location also refers to the spatial proximity, or nearness, of the economic agents, and its history in a socio-cultural sense. These factors create territorially-specific circumstances resulting in the conduct of economic agents being spatially differentiated, meaning that firms located in different geographic regions would have different characteristics, depending on their territorial environment (Visser, 2004). The territorial environment can compensate for the so-called drawbacks of being small, by reducing transaction costs for the firm, such as the search for and matching of products, the screening, selection and monitoring of business partners, as well as the enforcement of contracts (Muponda, 2012). Other expenditures include the cost of collecting information on consumer preferences in product markets, types, availability and quality of inputs, production techniques, equipment, components and business services. Additionally, Muponda, (2012) contends that a high density of similar economic activities can diminish these costs in that spatial proximity facilitates the gathering of information.

Personal contacts are more frequent and local norms and values may stimulate the circulation of more elusive information. This results in the diffusion of information with little or no transaction costs taking place. Nearness of economic agents improves reputation effects, that is, investments in repute are facilitated in environments where repeated transactions occur with the same agents. Where economic agents have face to face contact, trust is built, and this reduces the need for background checks (Muponda, 2012). Muponda (2012) also argues that the functional environment is the network of firms based on vertical specialisation in one or more steps in the transformation process and the mutual

subcontracting of transformation services. The network also embraces agents providing business services, inputs, equipment and components. Another form of functional interdependence or networking comes in the form of horizontal co-operation between otherwise competing firms involved in the transformation of products such as joint sub-contracting, joint purchasing, or marketing of products. Finally, there may also exist upstream or downstream transactions with traders of final products and inputs whereby producers may adjust their planning according to market information provided by the traders (Muponda, 2012). Furthermore, Muponda (2012) elucidates that the institutional milieu is exogenous to the firm and can shape the functional relations between the firm and other economic agents. Ramamurthy and Lu (2010) define institutions as entities governed by formal rules, such as statues, and informal rules, such as norms, that constrain behaviour. Institutions apply effective rules rather than nominal rules, with emphasis on enforcement. The institutional environment, therefore, consists of the agencies through which these rules are operationalised and enforced that, is the government, quasi-government, the private and non-governmental agencies. In addition to these, social and cultural norms and standards also influence the behaviour of firms (Muponda, 2012).

2.21.2.2 Collective efficiency

Collective efficiency, as viewed by Schmitz (2012) warrants that enterprises operating in close geographical proximity can bargain from both local and external economies as well as joint action. External economies are incidental in that they are the result of agglomeration and spatial proximity itself. External economies comprise of economies of scale which result from increased production as well as economies of scope which result from the production of several products at the same time while using the same facilities such as marketing and transport (Muponda, 2012). Prajapati (2018) also referred to the external economies as location economies and urbanisation economies. The location economies enjoy the benefits deriving from the spatial concentration of enterprises belonging to the same industry or sector whereas the urbanisation economies derive from localisation in an urban area such as large markets and low transport costs. Increased market access for customers, traders, skilled workers and other economic agents supplying inputs for the products as well as support institutions may appear simply because they heard of the cluster (McCormick, 1999). These advantages do not require matched effort but are simply incidental to the existence of the cluster of firms.

For collective efficiency to be achieved, however, the external and incidental economies must be combined with the active participation of firms in joint actions. Spatial proximity enables resources to be shared thereby 81 reducing the scale of investment required by each individual firm. It promotes information-sharing, thereby facilitating the learning of new techniques and upgrading existing technologies, that is, it promotes the diffusion of innovation and technological competences. The upgrading of technological capabilities and any other advantages that may occur within the industrial district are the result of the collective impact of individual decisions and will be open to all enterprises

within the district (Muponda, 2012).

2.21.2.3 Flexible specialisation

Instability and ambiguity in both input and output markets have become the norm today, given the globalisation of markets (Muponda, 2012). These limitations are, however, can be overcome when firms function in close geographical proximity whereby, they can form a community of flexible enterprises operating within flexible production networks. As noted in a study by Sverrisson (1994) on carpentry enterprises in Zimbabwe and Kenya, many small and medium-sized enterprises in Africa are flexible enterprises functioning within flexible production networks. Flexible technological networks are unstable and consist of firms that are independent with no central authority. The networks are not perpetually established but evolve continuously over time from preceding social arrangements. This infers that technological change is gradual and local, that is confined to limited sections of the economic agents within the cluster. It has in the past been claimed that small firms in developing countries can acquire technological competencies through simply importing machinery and equipment from the technologically advanced countries. This may not be wholly true (Bhalla and James, 1991). Technological capabilities are made up of technological skills and knowledge which accumulate over time through experience that is, 'learning by doing'. This tacit knowledge may however not be enough in that a purposive commitment of time and human resources to those events that lead to technological learning is also required (Romjin, 2004). Ample knowledge about all the possible uses of a machine that has recently been acquired by a firm takes time through the continued use of the machine. However, this can be a very cumbersome process for the small-firm entrepreneur. The entrepreneur may be forced to acquire a machine that is not completely suited to the circumstances in which it will be used resulting in a discontinuity between the technology currently in use and the adoption of new technology through the use of the new machine. In some cases, the entrepreneur may be forced to obtain locally made, low-quality equipment and machinery due to financial limitations. Such machinery may be susceptible to more breakdowns and require more intensive maintenance than imported machinery.

In other cases, the entrepreneur may be forced to squeeze maximum performance out of old-vintage second-hand machinery which requires extensive reconditioning and repair. Flexibility in production can be demonstrated by the sophistication of production technology. In the case of carpentry workshops in Mutare (Zimbabwe) a study carried out by Sverrison (2006) found that technological capability oscillated from the simple use of hand tools to fully mechanised production units. However, most of the firms produced wide-ranging types of furniture, piece by piece and the design was variable, subject to customer needs. They did not produce standardised products in batches. "A single craftsman using one machine after another in the process of shaping wood prior to assembly, which is then carried out by hand, was the most common practice" (Sverrisson, 2006, p. 44).

According to Muponda (2012), production flexibility can also be attained if the production network is

not geared permanently to a particular product. Socially, the technological network within the enterprise is intergraded through the division of labour that is, the apportionment of tasks to workers in the workshop. The production process is subdivided into several parts and each part or some parts are allotted to each worker or several workers. The workers then become experts in the use of the machines that are used on their part of the process. The machines are multi-purpose and can be used to create a wide range of products, reducing the enterprise's dependence on one product. This then, in turn, allows the firm to adapt its operations to any variations in the external environment over which it has little control. For instance, a fall in the demand for, or restrictions in the supply of inputs for a certain product, would not be disastrous for the firm as it can easily switch to other products (Muponda, 2012). The workers in this enterprise have become a node in a social network linked by several machines. The workers' skills levels are comparatively low and are local rather than global with respect to the completed product (Muponda, 2012).

2.21.2.4 Knowledge acquisition and diffusion

From Marshall's remarks, it is clear that firms that are organised in clusters or industrial districts can bargain from knowledge acquisition and its diffusion, naturally 'in the air' of their locality. However, contemporary studies on clusters in developed countries have shown that more work needs to be done with respect to two considerations (Giuliani, 2002). Firstly, that the methods applied in these studies have generally focused on production linkages, while knowledge flows and knowledge systems within the cluster have been poorly scrutinised (Abu *et al*., 2017; Bell and Albu, 1999). The second concern is that the technological isolation of a cluster or industrial district can lead to the risk of 'lock-in', leading to 'entropic death' (Camagni *et al*., 2009). As a result of these two concerns, it now appears more suitable to investigate industrial districts as linkages between the economic agents (firms) within the district as well as networks outside the district itself (Belussi, 2000). The Schumpeterian perspective on entrepreneurship, which is founded on active methodological individualism, conforms to the fact that the localisation of firms is beneficial to the economic agents operating within an industrial district in that knowledge is easily available to all agents and each agent adds to the stock of existing knowledge, as a result, new knowledge is created on an incremental basis. Knowledge and its dissemination are the facilitators of entrepreneurial behaviour. Without knowledge diffusion through society, no entrepreneurial activity would take place. Knowledge is necessary to activate actors, to initiate entrepreneurial behaviour. Knowledge has been defined in various ways (Muponda, 2012). Lundvall and Archibugi (2001) make a distinction between information and knowledge. Knowledge implies a learning process that instigates with understanding the existing stock of knowledge and is tailed by adding further knowledge to the stock of knowledge. In general, two types of knowledge can be distinguished: tacit knowledge and codified knowledge (Polanyi, 1958 and Giuliani, 2007). Codified knowledge is objective knowledge that is received from the outside whereas tacit knowledge is highly specific and contextual, and may be referred to as 'learning-by-doing'. Tacit knowledge is embodied in

the economic agents, what Berry and Berry (2018) also call implicit learning, the sort of knowledge we know we have but cannot articulate. Antagonistic to neo-classical economic theory, knowledge is not easily transferred, it is not freely obtainable to all economic agents, and thus cannot be considered a public good. Tacit knowledge is highly idiosyncratic. It is situated and accumulated within the boundaries of the firm over time, difficult to imitate and therefore not freely accessible in the air as suggested by Marshall (Belussi and Belussi, 2000). From the Neo-Schumpetarian viewpoint, the firm is the fountain of tacit knowledge, which is localised and not completely transferable. However, the dissemination and exploitation of local tacit knowledge by local firms is not sufficient to guarantee the dynamic evolution of an industrial district. Local tacit knowledge and external codified knowledge must interrelate in order to generate new knowledge (Nonaka and Takeuchi, 2004). It is imperative to link local and global systems of knowledge. The establishment of external networks of knowledge is important to the continued dynamism of an industrial district. Links with external sources of knowledge are not simply a way of overcoming 'locking' and of escaping 'entropic death' but they are also necessary to sustain endogenous dynamism. Empirical literature gathered by some Italian scholars, (Belussi and Gottardi, 2000) on the Italian industrial districts, recognise that industrial agglomeration is an ever-changing and dynamic process (Muponda, 2012).

According to these studies, industrial districts may demonstrate different levels of dynamism, being simply 'static', 'evolutionary or 'strong evolutionary', depending on the innovative competences of the firms within them, the knowledge exchange among them, and the level of interaction between external codified and local tacit knowledge. Recent contributions by Cowan *et al*. (2000) extend the Neo-Schumpeterian opinion of knowledge by distinguishing between three degrees of codification. The first is codified knowledge that is articulated and for which a codebook exists and is available. The second level is unarticulated codified knowledge or displaced codebook where a codified body of common knowledge, "the codebook", exists but is not evident and manifest to the outside observer. Finally, they also refer to tacit knowledge, where not even a codebook exists.

2.22 Establishing innovation within SMEs

The firm's primary goal in innovating is to differentiate itself from others and to maximise profits and market share (Garcia *et al*., 2007). McAdam *et al*. (2000, p. 107) define the effectiveness of business innovation as "the harnessing of creative ability within individuals and the workforce in response to change, by doing things differently or better across products, processes, or procedures through the continual process of improvement of techniques and the successful production, assimilation, and exploitation of novelty", that leads to competitive advantage and better business performance. O'Connor *et al*. (2008) argue that the secret to breakthrough innovation is the building of a permanent capacity in the firm and assigning this challenge to an independent unit to distinguish it from new product development. A firm should organise the innovation process in a way that can consistently

nurture and deliver big and new ideas. The firm should then inject these ideas into the marketplace, while not cutting funding in a tough fiscal year, no matter how tempting the idea may be. Drucker (2014) recommends various steps to implement successful innovation, including opportunity analysis, environmental look out, interaction with the customer, simple focus, and starting small. The outcome of innovation should be the market focus and innovators should build on their strengths. Firms encouraging creativity and inventiveness can create the ingredients for sustained innovation (Nonaka *et al*., 2008). It can lead the way with a new product and a service and into a new market space anticipating locking in a competitive advantage that ensures superior profits over a long-term (Gatignon *et al*., 2002). For example, the approach of the Dubai Camelicious firm for initiating and supporting the innovative project of commercialising camel' s milk. The firm had to develop special tools and machines to industrialise camel milk and is planning to commercialise a whole range of products including different camel milk flavours and chocolate bars. It has to further develop various partnerships to move from the innovative idea to the final production stage. The challenge is that camel milk is considered hardly profitable, but it can be possible only by developing a new market space. The firm needs to establish particular practices, such as specific ways of performing tasks and behaviours, to manage the innovation process successfully.

These innovative practices differentiate the firm and can play important roles in the success or failure in the long-term (Pitt and Clarke, 1999). Mahemba and De Bruijn (2003) use the term 'innovation management' as a process of searching for additional effective practices. Innovation practice within SMEs is defined by Mahemba and De Bruijn (2003, p. 241) as "the activities that small and medium-sized enterprises undertake in order to provide new solutions for their products, production, marketing, and administration to cope with dynamics of the markets". These practices are further considered to be specific and difficult to imitate because of their development over a long-time via trial and error. Further, there are different streams in the innovation literature of SMEs orientations, when looking to establish innovation, which includes economic-oriented, organisation-oriented, and project-oriented streams (Brown, 1998). In the economic-oriented stream, a firm plays an important role in driving innovation and it can be as innovative as a larger firm; the organisation-oriented stream shows that a firm manages innovation effectively and efficiently through optimising internal structures, building appropriate strategies, networking, and increasing performance; and the project-oriented stream maintain that customers and competitors are important sources of innovation (Laforet and Tann, 2006). Vossen (1998) believes that innovation in SMEs can be effective and efficient when it is well established within the firm. The innovation literature confirms that much remains to be discovered about the determinants for successful innovation in SMEs in different industries and markets (Brown, 1998).

2.22.1 Continuous and Business Improvements

Nowadays, continuous improvement throughout the firm is the norm in innovative cultures by means

of generating and implementing new ideas and initiatives (Kenny and Reedy, 2006). This type of improvement is different from one socio-economic culture to another and what is practised in one firm may not be suitable for other (Leseure, 2000). The concept of continuous improvement is described as a "management or an evolutionary incremental process, which leads to a better way to compete and that adds value to existing processes", characterised by flexibility, effectiveness, and efficiency (McAdam, Stevenson and Armstrong, 2000, p. 140). Goller and Bessant (2017) believe that the focus on continuous improvement is an important complement to radical step-change forms of innovation particularly since this type of innovation may often result from an internal learning process by doing. The innovating SMEs can learn continuously from interacting with customers, competitors, and consultants (Rosenberg 1976) and from training (Mole and Worrall, 2001). SMEs should consider continuous improvements as a starting point towards becoming more innovative (Harris *et al.*, 2013), which is linked to increased competitiveness in the marketplace (Tushman and Anderson, 1997). SMEs should then move beyond continuous improvement (or kaizen) in developing business initiatives through improving standardised activities and processes and start to embrace a culture of innovation (Wiele *et al*., 1998), despite the increasing market pressure and fragmentation in many economies (McAdam *et al*., 2000). Continuous improvement and innovation are integrated into an evolutionary process that can be turned into successful innovation and business excellence (Harris *et al.*, 2013).

2.22.2 Innovation Potential and Development Capability

Research studies have discussed different factors influencing the innovative potential and process within SMEs (Asheim *et al*., 2003). These factors can be external and internal to the firm and can play important roles in the nature and extent of innovative behaviours and activities of SMEs. These factors can be government policies and regulations; management characteristics and experience; organisations' resources and capabilities; and the interaction between them (Freel 2000). The ability of SMEs to identify and exploit external knowledge and technology is critical to the innovation process (Hadjimanolis 2003). However, few Dubai SMEs alongside firms in the Middle East and North Africa regions tap into different types of knowledge (Knight 2011). Other key factors are the nature and effectiveness of firms' marketing activities in product planning and development, and in some industry sectors, the competence of the firm in areas of technical strategies (Hoffman *et al*., 1998) that is, their ability to exploit commercially the potential benefits of their innovative efforts. The routine behaviour of the firm includes practices that are developed and nurtured over time to facilitate innovation and behavioural patterns evolved in relation to the perception of management about the obstacles to innovation, which are likely to be informal and implicit rather than more formalised and explicitly embedded in the firm (Asheim *et al*., 2003). This routine behaviour of the firm is tacit and difficult to imitate, so the capabilities and skills associated with innovation are particularly difficult to emulate. The role of networks and long-term relationships is further important to the ability of SMEs to innovate and to enter into interactive learning networks and long-term relationships (Karlsson and Olsson, 1998),

which can be a critical stimulus to innovation (Baum *et al*., 2000).

The innovative firm is well attuned to the marketplace and to external sources of technology, according to Rothwell and Dodgson (1991) who describes innovation as a process of know-how accumulation. However, some innovative firms do not consider networks to be important due to the concern for commercial confidentiality which prevents them from collaborating with others (Asheim *et al*., 2003). The external resources of knowledge through the collaboration with higher education and research institutions as sources of innovative ideas and technical support for SMEs can play an active role in supporting them to acquire resources and capabilities for innovation (Adams and Comber, 2013). The innovative capability of the firm can be related to internal processes, organisational culture, or the ability to respond well to changes in the environment (Akman and Yilmaz, 2008). SMEs need to focus on internal cultures (i.e. norms, values, and beliefs) and not only on processes and technology to develop an effective innovation environment (Gunasekaran *et al*., 1996). This requires a climate conducive to creativity (Ahmed 1998), a strong focus on multiple stakeholders (Cagliano *et al*., 2000), and a deep and wide understanding of end user-needs (Rothwell 1992). Previous research studies have focused on the quality movement of incremental process and product improvements; however, there is a need to understand innovation capabilities beyond continuous improvements (Lawson and Samson, 2001). O'Sullivan and Dooley (2009) argue that in striving to become innovative, the firm needs to look within itself and to assess what takes it forward and what holds it back, realising the four key factors namely: people, structure, culture, and environment. However, SMEs are faced with even more challenges such as lack of economies of scale and limited resources and capabilities to effectively implement innovation processes (McAdam 2000).

2.22.3 Innovation Adoption and Generation Processes

A firm (such as small and medium firm), adopting and/or generating innovation, depends on its internal resources and strategic orientations (Wiklund *et al*., 2011). The innovation-decision process, as described by Rogers (2010), is a process by which a firm's decision to proceed with an innovation depends on knowledge of an innovation, forming an attitude towards innovation, adopting or rejecting an innovation, implementing a new idea/task, and confirming the decision. The innovation decisions can be classified as optional (of independent choice), collective (of group choice), and authoritarian (of few individuals with power or expedite choice). The innovation adoption process contains the borrowing and/or adaptation of existed technologies in use by the industry to further develop simpler innovations (Rogers, 1995). However, the innovation adoption process does not have the same requirements as the innovation generation process. The latter requires technological capabilities, research and development activities, and multidisciplinary skilled individuals. To manage innovation as a process, the firm should unbundle and map the innovation process as a set of interlocking and dynamic sub-processes, allocate clear process management responsibilities, assess effectiveness of each

sub-process, manage 88 programmes in an integrated way (i.e. from A to Z), assemble and use cross-functional teams, and set-up and track process performance (Deschamps, 2009). However, a method and a model alone cannot bring success to the innovation development process, but they are enabling tools to support the design of objectives and strategies (Scozzi *et al*., 2005). The innovation process can be viewed as a sequence of tasks and, over time, a strategic decisions process (Scozzi *et al*., 2005), quality cultures, interpretive processes, generating ideas, selecting winners and a creative process of capturing values (Miller and Floricel, 2004). It is viewed as networks, communications, and information flows (Dorf and Byers, 2008). Innovation is perceived as an organised, systematic, and rational process (Drucker 2014). Aaker (2007) suggests that innovation and change are easier when the firm is relatively small and flat, commonly found in SMEs, allowing for more flexibility and responsiveness to their environments (Beaver and Price, 2002). According to Rogers (1995), a series of decisions based on identified need and research and development activity of the firm are the basis of the innovation development process. These decisions, mainly the strategic ones, are integral to the strategic planning process and involve managing opportunities and capabilities to meet the firm's objectives. The effective and efficient design of the innovation development processes and organisation structures and the appropriate methods depend on a variety of contingency factors (Bullinger *et al*., 2004). Examples of these factors are the specific market environment of the firm, the type and complexity of the product, the position in the product and technology lifecycle, and the innovation ranges and specific rules of different industry sectors (the role of system suppliers). The innovation development process moves through various phases involving all decisions and activities and their impact begins with the recognition of needs and necessities, through to research, development, and commercialisation of innovation, and finally to diffusion and adoption of innovation and its consequences by end users (Rogers 1995). Miller and Friesen (1982) encourage a more pragmatic approach to implementation through advocating an effective control or a monitoring system to improve significantly the scope, expense, and pace of innovation and its development process within a firm. Chiemeka-Unogui (2018) as sees the innovation development process differently, though noting that the process, at a strategic organisational level, begins when individuals have knowledge and awareness of internal and external opportunities and propose innovation, which is aligned with the sources of innovation within and/or outside their firm. In relation to the innovation process, Barnett and Storey (2000) discovered that innovation is part of the long-term organisational evolution and customer relationships are important to the long-term sourcing of knowledge acquisitions and financial terms, with human resource development to underpin the above elements. There is a link between process innovation and product innovation (Barnett and Storey, 2000). In some countries such as the United States, SMEs focus on process innovation more than on new product innovation. However, Mosey (2005) suggests that product innovation is the cornerstone of better- performing firms seeking future aggressive growth. In the emerging markets (similar to the Dubai market), the innovation generation process might not be feasible as a result of the limited resources and capabilities and management strategic orientations of the firm in

these markets (Mahemba and De Bruijn, 2003), which requires a number of capacities, including high technological capabilities, strong research and development bases, and multidisciplinary skills compared to the innovation adoption process. Adeboye (1997) argues that developing nations should adopt innovations already generated. Other solutions include knowledge- transfer and/or technology transfer (Buratti and Penco 2001 cited by Ferreira *et al*., 2015) or well-organised technology and/or innovation centres (De Bruijn and De Boer, 1989).

2.23 Implementing innovation within SMEs

The implementation of innovation within small and medium firms needs commitment and ongoing effort beyond their continuous improvement (Humpherys, 2014). SMEs are required to develop innovation capabilities beyond that of science and technology innovations (Davenport and Bibby, 1999). The innovation implementation process requires ongoing improvement and renewal because the capacity to innovate is much easier to lose than to acquire (Leonard-Barton 1995). Firms that develop the most suitable fit with their structure, internal flexibility, and operating contingency, incline towards innovation (Tidd *et al*., 2005). According to Humpherys *et al*. (2014), the innovation process can combine both incremental and radical changes within SMEs.

Incremental changes, in the form of continuous improvement or total quality management, are often supported by local authority grants, whereas periods of incremental changes are combined, when necessary, with transformational and radical change (Bessant and Francis, 1999). The principles of innovation implementation in large firms are not directly transferable to SMEs as they are a smaller scale version of the larger organisation (Teece 1996). SMEs can, however, implement innovation (Mahemba and De Bruijn, 2003), depending on resources, competencies, capabilities, and management strategic orientations (Blumentritt and Danis, 2006). SMEs have to acquire a number of capacities to be able to implement innovation that includes a high level of technological capability, strong research and development capability, and a team of multi-tasked individuals (Mahemba and De Bruijn, 2003).

In emerging markets and economies, the key implications, from the preceding discussion, are that 90 SMEs are encouraged to implement an innovation adoption process (incremental innovation), otherwise, an innovation generating process (radical innovation) may demand more organisational and environmental resources and capabilities (Naude *et al*., 2011). The solution could lie in the launching of technology transfer centres to narrow the technological gaps (Buratti and Penco, 2001) or in the adaption of innovations already in use in the industry and other markets with the intention to generate simple innovations in the future (Gopalakrishnan and Damanpour, 1994). Innovation cannot be a spontaneous action. Rather it is a process that occurs over time and consists of a series of overlapping actions (Rogers, 1995). Innovation entails activities that occur in a series of stages, from initiation to implementation in order of awareness, interest, evaluation, and trial adoption (Mahemba and De Bruijn,

2003). The diffusion of innovation into the marketplace is as important as the implementation of innovation within the firm. It is important for the individuals and their firms to have an emotional and a rational connection with innovation (Williams, 1999). Other characteristics that can explain the rate of innovation adoption in the firm in more rapid ways include relative advantage, compatibility, trial-ability, observe-ability, and less complexity as discussed before. Rogers (2010) further reports different adopter categorisations on the basis of innovation when individuals/firms first begin using a new idea. These categories are innovators, early adopters, early majorities, late majorities, and laggards, which can decide the speed and the implementation of innovation. The early majorities' unique position between the very early and the relatively late adoption of innovation makes them an important link in the diffusion process. Hence, the implementation of the innovation in SMEs depends on their internal resources and capabilities, entrepreneurial characteristics, and the management's strategic orientation.

2.24 The Innovation Management within SMEs

Schumpeter (1934) thought that innovation is the critical driving force of economic growth. Later, research studies on innovation have shifted focus from the economic growth (macro-level) to the innovation management of the firm (micro-level) (Xu *et al.*, 2007). According to Xu *et al*. (2007), historically there are five main phases of research on innovation management that are discussed in the literature: individual innovation, process, and success factors (1940s-1950s); organisational promotion, research and development management, and internal sources (1960s-1970s); outsider involvement (1970s); business portfolio, integrated, and systematic innovation (1980s-1990s); and total innovation management (21st century). Innovation management is a process of managing innovation within the firm and it is a shift from the traditional management principles, processes, and practices and from customary organisational forms and cultures that change the way in which the attempt of management (i.e. managing ideas, projects, communications, and innovative teams) is made to advance the firm's goals (Afuah 2003; Hamel *et al*., 2008). It is a process of managing information, people, and technology linked to innovation to influence the outcome and is related to plans and routines the firm has developed over time to nurture innovation from its origin to the marketplace (O'Sullivan and Dooley, 2009).

A firm implements organisational innovations to strengthen its capabilities and competencies to develop new products and services continuously and to renew its knowledge base such as the implementation of total innovation management. Xu *et al*. (2007, p. 102) explain the concept of total innovation management as the "reinvention and management of an innovation value network that dynamically integrates the conception, strategy, technology, structure and business process, culture, and people at all levels of an organisation." Total quality management and total innovation management can enhance innovation competence of a firm, create value for customers, and sustain its competitive advantage (Prajogo and Sohal, 2004). The total innovation management approach requires involvement at three levels. These are: at the level of strategy, culture, organisation, market, and in all human

technological and non-technological activities (activity); at the level of the individual implicated in the specific process of enhancing the competencies of the firm (people); and at the level of the firm and in every time period of activity (time-space) (Xu *et al*., 2007). However, Badea *et al*. (2011) argue that the total innovation management approach is non-scientific and non- rigorous due to non-homogenous and dimensional variables. Despite these propositions of innovation management, it remains a challenge to firms of different sizes and particularly to SMEs (Kenny and Reedy, 2006). Innovation management presents ongoing challenges to the firm because of increasing costs and complexity of products and services, increasing IT-based innovation networks, accelerating industrial changes, and shortening product and life- cycles (Amabile and Khaire, 2008).

2.25 The significance of innovation to SME performance

Despite the wealth of research on the connection between small firm performance and innovation, more information is needed (Siqueira and Cosh, 2008). The way in which innovation activities are run in smaller firms differs from the way they are conducted in larger firms (Abouzeedan, 2011). The growth-potential effect related to innovation in SMEs comes from three input parameters: technology, R&D, and generation of competitive edge (Abouzeedan, 2011). Vertically integrated organisational company structures facilitate innovation activities that are internally-focused, while newer forms of organisational structures are more fluid and open. As such, newer structures allow for the integration of internal and external sources of innovation (Allarakhia, 2009). However, studies of innovation in SMEs are still limited compared to similar studies focusing on larger firms (Vermeulen *et al*., 2005). SMEs have limited resources at their disposal, but the lack of resources in SMEs can be compensated for by flexibility, agility, and innovativeness (Qian and Li, 2003). That is why studying SMEs' performance in various contexts becomes a central issue when discussing the topic of innovation (Mazzarol and Reboud, 2008).

According to Casals (2011), globalisation of the markets and increasing international competition force SMEs to search for new, innovative, flexible and imaginative ways to survive. In the World Bank report (2009) innovation has been viewed as vital in ensuring a competitive advantage for organisations and long-term loyalty. The importance of innovation as a key factor in economic growth and development was also highlighted by Joseph Schumpeter in his Theory of economic development (1912). He considered the entrepreneur's task and capacity to realise new combinations of the production factors that is innovation, as the basis of his theory. The first empirical studies on innovation as quoted by Oncioiu *et al*. (2003) have taken as a point of departure the investment in R&D by industry or at the country level as a percentage of GDP and as output, of the number of patents. These studies hypothesize the relationship between innovation and organisational growth. This was supported by Oncioiu *et al*. (2003) who discovered innovation as an important ingredient in this knowledge-based society in SMEs' sustainability. There is little evidence, however, in LDEs and Zimbabwe in particular on whether this

is true or not. An important issue facing SMEs worldwide is continuous improvement. In today's markets, the inputs of customers and their fast-changing needs make it imperative that enterprises continuously improve the way business is conducted. SMEs need to consider continuously improving production costs, delivery schedules, manufacturing skills, supplier relationship and productivity in all practices (De Wit *et al*., 2007).

According to Gaither and Frazier (1999), SMEs constantly experience shortages in capital and in employee skills to improve production capacity, which makes it necessary to improve their production strategies continuously with customised products and process-focused operations. Moreover, the SMEs' operation function should embrace competitive priorities of low production costs, fast on-time deliveries, high-quality products and customer services. SMEs that have adapted their production systems to be flexible, and their costs and prices to be competitive, will be able to compete and capture increased market share. This signifies the importance of innovation in enhancing loyalty and long-term customer value. In the same vein, Kemp *et al*. (2003) in their research, found that the innovation output was determined by the innovative input, i.e., the transformation of input into output. Finally, the innovative output was related to the firm's performance. They stated that innovative output, via the firm's performance, would affect the innovation expenditure. The overall economic performance of a firm would affect all three stages of the innovation process of a firm. The growth of total sales would be higher for innovating firms by comparison with non-innovating firms, etc. They said that, as a result of this interrelatedness of the relationships, the innovation process should be tested simultaneously. In the same vein, Oncioiu (2012) in their study in Romania noted that innovation boosted the competitiveness of SMEs in Romania thus signifying the importance of innovation in SMEs.

Ansuri (2014) argues that a firm's innovation capability can affect its business growth performance. Business growth performance reflects "the achievement of organisational goals related to profitability and growth in sales and markets share and general strategic objectives" (Hult *et al*., 2004, p. 19). Performance has been measured in accounting terms such as profit, cost, and market share (Walker and Brown, 2004). However, it should also be measured using both financial and non-financial terms to enable efficient strategic decision-making, where non-financial terms focus on the long-term success of the firm, including customer satisfaction, internal business process efficiency, and innovation (Avci *et al*., 2011). Innovation and its links to business growth performance have been studied in the past and produced mixed results (Forsman and Temel, 2011). The work on the relationship between innovative behaviour and business growth performances of SMEs is limited (Forsman and Temel 2011). Previous research studies have indicated that there is a significant relationship between innovation and profitability (Roberts, 1999; Gunasekaran, Forker and Kobu, 2000), which is consistent with the theory of the growth and the innovative enterprise perspectives (Kim and Mauborgne, 2001). Innovation is linked with sales growth in the case of new products and services and with productivity in the case of new processes (Alvonitis and Salavou, 2007). It allows a firm to build a monopolistic position and

improve its business growth performance (Forsman and Temel, 2011).

However, Neely *et al.* (2002) argue that there are a number of factors that contribute to performance and innovation is not the only one. The adoption of innovation can contribute to the effectiveness and business performance of the firm whereas the application of management strategic orientation and the size of the firm are useful factors to predict its efficiency and business performance (Hurley *et al*., 2004). Previous research studies have indicated mixed results of different performance outcomes for different management strategic orientations (i.e. defenders, prospectors, analysers, and reactors) and for size-related issues in different industries (Forsman and Temel, 2011). It is argued that SMEs with proactive strategy-orientations towards innovation and more service quality and customer satisfaction are the most profitable and productive ones (Aragon-Sanchez and Sanchez-Marin, 2005). Innovation is related to better business growth performance in terms of productivity, efficiency, and profitability (Forsman and Temel, 2011). However, there is an interdependent and mutually reinforcing relationship between innovation and business growth performance rather than a simple one (North and Smallbone, 2000). Innovation does not necessarily equate to improved business performance, and business performance can be a result of a wide range of performance and growth factors (Neely and Hii, 1998).

A firm with innovative activities (i.e. more differentiated products and services) can, however, result in a higher business growth performance (Sirelli, 2000). In the context of SMEs, Aragon-Sanchez and Sanchez-Marin (2005) remind us that Camison (1997, p. 79) discovered "the most profitable and productive organisation s ... are SMEs with ... proactive strategic behaviours integrated into groups oriented towards innovation and quality, and towards customer satisfaction, in that order". The innovation capability of the firm is an important determinant of its competitive advantage and at the same time, it can have a positive impact on its business growth performance (D'Angelo, 2012). In the Middle East and the North African region, 77 per cent (out of 200) of surveyed business leaders are aware that innovation is an important factor in driving business growth performance and is important for strategic planning and future survival in the marketplace (Dutta, 2006).

2.26 Factors Influencing Innovation in SMEs

According to literature, the following factors influence innovation in SMEs: firm characteristics, manager's characteristics, size and age of the organisation, technological factors, organisational factors and environmental factors.

2.26.1 Firm Characteristics

Some studies pointed out the influence of firm characteristics on innovativeness. Polder *et al*. (2010) in their study found that doing more R and D had a positive effect on product innovation in manufacturing, while it was unimportant for organisational innovation. In the study of Tomlinson (2010) he supported

this view and stated that significant relationships between innovative performance and firm size, R and D and the firm' s age were confirmed. The study by the World Bank (2009) also showed that the firm size had a strong positive effect while competition had a strong negative effect on organisational innovations. Moreover; diversification was associated with more innovation. They also confirmed the general view that heavy competition is negatively associated with innovation and showed that this was more so in the case of process and organisational 95 innovations than for product and marketing innovations.

In Zimbabwe, firm size also has a strong positive effect on a firm's innovativeness. For example, small and medium enterprises in Zimbabwe, lack resources for innovation. Given the challenge of resources and employee quality, typical SMEs in Zimbabwe do not have some department or personnel responsible for innovation and the owner/managers are responsible for making most of the decisions in the firm. This is partly because they cannot afford to hire such personnel given that their resources are scarce. This is also supported by Sedita *et al.* (2011) who argue that small firms either do not have the capacity for innovation or they lack the resources to increase such capacity (Sedita *et al.*, 2011). Hence, their innovative efforts are likely to be less effective as compared to larger firms who have resources and personnel responsible for innovation.

2.26.2 Manager's Characteristics

The role of management in NPD is to lead the project and to be accountable for the entire project from beginning to end. Senior management must be dedicated, focused and committed to the project. Perry *et al*. as quoted by Mbizi *et al*. (2013) contend that the role of managers is central in deciding to adopt an innovation. They add that the success of the project is dependent on the manager's ability to position the R& D correctly to fulfil a need or to fill a niche. Jordan cited in Mbizi *et al*. (2013) in support of the above, states that managers need to be technically competent and able to orchestrate new ideas through the organisation. The author encourages managers to take advantage of different methods for staff encouragement to innovate.

2.26.3 Size and Age of the Organisation

Size, age and flatter hierarchies were found to have an effect on company innovativeness. White *et al*. as cited in Mbizi *et al*. (2013) for instance, suggested that the smallest firm (20 employees) had the benefit of individualism, whilst the larger firms (50 employees) had the benefit of more resources and systems, while the intermediate group (20-49 employees) lacked the best of either world. Mbizi *et al*. (2013), also quotes Ettlie and Rubenstein who stated that for radical innovations they required additional funds for technical work, capital investment for plant and equipment, marketing and promotions. They went on to clarify that larger sizes have a key enabling condition because of access to key resources and the capacity to address key issues.

2.26.4 Technological Factors

It must be noted that technology plays a crucial role in the innovation of SME projects and activities. According to Campbell (2011), there are two primary uses for technology in business namely; to meet the 96 status quo and to create something new that moves the business forward (innovation). In either case, the use of technology should be driven by the needs of the business and the customer (Campbell, 2011). Several technological characteristics of innovation would affect its adoption, including complexity, compatibility, relative advantage, ease of use, perceived usefulness, information intensity and uncertainty according to Tornatzky and Klein (1982). Lin and Ho (2011) based on technological factors mainly on complexity, compatibility and relative advantage because these three characteristics were consistently found to be more important in influencing adoption behaviour than the other characteristics.

Complexity: According to Rogers (2010), complexity is the degree to which a technical innovation is perceived to be relatively difficult to understand and use. Tornatzky and Klein (1982) predicted that it would increase the difficulty in knowledge transfer and innovation diffusion and was usually hypothesised to be negatively related to innovation adoption. Etzion (2007), in support, stated that an organisation would opt to advance technical innovation when knowledge was shared easily within the organisation. The author noted that efficient knowledge sharing would lead to better innovative capabilities in terms of higher-order learning and consequently can improve organisational performance including environmental management effectiveness. In addition, Tornatzky and Fleischer (1990) stated that technology with high complexity contained a lot of tacit knowledge that required laborious efforts to learn and diffuse. The difficulty in learning and sharing of tacit technological knowledge would make the complex technology difficult to adopt. Tidd (2006) supported this and stated that, in general, innovations that were simpler for potential users to understand would be adopted more rapidly than those which required the adopter to develop new skills and knowledge.

Compatibility: Compatibility was defined by Rogers (2010) as the degree to which an innovation is perceived as being consistent with the existing values, experiences and needs of the firms. In their study, Tornatzky and Fleischer (1990) found that how the new technology fitted in with the knowledge that a company already possessed was also an important factor that influenced technical innovation. In support, Torantzky and Klein (1982) stated that a company will be more likely to adopt new technology that is more compatible with the company's current operational knowledge. Tidd (2006) confirms that compatibility is a factor that influences innovation. He stated that the extent to which innovation fitted the existing skills, equipment, procedures and performance criteria of the potential adopter was important and relatively easy to assess. He went on to state that the so-called 'network externalities' would affect the adoption process. Giving an example, he said, the cost of adoption and use as distinct from the cost of purchase would be influenced by the availability of information about the technology

from other users, as well as the availability of trained skilled users, technical assistance and maintenance.

Relative advantage: Relative advantage is the perception that innovation is more advantageous than its substitute idea (Rogers, 2010). He went on to say that the perceived benefits may be measured in economic and social terms like convenience and satisfaction. Rogers (2010) stated that companies were more likely to adopt a technology which was able to provide better performance and higher economic gains than the other technologies. Therefore, in their study, the relative advantage was positively related to the adoption of innovation. In addition, Tidd (2006) observed that in theory the greater the perceived advantage, the faster the rate of adoption.

2.26.5 Organisational Factors

Several studies have discussed the influences of a variety of organisational characteristic variables such as quality of human resources, top management's leadership skills, organisational support, organisational culture and organisational size as nominated by Tornatzky and Fleischer (1990). Damanpour (1991) stated that in general, sufficient organisational resources and qualified organisational capabilities were two relevant organisational characteristics advancing technological innovation. In support, Tornatzky and Fleischer (1990) stated that qualified human resources were helpful in the adoption of innovations because of their competent learning and innovative capabilities. They said the quality of human resources was an essential factor influencing technical innovation. Organisational ties helped SMEs to establish their network. Panizzolo (1998) identified two types of organisational ties namely inter-organisational and intra-organisational ties for any organisation.

2.26.6 Intra-Organisational Ties

Intra-organisational ties were considered to be those factors within the operations of the organisation. Ebrahim *et al*. (2008) stated that it was necessary for organisations to put together different capabilities and services with the goal, through cooperation between suppliers and customers, service providers and scientific institutions to achieve innovations of high quality. Nguyen and Mothe (2008) confirmed that cooperation with customers had a positive impact on performance. Pavitt (1991) raised issues such as flexibility, short communication lines, close relations with customers, the motivation of management and labour force, less bureaucracy, little filtering of proposals with a strong interest in product development and technological change as part of the characteristics and strengths of an innovative culture. Lack of bureaucracy, efficiency, informal communication, flexibility were further emphasised by Birchall *et al*. (1996).

Adaptability through nearness to markets and close working relationships with customers were again found to be associated with innovation. In addition, Chandler *et al*. (2000) found close analysis of

competitors, supervisory and reward system support to be most relevant to successful innovation. As part of the theme of promoting an innovative culture, Heunks (1998) found successful SMEs are associated with committed leaders with vision, enthusiasm, future- orientation, and willingness to exploit external opportunities for inward investment and information gathering. In addition, Motwani *et al*. (1999) prescribed that leaders must demonstrate an active strategic commitment to research and technological change. In all the above themes such as fostering a creative environment, the right leadership and the willingness to listen to new ideas, top management should play multiple roles. The right organisational systems were also found to be relevant according to Blumentritt (2004). According to Beaver and Prince (2002), they said that the extent to which small businesses innovate successfully would depend on their capacity to plan ahead, to have a clear strategy and to manage strategically. This is reflected in the company's market orientation and willingness to learn as well as to innovate and take risks. The finding on risk-taking was also confirmed by a study conducted among American SMEs by Blumetritt (2004). This study showed that the most innovative firms were competitively aggressive and willing to take on risk.

According to Massa and Testa (2004), benchmarking enabled a company to compare its practices and performances with others as well as to acquire external explicit and tacit knowledge, which would lead to improvements and innovations. Mitra (2000) stated that SMEs were better able to innovate when they were part of clusters, which is, networking. A study conducted among Australian manufacturing SMEs, according to Terziovski (2010), suggested that small manufacturing companies were more likely to improve their chances of achieving business excellence through networking than without this.

2.26.7 Inter-Organisational Ties

Inter-organisational ties were those factors outside the firm. Tomlinson (2010) studied cooperation ties and innovation in United Kingdom manufacturing. The study confirmed the positive significant relationship between inter-firm cooperation and innovative performance. Also, the 99 relationships between cooperation with suppliers, cooperation with buyers and competitors were confirmed. Zeng, Xie and Tam' s (2010) study of the relationship between cooperation networks and innovation performance of SMEs in China, supported Tomlinson Their findings showed that cooperation with government agencies do not have an impact on the innovative performance of firms. Their studies showed that there has been a significant positive correlation between inter-firm cooperation and innovation performance of SMEs. According to their study, close linkage and cooperation with customers and suppliers had a direct and significant positive impact on the innovation performance of SMEs.

2.27 Factors That Can Promote Innovativeness in Business

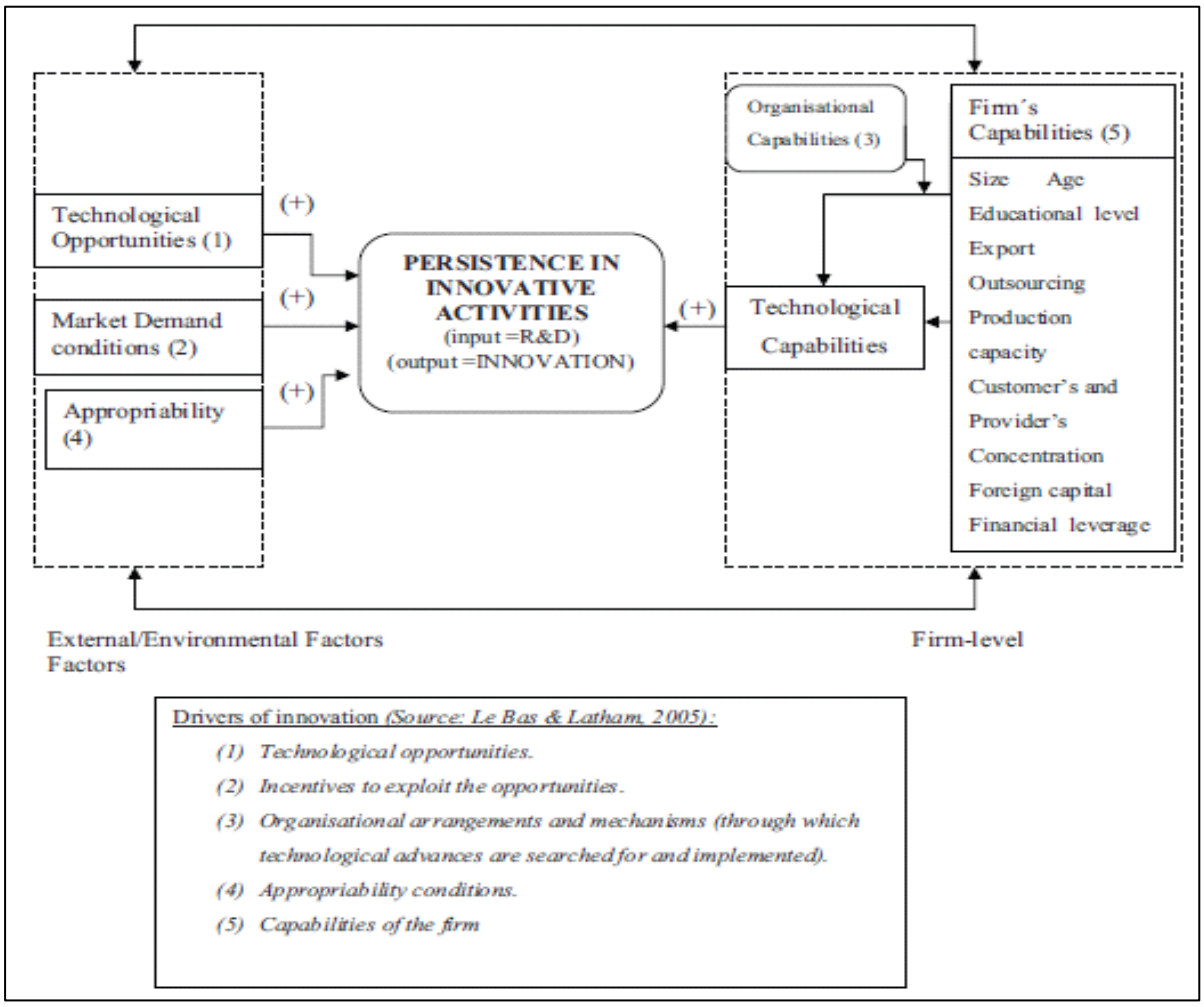


Figure 2.6: Promoters of innovation

Source: Triguero and Corcoles, (2013, p. 48)

2.27.1 Competition

Laforet (2010) declares that the market environment and a company's strategic posture are some of the driving forces behind innovation. The market environment is said to refer to industry-competitive structure, operating environment, technological development and customers. Salavou *et al*. (2004) opine that industry concentration and barriers to entry affect organisational innovation. Firms operating in more competitive environments with a lower concentration and lower barriers to entry, tend to have better performance in product innovation. These authors' results are in support of other academics' views that lack of competition curbs innovation (Kraft, 1989) but contradict the traditional Schumpeterian theory which claims that competitive pressure has a negative effect on innovation. A firm's operating environment and strategic posture influence innovation. O'Regan and Ghobadian (2005) show that firms put great emphasis on innovation in hard -operating environments characterised

by short product cycles, rapid technological change, and intense competition. In unstable environments, prospectors adopt new process technologies as well as leading management practices more readily than with defenders. Prospectors are companies that frequently search for opportunities, are flexible in adapting, and respond rapidly and creatively to the external changing environment. O'Regan and Ghobadian (2005, p. 24) say that prospectors engage in developing new products by introducing newly patented products. Defenders are those organisations that "compete on the basis of price, quality, delivery or service and operate efficiently with a strong emphasis on maintaining existing markets." Ozsomer *et al*. (1997) are of opinion that innovative firms have a proactive strategic posture, are aggressive, competitive and are risk-takers. Proactive firms differentiate themselves from their competitors by changing their production methods and products.

2.27.2 Finance

Laforet (2010) argues that for innovation to take place other factors have to be considered such as funding and organisational innovation capacity. The level of expenditure dedicated to R&D is one of the most common indicators used to evaluate the commitment of an organisation with the R&D. This background has been covered in Vieites and Calvo (2011)'s proposed a model which include the role of financial resources to support R&D in the company, as a percentage of business turnover. Governments should work directly with SMEs, offering special financing arrangements including 101 state guarantees and /or tax incentives for research activities, especially in the early stages of development. In 1991, a commission was launched in Zimbabwe to establish and review the objectives and the effectiveness of the local council's bye-laws and regulations. The commission revealed that the growth of the SME sector was inhibited by the unavailability of funds and the cost of finance among other factors (Robbins, 1990). Lack of financial resources is the main weakness of many SMEs in Zimbabwe as it is a slippery floor leading to their failure. According to Olawale and Garwe (2010), inaccessibility of finance is frequently reported as a contributor to cash deficiencies leading to financial distress in Zimbabwe. Although SMEs are wealth and job creators, they have had their own share of neglect as no matter what country an SME is in, they share a common problem of access to financial resources.

Typically, banks discriminate against SMEs by comparison to large-scale enterprises through the imposition of rigid collaterals, limiting credit and charging higher interest to offset the greater risk as their conditions for lending. SMEs rarely meet the conditions set by financial institutions, which see them as a risk because of poor guarantees or collateral and information asymmetries on their ability to repay loans. As comprehended by Hosseini (2010) financial resources also help small businesses to be competitive hence achieving new technologies. Thus, financial resources play a very important role in innovation such that a lack of finance may affect the innovative behaviour of firms. This is also supported by Sedita, *et al*. (2011) who argue that small firms either do not have the capacity for

innovation or they lack the resources to exploit such capacity. SMEs, particularly in Zimbabwe, lack resources for innovation.

2.27.3 Firm's customers

Laforet (2010), states that customer orientation has an impact on product development. The author opines that customers can drive innovation particularly in SMEs and companies that work closely with their customers on contractual work and often have to develop new products to meet their requirements. Some new and splendid ideas are said to be originating from customers. According to Laforet (2009), customers' influence is particularly apparent in new product ideas, new product launches, process innovation, cross-functional teamwork, inter-departmental connections and, to a lesser extent, in business strategy.

2.27.4 Company Growth

Marsili and Cefis (2006) outline that research suggests that small firms that innovate are likely to increase their chances of survival and growth. Organizations make use of their growing internal and external resources to drive their innovation processes. A test of how firm growth, profitability, size, and R&D intensity influence subsequent innovative activity by Audretsch (1995) show that the way company growth and profitability impact on innovation depends on the technological-opportunity environment. Audretsch (1995) found that high growth generates more innovative activity for firms in low-technological-opportunity industries, but not in high-technological-opportunity environments. Eiriz *et al*. (2013) propose that innovation strategies develop over the firm's growth stages, that is, start-up, expansion, maturity, diversification, and exit. For instance, product innovation is more likely to occur when a firm enters the market and needs to differentiate its offer from incumbents than when a firm operates in the market for a long time. Mortara and Minshall (2011) also consider company growth as a way to enhance innovation capabilities.

2.27.5 Alliances with other firms

Nieto *et al*. (2015) argue that innovations are not only determined by the firm's internal factors, but also by interactive processes with other firms in the environment. This aspect is also applicable in the context of alliances since companies learn how to manage alliances by frequently engaging in these hybrid organisational forms. Hoang and Rothaermel's (2005) opines e that this general alliance experience has a positive effect on subsequent alliance performance because, among other things, firms develop and establish routines, policies and procedures based on previous experiences. Amara and Landry (2005) establish that the more sustained and intense the interactions between firms and external sources of technical information are, the more likely the technical information will be used to develop innovations with a higher degree of novelty. The participants of an SME Business Symposium on enhancing the

competitiveness of SMEs in transition economies and developing countries held in Bologna, Italy in 2000 argued that better cooperation and access to government- supported research centres such as universities is a useful step that can be taken to promote innovation in SMEs (Aikaeli, 2012). Suppliers are also valuable sources of information sharing many of the advantages generated by customers to develop or improve products or processes. The role of suppliers in the innovative process of firms is said to be growing gradually, a fact that can partly be explained by the tendency of the 1990s for large firms to downsize and to focus more strongly on their core competencies (Amara and Landry, 2005). Firms can also co-operate with competitors whenever they share a common external problem in the environment, such as a regulatory change.

2.27.6 Alliances with clients

Strategic alliances involving cooperation with clients has been considered by researchers in the s. Tether, (2002) opines says that cooperation with clients could be beneficial when the aim is to develop more novel or complex innovations. On these grounds, Amara and Landry (2005) point out that the advantages provided by customers and users as sources of information suggest that they could be used more frequently by firms when the innovations under development carry a higher degree of novelty.

2.27.7 Availability of innovation protection

Bologna (2000) SME Conference Business Symposium notes that one of the best ways to promote innovation is to make sure, that firms and individuals benefit from the results of their research efforts. Rules and Regulations for protecting innovations must be put in place and intellectual property rights have to be taken seriously. According to an OECD survey, various SMEs consider 103 themselves particularly vulnerable to overly complicated patent procedures and property right laws.

2.27.8 Availability of information-sharing systems

Information–sharing arrangements at the local, national, regional or international levels, is another factor that was recommended by the Bologna (2000) SME conference. This initiative would not only give SMEs the opportunity to benefit from a broader pool of information resources but would also provide a ready network of potential business partners. Such cooperative resource platforms would be better owned by SMEs themselves.

2.27.9 Education and Training

Bologna (2000) introduced the aspect of education and training as crucial, not only for promoting innovation but also, more generally, for providing a competitive foundation for national economies. Because they often lack the resources to engage in in-house training, SMEs have a particular stake in the effectiveness of local and national education and training programmes. There was thus broad

agreement in the survey for public support for basic education, for financial assistance with SME training and for promoting greater co-operation and exchanges between business and universities. Innovation is not only related to products and processes but is also related to marketing and organisation.

2.27.10 Technology

Oslo Manual (2005) proposed that the company's technological resources should be regarded as a factor in developing innovative approaches. Vieties and Calvo (2011) included in their model variables relating to the technology available in the company as a key factor in explaining its innovative capacity. The role of technological resources has been explained through four variables namely: acquisition of new technological equipment to support innovation; acquisition of external technological knowledge; production preparation; and commercialisation preparation.

2.28 Chapter Summary

This chapter examined the definition of innovation in general as well as from the perspective of SMEs. The chapter also examined the existing body of literature on innovation and its influence on business performance and the subsequent impact on SMEs' survival and growth in Zimbabwe. Various studies were reviewed in order to determine the scope of this study.

3 CHAPTER 3: THEORETICAL FRAMEWORK

3.1 Introduction

There are several established models of innovation that explain how it can be successfully implemented to give firms leverage. The successfulness of each model depends on the nature of the firm and also its resources. In this section, a sample of these models is discussed. Firstly, this chapter introduces the disruptive innovation theory and then the resources, processes and values (RPV) theory. Majaro's (1991) innovation funnel is then discussed. This is a screening and refining system for ideas, beginning with a large number of options and working towards a practical solution. Boehm's (2001) spiral model which improved on his waterfall model by allowing continuous improvement is then discussed. Next, we analyse Dooley and O' Sullivan's (1991) innovation funnel, the Waterfall model, the Chain-linked innovation model and the chain-interactive model. A comparison of different innovation frameworks is made, followed by a discussion on the conceptual relationship between barriers of SMEs and their innovation. Finally, a model for innovation is proposed followed by a summary to conclude the chapter.

3.2 Theories of innovation for Small to Medium Enterprises

3.2.1 Disruptive Innovation Theory and the growth and survival of SMEs

Disruptive innovation is defined as, "a technology, product, or process that creeps up from below an existing business and threatens to displace it … the new product or process improves to the point where it displaces the incumbent" (Rafi and Kampas, 2002, p. 14). According to Burns (2006), disruptive innovation is a broad category that situates disruptive technologies within firms, markets and competitive strategic landscapes. Its framework emerged in the early 1990s as thought leaders became more aware of the impact of globalisation, the quality movement and process transformation and the value creation potential of new innovation forms. Burns (2006) argues that disruptive innovation focuses on innovation diffusion and processes in the firm and on markets as biological ecosystems that adapt and evolve with time. The strong boundaries between a firm and its customer and supplier networks break down as co-evolution and nonzero-sum cooperation replaces zero-sum hyper-competition. Murdoch (2006) commenting on disruptive innovation suggested that "Societies or companies that expect a glorious past to shield them from the forces of change driven by advancing technology will fail and fall" (Murdoch, 2006, p. 9).

This is also supported by Christensen *et al*. (2004) who argue that all the organisations that have collapsed or have been displaced from their business because of the failure to plan for a new paradigm of customer offering. They assess the new approaches or technologies and frame them as either deficient or as an unlikely threat much to the manager's regret, as this result in the organisation's demise (Christensen *et al*., 2004). When implementing the destructive innovation, the firm's aim would be to improve the existing products and performance that customers normally value (Christensen *et al*.,

2004). This theory brings change to the value proposition and initially can underperform mainstream products, but brings in the benefits of cost and ease of use.

Christensen also argues that usually customers of such innovation are at the bottom of the market or are yet to be established. This seems to be strongly the case among SMEs, especially in Zimbabwe. SMEs in the Zimbabwean economy normally serve the low end of the market and realise lower profit margins in the market, therefore they are more likely to be able to implement disruptive innovation than larger organisations, which will have an effect on their chances of survival and growth. Disruptive innovations offer basic products that perform well enough according to customers' expectations at low cost which is good since customers pay for the satisfaction they get from the use of a product; hence such innovations are expected to succeed. The innovations have the potential of gaining momentum up the market chain even though they initially aim at those at the low end of the market.

From the background explained above, it has been revealed that the disruptive innovation theory is appropriate for SMEs in Zimbabwe since disruptive innovations are simple. This is also supported by Christensen *et al*. (2004) who argues that the process of disruptive innovation has been one of the fundamental causal mechanisms through which access to life-improving products and services has been increased and the basis on which long-term organisational survival could be ensured. Hence, this approach if implemented by SMEs in Zimbabwe will also be useful in ensuring their long-term survival and growth.

3.2.2 Resources, Processes and Values (RPV) theory

This theory is based on the fact that businesses successfully exploit opportunities when they have the appropriate resources to succeed, their processes facilitate what they aim to do and when their values allow them to provide adequate priority to that particular opportunity (Christensen, 2006). The success can only be realised if all this is done in the face of other demands that compete for the company's resources. According to Christensen *et al*. (2004), resources are the assets that the company controls such as knowledge, people (skills), products, technology, equipment, cash and brand. They further proposed that the processes are the way a firm works, which include hiring, training, manufacturing, market research, planning and budgeting. Value refers to the criteria the firm uses to make decisions which include cost structure, size of opportunities, customer demands and prioritisation. The firm uses these three to determine the way it assesses and responds to an opportunity. The RPV theory is shown in Figure 3.1 below.

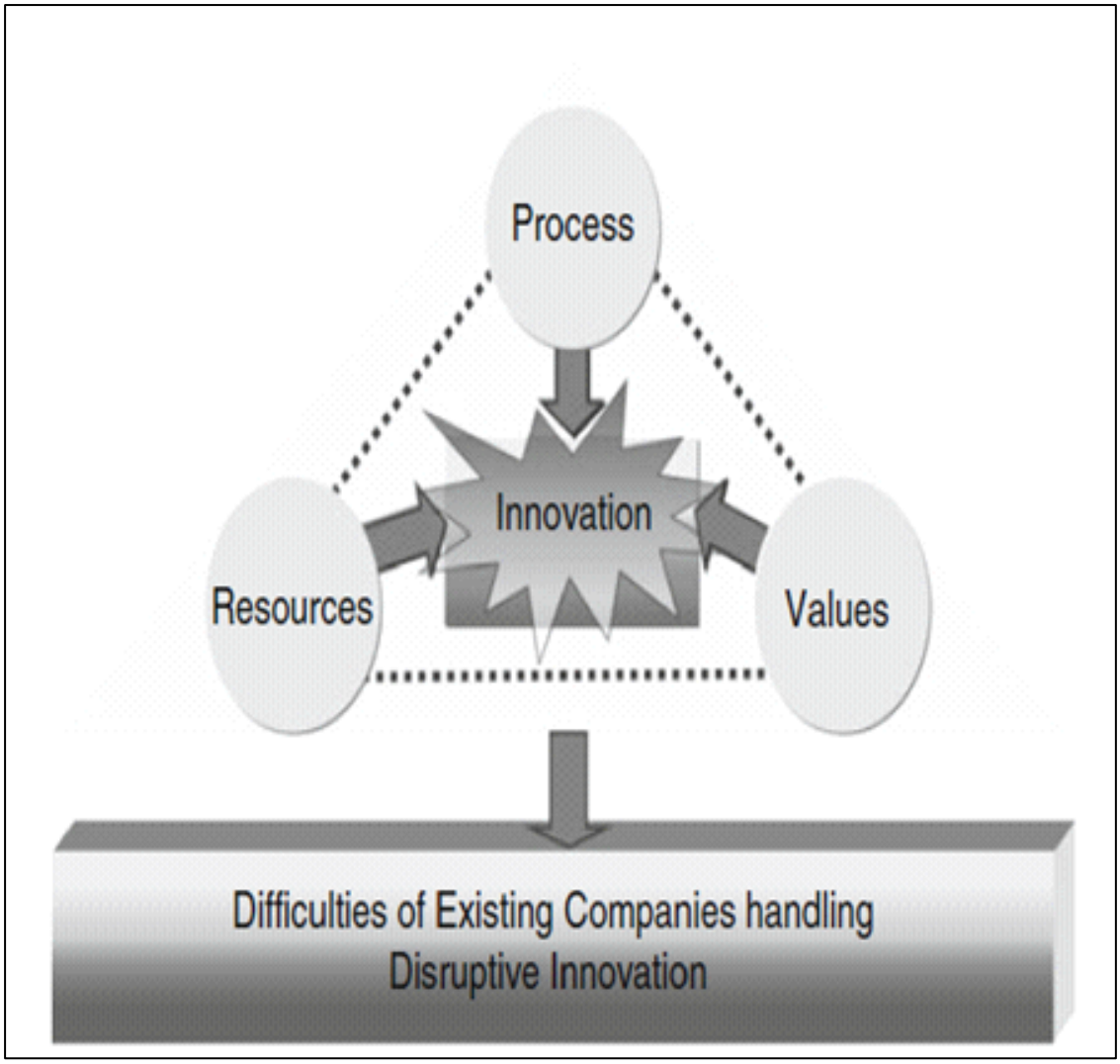


Figure 3.1: The Resources, Processes and Values (RPV) theory

Adopted from Kirchmer (2011, p. 27)

According to Kirchmer (2011), the RPV theory demonstrates that innovation is significantly influenced by a company's resource processes and values. Resources are transformed through processes from an input to an output. Company values are the basis for setting priorities, thus determining how to use the resources. In this instance, this theory seems inappropriate for SMEs in Zimbabwe since they lack the resources required in the RPV theory. This is supported by Sedita and Belussi (2012) who argue that small firms either do not have the capacity for innovation or they lack the resources to increase such capacity. SMEs, particularly in Zimbabwe lack resources for innovation. Kirchmer (2011) argues that this theory is more suitable for bigger and established firms with formal structures. However, this is not the case with SMEs in Zimbabwe where most businesses do not have formal structures and are still small, The RPV theory, in this case, may not, for this reason, be a key ingredient in the survival and growth of SMEs in Zimbabwe.

Moreover, if SMEs are to employ the RPV theory they may very well fail since most of them do not have appropriate resources, well-defined processes and do not follow specific procedures when making decisions. Even though most SMEs have the characteristics mentioned above, there are a few with established systems and procedures. The study aims to find more information and to assess the appropriateness of this theory in the Zimbabwean context. The literature reviewed does not give a conclusive answer to the application of the theories on innovation. Since there are some SMEs with formal structures, the study will also investigate if it is possible for SMEs to employ more than one theory of innovation and still succeed.

3.2.3 Majaro-Innovation Funnel Model

In his book, *Managing ideas for profit,* Majaro (1991) defines innovation as the practical application of ideas towards meeting an organisation's objectives in an effective manner. Majaro (1991) considers innovation to be a process whereby ideas are generated, assessed for viability and then transformed and implemented into business processes, products and services. He goes on to describe a four-stage process involving idea generation, idea screening, feasibility study and commercialisation. This funnel model is used quite widely for product innovation.

Majaro (1991) claims that the innovation funnel provides a solution for explicitly defining the information requirements for managing the innovation process. The funnel illustrates how innovation goals, innovation actions, innovation teams and innovation results interact with each other to create change in any organisation. The innovation funnel can be visualised as containing four arrows flowing around a funnel. Each arrow represents the flow of goals, actions, teams and results. Actions enter the wide mouth of the funnel and represent among other things, alternative ideas for change. These actions flow towards the neck of the funnel where many will be eliminated. The neck of the funnel is constrained by two arrows -goals and teams. These constraints loosen or tighten depending on the availability of teams and the definition of the goals. Tightly defined goals can be visualised as closing the neck of the funnel resulting in fewer ideas flowing through. The availability of more teams, on the other hand, can be visualised as opening the neck of the funnel and allowing more ideas to be worked on. The final arrow indicates results flowing from the narrow end of the funnel and represents information concerning the results of execution of goals, actions and the contribution of teams. This arrow flows back towards goals, representing the impact of results on the process of defining and redefining goals.

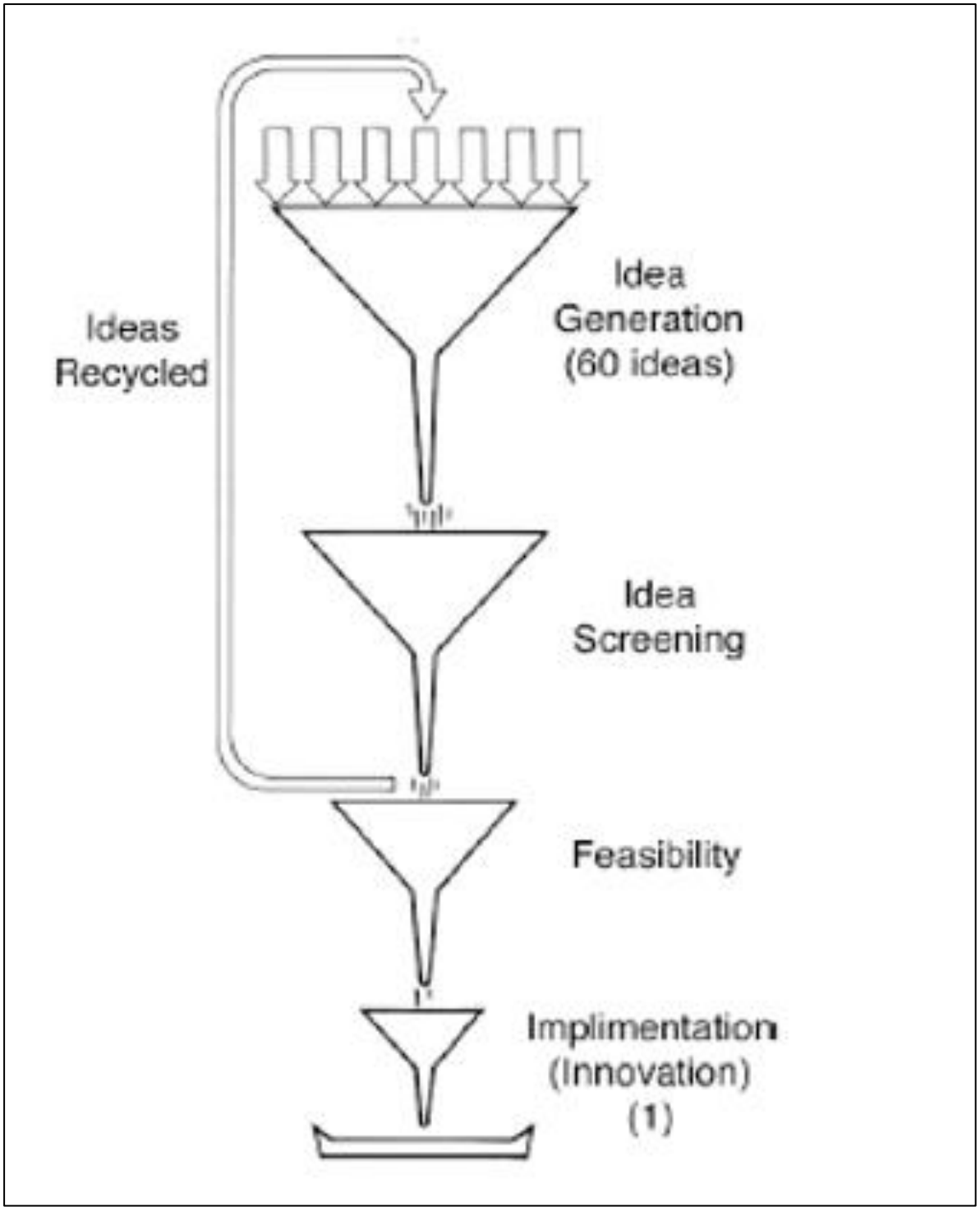


Figure 3.2: Majaro's (1991) innovation funnel model

Adapted from Hall (2011, p. 38)

In Majaro's (1991) model, firstly ideas are generated and recorded. After the initial idea generation, each of the ideas is considered. If the idea is not worth proceeding with at this point, it is 'recycled' into the pool. While it may not be immediately feasible, this is no indication that it will not be feasible at some point in the future. After screening the ideas, the feasibility of the passing ideas is considered and

ideally, the ideas are implemented. The implementation or practical application of ideas results in the actual innovation. It should be noted that at every point in this process ideas are refined and considered. However, Brown (2003) added that they can possibly be recycled if they are not immediately viable.

Majaro proposes that ideas are the foundation of innovation. However, given the challenge of employee quality in SMEs in Zimbabwe and the behaviour of most SME's owners who often float ideas around an organisation but then either forget or do not implement them properly, there is a need for a structured approach to managing the flow of ideas and their implementation which might have an impact on the level of innovation of these SMEs. This study aims to investigate the extent of innovativeness of SMEs in Zimbabwe, particularly in the manufacturing sector.

3.2.4 Spiral Model

Boehm (2001) proposed a spiral model to replace his waterfall model as an approach to the change process within the software development area. The development is organised in several cycles, each devoted to progress in the development. There are four steps used in this process.

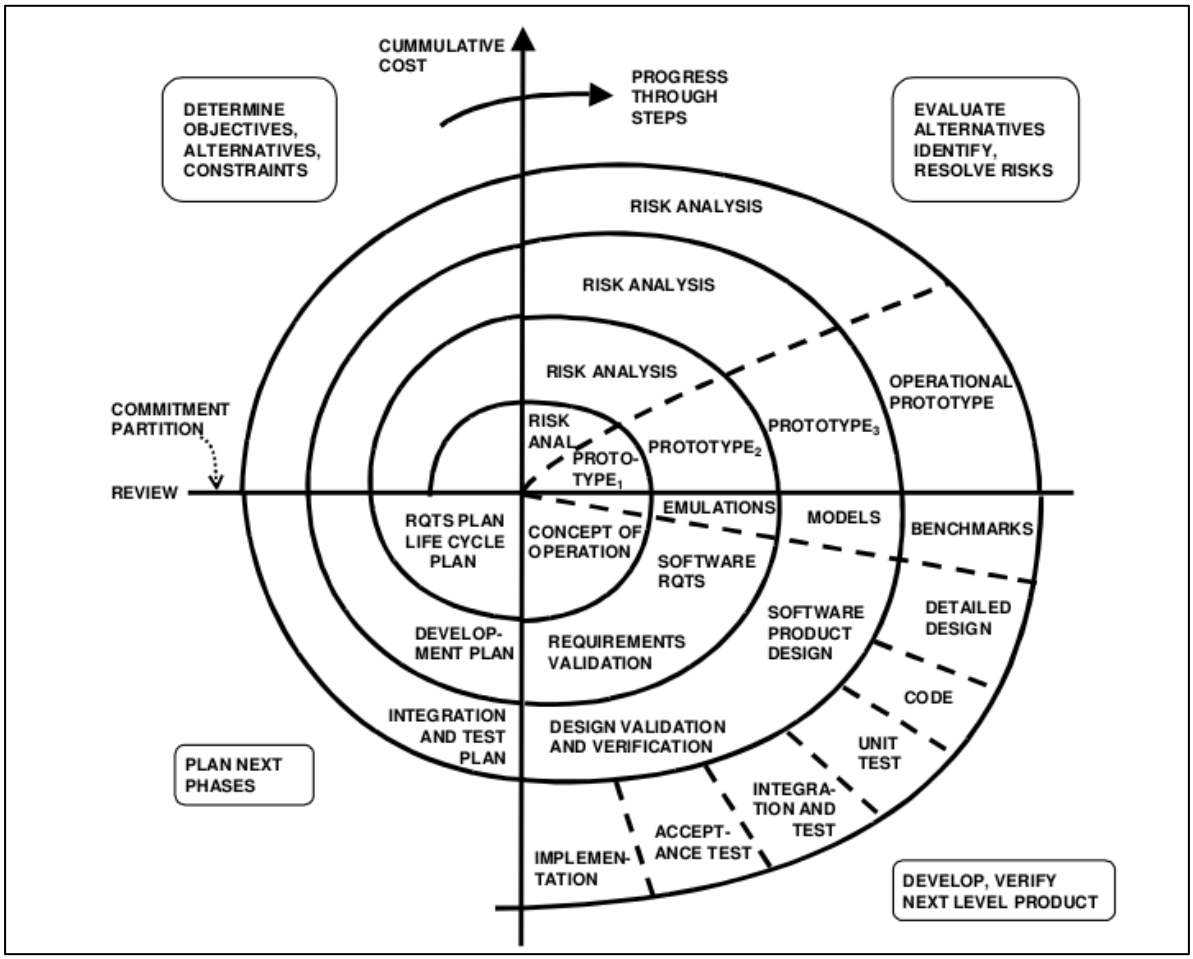


Figure 3.3: The Spiral Model

Adapted from Andrews (2013, p. 13)

Step 1: Determine objectives, alternatives and constraints

During this stage, the objectives of the product are evaluated (performance, functionality, etc.), alternative means of implementation are identified and organisational constraints (cost, schedule, interface, *etc.*) are defined. However, most SMEs in Zimbabwe are still to develop effective systems for smooth evaluation of objectives, identifying alternative means of implementation and defining organisational constraints.

Step 2: Evaluate alternatives, identify and resolve problems

At this stage, areas of uncertainty within projects are identified and strategies for resolving these sources of risk are found. A development proposal may be documented at this point. In the SMEs in Zimbabwe, who identifies the areas of uncertainty and who is responsible for formulating strategies? In the majority of cases, it is the owner. Does this have an effect on how alternatives are evaluated? Are these acts always positive for adopting the innovation strategy or do they impede overall innovation? This study aims to determine effective ways to manage innovation in SMEs in Zimbabwe.

Step 3: Develop and verify products

At this stage, Beal (2000) states that a prototype may initially be developed, changes may then be implemented in a controlled and low-risk manner and the results of these activities are validated against the original objectives.

Step 4: Review results and planning of the next phases

Beal (2000) emphasised that each cycle finishes with a stage of review and analysis, involving the primary people or organisations concerned with the changes involved. This review incorporates plans for the next cycle and resources required to carry them out. Component tasks may be separated out to subdivisions at this stage.

After the review stage, Beal (2000) states that the process returns to the start of the cycle with increasingly more specific requirements and the process is repeated until the review returns a satisfactory result. Although the model, as described by Boehm, was originally designed for software development Roigas (2011) said that it can be applied to any task involving significant changes as the processes are applicable to many areas of innovation. The question is whether or not such practices are present in Zimbabwean SMEs and to what extent employees take it upon themselves to seek ways to successfully review and plan for the next cycle. Moreover SMEs, particularly in Zimbabwe, lack resources for innovation, hence they may not be using this model. Sedita (2012) concurs with this view and argues that small firms either do not have the capacity for innovation or they lack the resources to increase such capacity. Hence this model may be suitable for big organisations.

3.2.5 Innovation Funnel

According to Beal (2000), all organisations have their own unique processes of innovating their systems. There are, however, several common characteristics that are generic across organisations. Dooley and O'Sullivan (1991) proposed a high-level framework designed to support the management of systems innovation. Goals are identified at an organisational level and are the general objectives of the organisation. Actions are identified as any creativity or projects within the organisation.

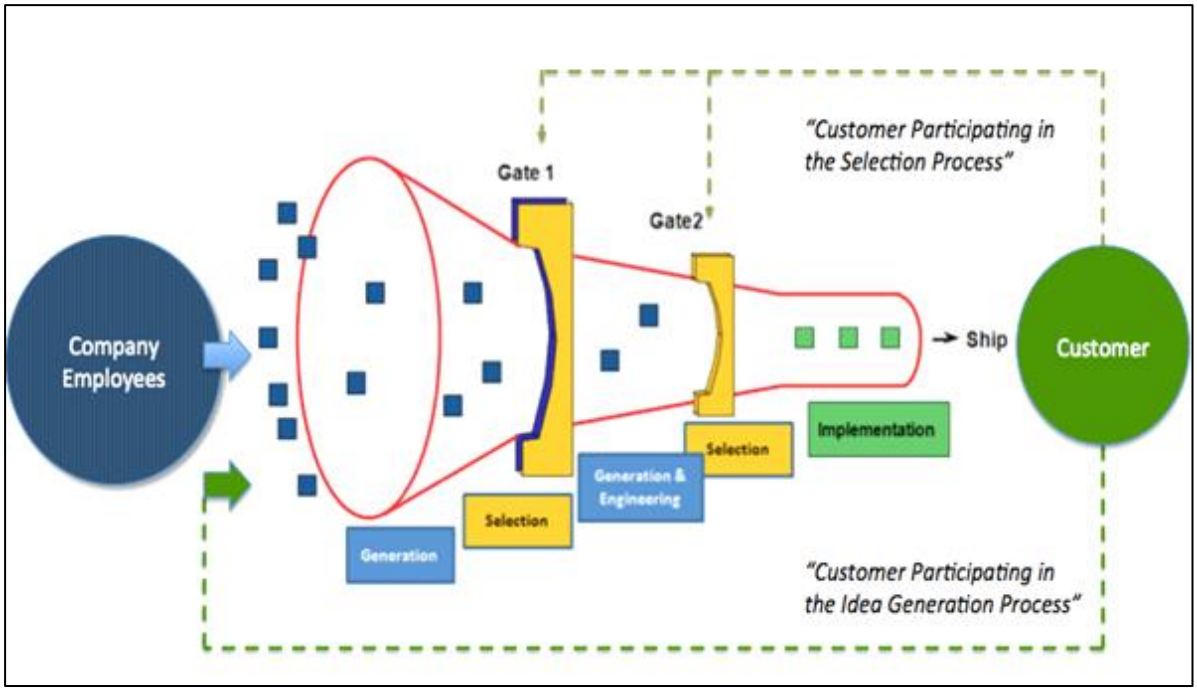


Figure 3.4: The Innovation Funnel

Adapted from Dooley and O'Sullivan (1991, p. 28)

According to Dooley and O'Sullivan (1991) using a funnel as a metaphor, as seen in Figure 3.4 above, actions are forced to align themselves with the goals of an organisation. Projects are supported by resources such as teams and are fed back into the system refining the goals and increasing the knowledge of the organisation for future work.

Baldwin *et al*. (1999) claim that there are six main areas of innovation management, namely; goals, actions, teams, results, collaboration and technology. Developing goals and measures involves developing strategies and performance targets towards which the organisation strives. Can innovation be used as a strategy for the survival and growth of SMEs in Zimbabwe? This is the key question in this study. Baldwin *et al*. (1999) further proposed that the action elements represent the path through which an innovation develops from an idea into a physical innovation in an organisation's system. By aligning actions with goals, it is likely that all ideas generated correspond to a part of the organisation's innovation plan.

3.2.6 System Development Life Cycle Model (SDLC)

Boehm (1976) declares that one of the oldest and best-known systems for developing software systems is known as the waterfall model. This model is illustrated in Figure 3.5. The waterfall model is defined by a sequence of stages where the output of each stage becomes the input of the next.

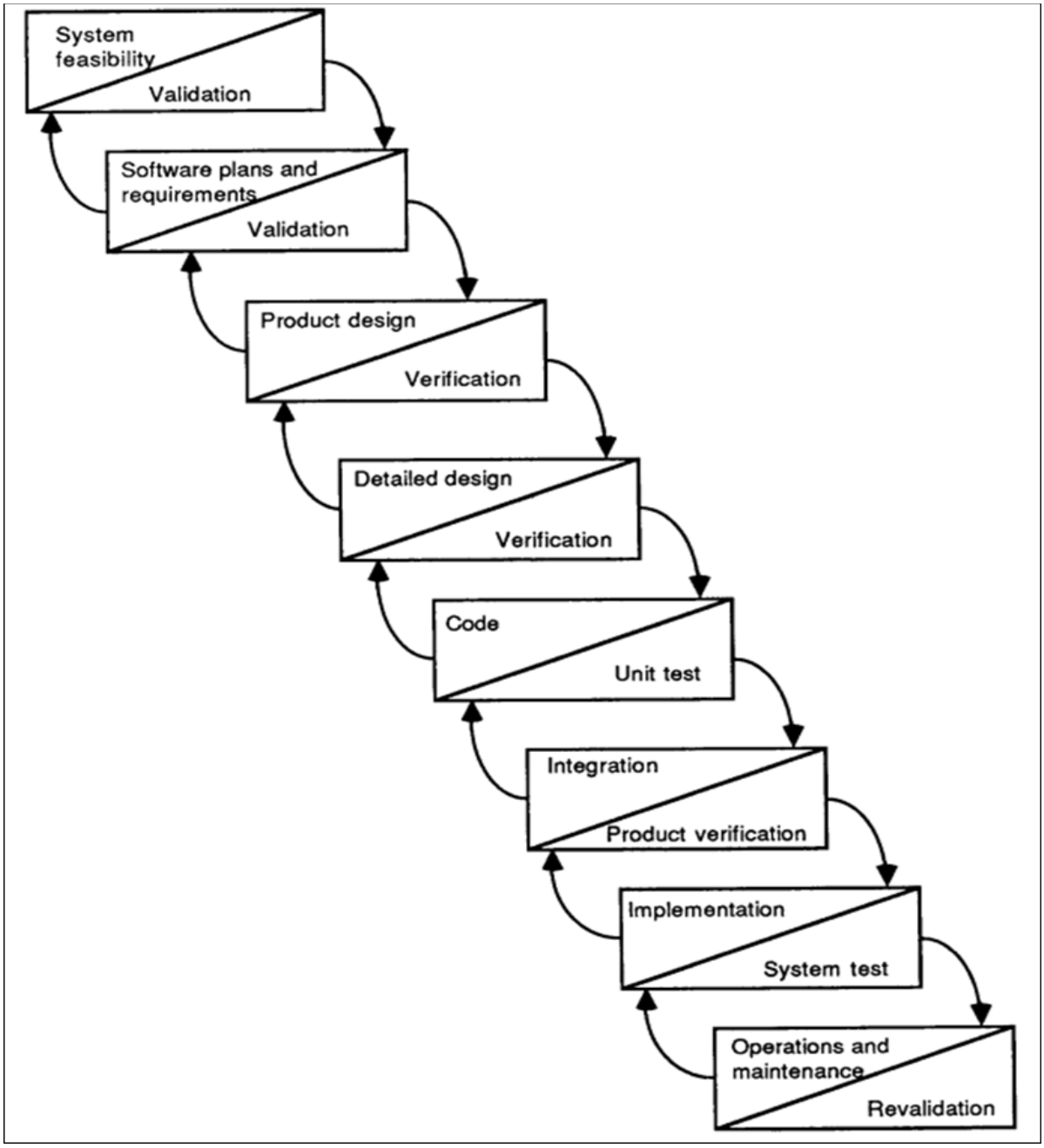


Figure 3.5: Waterfall Model

Adapted from Boehm (1976, p. 38)

The stages are defined as follows:

- Project planning, feasibility study

At this stage, a high-level view of the intended tasks is defined and goals are determined.

- Analysis

At this stage, the project goals and end-user requirement are refined.

- Design

At this stage, the desired features and tasks are defined in detail.

- Implement

The actual work is done

- Integration

At this stage, the work packages are brought together and checked for errors and interoperability

- Maintain

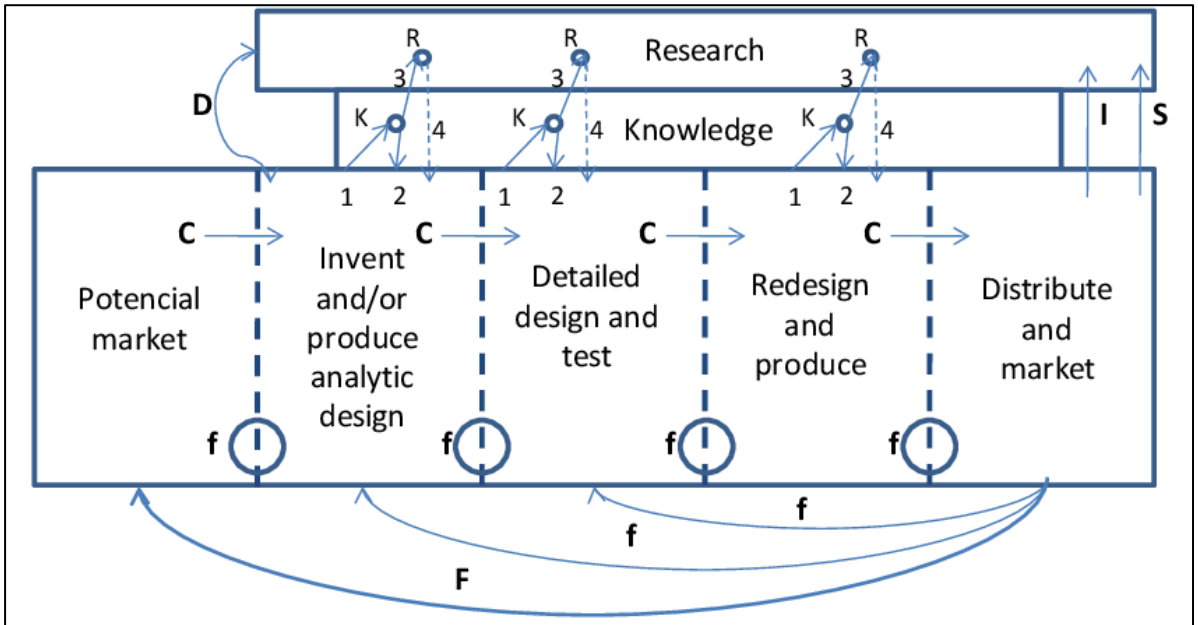
This is the last stage, which includes changes, corrections, and additions to the defined plan.

The model requires that complete assessment for each stage is completed before the next phase can commence, resulting in linear systems development. In The Mythical Man-Month, Brooks (1995) points out two fundamental problems with the waterfall model, firstly, a project goes through the process once only, and the assumption is made that all mistakes are found in the execution and subsequently fixed, secondly the model assumes all change processes occur at once, combining different sections only at the implementation stage.

3.2.7 Chain-linked Innovation Model

It must be noted that the focus of this study is on firm-level innovation processes that concentrate on the scientific and technological activities supporting the performance of innovation. The best way to comprehend the innovation process at the firm level is to view as it as a complex process involving the action of different actors e.g. firms, clients, networks, institutions, governments, cultures, and histories. Oversimplifications will only lead to inaccurate conclusions. As discussed by Fagerberg *et al*. (2005, p. 5) innovation is a continuous process that requires firms "to combine several types of knowledge, capabilities, skills and resources" and it is not a solitary happening since every new innovation requires previous inventions and innovations. In order to understand this, another model that comes to mind is

the chain-linked innovation model. According to Kline and Rosenberg (1986), the chain-linked innovation model represents the technical activities occurring in the innovation process, the external forces of the market place, as well as the complex interactions between the various stages of the process. This model is depicted in Figure 3.6.



Symbols on arrows: C: central chain of innovation; f: feedback loops; F: particular important feedback.
K-R: Links through knowledge to research and return paths. If problems solved at node K, link 3 to R not activated. Return from research (link 4) is problematic-therefore dashed line.
D: Direct link to and from research from problems in invention and design
I: Support of scientific research by instruments, machines, tools, and procedures of technology.
S: Support of research in sciences underlying product area to gain information directly and by monitoring outside work. The information obtained may apply anywhere along the chain

Figure 3.6: The chain-linked innovation model

Adapted from Kline and Rosenberg (1986, p. 53)

The model identifies five major paths of innovation processes: the central chain of innovation (C) starts with the invention/production of a design, based on market signals, that is then developed, produced and marketed. The process includes feedback loops (F, f) iterating the steps and controlling according to perceived market signals and users' needs, and linkages between science and innovation (K), representing the recourse to various knowledge stocks accompanying the whole process. The two other linkages represent the (rare) case where new science makes possible a radical innovation (D), and finally the feedback from innovation results back to science (S).

In the model, 'market-pull' and 'technology push' aspects of innovation are interdependent. Perceived demand will be met only if the appropriate knowledge and technology are available, and innovation

will be realised only if there is a market for it. An important aspect that is not explicitly addressed by the model is the appropriability of returns from innovation, related to the nature of information. The result of innovation is not only a new product or process but also the creation of new information, which has public good characteristics. The use of it by more than one person does not require additional resources (non-rivalry) and does not exclude the use of it by another person (non-excludability).

These two properties of information make the gains from innovation uncertain and difficult to appropriate, which implies that R&D opportunities that would be socially profitable are not exploited because they are privately unprofitable. Such a market failure is said to exist when private incentives provided by market mechanisms lead to different resource allocation and a different product mix than the socially optimal outcome (Alston and Pardey, 1999). In order for innovation to be undertaken, incentives need to be given. IPR is suggested as one possible government intervention to correct this market failure.

With IPR arises the dilemma of 'access versus appropriability' (Alston *et al.*, 1995). By granting temporary exclusive rights on inventions, IPR is intended to allow the right-holders to price their products above marginal cost, and hence recoup their initial research investment. Such exclusive right creates incentives for the performance of R&D leading to innovation. However, monopolies that are not regulated can create inefficiencies: too little of the product is produced, and its price is too high. IPR create a trade-off between dynamic gains, due to the improved innovation incentives, and static losses due to the restricted use of the innovation (Moschini and Lepan, 2004). 'Natural' appropriability mechanisms, such as for example secrecy, lead time and learning curve advantages, also exist. The principle is the same: to secure a monopoly position for the innovation in order to capture the returns from innovation, but the emphasis is put more on retarding or impeding imitation by other firms. Finally, innovation by chance is not covered by the model, even though it was at the origin of several important innovations (e.g. penicillin). Modelling a stochastic process is difficult, but this important source of innovation also needs to be mentioned.

3.2.8 The chain-interactive model

Caraça *et al.* (2007) proposed the chain-interactive model, a framework that accommodates the characteristics of innovative small firms. Small and medium-sized firms innovate, but they tend to be more reliant than larger firms on external sources and conditions, in particular on national resources, research institutions, specialised suppliers and equipment providers (Jong and Marsili, 2006). According to Caraça *et al.* (2007), the innovation process may be assumed, to begin with, the identification of a gap in a potential market. They argue that the activities of technological scanning and monitoring, benchmarking and foresight, weak signal analysis, customer analysis, internal creativity, and organisational capabilities, allow the emergence of new ideas to open new market

segments, to improve products or processes, to improve the organisation of the company or for best channelling the existing supply to its users. Some of these ideas are selected and become projects. The invention, basic design or the conception of the service are the first step in these innovation projects (Caraça *et al*., 2007). At this point, the development of new goods and new services can differ. The services have some peculiar characteristics. Their production and deployment tend to happen simultaneously (Caraça *et al*., 2007). The innovation process proceeds then to include the commercialisation or implementation phase where many surprises occur, which eventually brings the process back to the drawing board. Ongoing results may be product innovations, process innovations, marketing innovations or organisational innovations (Caraça *et al*., 2007).

Along the innovation process, interactions with other actors and feedback loops between phases are commonplace, making innovation a complex chain-linked and interactive process (Caraça *et al*., 2007). The main transfer of information, from and to the external environment, happens between the commercialisation or implementation phase and the beginning of a new phase in the potential market (Caraça *et al*., 2007). The knowledge of the market and the sensitivity to users' needs are important assets for the development of ideas (whether conceived by the firm itself or by its users) that can originate new innovation projects. The fundamental knowledge to develop the innovation projects can readily be available internally as part of the body of knowledge already existent in the business structure (core competencies of the innovation process – an ensemble of established routines) or obtainable from the outside (Caraça *et al*., 2007). On the other hand, new knowledge will have to be developed internally or externally through painstaking R&D, marketing research and organisational and business methods research activities (innovating routines). Thus, exploiting existing economically useful knowledge (organisational, technological, marketing expertise) and exploring new cognitive avenues constitutes the essence of business innovation. The innovating firm is not disconnected from its context (Caraça *et al*., 2007). An integrated approach to the phenomenon of innovation has to complement what goes on in the firm with a systemic understanding of the external climate that influences, facilitates, and inhibits the innovating efforts (Caraça *et al*., 2007). Figure 3.7 depicts the chain-interactive model.

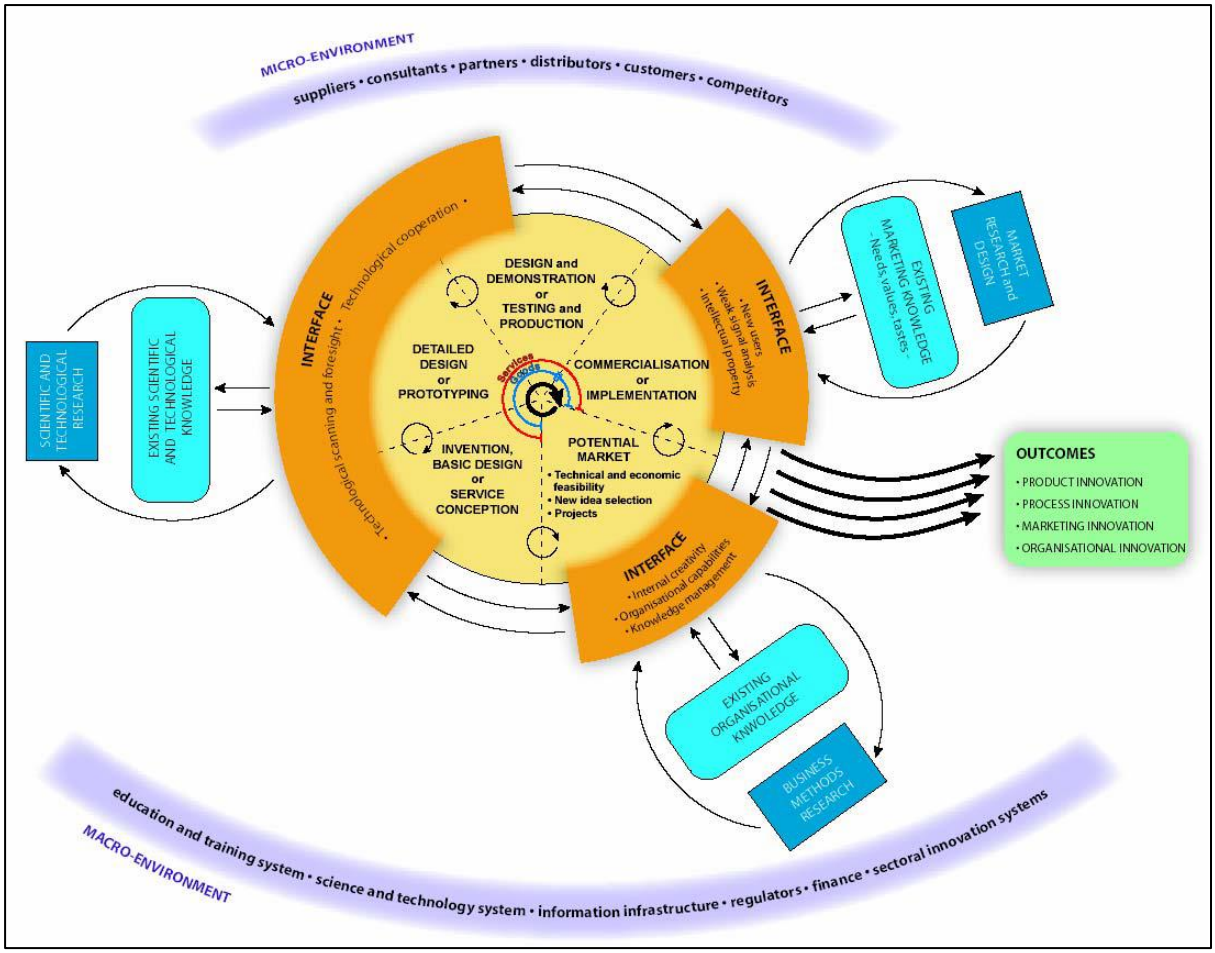


Figure 3.7: The chain-interaction model

Adapted from Caraça *et al.* (2007, p. 35)

According to Caraça *et al.* (2007), there is not one single best way orchestrating the efforts to conduct innovation. They argue that dynamic capabilities that subvert old ways of doing business are always fed by three knowledge pools, which are composed of existing and perpetually renewed bodies of knowledge produced by society at large:

- Technological and scientific knowledge;
- Marketing knowledge; and
- Organisational knowledge.

Innovation management depends critically on creating and managing interfaces (Caraça *et al.*, 2007). The model proposes the existence of three interfaces that are fundamental for effective governance of innovative open (business) systems. In this model, interfaces represent the ability to communicate, and communication is key to launch new learning cycles. Interfaces are composed by:

- Technological awareness: systematic observation of external developments;
- Technological cooperation: partnership activities with other institutions and organisations, with view to sharing technical and scientific information and jointly developing products and processes;
- Technological scanning, monitoring and forecasting: systematic sensing of technological opportunities and efforts of futures research concerning the link between emerging technologies and new products;
- New users: observation and analysis of potential customers and new markets;
- Weak signal analysis: specialised perception of indicators of future change;
- Intellectual property: using the possibilities of the intellectual property regime to protect, assimilate and disseminate ideas;
- Internal creativity: procedures that leverage strategic awareness of opportunities and threats to the firm;
- Innovation-friendly governance: an organisational structure that favours innovation;
- Organisational capabilities: the strategic conception of organisational structures that favour innovation;
- Knowledge management: generation, validation, codification and diffusion of in-house knowledge and management of knowledge needs.

Caraça *et al.* (2007) argue that at the core of the model are the key steps involved in the innovation process: the eye of the creative storm of the innovation process. The nucleus of the figure refers to an ensemble of innovating routines (Pavitt, 2002) that constitutes the endogenous force of innovative economic activity. To that ensemble, one may add the core competencies of the innovation process plus the interfaces one may call dynamic capabilities. Thus, the centre of the picture shows the basic innovative activities that are networked between them. Again, they may be called the innovative routines that make up the core competencies behind the innovation process:

Potential market: phase of identification of opportunities for making new businesses, selection of ideas and innovation projects, the study of technical viability and economic feasibility:

- Invention, basic design or conception of the service: the innovation projects can have their origin in this phase. The basic design is applied mainly to goods, while the conception is applied mainly to the services;

- Detailed design or prototyping: fine-tuning of the invention through the working out of details;
- Re-design, demonstration or test and production: phase of adaptation of the innovation as a result of the demonstrations or tests. In the case of goods, production begins; and
- Commercialisation or implementation: commercialisation of goods in the market or implementation of the developed services.

Actors and institutions make up the environment surrounding the innovating firm. Actors and institutions that form the context can be classified in the following way:

- Macro-environment: a complex set of factors in evolution that indirectly affect the probability of technical success and commercial profitability of the innovation, such as the education system and the public research infrastructure;
- Micro-environment: closely situated elements that directly interact with the innovative procedures of the firm, such as suppliers, competitors and customers.

The innovation process generates outcomes, namely:

- Product innovation: new or significantly improved goods and services;
- Process innovation: new or significantly improved production or delivery methods;
- Marketing innovation: fundamental or incremental changes in the ways of product design, packaging, placement, promotion or pricing; and

Organisational innovation: fundamental or incremental changes in the structure (e.g. workplace organisation, external alliances) and strategy (e.g. business practices) of the firm and in the organisation of productive labour.

3.3 Comparison of different innovation frameworks

According to O' Leary (2005), a common trend runs between the innovation models and each of the models comes to similar conclusions. O' Leary (2005) proposes that in order to manage change effectively the following four steps must take place:

- Goal definition determination;
- Idea screening;
- Development Projects/Action; and
- Results/review plan next phase

How these steps take place in each of the innovation models is illustrated in Table 3.1 below:

Table 3.1: Comparison of common Innovation Models

Majaro - Funeral	Boehm - Waterfall	Boehm - Spiral	Dooley and O'Sullivan – Funnel
Idea Generation	Planning and Feasibility	Review and Planning	Goal and Action definition
Idea Screening	Analysis	Define Objectives	Goal and Action Alignment
Feasibility	Design	Evaluation	Projects
Implementation (Innovation)	Implement, Integrate And Maintain	Development	Interpret Results

Adapted from O'Leary (2005, p. 36)

3.4 Conceptual Framework of Innovation

3.4.1 Conceptual relationship between barriers of SMEs and their innovation

This framework was developed from the study of Aminreza *et al.* (2011), Silva *et al*. (2007) and Lim and Shyamala (2007) by taking the variable LSP, GPR, LTMI and HCI, OC from Silva *et al*. (2007) and Lim Syamala (2007) and R & D, Cooperation and Size Mulu, (2009) variables were taken from the study of Concepei'on *et al*. (2008). This conceptual framework indicates the relationship between barriers of SMEs and SMEs technological innovativeness. The framework indicates barriers of SMEs technological innovation like HCI, LF, GPR, OC, LSP, SE, IRD, LC and LTMI result for low SMEs technological innovation.

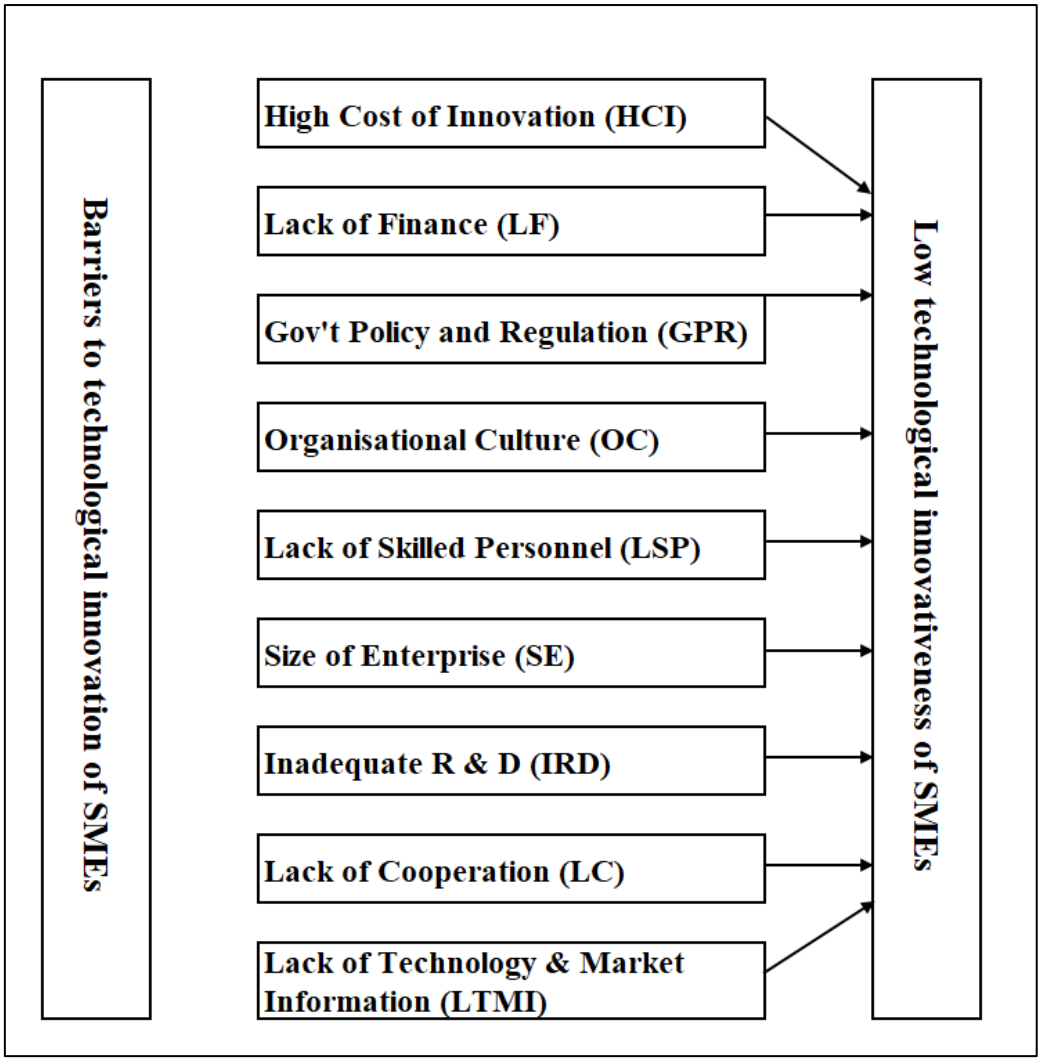


Figure 3.8: Conceptual relationship between barriers of SMEs and their innovation

Adapted from Audretsch (2012, p. 57)

3.5 Proposed Innovation model for SMEs

As a lot of research has been done in the general field of innovation, this research puts emphasis on innovative activities in a developing country like Zimbabwe. The studies done before concentrated on the innovation of the products and centred on one aspect at a time and not the entire firm. This study will consider all aspects that affect the ability of the SMEs to be innovative; hence it takes a holistic approach and the main aim is to explore why the SMEs are not moving from their current level in the economy. Whilst most of them tend to be innovative, they lack the knowledge of how best they can benefit from being innovative and how the Government can assist in creating a more conducive environment for SMEs besides the current support it is offering.

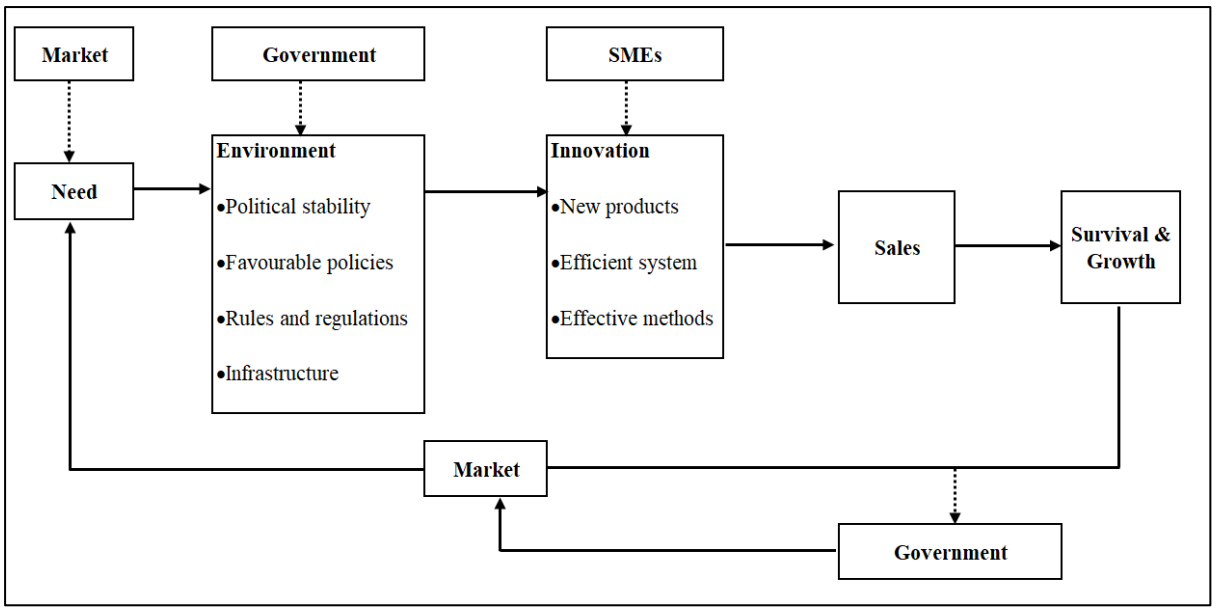


Figure 3.9: Proposed Innovation Model for SMEs

Source: by researcher

For a firm to innovate effectively, it has to answer to a need from the market. The effectiveness of the innovation heavily depends on the environment which is shaped by the Government. Successful innovation leads to expansion and survival of enterprises. If survival and growth are attained by SMEs, the government will also benefit through payment of taxes, employment creation and infrastructure among others. The market community will enjoy locally made, durable and affordable products which are made for the local environment. If more goods and services become available on the local market new needs surface and the cycle begins. This means that innovation is not an event but a process.

3.6 Supported model

From the comparison table (Table 3.1), and also considering the structures of SMEs in Zimbabwe, Dooley and O'Sullivan's innovation funnel (Fig 3.4) is the one which has the closest fit with the operations of SMEs in Zimbabwe. This model uses a funnel as a symbol whereby actions which are aligned with the firm's goals are fed into it. Resources in the form of teams support the project by bringing in knowledge to the firm that can be utilised later during the life of the firm. Six areas that enhance innovation (Baldwin *et al.*, 2004) are goals, actions, teams, results, collaboration and technology. If the teams' actions are in alignment with the firm's goals, then the knowledge they generate can fit well with the firm's plans for innovation. The model also incorporates customer participation in its function. Customers give feedback which is rechanneled into the funnel as new knowledge which is later used in future by the firm.

3.7 Chapter Summary

This chapter has discussed some of the major frameworks that can contribute to organizational success among SMEs in Zimbabwe when implemented properly. The frameworks that have been discussed include the disruptive innovation theory, the resources, processes and values (RPV) theory, Majaro's (1991) innovation funnel, Boehm's spiral model and Dooley and O'Sullivan's innovation funnel. The chapter also discussed the Waterfall model, the Chain-linked innovation model and the chain-interactive model. Next, a comparison of the different innovation models is made, followed by a discussion on the conceptual relationship between barriers of SMEs and their innovation. The chapter also gave a proposed innovation model for SMEs and folded up by identifying the model which is most suitable for SMEs in Zimbabwe. The following chapter looked at some historical facts on Zimbabwe and in particular the Mashonaland area.

4 CHAPTER 4: HISTORICAL FACTS ON ZIMBABWE AND IN PARTICULAR THE MASHONALAND WEST PROVINCE

4.1 Introduction

This chapter presents some historical information on the country with special reference to the Mashonaland West Province. Key details about the province such as information on the economically active population of Mashonaland West will be discussed. This chapter is also going to highlight some of the major developments in the research and development and innovation policies in Zimbabwe which sums up the overall Science, Technology and Innovation (STI) regulatory framework for the country. Providing empirical cases that help explain the evolution of innovation among organizations in the country is also the focus of this chapter.

4.2 Zimbabwe after independence in 1980

According to Mutingwende (2014), Zimbabwe's independence in 1980 opened up a new chapter in the lives of the majority of black people who had been victims of colonialism. Mutingwende (2014) adds that the dawning of Zimbabwean independence invited great hopes among the black majority who looked forward to a new dispensation under black leadership. It marked the cessation of the unilateral colonial regime which created laws that only favoured whites and disadvantaged Africans (Mutingwende, 2014). This is testified to by colonial laws such as the 1930 Racial Discrimination Act, the 1934 Land Apportionment Act, the 1954 Land Husbandry Act and the 1962 Hut Tax. Zimbabwe's independence in 1980 marks the history of Africans as a free and independent people (Mutingwende, 2014). In order to relieve those who had suffered colonial repression like landlessness, discrimination, homelessness and wage slavery, the newly formed government constituted positive acts to accommodate the victims. Mlambo (1987, p. 38) argues thus:

> *"The harsh economic situation in the 1990s, (in which) the government relaxed some inherited colonial laws to permit people to engage more easily in the informal loom of backyard enterprises, flea markets and the ubiquitous progress of city slums. (This was meant to) cushion those who had lost their jobs because of the dwindling state economy."*

The recently constituted government instead of following a politics of revenge chose to reconcile with its previous colonisers. This was typified by Mugabe (1980) the then Prime Minister, who had this to say about Zimbabwe:

> *"Henceforth, you and I must try to adapt ourselves intellectually and spiritually (…) as brothers bound one to the other by a bond of comradeship. If yesterday l fought you as an enemy, today you have become a friend and ally with the same national interests, loyalty rights and duties as myself."*

However, shortly after independence, all the hopes of positive national re-building and reconciliation melted into a nightmare as the nation was plunged into a protracted political and economic crisis (Mutingwende, 2014). Raftopoulos (2009, p. 47) witnesses that "from the early 1990s Zimbabwe entered a period that has come to be generally known as the Crises in Zimbabwe."

At Zimbabwe's independence, all citizens were hopeful of the future as noted by Raftopoulos and Savage (2004, p. 25) that "Zimbabwe was a beacon of hope at the time of independence in 1980. It promised a move beyond the kind of coercive rule entrenched by colonialism and Ian Smith's minority regime." However, the faiths and aspirations of the 1980s were betrayed as the government became more and more autocratic and totalitarian. This implies that as an independent government just weaned from colonialism, the black majority government had a dictate to re-build and restructure the country. Most of the Zimbabwean crises were triggered by the nation's 1980s Gukurahundi, so termed after the first rough and often destructive winds marking the onset of the rainy season. Accordingly, Gukurahundi political onslaught led to gigantic movements of natives as it was punctuated by the destruction of homes, torture of citizens and other exclusionist operations.

The backdrop of Gukurahundi was embedded in the split of the Zimbabwe African National Union Patriotic Front ZANU-PF from the Nkomo-led Zimbabwe African People's Union Patriotic Front PF-ZAPU) back in 1963 before the liberation war. The political rift widened and mounted to tribalism as ZANU-PF's military wing, being Zimbabwe African National Liberation Army (ZANLA) enrolled most of its army from the Shona tribe while PF-ZAPU's Zimbabwe People's Revolutionary Army (ZIPRA) hired most of its army from the Ndebele tribe. Following independence, the concentration of the rivalry from both parties found it difficult to unite the two armies together to form a unity government. The first presidential election of 1980 saw ZANU-PF winning 57 seats out of 100 and making its leader prime minister. In an effort to integrate both parties into a unity government, ZANU-PF deployed a North Korean trained Fifth Brigade in Zimbabwe's Matabeleland and Midlands Provinces which were populated predominantly by the Ndebeles. The Fifth Brigade massacred an estimated 20 000 civilians assumed of being dissidents. The reluctance of PF-ZAPU to succumb speedily to the courtship of ZANU-PF was instantaneously suspected as an act of secession and therefore the outbreak became inevitable. This vast onslaught caused inordinate waves of migration across the country and across national frontiers. Many pursued refuge in neighbouring countries and as far as the UK. Many families were orphaned or left parentless and as a result, education was dropped with most of the child populace turning to streets and vagrancy. However, it is a cause of concern to ask "why the Zimbabwean government did not focus fully on such victims?" Though most of the Matabeleland and Midlands disturbances remain undocumented reports, organisations like the Catholic Commission of Justice and Peace offer an indispensable account of how Gukurahundi developed into a national crisis that led to migration as well as to the formation of various identities.

According to Nyathi (2004), apart from Gukurahundi, the emigration of white Zimbabweans soon after the fast track land reform programme in 2000 had an intense effect on Zimbabwe's commercial farming and agricultural industries. Consequently, the food export diminished drastically which meant reduced foreign currency from exports and tourists. Nyathi (2004, p. 72) postulates that "the country-wide land seizure led to a radical fall in agricultural production since most of the black farmers who acquired land did not have adequate farming expertise." Land distribution during the fast track land reform programme was often debated as unilaterally privileging the affiliates of the ruling ZANU (PF) party. Raftopoulos (2009) argues that most of the fertile and large farms were allocated to the elite who were colleagues of the ruling party in the political, military and business sectors. This raises the question of citizenship as some inhabitants were considered more Zimbabwean than others as the land reform programme was largely shepherded along partisan lines. Correspondences can be drawn with the colonial land acts in which big and fertile farms were appropriated by the European colonisers while the African majority were downgraded to dry and inhospitable marginal lands called Tribal Trust Lands (TTLs). The breeding of the crisis in Zimbabwe is largely centred on the coercion and authoritarianism that have since intensified to the point of crisis (Roftopoulos, 2009). Raftopoulos (2009) further notes that a key aspect of the crises was the rapid decline of the economy characterised by, among other things: a steep decline in industrial and agricultural productivity, historic levels of hyperinflation, the formation of labour unions, the dollarization of economic transactions, displacement, and a critical erosion of livelihoods.

The Zimbabwean catastrophe was also compounded by the World Bank which urged Zimbabwe to structurally adjust its economy. This caused in reverse production and had severe repercussions on the Zimbabwean currency as well as the rise of poor standards of living among Zimbabweans. Muzondidya (2009) argues that the Economic Structural Adjustment Programme (ESAP) led to the decline in economic growth, massive retrenchments and termination of industries. Similarly, Nyathi (2004) argues that by 1994 government statistics revealed that 20 710 workers had lost their jobs. Unemployment increased from 32.2 per cent in 1990 to 44 per cent in 1993. Mlambo (1987) notes that as a consequence of ESAP, 280 companies in the textile sector had closed down in 1990 and in the clothing sector 60 companies closed between 1992 and 1994, and by 1992 about 25 000 employees had been retrenched.

To exacerbate matters, the government in 1998 decided to accolade gratuities to the war veterans of Zimbabwe's liberation war. The government offered about 50 000 war veterans Z$50 000 gratuities each in addition to a monthly salary of Z$ 2 000. Muzondidya (2009, p. 48) argues that as a result of this move "… prices skyrocketed, and the workers' real wages deteriorated." Muzondidya (2009:48) further argues that, as a consequence, "more people left the country… after 2000… further large numbers left as a result of political violence forced removals and general economic meltdown." Potter (2007, p. 35) argues that much of the emigration was "driven by the country's economic decline ad negative political factors." The provoked economic and political crisis resulted in the establishment of

Movement for Democratic Change (MDC) in 1999 as an opposition party contesting the election to unseat the ZANU-PF ruling party. In 2000 ZANU PF lost the constitutional referendum to MDC and Raftopoulos (2004: 29) argues that "this constellation of factors set alarm bells ringing for the government in February 2000 when ZANU PF lost the referendum on the draft constitution." Following the June 2000 preliminary elections, which the MDC nearly won as it acquired most of the urban seats there was an intensification of political violence as ZANU-PF sought to entrench itself in power at all costs and to "undermine the new forces of opposition" (Muponde and Primorac 2005, p. 13).

This political violence was followed by consecutive political operations such as Operation Murambatsvina (Restore Order). Vambe (2008, p. 22) commenting on Operation Murambatsvina, observes that "when the government instigates to rule by military operations, it is a symptom of powerlessness, it is governance under duress." ZANU-PF, succeeding the vote in the constitutional referendum of 2000 in which the majority of the citizens voted in contradiction of it; and the 2002 vote in the preliminary elections in which the MDC won most of the urban seats, began to use land as a political and electoral resource. Raftopoulos (2004: 17) argues that "the land issue now became an issue of political survival in the election year. Land appetite could be manipulated to improve the electoral fortunes of ZANU PF."

Nyathi (2004) echoes this when he observed that in February 2000 ZANU PF suffered its first-ever defeat at the polls and within two weeks of this poll defeat, the land invasion began. This led to the country-wide land seizure which led to a drastic fall in agricultural production since most of the black farmers who had just attained land had not sufficient farming expertise. The emigration of white Zimbabwean farmers and the closure of agricultural industries resulted in forced retrenchment for most ordinary Zimbabweans. The occupation of the farms by the war veterans, some civilians and government ministers who constituted a large number of farmers without industrious farming expertise and enough capital further led to the dearth of employment in the agricultural sector.

Operation Murambatsvina in May 2005 strengthened the crisis as it resulted in homelessness, intra-urban and urban mobilities as well as massive depopulation due to transnational migration as Zimbabweans sought to escape the crisis. Operation Murambatsvina resulted in indiscriminate evictions of a relatively hefty number of people. Barrister (2007, p. 18) argues that Operation Murambatsvina "led to the displacement of hundreds of thousands of people, demolition of homes, businesses and property, widespread loss of livelihoods and the injury and deaths of some residents."

4.3 Performance of the Zimbabwean economy: An overview

During the epoch of 1980-1990, the economy of Zimbabwe was characterised by strong economic connexions; the backward and forward sectorial connections stimulated growth and development. The dual agricultural sector was heavily supported by the government to provide much-needed food and

raw materials to the manufacturing sector (Saungweme, 2013). The manufacturing sector was the chief economic development driver, followed by agriculture and the retail and hotel industry (Barrister, 2007, p. 19). The real annual growth rates during this period ranged between 3-4 per cent, with the highest growth rate of 7.6 per cent recorded in 1988. The economic growth after 1990, which averaged 3.2 per cent, was accompanied by the adoption of a series of major market-oriented economic reforms, chief of them being the Economic Structural Adjustment Programme (ESAP) of 1991. ESAP was succeeded by ZIMPREST (1996-2002), whose objective was to comprehend and consolidate all achievements of ESAP in a way that would impress the nation. However, by as early as 1998, the country started to experience the devastating effects of economic slowdown and subsequently, it slid into a recession in 2000 (Barrister, 2007, p. 19).

Zimbabwe experienced a decade of austere economic recession characterised by a hyperinflationary economy from 2000 to the beginning of 2009 when the country espoused a multicurrency system. The government of Zimbabwe, in response to the noted economic recession between 1998 and 2000, pronounced an economic policy called the Millennium Economic Recovery Programme (2000-2002). This, however, failed to turn around the nation from slump to growth, but rather the economy continued to plunge into deeper economic crisis. The folding of main agricultural activities after the government's fast track land reform programme in 2000 paralysed the backward and forward linkages, especially, with the manufacturing sector (Saungweme, 2013). As such, the input of the manufacturing sector to GDP fell by at least 90 per cent between 1997 and 2008. Production aptitude fell to levels below 11 per cent by end of 2008. During the period 2000-2008, unemployment rose to over 80 per cent, inflation soared to one million per cent and imports outweighed exports. The economy plunged into serious current account deficit, which reached US$5 billion by end of 2011.

In February 2009, the country went through a political transition giving birth to the Government of National Unity (GNU). Since then, the Zimbabwean economy has been through several economic phases starting from stabilisation to recovery. However, the recovery process was constrained by the global economic crisis of 2007-2010 and internal financial and or liquidity challenges in 2000-2012. All these factors are associated with contrasting dissimilarities in trade patterns, composition, value and policies. In the 1990s, 60 per cent of the country's major trading partners included established countries, such as Germany, United States of America, the European Union, the United Kingdom and Japan. Besides, the proportion of trade with these aforementioned partners, trade was reasonably pooled, no country accounted for more than 15 per cent alone; that is to say that the trade risk was spread. In contrast, South Africa is currently Zimbabwe's leading trading partner accounting for close to 60 Per cent of total trade in 2011. That is, Zimbabwe currently has all its eggs in one basket, South Africa. More imperative is the observation that after 2000, there has been a significant trade shift of exports and imports from the European Union (EU) to nearby countries, mainly South Africa and Zambia.

4.4 Challenges faced by the Government of Zimbabwe

According to Murisa (2010), Zimbabwe has in the past years dominated international headlines for a number of reasons; the worsening conditions of poverty, a land reform programme that did not adhere to acceptable norms of transfer of property, contested elections and the general decline in the economy. This view is shared by Sibanda (2012) who found that the country faced economic challenges in the decade prior to 2008 which were characterised by hyperinflation, which reached 237 million per cent in 2008, negative growth rates of -10 per cent in 2008, cumulative budget deficits and massive devaluation of the currency. Other negative indicators were the low productive capacity, loss of jobs, low savings and limited Foreign Direct Investment (FDI) as well as food shortages, increasing poverty and massive de-industrialisation (Sibanda, 2012). In addition to this, the government of Zimbabwe (2013) stressed that Zimbabwe experienced a deteriorating economic and social environment since 2000 that was caused by illegal economic sanctions imposed by the Western countries. This resulted in a deep economic and social crisis characterised by a hyperinflationary environment, industrial capacity utilization of below 10 per cent and an overall cumulative Gross Domestic Product (GDP) decline of 50 per cent by 2008 (Sibanda 2012, p. 41). In the social sector, health and education were also adversely affected with people succumbing to cholera and other epidemic diseases, while the quality of education was compromised, as evidenced by the growing number of school dropouts and low pass rates in primary and secondary levels (Sibanda, 2012). Agricultural production was also severely affected, resulting in the country depending on imports to meet the demand for domestic consumption and industrial needs (Sibanda, 2012). Furthermore, these challenges led to significant skills flight and erosion of private and public financing, thereby negatively affecting quality service delivery and achievement of the United Nations (UN) Millennium Development Goals (MDGs) (Sibanda, 2012).

Beginning in the late 1990s the country experienced an economic decline that eroded livelihood capacities of both the urban and the rural population (Murisa, 2010). Various analyses have discussed the nature of the crisis from various backgrounds with different emphasis and ideological leanings (Murisa, 2010). Although there is some consensus on the nature and scope of the economic decline and its effects on social development there is no agreement amongst scholars and even policy practitioners on the causes of this crisis. The failure to comprehensively grasp the interrelated factors that led to what can be called ‘Zimbabwe’s tipping point’ has also led to the formulation of inadequate policy interventions to respond to the ‘crisis’ that ensued (Murisa, 2010).

There was a coincidence between the beginning of the new millennium and the beginning of what in journalistic terms is regarded as the ‘Zimbabwe crisis’. This is shorthand for a very complex process of state failure (Murisa, 2010). In fact, what was referred to as the Zimbabwean was a three-dimensional interrelated form of collapse which included the political crisis centred on increasing tendencies of authoritarianism on the part of the state and supporting structures. This was compounded by

contestations around election results and the 'rule of law' in general. The other critical dimension to the crisis was the economic meltdown whose causes are multifaceted; ranging from economic mismanagement on the part of the government to structural constraints within the local economy and also the international economic system. It is estimated that the economy has shrunk by over 30 per cent since 2000 (Moyo and Yeros, 2007). Inflation accelerated through 2006, and by 2007 the country was officially experiencing hyperinflation, with prices rising more than 50 per cent every month (Scoones, *et al*., 2010). This continued through 2007 and 2008 with inflation peaking at 231m per cent towards the end of 2008 (Chimhowu, 2009). Unemployment is said to be at 70 per cent. The third dimension of the 'crisis' is the collapse of social service delivery (the subject of this paper). Zimbabwe had by 1990 achieved impressive results in the area of primary health and education for all and had become the envy of many other post-colonial states. In the area of food security, the country had been assigned the responsibility of ensuring that there are enough food stocks within the sub-region by the SADC hence the term the 'bread basket' of the region. By the close of the 1990s studies of the outcomes of land reform carried out by the Zimbabwe Household Dynamics Study (ZRHDS), led by Bill Kinsey showed how resettled farmers' real income had more than doubled over the period between 1982-83 and 1994-95 (Kinsey, 1999). These positive trends in food security, health and education delivery were soon to disappear with the onset of the 'crisis decade'.

4.5 An overview of the Mashonaland West Province

A province is a principal administrative division of a country or empire (Oxford Advanced Learner's Dictionary, 2015). Mashonaland West Province is one of the eight (8) provinces of Zimbabwe. In addition to these provinces, Zimbabwe has two cities with a provincial status which are Harare and Bulawayo. Each of these provinces has a provincial capital city and this is shown in Table 4.1. There are some gold mines located in and around Mashonaland West Province as well as many tourist attraction cities such as the Chinhoyi Caves. According to the 2012 Population Census, Mashonaland West Province had a literacy rate of 96 per cent. Furthermore, the population age 15 years and above for Mashonaland West Province was 883 925 and 61 per cent of this population was economically active. The census also reviewed that out of the economically active population, 11 per cent were unemployed whilst 89 per cent were employed. It was also observed from the census that the highest proportion of employed persons had their occupations in agriculture (55 per cent). Sixty-five per cent of persons with a disability were employed in the agricultural occupations. The majority of people in the predominantly rural districts were employed in the agricultural occupations. This was followed by employment in the services sector except for Chegutu Rural, Mhondoro Ngezi and Sanyati where the mining and construction occupations were the second largest. In the urban districts, the largest proportions were in the services sector (Zimbabwe National Statistics Agency, 2012). Moreover, Mashonaland West Province is bordered by Zambia. The provincial capital is Chinhoyi and the province

is divided into 6 districts which are:

- Kariba
- Chegutu
- Zvimba
- Hurungwe
- Makonde
- Kadoma

Table 4.1: Provinces of Zimbabwe and their Capitals

PROVINCE	**CAPITAL**
Mashonaland West	Chinhoyi
Mashonaland Central	Bindura
Mashonaland East	Marondera
Manicaland	Mutare
Harare Province	Harare
Bulawayo Province	Bulawayo
Masvingo Province	Masvingo
Midlands	Gweru
Matebeleland North	Lupane
Matebeleland South	Gwanda

Source: Compiled by the researcher

4.6 Policies and the growth of SMEs in Zimbabwe

In Africa, pre-independence and post-independence industrialization programmes have inclined to emphasise the development of large, mass-production industries along the Fordist paradigm to the detriment of small firms (Ronnas, Sjoberg and Hemlin, 2001). Pre-independence colonial laws and regulations were improvised to erect blockades to the development of small-business enterprises and to systematically profit the interests of the settler community at the expense of the indigenous majority. Small, indigenously-owned businesses were looking upon as illegal, not due to the nature of their

economic activities but due to the restrictions enforced on them officially which prohibited them from existing legally. The entrepreneurial spirit among the local population was systematically killed off, thwarting the development of small business enterprises from this population sector. This process ensured that the indigenous population would constantly be obtainable as a pool of cheap labour for the mass-production plantations farms and factories, (Mhone, 2002).

Even after achieving independence from colonialism, small and medium scale enterprises have not been on the expansion agenda of many African governments. Africanisation has always been related to the campaign of small enterprise, but African governments chose the state socialist road of nationalisation and public enterprise development as the supposedly faster roads to Africanisation. The development of small-business enterprises has for history, been inhibited by these post-independence industrialisation policies under which small –business enterprises were not seen as anticipated in themselves, but as a necessary first step towards the development of large-scale industrial firms (Alila and Pedersen, 2001; Osei *et al*., 2003; Ramamurthy, 2008)

In Zimbabwe as well, the low official importance of the small-business sector sustained even after the realisation of independence. As a result of the colonial legacy, like in other African countries, at independence in 1980, Zimbabwe's informal economy was very small, accounting for less than 10 per cent of the labour force. This legacy comprised of various laws and bylaws that had been put in place to prescribe the free crusade of indigenous people, especially from rural to urban areas. Most of these laws sustained to be applied to the detriment of the advance of small-business entrepreneurship and the most prominent of them were: The Regional Town and Country Planning Act, Chapter 29:12/1976, the Housing Standards Control Act,1972, Chapter 29:08 and the Urban Councils Act, Chapter 29:15/1995 (Tibaijuka *et al*., 2005)

This very obstructive policy environment tended to thwart the progress of small scale enterprises as confirmed by many studies (Chirisa *et al*., 2012; Kapoor, Mugwara and Chidavaenzi, 1997; Moyo, 1995; McPherson, 1998 and Tibaijuka *et al*., 2005). These studies recommend that there were significant obstructions to entry into business by new small players which prolonged the high levels of concentration of ownership of productive assets inherited from the colonial era. The socialist predispositions of the political leadership tended to discourage entrepreneurship by the private sector by placing greater emphasis on co-operatives and large state-owned enterprises. Like in many other African countries, small –business workers continued to be viewed in a negative social light, being regarded as 'informal sector employees', or people devoid of a 'proper job'. This term has also been smeared in particular reference to small business enterprises that are not officially registered in terms of the law. Thus officially, the informal sector as such was viewed as an unorganised 'nuisance' sector which, at the very least deserved to be conveniently neglected. Since small businesses enterprises in Zimbabwe were generally associated with informality, the initiatives that were made by government to

develop entrepreneurship at the small-scale level, such as the Small Enterprises Development Corporation (SEDCO), the Venture Capital Company of Zimbabwe, Credit Guarantee Company of Zimbabwe and the Agricultural Development Bank, were rather piece-meal and mainly ineffective (Kapoor, 1997).

However, in spite of these negative factors, the significance of the small-business enterprise sector in Zimbabwe has continued to develop in recent years. Although not much is known about the particular number of small business operators in Zimbabwe today, a study by GEMINI funded by USAID in 1991 projected that there were about 845 000 small enterprises in Zimbabwe at that time. Most of them were operating in the informal sector and employing 1.6 million people, which was 30 per cent more than those employed in the modern, (formal sector). Another study by the Confederation of Zimbabwe Industries (CZI) found that in November 2000, at least 1.7 million people were making their living in the informal sector. Tibaijuka *et al*. (2005) reported that by 2004 the informal sector was contributing forty per cent of total employment in Zimbabwe and by that year the 'informal economy' had effectively become the mainstay for the majority of Zimbabweans. The ILO reported in June 2005 that between three and four million Zimbabweans earned their living through informal sector employment, supporting another five million people, while the formal sector employed just over one million people.

On the domestic policy front, the Government of Zimbabwe had early realised the significance of the influence of small-business enterprises towards the reclamation and growth of the economy as well as employment and set up various sustenance programmes for the advance of micro-enterprises as well as micro-finance institutions. The most significant of these was the formation of the Small Enterprises Development Corporation (SEDCO) and the Venture Capital Company of Zimbabwe in 1984 (Kapor, 1997). Also important was the setting up of the Social Dimensions of Adjustment Program (SDA) as a way of cushioning the effects of ESAP. Within the SDA a special fund known as the Social Development Fund (SDF) was set up to administer and loan facilities for retrenched persons wishing to start their own businesses. The SDA programme was later taken over by the Poverty Alleviation Action Plan (PAAP) in 1995 which was set up with the support of the UNDP. In addition to the SDA; in 1994 a separate Department for Employment Creation was launched in the then Ministry of National Affairs, Employment Creation and Co-operatives with the purpose of providing loans for small businesses.

The government also inaugurated a series of policies with the aim of reducing regulatory bottlenecks and relaxing physical scheduling requirements. The most significant of these was the Statutory Instrument 216 of 1994 of the Regional Town and Country Planning Act which effectively allowed for the progress if non-residential activities and therefore small businesses, in residential areas. Many undertakings such as hairdressing, tailoring, bookbinding, wood or stone carving were deregulated. Similarly, small and medium enterprises employing 5-10 people in such areas as, tinsmiths, welding, carpentry, shoe-repair and small-scale car repair were accorded special consent (Tibaijuka *et al*., 2005).

4.7 An account of research and development and innovation in Zimbabwe

Zimbabwe's overall Science, Technology and Innovation (STI) regulatory framework is outlined in a number of key policy documents that include the Research Act of 1986 and its subsequent amendments, the Science and Technology (S&T) Policy of 2002, the Biotechnology Policy of 2005, the Biotechnology Act of 2006 and the ICT Policy Framework of 2006 (STI policy,2012). From national independence in 1980 up to 2002, the S & T sector was overseen by the Research Council of Zimbabwe, previously called the Scientific Council of Zimbabwe, reporting to the Office of the President and Cabinet. In 2002, the Department of Science and Technology Development was established within the President's Office. This was elevated to a fully-fledged Ministry of Science and Technology (MSTD) in 2005 in recognition of the large and diverse role of S & T in national development (STI policy, 2012). The Ministry of Science and Technology Development has reviewed the S & T policy of 2002 with a view to developing a more up-to-date one that takes into account new national and global S & T challenges and one that embraces national STI needs in order to address specific economic growth and wealth creation issues (STI policy, 2012).

The Ministry commissioned the Zimbabwe Academy of Sciences (ZAS) to undertake a national Science, Technology and Innovation (STI) status review in 2009 and 2010. That review has informed the current policy formulation process by furnishing statistics on the current environment in STI in Zimbabwe, identifying gaps and assessing the financial support and fiscal incentives for the STI in the country. It noted disjointed efforts in need of coordination in research particularly lack of coordination in the funding of research (STI policy, 2012). Since the adoption of the first National Science Technology Policy in 2002, there have been significant advances in science and technology globally especially in ICT, biotechnology, space sciences and indigenous knowledge systems (IKS) and new technologies like nanotechnologies have emerged (STI policy, 2012). Circumstances in the country have also changed in the last decade since the adoption of the first S & T Policy. The country experienced unprecedented economic meltdown leading to the closure of various manufacturing companies; there has been a large flight of skills to the diaspora. On the positive side, there has been a phenomenal expansion of Higher Education with the establishment of new universities. Further, there remains the undisputable advantage that the country is rich in natural resources and has a hard-working population, core factors for economic advancement (Source: Extracts from the STI Policy of Zimbabwe, 2012)

Saruchera *et al*. (2014) highlighted some of the major historical movements in Zimbabwe that can help one understand the history of research and development and innovation in the country and these are shown in table 4.2.

Table 4.2: History of Research and Development and Innovation in Zimbabwe

Movement	Year
Research Council of Zimbabwe (RCZ)	1998
Science and Technology (S&T) Policy Launch	2002
Innovation Commercialisation Fund	2005
Commercialisation of Research Department (CRD)	2009
Constraints on the commercialisation process in Zimbabwe	2010 to present

Source: Saruchera *et al*. (2014, p. 62)

4.8 Level of technological development and innovation among SMEs in Zimbabwe

A study of Bhalla (1998) founded on the East African countries of Tanzania and Kenya established that SMEs in these countries function at a low level of technological improvement and innovation. Such businesses tend to use traditional technologies, that is, technologies that need upgrading or replacement (Bhalla, 1998). In the very small production elements, the activities of production and administration are commenced by the same individual. This also appears to be the case with detail on SMEs in Zimbabwe as supported by Saruchera (2014) who argues that although there a number of innovations from different active research institutes in the country literature indicate that the commercialisation of technological innovations in Zimbabwe is still in its infancy. However, the Government of Zimbabwe recognises the invaluable role that technology and innovation can play in the execution of the country's economic blueprint. Technology and innovation are expected to play a significant role in spurring the desired economic growth to achieve the objectives of ZIM-ASSET. This is confirmed by the report on the Zimbabwe International Business Conference that was held at Zimbabwe International Trade Fair Company (ZITF) in Bulawayo on 23 April 2014 with the theme *Technology and Innovation: A Key Pillar for ZIM-ASSET Successful Implementation*. The conference brought together Government, Business, Academia and Civil Society to the City of Kings, in Bulawayo, to interact and debate issues of national importance. The theme of the conference emphasized the need for innovation and technology to ensure that national aspirations under ZIM-ASSET are achieved. Among the outcomes of the conference was the notion that innovation must not only be about machines and products, but it also had to be extended to ideas, procedures, marketing and advertising among other soft issues. Moreover, value addition and beneficiation had to be achieved on innovation.

Another major outcome of the conference was that, given the current funding challenges in the country, there was a need for innovative financing to address the funding gaps in the economy. In the absence of collateral security, banks could avail cooperative funding to groups to spread responsibility and risk.

Immovable assets could also be mortgaged until the debt is paid up.

4.9 Innovation illustrations inside Zimbabwean organisations

Econet Wireless Zimbabwe's corporate culture of innovation

According to Econet Wireless Zimbabwe's website (2016) the company is Zimbabwe's largest provider of telecommunications services, providing solutions in mobile and fixed wireless telephony, public payphones, internet access and payment solutions. In 2009, the network became the first operator in Zimbabwe to launch data services under 3 G technologies. The company's key infrastructure at the start of 2010 included three switches. In 2009, Econet began building an extensive fibre optic network and also commenced an accelerated rollout of other key network infrastructure. Econet views innovation as not only infrastructure but also software. Moreover, innovation in the eyes of Econet should seek to cause positive changes in people's lives. An example is Ecocash, which faced resistance in the initial stages of implementation but now all over Zimbabwe. Ecocash is an innovative mobile payment solution that enables Econet customers to complete simple financial transactions such as sending money to loved ones, buying prepaid airtime for yourself or others Econet subscribers are paying for goods and services (Source: Extracts from Econet's Website).

Through the application of innovation Econet has managed to come up with the following products and services across the three (3) major economic clusters:

- Infrastructure and utilities: Provision of alternative energy sources for lighting and charging through solar energy;
- Food and security. Provision of agriculture information services and weather index insurance to the smallholder farmer; and
- Social services and poverty alleviation, provision of refrigeration to store drugs in rural areas and offering free access to high-quality educational websites and transforming education through offering digital content for use in learning institutions (Source: Extracts from Econet's Website, 2016).

4.10 Chapter Summary

This chapter discussed some of the major issues pertaining to innovation and the history of Zimbabwe with particular reference to the Mashonaland West province. The chapter started with an overview of the Mashonaland West Province followed by a discussion on the Zimbabwean policies and the growth of SMEs. The next chapter will discuss the methodology for the study.

5 CHAPTER 5: RESEARCH METHODOLOGY

5.1 Introduction

Developing good innovation strategies for the survival and growth of SMEs can help improve the economy of Zimbabwe. The objectives of this study were to investigate the extent of innovativeness of the SMEs in the manufacturing sector, explore the relationship between innovation and the growth of SMEs and assess the drivers of and the factors that hinder innovation in manufacturing SMEs. The other objectives were to determine the effective ways of managing innovation in SMEs and to develop a theoretical framework showing how innovation can be successfully applied by SMEs in the manufacturing sector. Therefore, this chapter discusses the research methodology that was used to meet the aforementioned objectives of this study. The research design, research philosophy, research approach, sampling techniques, data collection methods and the ethical considerations for the study are some of the key aspects that are discussed in this chapter.

5.2 Theoretical Framework for the Research Design and Methodology

Research methodology can be simply defined as a methodological and systematic approach to the acquisition of new knowledge. Research as a scientific method evolved over time, with some of history's greatest and most influential minds adding to and refining the process. The present-day scientific research methods were, however, developed and popularised around the 13th century by Roger Bacon a medieval English philosopher and Franciscan friar who placed considerable emphasis on the study of nature through empiricism. Other important contributions to the scientific method (rationalism) can be credited to René Descartes who in his philosophical and autobiographical treatise (Discourse on the Method of Rightly Conducting One's Reason and of Seeking Truth in the Sciences) attempts to arrive at a fundamental set of principles that one can know as true without any doubt.

Despite the advances in research methods in today's society, the rules for scientific reasoning are not that straightforward and the scientific method has remained a subject of intense and recurring debate with eminent natural philosophers and scientists still disagreeing on the primacy of one or another approach. As a result, many people share common misperceptions about exactly what research is, how research can be done, what research can tell us, and the limitations of research. To address these important issues, the following sections review the research paradigms and philosophies that underpin the different principles of the research.

5.2.1 Research paradigm

The term research paradigm is used to describe a researcher's 'worldview', that is, "the perspective, or thinking, or school of thought, or set of shared beliefs, that informs the meaning or interpretation of research data" (Kivunja and Kuyini, 2017, p. 26). In other words, a research paradigm can be defined as a function of how a researcher thinks about the development of knowledge. The term paradigm was

first used by Kuhn (1962) to mean a philosophical way of thinking. In this study, the term was conceptualized based on the definition by Morgan (2007) as "systems of beliefs and practices that influence how researchers select both the questions they study and methods that they use to study them" (Morgan, 2007, p. 49). Generally, the basic assumptions, beliefs, norms and values of each paradigm are explained by four elements, namely, epistemology, ontology, methodology and axiology.

In the context of research paradigms and philosophies, ontology is a branch of philosophy concerned with the assumptions researchers make in order to believe that something makes sense or is real (Scotland, 2012). According to Blaikie (2018), ontology refers to the science or study of the nature of being, becoming, existence or reality. Therefore, the ontological assumptions a researcher makes determine the research objects and phenomena the study has to focus on, and the perspective from which the study has to be approached based on these questions: What is the nature of reality? Is reality objective or subjective in nature? What is the nature of the situation being studied? In this study, the ontological assumptions were based on the idea of multiple realities.

Epistemology according to Burrell and Morgan cited in Saunders *et al.* (2011), is concerned with providing a philosophical grounding for deciding what kinds of knowledge are possible or what constitutes acceptable, valid and legitimate knowledge, and how to communicate the knowledge to others. The aetiology of epistemology is from the Greek word *episteme* which means knowledge. Therefore, epistemology inquiries into the nature of knowledge and truth. As such, in choosing the appropriate paradigms for this study, the following questions were kept in mind: What type of data generates incontestable knowledge? What is the nature of knowledge and the relationship between the source of information (target population) and the research problem? What is the relationship between the researcher and what is already known? Epistemological positions such as positivism, post-positivism and constructivism were regarded as distinct belief systems that influence how research questions were to be asked and answered. For the purposes of this study, the epistemological assumptions adopted were based on both quantitative (numerical) and qualitative (textual) data.

The third element of research paradigms, axiology, looks at the ethical issues that need to be considered when planning a research design. According to Saunders *et al.* (2011), axiology refers to the role of values and ethics within the research process. Axiology involves two concepts involving ethics (right and good) and aesthetics (beauty and harmony) (Blaikie, 2018). The axiological assumptions should address questions such as: What values should a researcher live by or be guided by as he/she conducts his/her research? How are respondents/participants' rights going to be addressed and upheld? What are the moral issues that need to be considered? In this study, the researcher adopted a value-free approach where he remained detached, neutral and independent thereby maintaining an objective stance. The ethical considerations taken into perspective are explained in section 5.8.

5.2.2 Research philosophy

Kuhn (1962) in *The Structure of Scientific Revolutions* described research paradigms as a philosophical way of thinking. A research philosophy relates to the development of knowledge and the nature of that knowledge. Brown and Rich (2014, p. 345) state that a research philosophy is defined by its "epistemology, which concerns the way knowledge is built and by an ontology, which refers to how the researcher perceives reality." Saunders *et al*. (2009, p. 106) defined research philosophy as the "basic belief system or world view that guides the investigation, not only in choices of the method but in ontologically and epistemologically fundamental ways." In general, research philosophy is linked to what a researcher views as reality and what he/she thinks constitutes knowledge. As such, an understanding of the way knowledge is developed and perceptions of reality influence the logic behind the research methods and approach. However, research philosophies have remained largely 'latent' in research despite the fact that they affect the practice of research (Creswell, 2009). Generally, two research philosophies stand out within the scope of business studies and these are positivism and post-positivism (Lincoln *et al*., 2011).

5.2.2.1 Positivism

Positivism is the view that the only authentic knowledge is scientific knowledge, and that such knowledge can only come from positive affirmation of theories through strict scientific method (Gunbayi and Sorm, 2018). The positivist philosophy applies techniques for investigating phenomena based on gathering observable, empirical and measurable evidence, subject to specific principles of reasoning. Positivists believe that reality is stable and can be observed and described from an objective viewpoint without the researcher interfering with the phenomena being studied (Hughes, 2018).

5.2.2.2 Post-positivism

A post-positivist research approach advocates methodological pluralism. Post-positivists pursue objectivity by recognizing the possible effects of biases. The philosophy assumes that the method to be applied in a particular study should be selected based on the research question being addressed. While positivists emphasize quantitative methods, post-positivist consider both quantitative and qualitative methods to be valid approaches (Lindlof and Taylor, 2017). The epistemology of post-positivists is based on the belief that knowledge is not *a priori* assessments from an objective individual, but rather upon human conjectures. According to Denzin and Lincoln (2011), post-positivists rely on multiple methods for capturing as much of reality as possible. As such, post-positivism is characterized by two sub-philosophies, namely constructivism (interpretivism) and advocacy/participatory.

Interpretivism

Lincoln, Lynham and Guba (2011) state that the ontology with regards to interpretivism is that "…interpretivists believe the reality is multiple and relative." They further explained that these multiple realities also depend on other systems for meanings, which make it even more difficult to interpret in terms of fixed realities. The knowledge acquired in this discipline is socially constructed rather than

objectively determined and perceived (Carson, Gilmore, Perry, & Gronhaug, 2001, p. 5). Interpretivists believe that social reality is subjective and nuanced because it is shaped by the perceptions of the participants, as well as the values and aims of the researcher. Interpretivism has roots in two intellectual traditions: phenomenology and symbolic interactionism. Phenomenology refers to the way in which humans make sense of the world around them whilst symbolic interactionists believe that physical reality does indeed exist from an individual's social definitions. Symbolic interactionists are in a continual process of interpreting the social world around them. The aim of interpretive research is to understand and interpret the meanings in human behaviour rather than to generalize and predict causes and effects (Rubin and Babbie, 2010).

Constructivism

Constructivism refers to a research philosophy used to group together diverse approaches such as phenomenology and hermeneutics which reject the objectivist view that meaning resides within the world independently of consciousness (Collins, 2010). According to Chowdhury (2014), social constructivism is a belief that there are many interpretations of reality and contend that only through the subjective interpretation of intervention, in reality, can that reality be fully understood. Constructivism is based on a sociological theory of knowledge according to which human development is socially situated and knowledge is constructed through interaction with others (McKinley, 2015). Proponents of constructivism reject the notion that research is value-free; since the researcher's interpretation is also socially constructed, reflecting his/her motives and believes.

Pragmatism

Pragmatism, as a research philosophy, is concerned with the practical application of ideas by acting on them and actually testing them in real-world experiences (Gutek, 2014). According to Cameron (2011), pragmatism can be considered a bridge between paradigm and methodology or what Greene and Caracelli (2003) refer to as a particular stance at the interface between philosophy and methodology. Saunders *et al.* (2009) states that pragmatics recognise that there are many different ways of interpreting the world and undertaking research and that no single point of view can ever give the entire picture and that there may be multiple realities

5.2.3 The philosophy adopted for the study

The pragmatic research philosophy was deemed appropriate for this study. Instead of rigidly sticking to one philosophical doctrine such as the positivist philosophy which is more aligned to quantitative methods or the interpretive paradigm which is premised on qualitative research methods, pragmatism lies in between positivism and interpretivism which enables the use of both qualitative and quantitative methods (Denscombe, 2014). While it was contended that there is an objective reality out there to be studied, captured and understood, it was also important to try to understand the viewpoint of the research

subjects and their interpretation of the world around them. As such, pragmatism was considered to be the most ideal philosophy because it provided a set of assumptions that support the mixed methods approach.

The positivist approach allowed the use of only observable phenomena to provide credible data and focus on causality and law-like generalisations thereby reducing the phenomena to simplest elements whereas interpretivism enabled the collection of qualitative subjective to provide context to the phenomena under investigation. According to Denzin (2017), no single method, theory, or observer can capture all that is relevant or important in reality, therefore, the use of a pragmatic research philosophy allowed for the triangulation of the research methodology and data collection methods thereby minimising the fundamental weaknesses and methodological biases inherent in each method. The triangulation of research methods enabled the researcher to acquire specific facts about a particular situation while simultaneously elevating these to the level of shared meaning. As such, the convergence of qualitative and quantitative methods served to increase the probability of generalising the findings since data was gathered from different sources and by different methods.

5.3 Research design

It is a prerequisite for any scientific research effort to require a plan that presents all the activities that are to be used in order to answer the research problem. Kumar (2011) notes that research design is a plan, structure and strategy of the investigation so conceived as to obtain answers to research questions or problems. It paves the way to proceed and indicates the strategies or actions that the researcher will perform to conduct the research. This view is shared by Burns and Grove (2003) who hold that research design is a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings. Yin (2003) confirms that research design is an action plan for getting from "here to there", whereby "where" and "here" may be defined as the initial set of questions to be answered and "there" is some set of (conclusions) answers. Babbie and Mouton (2007) defined a research design as a plan or a blueprint of how one intends to conduct research. They add that it is the process of focusing on one's perspective for the purpose of a particular study. Its main focus is the end-product, the kind of study planned, and the kind of results aimed at (Babbie and Mouton, 2007). De Vos (2005) viewed it as a logical strategy of gathering evidence about knowledge desired and this should be methodologically precise and acceptable to the parties involved such as instruments, tools and units of analysis. The main purpose of a research design is to guarantee that the evidence acquired enables one to answer the initial question as unambiguously as possible (Mamia, 2006). Research design includes the aims of the research, a selection of the appropriate methodologies, data collection techniques and the methods used for analysis and interpretation (Saunders et al. 2012). Explanatory research, exploratory research, descriptive research and so forth are some of the research designs available for researchers. The research design for this study is a descriptive and exploratory survey. The reasons for

adopting the descriptive and exploratory survey design are explained below.

5.3.1 Survey

This study took place in the form of a survey which used both descriptive and exploratory approaches. Surveys involve reaching a large number of people to answer a set of questions and they are mostly used to assess thoughts, opinions and feelings (Saunders et al., 2009). Thus, survey research involves the collection of information from a sample of individuals through their responses to questions. A survey is a method of collecting data in a consistent way (Burton, 2011). Burton adds that survey research is useful for documenting existing community conditions, characteristics of a population, and community opinion. Survey research is used to retort questions that have been raised, to solve complications that have been posted or observed, to assess needs and set goals, to govern whether or not specific objectives have been met, to establish baselines against which future appraisals can be made, to analyse trends across time, and normally, to describe what exists, in what quantity, and in what context (Isaac and Michael, 1997) Survey research provides a quantitative or numeric description of trends, attitudes or opinions of a population by studying a sample of that population (Cresswell, 2013). The survey method was appropriate because it involves reaching a large number of people to answer a set of questions and is mostly used to assess thoughts, opinions and feelings (Saunders et al., 2009). The survey allowed the researcher to collect a large amount of data from a sizable population economically. It also allows for easy comparison since standardised data will mostly be based on a questionnaire and also allow for more control of the research process (Saunders *et al*., 2009). The survey enabled the researcher to establish the percentage of SMEs that were innovative. For these reasons the survey method was used as it helped the researcher to investigate how SMEs can use innovation as a strategy for their survival and growth.

The advantage of using a survey is that behaviour is recorded as it occurs, and the observer can see phenomena about a situation, which those people involved in it, may take for granted. In this study, SMEs were observed as they were working, and their documents and warehouses were also observed with the aim of assessing how innovative they were. It served as a stepping-stone to investigations that were more precise. The investigation of any problem must begin with a survey method that also allows for the collection of a large amount of data from a sizable population in a highly economical way. It has a wide scope and a great deal of information can be obtained from a large population. The design also allows researchers to obtain from respondents their personal views through the use of both closed and open-ended questions in the questionnaires. However, besides the above-mentioned strengths of the survey, the design has its own weaknesses. The respondents may be unwilling or unable to give full and accurate responses to the questions in the questionnaire and interviews. Viswanathan (2005, p. 99) asserts that “unwillingness to provide accurate answers may lead to systemic error” while “inability to provide accurate answers may lead to random error.” However, such problems were alleviated by

triangulation or the use of two or more sources of data and analysis methods.

5.3.2 Descriptive design

The descriptive research design was used in this study. It is a scientific method which involves observing and describing the behaviour of a subject without influencing it in any way. Descriptive research is derived from a broad class of non-experimental studies with the purpose of describing characteristics of a phenomenon as it is occurring Schwarzkopf (2008). According to McNabb (2002), a descriptive research method serves a variety of research objectives such as the description of characteristics associated with the subject population which answers the questions what, who and how. This design is appropriate for this study because it describes what is happening at the present moment and this is in alignment with the study objective of investigating the degree of innovation among Zimbabwean SMEs. The descriptive research design was selected because it provides an accurate and valid representation of the factors or variables that pertain to and that are relevant to the research question (Van Wyk, 2012). The approach further allowed the researcher to come up with both qualitative and quantitative data and also to collect primary and secondary data which was used to come up with meaningful conclusions and recommendations. The descriptive research design is both qualitative and quantitative as the research seeks to collect data that permits the researcher to describe the characteristics of the phenomena being studied.

5.3.3 Exploratory design

The exploratory design was also used in this study. According to Hair (2002), this is designed to collect and interpret data in an unstructured format using sometimes an informal set of procedures. This type of research design is usually employed when the research purpose is to provide a greater understanding of a concept, to crystallise or discover general ideas and insights relating to the subject of the study. Exploratory research provides insights into and comprehension of an issue or situation. It should draw definitive conclusions only with extreme caution. Exploratory research is a type of research conducted because a problem has not been clearly defined. Exploratory research helps determine the best research design, data collection method and selection of subjects. Given its fundamental nature, exploratory research often concludes that a perceived problem does not actually exist. The researcher used the exploratory design to facilitate the collection of data which was regarded as sensitive in a formal setting. Furthermore, given the scarcity of the information on SMEs innovativeness in Zimbabwe, this design was appropriate. Sekaran and Bougie (2009) state that exploratory studies can be done where facts are known, but where more information is needed.

5.4 Research approach

The 17th and 18th Centuries in Europe witnessed an unprecedented change in scientific thought and reasoning. However, despite that the new scientific method is widely accepted among scholars, perceptions are still divided amongst distinguished researchers as to what constitutes a legitimate inquiry and acceptable knowledge. Existing literature on research methods suggests that the research approach is divided into two diametrically opposing groups (Trochim, 2006). On the one hand, there is the 'experimentalist', 'hypothetico-deductive' or 'positivist' and on the other the 'naturalistic', 'contextual' or 'interpretative' (Henwood and Pidgeon, 1993, p. 15). The two approaches to reasoning have been commonly referred to as inductive and deductive. The deductive approach according to Creswell and Plano Clark (2007) tests the validity of assumptions (or theories/hypotheses) in hand, whereas inductive approach contributes to the emergence of new theories and generalizations. The deductive approach places emphasis on universal laws of cause and effect which assumes a realist ontology while an inductive approach to research seeks representation of reality through the eyes of participants. Therefore, the approach adopted by qualitative researchers tends to be inductive while the approach adopted by quantitative researchers tends to be deductive.

Though there seems to be some disagreement among researchers as to the best method to use when conducting research and gathering data, Ali and Birley (1999) argue that the deductive approach to the data gathering process, does not rule out the ability to describe and explore *per se*, though it may reduce the extent to which the exploration may occur. This study argues that these two approaches are not mutually exclusive and can be used to address the same question using different methods. Since a mixed methodology was used in this study, both deductive and inductive approaches were used.

Mixed methods research is an approach to an inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data and using distinct designs that may involve philosophical assumptions and theoretical frameworks (Creswell, 2013). In this study, the mixed approach was used to gather data. Observations, questionnaires and documentary analysis were used in the study. Both primary and secondary data were collected. The secondary data obtained was from books, scientific articles, and internet sources and it gave a better insight and supported the theoretical as well as the empirical part of the research project. Primary data were collected using questionnaires. The research used a combination of the descriptive research design and the exploratory design. Thus, the research design for the study was a descriptive and exploratory survey. Moreover, the study used a combination of convenience sampling and purposive sampling in coming up with the sample size. The rationale for using this approach is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone. Johnson and Onwegbwe (2004) noted that researchers who use a mixture of quantitative and qualitative data can improve an evaluation by ensuring that the limitations of one type of data are balanced by the strengths

of the other. Understanding is improved by integrating different ways of knowing. Most evaluations will collect both the quantitative data (numbers) and qualitative data (text, images). A combination of both the quantitative and qualitative methods, as advocated by Vierra (1988) gives a holistic approach by ascertaining the nature and extent of the problem while at the same time it creates a good platform for data collection. This enables reconstruction of answers by obtaining the requisite information from the respondents in terms of a wider mesh. It is against this background that this research study adopted both the qualitative and quantitative methodologies (mixed methods research)

5.4.1 Quantitative Research

Creswell, (2013) tells us that quantitative research is an approach for testing objective theories by examining the relationship between the variables. These variables, in turn, can be measured typically on instruments, so that numbered data can be analysed using statistical procedures). Quantitative research involves the collection of numerical data that is analysed using mathematic-based methods, the results of which are typically presented using statistics, tables and graphs (Sibanda, 2009). According to Van Wyk (2012), quantitative research methods are usually associated with deductive approaches (based on logic). Quantitative research is appropriate when the objective of the research is to establish causal relationships between two or more variables, using statistical methods to test the strength and significance of the relationships (Fraser Health Authority, 2011).

Quantitative research methods were used for a number of reasons. It must be noted that quantitative research methods enhance the objectivity of the study and they are also cheap, flexible and less time-consuming to conduct (Cooper and Schindler, 2011). Data collection using some quantitative methods is relatively quick. It provides precise, quantitative, numerical data and it is relatively less time-consuming. The quantitative nature of the study was also based on the need to generalise the findings (Fouche and De Vos, 2005) in terms of the degree of innovativeness amongst SMEs. In explaining the quantitative approach, Vierra (1988) explains that it has quantifiable results and involves numbers and counting. Such a thrust assists the researcher to apply statistical methods in the presentation and analysis of the data. In this study, the quantitative data were obtained through the use of questionnaires and the results obtained from questioning were quantified and analysed in order to reach conclusions.

5.4.2 Qualitative research

Qualitative research focuses on discovering and understanding the experiences, perspectives and thoughts of participants (Harwell, 2010). Thus, qualitative research explores meaning, purpose or reality. This view is shared by Creswell (2015) who argues that in qualitative research, the researcher seeks to establish the meaning of a phenomenon from the views of participants. Researchers who use this approach adopt a person-centered holistic and humanist perspective to understand human lived experiences without focusing on the specific concepts (Field and Morse, 1996). The researcher focused

on the experiences of the participants' perspective. The rationale for using a qualitative approach in this research was to explore and describe the opinion of the participants regarding their innovative behaviour and the survival and growth of their SMEs. A qualitative approach was appropriate to capture the opinions of the SMEs in the study. In quantitative research, the data obtained are based on human experience which is powerful and sometimes more compelling than quantitative data (Anderson, 2012). In this study, open-ended questions, documentary analysis and observations provided the qualitative data. This gave more detailed and rich data in the form of comprehensive written descriptions.

5.4.3 Data triangulation

Overall, while the deductive approach was used to tests the hypotheses, the inductive approach was used to identify the emerging themes and to explain what the relationships are in their particular circumstances. In this study, the convergent mixed methods designs were used whereby qualitative and quantitative data was gathered at the same time, but separately from one another and analyzed separately, then the results were compared. Being able to mix the different approaches gave the researcher the advantages of enabling data triangulation, methodological triangulation and theoretical triangulation thereby minimising research error (Leech and Onwuegbuzie, 2009). Therefore, between methods triangulation was done with the view to seeking convergence between different methods.

Creswell and Plano Clark (2007) convergence model for data triangulation was adopted whereby qualitative and quantitative data that was collected separately was analysed independently and then the different results were converged during the interpretation. The triangulation was done to validate, corroborate and confirm the quantitative results with the quantitative findings. The steps followed from data collection and analysis to interpretation are outlined in Figure 5.1.

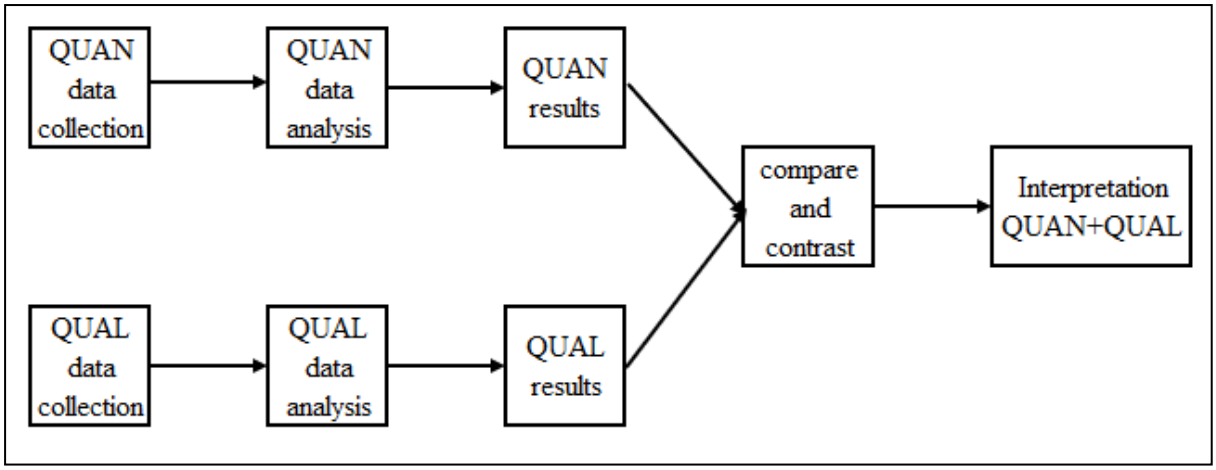


Figure 5.1: Triangulation convergence model

Source: Creswell and Plano Clark (2007, p. 79)

Combining the methods in the same study optimised the strengths and limited the weaknesses of the research.

5.5 Sampling Techniques

Probability and non-probability sampling are the two major sampling techniques in research. This study adopted the non-probability sampling method. In non-probability sampling, the probability of each case is selected from the total population is not known and it provides a range of alternative techniques to select samples based on your subjective judgement (Sanders et al., 2009). The non-probability sampling techniques that were used in this study include convenience sampling and purposive sampling. Convenience/haphazard sampling involves the selection of cases based on their availability for the study (Latham, 2007). It is a type of non-probability sampling also known as grab/opportunity or accidental sampling which involves the sample being drawn from that part of the population which is close to hand, which is readily available and convenient. Convenient sampling was used in selecting managers, owners and other workers who took part in the study. Convenient sampling was used because it is a relatively inexpensive way of getting a sufficient number of respondents and is a fast way of selecting respondents. On the other hand, purposive/judgemental sampling involves the selection of cases that judged to represent similar characteristics (Latham, 2007). This technique was utilised because it allows researchers to use their own discretion to select those units they regard as being typical to the population. Judgmental sampling was used because it enabled the researcher to select the cases that best enabled the researcher to answer the research objectives. The management and employees of the SMEs under study were the essential respondents for the researcher. The researcher used her discretion and judgement to choose the respondents that the researcher thought had information that could help in the study.

5.5.1 Population

A population is the total group of individuals from which the sample might be drawn (McLeod, 2014). Schindler (2008) declares that the total number of participants from which the sample is extracted is regarded as the study population. The population includes all individuals which the researcher is interested in obtaining information about and making inferences on. Sekaran and Bougie (2009:15) define a population as "the entire group of people, events or things the researcher wishes to investigate." The proper identification of the population is a crucial step in the research process since it provides the base from which the sample shall be drawn (Kwesu *et al*., 2002). According to Brenda (2008), the target population for a survey is the entire set of units for which the survey data are to be used to make inferences. Thus, the target population defines those units for which the findings of the survey are meant to generalise. A population is a universal set from which a sample data is selected. The subjects in the population need to have uniform characteristics amongst them. However, in this research, the

population was made up of 78 SMEs firms in the manufacturing sector in the Mashonaland West province of Zimbabwe distributed over the province's eight (8) districts. These figures are as indicated in the Small to Medium Enterprises Association of Zimbabwe (SMEAZ) offices database. Therefore, in this study, only those manufacturing SMEs who were members of the SMEAZ and were operating in the Mashonaland West province of Zimbabwe constituted this study's population.

5.5.2 Sampling

A sample is a subset of a wider group of individuals who take part in an investigation (Harvey, 2012). Sampling is done because of financial and time constraints and sometimes it might be impractical to survey the whole population (Saunders *et al.*, 2009). Kumar (2011) states that sampling is a process of selecting a few things or beings from a bigger group to become the basis for estimating or predicting the prevalence of an unknown piece of information, situation or outcome regarding the bigger group. In research terms, a sample is a group of people, objects or items that the researcher is interested in. The sample should be representative of the population to ensure that we can generalise the findings from the research sample to the population as a whole. According to Shukla (2008), a sampling procedure of selecting a number of elements from the target population to solicit the sample size for the study and understand the properties of the population element. The primary purpose of sampling is to select some elements of a population so that conclusions can be drawn about the entire population. The use of correct sampling methods grants researchers the ability to minimise research costs, conduct research more efficiently (speed), have greater flexibility and provides for greater accuracy. The sample selected is a representative of the entire population since it maintains the same characteristics with the population. The questionnaire was pre-tested on a small sample of respondents before it was used in an attempt to test its validity. Thus, a pilot study was done in preparation for the complete study in order to determine whether or not the questionnaire actually measures what it is supposed to measure, given the context of the study.

5.5.3 Sample size

There are 624 registered manufacturing SMEs in the Mashonaland West Province consisting of a total of 10267 employees, owner-managers and managers. Hence, the population for the study was 10267. In this study, the sample size was calculated using Yamane's (1967) formula which is outlined below.

$$n = \frac{N}{1+N(e)^2}$$

Where: n is the sample size

N is the population size

e is the level of precision

A 95 per cent confidence level and a ±5% level of precision were assumed in this study and the sample size was calculated as follows:

$$n = \frac{10267}{1+10267\,(0.05)^2} = 385$$

Hence, the sample for the study was made up of 385 employees, owner-managers and managers of the manufacturing SMEs in the Mashonaland West province of Zimbabwe.

5.6 Data collection methods

According to Owen & Jones (2008), data can be classified as either primary or secondary. Literature holds that primary data is collected from the min source and secondary data is collected from a source which is not the main source. Primary data is that data obtained by carrying out research for the first time on that subject matter. In most cases, it will be gathered to answer specific topics or to prove a thesis or to solve a problem that would have been noticed.

Bryman and Bell (2007) specify that primary data is information that the researcher gathers by using interview questionnaires, observation and tests. On the other hand, secondary data refers to the data such as literature, documents and articles that are collected by other researchers and institutions. Thus, secondary data is that previously gathered, printed and published data by other researchers or statisticians on other topics that are directly or indirectly related to this research project. In other words, this is the data that is gathered through desktop research. Both primary and secondary data were collected in this study. Primary data was collected using a semi-structured questionnaire and observations. The secondary data obtained was from books, scientific articles and internet sources and it gave a better insight and supported the theoretical as well as the empirical part of the research project. Thus, the researcher used a mixed method approach which includes observations, questionnaires and documentary analysis as depicted in Table 5.1.

Table 5.1: Primary and Secondary sources of information for the study

Primary sources	**Secondary sources**
Questionnaires	Media (Internet, newspapers etc.)
Observations	Journals on SMEs and innovation
	SME company documents (Annual reports etc.)
	The literature on SMEs and innovation

5.6.1 Questionnaires

Acharya (2010) defined a questionnaire as a document containing questions and other types of items designed to solicit information appropriate for analysis. Questionnaires can either be open-ended or close-ended. An open-ended question is one which permits a free response for an individual while close-ended questions also referred to as fixed alternatives, provides a set to which the respondent has to choose the answer from the provided alternatives, (Mathers et al., 2009). The questionnaire model that was used in this study includes both open-ended and closed-ended questions. Thus, this study used both open-ended and closed-ended questionnaires to establish the extent of innovativeness of the SMEs involved in this study and to meet the objectives of the study. Open-ended questions invite free-ranging responses from the participants and closed-ended questions allowed the respondents to tick their responses off on a list of options provided in the questionnaire.

5.6.2 Observations

Driscoll (2011) states that observation in scientific research involves the systematic recording of observable phenomena or behaviour in a natural setting. Observational evidence is often useful in providing additional information about a topic being studied. During observation, the researcher keeps a good record of events to provide a relatively uncontactable description for further analysis and ultimate reporting According to Driscoll (2011) the major methods of observation include participant observation and unobtrusive observation. This research utilised the participant observation method. In this kind of observation, the researcher may interact with participants and become part of their community. As a participant observer, the researcher interacted with the stakeholders of the SMEs in this study, observing and recording their comments and behaviour. Participant observation was used for a number of reasons. It must be noted that observations are real and informal, thus they eliminate artificial behaviour from the subjects that are being studied. These observations focus on relevant items of study. Moreover, with observations chances of overlooking the perception and contributions of other stakeholders are minimized. The method also demonstrated that it is free from the influence of personal opinion of the researcher once it is properly administered.

5.6.3 Document Analysis

The researcher, in an attempt to gain credibility through triangulation, used documentary analysis to complement the data generated through observation and the questionnaires. The targeted documentation included primary sources but was not limited to strategic plans, letters of commendation and minutes recorded during the internal meetings of the SMEs in this study. Document analysis requires minimal ethical considerations since there will be no direct interaction with people and it is also a quicker way of getting information. The study thus viewed a variety of documents from project proposals, minutes, adverts, mission statements to achieve the demands of this study. Other sources of documents that were

analysed include documents from the ministry of SMEs, SMEAZ and western government agencies like the UN. Furthermore, relevant library sources were collected from the internet, libraries, organisations, newspapers and articles.

5.7 Validity and reliability

The validity and reliability of the research instrument are two very important principles in scientific research. The reliability and validity of research findings is a function of how good and appropriate the research instruments are designed and administered.

5.7.1 Validity

Validity expresses the degree to which a measurement measures what it purports to measure (Saunders *et al*., 2009). Different types of validity have been described in the literature including among others face validity, construct validity, content validity and criterion validity which is further differentiated into concurrent and predictive validity. However, all these types of validity are classified into two broad categories namely: internal and external validity (McDermott, 2011). Internal validity refers to the amount of systematic or 'built-in' error contained in the measure. In other words, internal validity refers to how accurately the measures obtained from the research actually quantify what it is designed to measure. External validity, on the other hand, refers to how accurately the measures obtained from the study sample describes the reference population from which the study sample was drawn (Bolarinwa, 2015). Basically, external validity refers to the extent to which the results can be generalised beyond the sample used in the study (McDermott, 2011). For the purposes of this study, face validity which is defined as the extent to which a test is subjectively viewed as covering the concept it purports to measure (Holden, 2010) and content validity which refers to the extent to which a measure represents all facets of a given construct (Polit *et al*., 2007) were considered. Both face and content validity were determined by having experts in the subject and sample participants evaluate whether the questionnaire measures what it intends to measure. All the necessary changes to the phrasing of the items in the questionnaire and additional questions suggested by the experts were incorporated to improve the validity of the instrument.

5.7.2 Reliability

Reliability refers to the degree of consistency or accuracy with which an instrument measures the attribute it is designed to measure. In other words, Kember and Leung (2008) define reliability as the extent to which the results obtained by measurement and procedure can be replicated. Therefore, in simple terms, reliability indicates the accuracy or precision of the measuring instrument. At least three aspects of reliability have been identified in literature namely: equivalence, stability and internal consistency (Bolarinwa, 2015). Equivalence reliability also is known as parallel reliability measures the degree of similarity between alternative forms of an instrument (Ottenbacher *et al*., 1996). Stability

reliability which is also referred to test-retest reliability is the repeatability of test over time with the same person to determine if the instrument/test delivers the same results. The third aspect, internal consistency, measures whether several items that propose to measure the same general construct produce similar scores. In this study, the internal consistency aspect of the reliability was measured using the Cronbach's alpha, a statistic calculated from the pairwise correlations between items. The reliability coefficient (alpha) can range from 0 to 1, with 0 representing an instrument full of error and 1 representing total absence of error. A reliability coefficient (alpha) of .70 or higher is considered acceptable reliability. According to George and Mallery (2003), the generally accepted rule of thumb for describing internal consistency is as shown in Table 3.2.

Table 5.2: Interpretation of Cronbach's alpha coefficient

Cronbach's alpha	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Source: George and Mallery (2003, p. 55)

To determine the reliability of the instrument, the draft questionnaire was pilot tested by administering the instrument to a small sample of respondents.

5.7.3 Pilot study

Collins (2003) argue that the quality of questionnaire data depends on how well respondents understand the items. The comprehension of the respondents may be affected by language skills, educational background and the design of the instrument. It is therefore imperative to pre-test the research instrument before administering it to the target population. According to Kember and Leung (2008), pre-testing initiates the process of reviewing and revising questions and the primary purpose of a pre-test is to evaluate whether respondents interpret questions in a consistent manner, as intended by the investigator. Also, pre-testing the research instrument serves to judge the appropriateness of each included question (Holden, 2010). A pilot study evaluates the feasibility, time, cost, adverse events, and improve upon the study design and research instrument prior to performance of a full-scale study. The penultimate draft of the questionnaire was administered to a total of 15 respondents drawn from SMEs owners/managers who were similar to prospective respondents and individuals who formed the target population but were not included in the final sample. The respondents were asked to examine the questionnaire with regard to its flow, salience, validity and readability, identifying unusual, redundant, irrelevant or poorly worded questions. The respondents were also asked to record the time required to complete the questionnaire.

Following pilot testing, all the issues raised were corrected. The responses were captured in SPSS and subjected to factor analysis to determine how the items clustered into specific domains. The internal consistency for items measuring the same constructs was measured using the Cronbach's alpha. The correlation matrix and alpha values when some of the items were deleted were analysed and all the items/statements that have zeros and negatives were removed. Items that substantially reduced the reliability were deleted and to preserve content, no more than 20% of the items were deleted.

Although threats to research validity and reliability can never be totally thrown out, in this study all the unforeseen challenges were corrected before undertaking the study. To boost the validity of the questionnaire, plain English which could be easily understood was used and the researcher also paid more attention to ensuring that the word length and sentence length were kept as short as possible and straight to the point. The sequence of questions was also designed in an easy way to follow. To increase the reliability of results, triangulation of the data collection methods was done to minimise the researcher's bias.

5.8 Ethical considerations

All studies that involve human beings ubiquitously call for adherence to ethical issues as pointed out by Wilson (2011) when he emphasised that student researchers face ethical issues and it is required of them to consider ethical concerns right at the beginning of the research. Sekeran (2001) defined ethics as principals of conduct concerned with what ought to be good or bad and right or wrong. Ethical issues in research mean that researchers have a moral responsibility to conduct the study in an accurate and honest manner, (Wilson, 2011). This research tried to adhere to ethical guidelines as much as possible by observing a number of ethical principles which are explained in detail below.

5.8.1 Informed consent

Before carrying out the research, the researcher informed the respondents about the reason for conducting the research through statements in the consent form. The participants were allowed voluntarily to participate in the study. No coercion or duress was used in the study. In addition, the respondents had absolute freedom of choice of whether to continue with their participation in the research or not.

5.8.2 No harm to participants

In the consent form, the researcher assured the respondents that they were not going to be exposed to any harm because of participating in the research. The researcher strongly emphasised that the information that was going to be obtained was going to be used for academic purposes only.

5.8.3 Confidentiality

This relates to the collected data. Individuals and organisations provide information on the basis that it will be used in the strictest confidence. Confidentiality was maintained in the study. The researcher had a non-disclosure of confidential information agreement with the participants. Confidential information about competitive products and companies from respondents who have signed confidentiality agreements with those competitors was not collected. The researchers also assured the respondents that all confidential information such as trade secrets, confidential documents/client lists, technical know-how and data, trade agreements, systems, marketing, technological information considered confidential will be kept in a lockable safe and not given away in reports, presentations and other forms of dissemination.

5.8.4 Anonymity

The anonymity of participants is central to ethical research practice. In this study, no identifying information such as names and dates of birth was collected and all the respondents and participants were assured that every effort was going to be made to ensure that the data they provide cannot be traced back to them in reports, presentations and other forms of dissemination. To preserve anonymity the research made use of pseudonyms for participants and also for the location of the research. In cases where voice recordings were made, care was taken to ensure that the voices could not be recognised. An "Anonymous Voice Recorder" application which applies a masking algorithm to a sound file during recording so that the actual voices cannot be recognised at the same time maintaining the clarity of the recording for later transcribing was used.

5.8.5 Plagiarism

Plagiarism represents a serious offence in both academia and in the business world. This research acknowledged all the authors whose work was used in the research. The thesis was also subjected to plagiarism checking where a similarity index of the originality report showing matches of submitted work with internet content was retrieved and all the matches which amounted to plagiarism were paraphrased and properly referenced.

5.8.6 Researcher reflexivity

Reflexivity refers to the "analytic attention to the researcher's role in qualitative research" (Gouldner, 1971, p. 16, as cited in Dowling, 2006). Finlay (2002) argues that reflexivity, in its myriad forms, is now the defining feature of qualitative research. During the research process, the researcher often found herself ruminating on the ways in which her own aspirations, characters, values, philosophies, experiences, belief systems, political commitments, and social identity have shaped the research. However, the researcher was aware that bringing their experiences, ideas, prejudices and personal

philosophies could result in some form of bias. The researcher also realised that the research had transformed her as a person due to the rigour required at PhD research as she listened to the participants' accounts and views of innovation, not only as new ideas or creative thoughts to improve their processes and products but as their way of life in the current economic environment.

Therefore, to avoid bringing the researcher's experiences, ideas, prejudices and personal philosophies the researcher accounted for this in advance by clearly articulating the rationale for and the choice of the research design to meet the study aims and reduce common pitfalls in relation to bias. For instance, to avoid selection bias the procedures for inclusion were outlined from the onset and there was no bias or discrimination in the selection and recruitment of research participants. Non of the respondents was selected because they are viewed positively or negatively by the researcher. Also, when analysing data, the researcher avoided the common pitfall of naturally looking for data that confirmed the hypotheses or personal knowledge/experience and overlooking data inconsistent with personal beliefs. Throughout the study, the researcher kept a research diary/journal documenting all the decisions taken and reflecting on the implications these may have on the trustworthiness, transparency and accountability of the research findings. The researcher also regularly conducted peer debriefings to uncover biases and assumptions she could have taken for granted.

5.8.7 Permissions and abiding by a code of conduct

The researcher sought permission before conducting the research from the relevant authorities and respondents who participated in the study. The respondents were asked to sign a consent form before taking part in the study as an indication that they were agreeing to participate. In addition, another ethical concern the researcher considered was the UKZN, which is the institution the researcher is registered with. The researcher knew very well that she an ambassador of her institution hence it was crucial that she conducted herself in a way that followed the highest ethical standards to avoid negative publicity against herself and the institution. The researcher completed the Ethical Clearance application.

Furthermore, the researcher followed the international code on market and social research and opinion polling. All the necessary procedures set out the ethical rules which market researchers in Zimbabwe should follow as stipulated by the Zimbabwe Research Council (ZRC) and the Zimbabwe National Chamber of Commerce (ZNCC) were observed.

5.9 Chapter Summary

This chapter presented the research methodology that was used to investigate the level of innovativeness among SMEs in Zimbabwe and to meet the demands of this study. The research approach, sampling techniques, data collection methods and the ethical considerations for the study are some of the major issued that were discussed in this chapter. The next chapter is going to present and analyse the data that was collected in this study.

6 CHAPTER 6: DATA PRESENTATION AND ANALYSIS

6.1 Introduction

This chapter presents and analyses the data that was collected. First, the response rate of the respondents was presented and analysed. Next, the demographic profile of the manufacturing SMEs in the study was presented and analysed. The chapter also reported on and analysed the main research findings of this study on innovation as a strategy for the growth and survival of small to medium enterprises with particular reference to the Mashonaland West Province. Numbers were allocated to each question and to its components, in the questionnaire, so that responses could easily be grouped into a limited number of categories for an efficient analysis of the questions. Results from the study will be presented using both descriptive and inferential statistics. These methods were selected for this purpose because they facilitate easy comparison and interpretation of the data. Statistics were rounded off to the nearest first decimal place.

6.2 Response Rate

A total of 385 questionnaires were distributed to the personnel of the manufacturing SMEs in the Mashonaland West Province, irrespective of their positions within the business. This was done so as to get responses from a cross-section of the personnel within each manufacturing SME. Table 6.1 shows the summary of the response rate.

Table 6.1: Response Rate

Description	Number of questionnaires distributed	Number of responses received	Percentage response (%)
Total	385	330	85.7

As depicted in Table 6.1, of the 385 questionnaires that were distributed to the manufacturing SMEs in the Mashonaland West Province, 330 questionnaires were returned. This gives a total response rate of 85.7% per cent. According to Wiersma (1995), 70 per cent is considered to be the minimum acceptable rate of return for questionnaires. Therefore, the response rate of 85.7 per cent is significantly large enough to ensure that the responses received were a sufficient representation of the manufacturing SMEs in the Mashonaland West Province.

6.3 Demographic profile of respondents

The study sought the following background data from the respondents: respondent's gender, respondent's age, respondent's position in the organisation, respondent's length of service in the organisation, respondents' level of education and professional qualifications; the number of employees in the company, registration status and ownership structure of the company. The general background information of the respondents from the sample is presented in the form of tables and figures.

6.3.1 Gender of respondents

Both males and females were considered as respondents to the questionnaires and the composition of gender is highlighted in Figure 6.1.

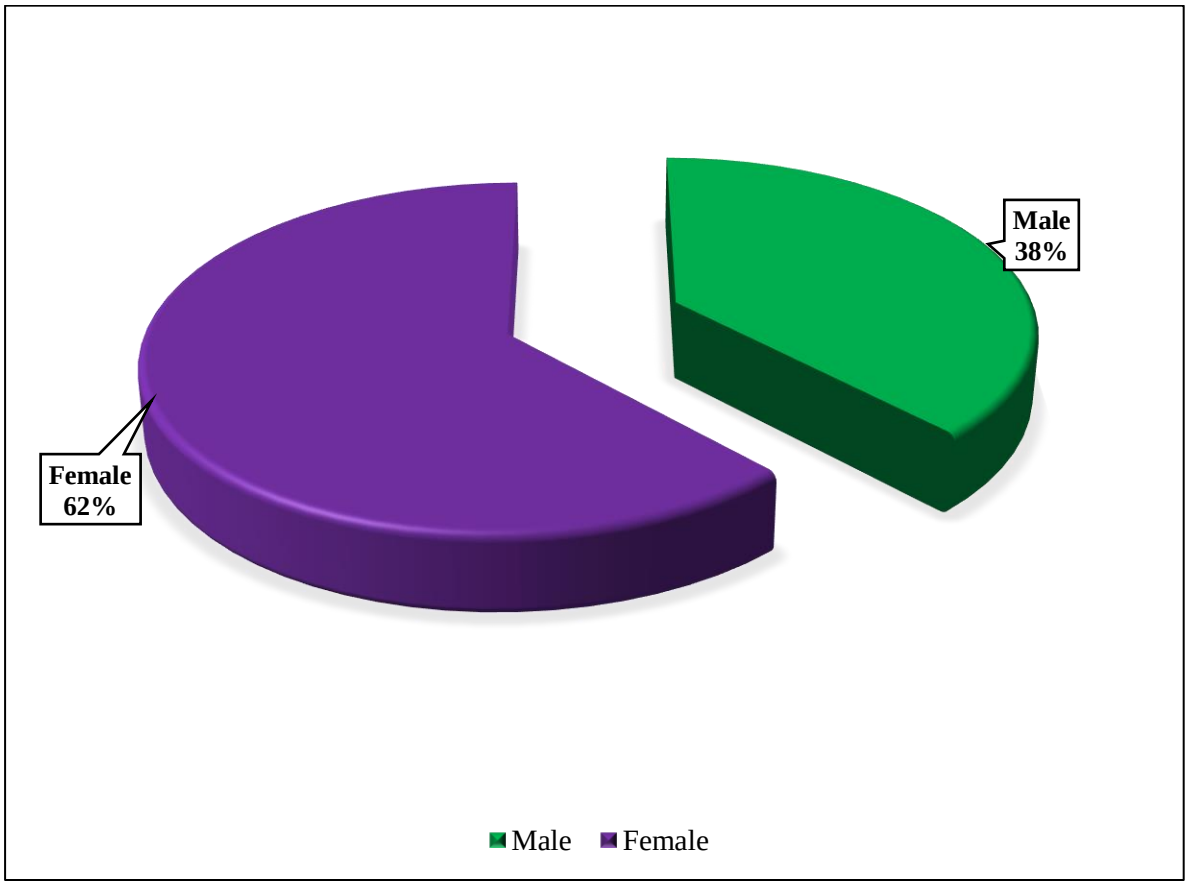


Figure 6.1: Gender of respondents

The composition of the total respondents was as follows, the males constituted 62.1 per cent% of the total respondents whilst the remainder represented females which were 37.9 per cent%. This is depicted in Figure 6.1. There were more males than females running the manufacturing SMEs, and this may be because of the type of work done in these SMEs. In Zimbabwe, generally fewer females are involved in jobs such as metal fabrication (welding), carpentry, stone carvings and other manufacturing business types which constitute most of the SMEs in this study.

6.3.2 Age of respondents

The research targeted respondents of all ages as depicted in Table 6.2 and Table 6.3.

Table 6.2: Age statistics

N	Valid	330
	Missing	0
Mean		4.140
Std. Error of Mean		0.093
Median		3.84[a]
Mode		2
Std. Deviation		1.827
Variance		3.336
Skewness		0.524
Std. Error of Skewness		0.124
Kurtosis		-0.816

Table 6.3: Age of respondents (years)

		Frequency	Valid Percent	Cumulative Percent
Valid	20 -24	80	24.2	24.2
	25-29	62	18.7	42.9
	30-34	69	20.8	63.6
	35-39	34	10.4	74.0
	40-45	40	12.2	86.2
	46-50	28	8.6	94.8
	Above 50	17	5.2	100.0
	Total	330	100.0	

From Table 6.2 and Table 6.3, about 24.1 per cent of the respondents were from the 20-24 years age group. Approximately 19 per cent and 20.8 per cent were from the 25-29 years and 30-34 years age groups respectively, while 10.4 per cent and 12.1 per cent represented those from the 35-39 years and the 40-45 years age group respectively. 8.6 per cent and 5.2 per cent were from the 46-50 and the above 50 years age group in that order. The highest number was from the 20-24 years age group followed by

the 30-34 years age group probably because they are the active age and are the ones involved in SME manufacturing businesses. It must be noted that the skewness of the findings was 0.524. It can, therefore, be concluded that more young people are involved in manufacturing SMEs than elderly people.

6.3.3 Position of respondents

The respondents were also requested to indicate their positions in their respective organisations as an indicator of the managerial level and responsibilities within the organisation. The results show that the respondents comprised owner-managers, managers and other employees of the SMEs as presented in Figure 6.2.

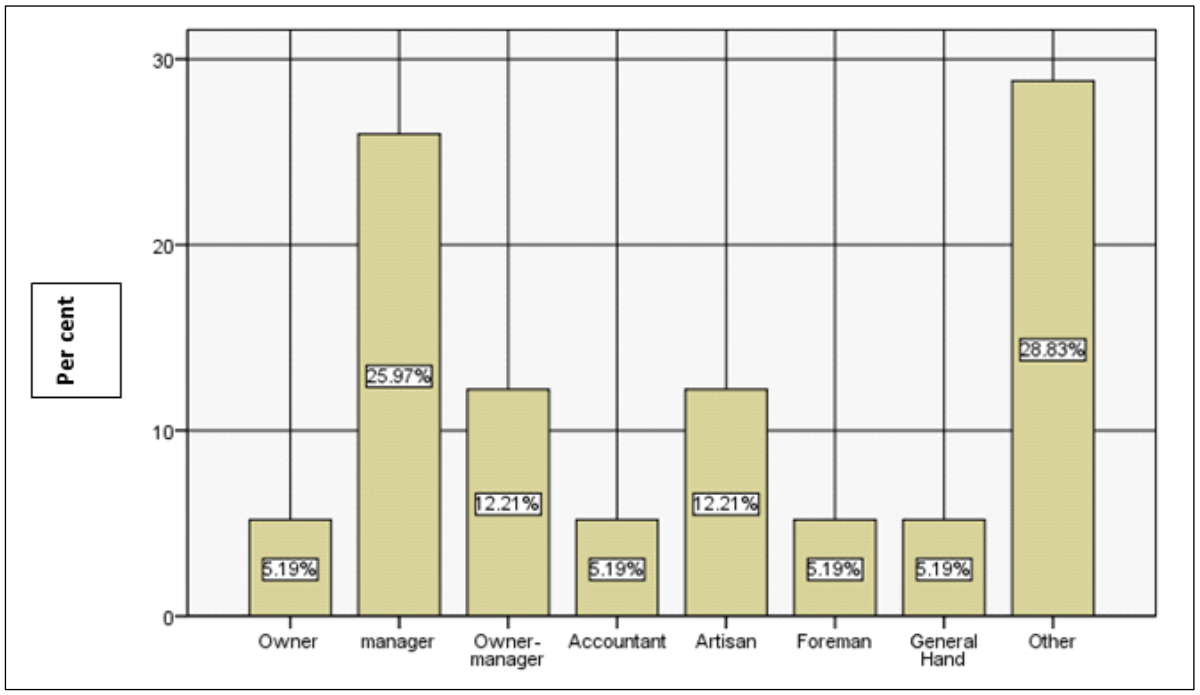


Figure 6.2: Distribution of respondents by their position in their company

Figure 6.2 shows that approximately 26 per cent of the respondents were the managers of the SMEs under study.12.2 per cent were owner managers and the other 12.2 per cent were artisans. Owners, accountants, foreman and general hands each constituted 5.2 per cent of the respondents, 28.8 per cent had other positions outside those stated in the questionnaire which includes data capturers, sales representatives, merchandisers, consultants, brand ambassadors and technicians. However, it can be observed that the majority of the respondents claimed that they had other positions not cited in the questionnaire. This is further fortified by the mode which indicates that the other category was selected the most.

6.3.4 Years of operation

The number of years the respondents' organisation has been in operation was also sought. The results are shown in Figure 6.3.

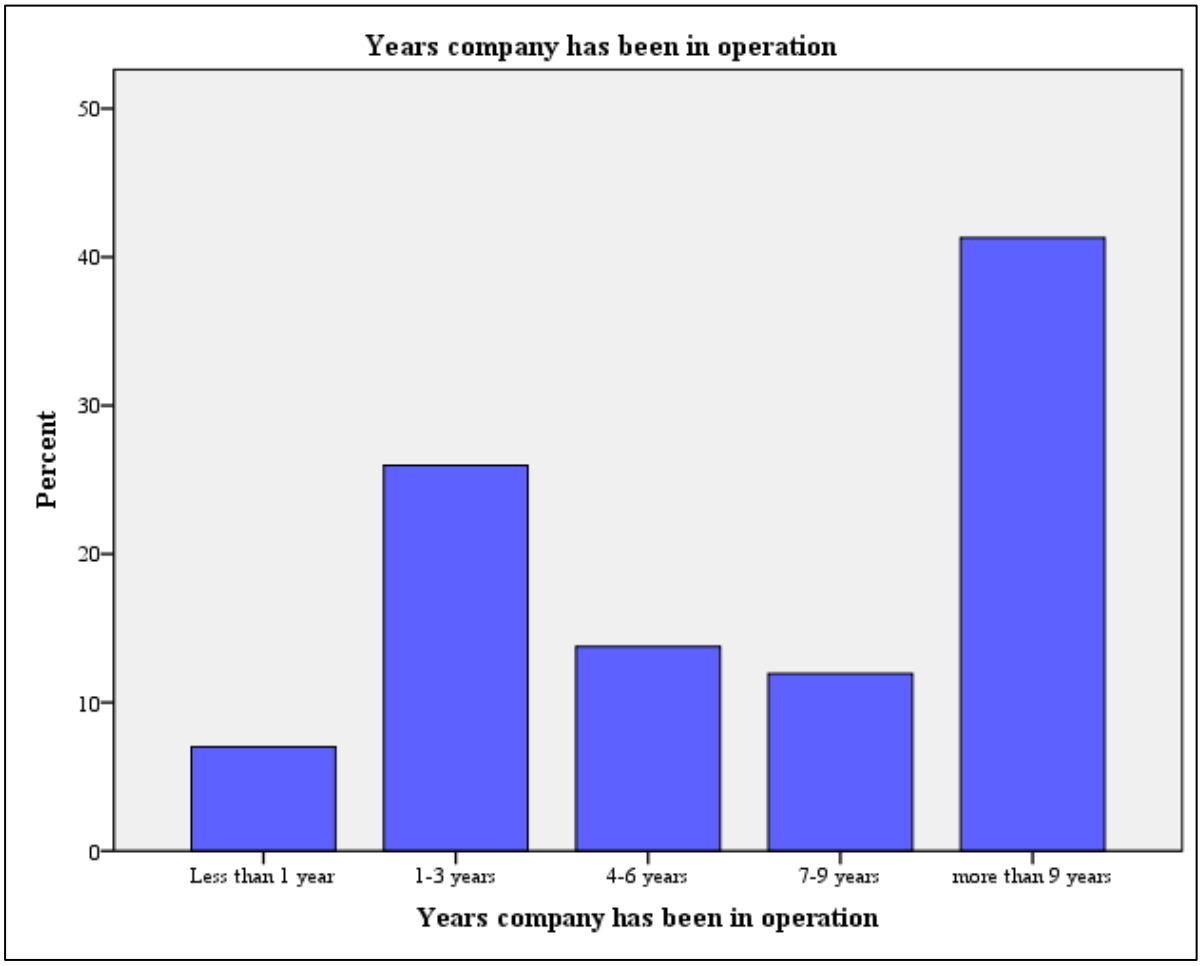


Figure 6.3: Length of time the company has been in operation

Figure 6.3 shows that approximately 7 per cent of the SMEs have been operating for less than a year, 26 per cent for 1 to 3 years while13.8 per cent have been operating for 4 to 6 years. However, 11.9 per cent and 41.3 per cent of the SMEs have been operating for 7 to 9 and more than 9 years. Thus, most of the SMEs have been operating for more than 9 years. However, these results contradict most of the literature on SMEs in Zimbabwe which seems to claim that the life expectancy of most SMEs in the country is as low as 6 months. For example, Chichoni (2011) found that up to 75 per cent of new businesses in Zimbabwe fails within their first 5 years.

6.3.5 Respondents' length of service in their respective organisations

The study further sought the average length of service the respondents had served their respective organisations. Figure 6.4 shows the number of years the respondents worked in their respective companies and the number of years the companies have been in existence.

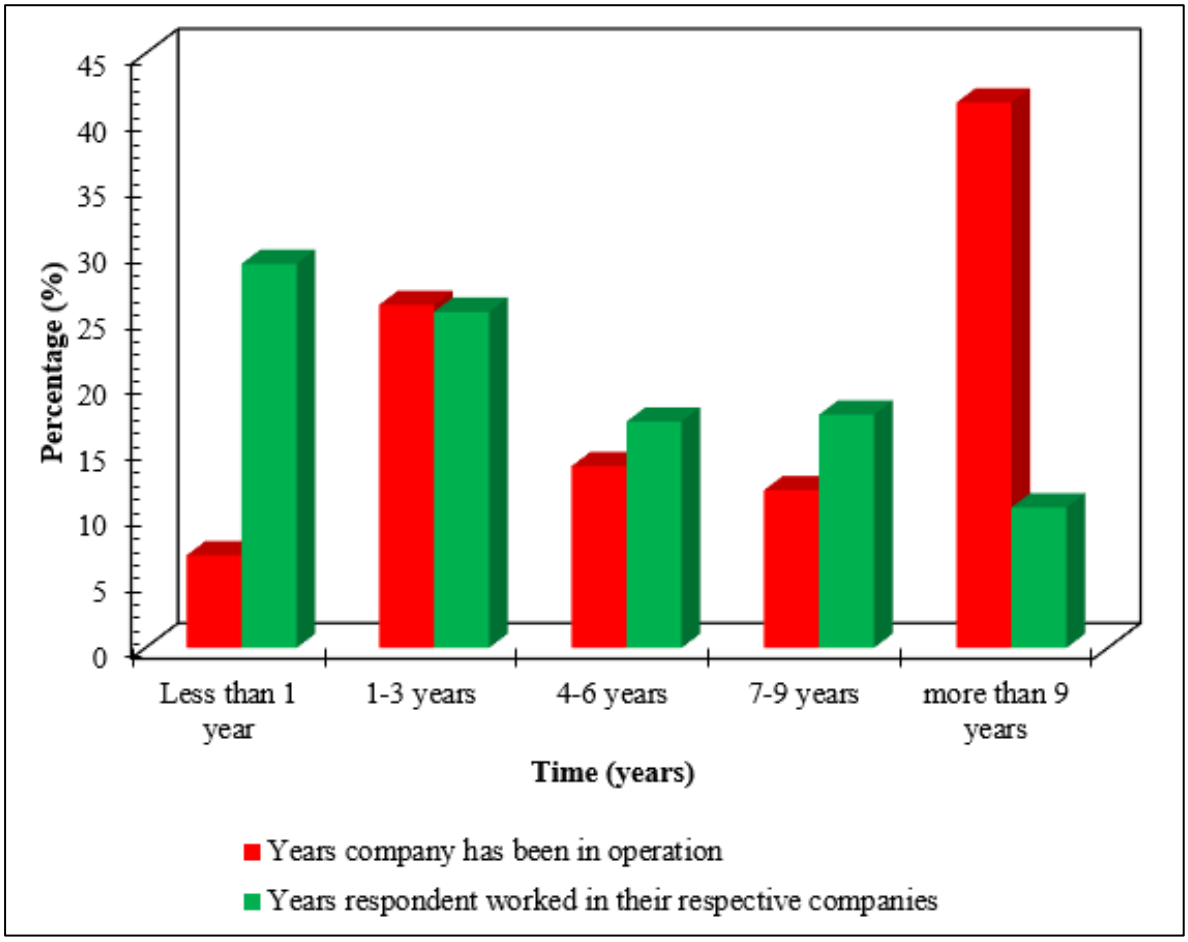


Figure 6.4: Respondents' average length of service in their respective organisations (years)

Approximately 29.09% and 25.97% of the respondents have been working for less than a year and 1 to 3 years in their respective companies. These results concur with Chichoni's (2011) findings that over 75 per cent of enterprises that start in Zimbabwe eventually fail. This is because, in this study, the majority of the respondents (29.09 per cent) have been working in the SMEs for less than 1 year which may imply that these SMEs had been established for not more than a year. However, about 17.14% have been in their companies for 4 to 6 years and 17.66% have been with their company for 7 to 9 years. Only 10.65% of the respondents have been working in their company for more than 9 years. Figure 6.4 also shows that 7.01% of the SMEs have been operating for less than a year, 25.97% for 1 to 3 years while 13.77% have been operating for 4 to 6 years. However, 11.95% and 41.30% of the SMEs have been operating for 7 to 9 and more than 9 years respectively. These results seem to contradict with Nyoni and Bonga (2018, p. 2) findings that suggest that the majority of SMEs that start in Zimbabwe

fail within the first five years. Radipere and Dhliwayo (2014, p. 10), however, argues that firm performance improves with the age of business due to the learning experience. Given that the majority of the respondents were drawn from organisations which have been in existence for more than 5 years, it implies that the organisations are innovative, therefore, the responses obtained were informed and objective. Nevertheless, the fact that only 10.65 per cent of the participants had been working in the SMEs for more than 9 years may imply that only a few SMEs operate for more than 9 years.

6.3.6 Company status

The questionnaire asked the participants about the status of their companies. Their responses are highlighted below in Table 6.4.

Table 6.4: Registration status and ownership structure of the respondents' companies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Registered	137	41.56	41.56	41.56
	Not registered	34	10.39	10.39	51.95
	Cooperative	60	18.18	18.18	70.13
	Family	69	20.78	20.78	90.91
	Partnership	26	7.79	7.79	98.70
	Other	4	1.30	1.30	100.00
	Total	330	100.00	100.00	

Table 6.4 shows that 41.56 per cent of the SMEs were registered and 10.39 per cent were not registered. With regards to company ownership, about 18.28 per cent were cooperatives while 20.78 per cent were family-owned businesses. Approximately 7.79 per cent of the SMEs in this study were partnerships. However, only 1.3 per cent had another status not provided for in the questionnaire. This implies that most of the SMEs in this study were registered while a minority had other forms of status outside of those provided in the questionnaire.

6.3.7 Average number of employees per organisation

The questionnaire asked the participants for the number of employees in their companies. Table 6.5 and Figure 6.6 show their responses.

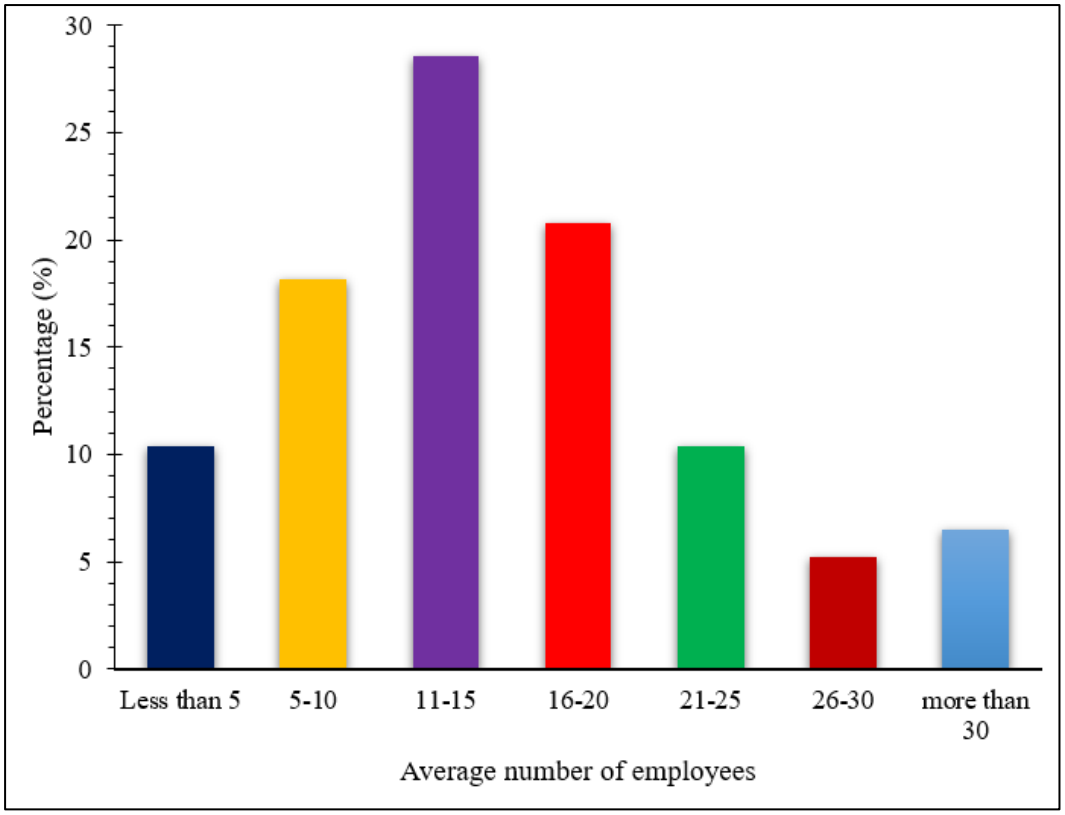


Figure 6.5: How many employees are there in the company?

Table 6.5: Employees statistics

N	Valid	330
	Missing	0
Mean		3.440
Std. Error of Mean		0.081
Median		3.29[a]
Mode		3
Std. Deviation		1.593
Variance		2.539
Skewness		0.534
Std. Error of Skewness		0.124
Kurtosis		-0.218
Std. Error of Kurtosis		0.248
Range		6
Minimum		1
Maximum		7

The results shown in Figure 6.5 show that 10.4 per cent of the SMEs employed less than 5 employees. 18.2 per cent and 28.6 per cent employed 5 to 10 and 11 to 15 employees respectively. Moreover, 20.8

per cent and 10.4 per cent of the companies employed 16 to 20 and 21 to25 employees. Nevertheless, 6.5 per cent of the SMEs employed more than 30 employees. Table 6.5 shows that the modal average number of employees was represented by 3 on the scale which corresponds to the range 11-15. Thus, most of the SMEs employed 11 to 15 employees followed by 16 to 20. Hence, enterprises involved in this study meet the Government of Zimbabwe's 2004 policy framework for SMEs which classifies SMEs as employing less than 100 employees.

6.3.8 Educational level

The respondents had attained various certificates ranging from O' Level to PhD level and this is depicted in Table 6.6.

Table 6.6: What is your highest educational level?

		Frequency	Valid Percent	Cumulative Percent
Valid	Below "O" level	11	3.38	3.38
	"O" level	51	15.58	18.96
	"A" level	45	13.77	32.73
	Bachelor's Degree	153	46.49	79.22
	Masters	63	18.96	98.18
	Doctorate	7	1.82	100.00
	Total	330	100.00	

As depicted in Table 6.6, the majority of the respondents (46.49 per cent) had attained bachelor's degrees. This is further confirmed by the mode which shows that the most common qualification among the respondents was the bachelor's degree. An interesting finding was that 19 per cent of the respondents had Masters Degrees followed by 15.58 per cent with O' level certificates. About 13.77 per cent of the respondents had A' level certificates while 3.4 per cent and 1.8 per cent had below an O' level certificate and a doctorate. These results imply that most of the SME representatives had attained university education hence the SMEs in this study are being run by well-educated and knowledgeable people.

6.3.9 Professional qualifications

In addition to the level of education, professional qualifications and skill level of the workforce are important determinants of how successful businesses are in terms of innovation. The participants were, therefore, asked to state their professional qualifications. Their responses are shown in Table 6.7.

Table 6.7: Do you have any professional qualifications?

		Frequency	Per cent	Valid Percentage	Cumulative Percentage
Valid	Yes	231	70.13	70.13	70.13
	No	99	29.87	29.87	100.0
	Total	330	100.0	100.0	

As shown in Table 6.7, most of the participants (70.13 per cent) claimed that they had professional qualifications. Only 29.9 per cent of the respondents did not have professional qualifications. Thus, most of the SMEs are being managed and operated by qualified personnel.

6.4 The extent of innovativeness in SMEs in the manufacturing sector

The first objective of the study was to determine the extent of innovation among SMEs in the manufacturing sectors. Both qualitative and quantitative techniques were used to collect and analyse the data. The study sought independent opinions from the key informants regarding the level and nature of innovations and the types and extent to which SMEs in Mashonaland West are innovative.

It was established through the interviews that the ability and innovative capacity of the SMEs in the manufacturing sector varied significantly depending on their size, area of focus/products produced, target market, resources and the area in which they operated. However, it emerged that the level of innovation among SMEs was generally low with the that the dominant dimension of innovation capabilities in terms of process, product and marketing innovations being incremental. According to one of the key interviewees representing one of the associations of SMEs, approximately 90% of the innovations by local SMEs are incremental rather than radical. He attributed this to the fact that most of SMEs in Zimbabwe face numerous challenges to undertake radical innovations which require a huge capital outlay. As a result, most SMEs are mainly engrossed on costs or feature improvements in product, services, marketing or business models which may result in incremental changes to existing attributes or extensions in product/service range.

The qualitative study also gathered that the majority of employees SMEs in the manufacturing sector lack the technical capability to develop innovations that are unique to Zimbabwe. As a result, the little efforts towards innovation are mainly incremental whereby companies imitate or just modify the existing processes and products offered by their competitors. The majority of the key informants also pointed out that in instances where the employees have some technical competence, they often face financial constraints to embark on any innovations. It emerged that while the majority of SMEs have carried out some innovations using their own internal efforts, they often find the need for external

support due to their lack of internal technical strength or involvement in very limited or occasional innovations. It was found that the little efforts of incremental innovations are concentrated in those SMEs, which have access to greater external support which suggests that SMEs should have both internal technical capability and access to external support networks.

Regarding the type of innovation, about 60% of the interviewees indicated that the SMEs focused on product innovation where they are mainly involved in feature improvements or reverse engineering of competitor products. About 30% of the interviewees mentioned that a number of SMEs had undertaken process innovation aimed at cutting costs. Marketing innovations were mentioned by 25% of the participants and the majority of the marketing efforts were on social media compared to print media. However, it was established that SMEs face difficulties in meeting quality and quantity requirements. One of the key informants reiterated that "SMEs in Zimbabwe still have a lot to do for them to leverage on marketing innovation." Only 3 among the 20 respondents spoke about organizational innovations, however, they narrated that the SMEs continue to rely on outdated business models developed by other organisations.

In an attempt to establish the extent of innovativeness of the SMEs in the manufacturing sector within the Mashonaland West Province, the respondents were asked a number of questions in the questionnaire.

6.4.1 Products produced

Participants were asked to indicate the products they produced, the results are shown in Table 6.8.

Table 6.8: What products do you produce?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Furniture	6	1.82	1.82	1.82
	Clothing	23	7.01	7.01	8.83
	Confectionery (Bakery)	6	1.82	1.82	10.65
	Steel Products	40	12.21	12.21	22.86
	Curvings	10	3.12	3.12	25.97
	Food	57	17.14	17.14	43.12
	Other	188	56.88	56.88	100.00
	Total	330	100.00	100.00	

Table 6.8 shows that 17.01 per cent of the manufacturing SMEs in the study were involved in food production .12.2 per cent of the SMEs were involved in steel production and 1.82 per cent of the SMEs were involved in confectionery. About 7 per cent of the SMEs were involved in clothing and about 1.82

per cent of the SMEs were into furniture production. The majority of the SMEs were into the production of other products which include timber products, adhesives, stationary, plastic and leather products.

6.4.2 Decision-making

Participants were asked whether or not they are involved in the decision-making process in their company. Their responses are depicted in Table 6.9**.**

Table 6.9: Are you involved in the decision-making process in your company?

		Frequency	Per cent	Valid Percentage	Cumulative Percentage
Valid	Yes	100	26.0	26.0	26.0
	No	285	74.0	74.0	100.0
	Total	385	100.0	100.0	

Table 6.9 shows that 26 per cent of the respondents were involved in the decision-making process in their companies. However, 74 per cent of the respondents were not involved in decision-making. Thus, most of the respondents were not involved in the decision-making process.

6.4.3 Challenges encountered

SMEs, in general, face innumerable constraints for undertaking innovations. The respondents were, therefore, asked to indicate the challenges that their companies were facing and their responses are shown in Table 6.10.

Table 6.10: Which of the following challenges have you encountered in your company?

		Frequency	Per cent	Valid Percentage	Cumulative Percentage
Valid	Capital	78	23.6	23.6	23.6
	Manpower	59	17.9	17.9	41.6
	Infrastructure	34	10.4	10.4	51.9
	Competition	34	10.4	10.4	62.3
	Government support	51	15.6	15.6	77.9
	Rules and Regulation	26	7.8	7.8	85.7
	Technological	26	7.8	7.8	93.5
	Other	21	6.5	6.5	100.0
	Total	330	100.0	100.0	

Table 6.10 shows that 23.6 per cent of the respondents faced capital challenges, 17.9 per cent faced manpower challenges and 10.4 per cent faced infrastructure challenges.10.4 per cent of the participants faced competition challenges, 15.6 per cent faced government support challenges and 7.8 per cent faced

rules and regulations challenges. 7.8 per cent of the participants faced technological challenges While 6.5 per cent faced other challenges. However, most of the SME's in this study faced capital challenges. These results are in agreement with Ackah and Vuvor's (2011) finding that in spite of the role of SMEs in the Ghanaian economy, the financial checks they face in their processes are daunting and this has had a negative impact on their enlargement and also limited their potential to drive the national economy as projected.

6.4.4 Successes achieved

One of the questions in the questionnaire requested the SME representatives in the study to indicate the successes they had achieved in their company. Their responses are shown in Figure 6.6.

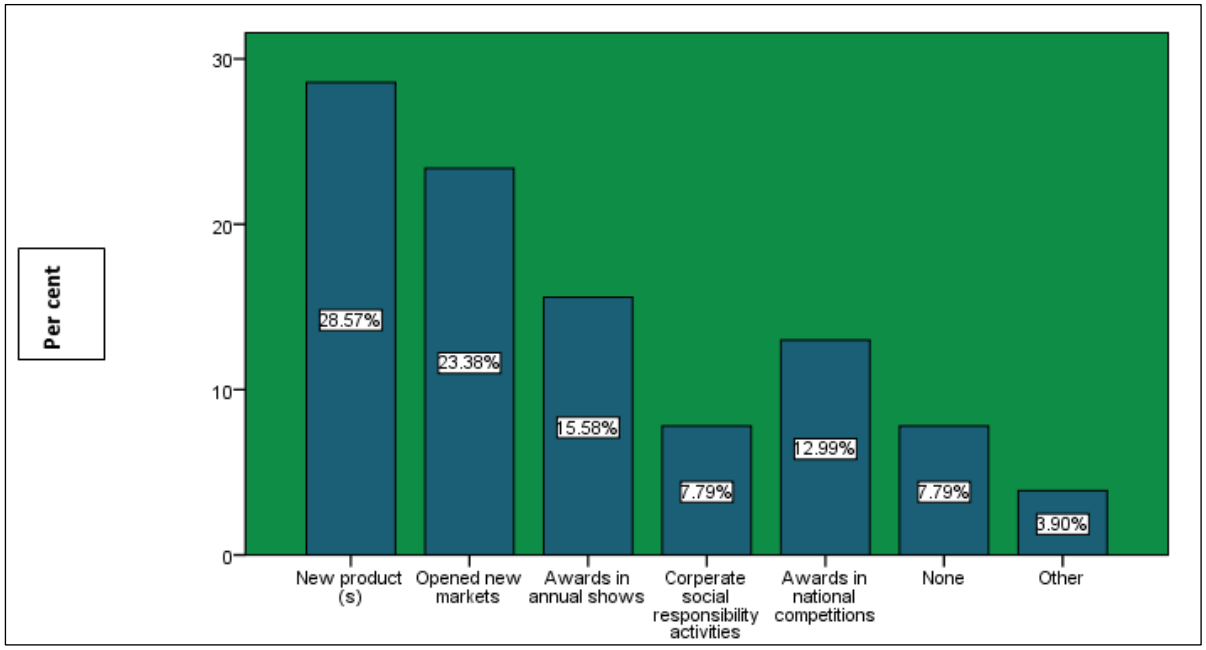


Figure 6.6: Which of the following successes have you achieved in your company?

Figure 6.6 clearly shows that 28.6 per cent of the respondents had achieved success in the development of new products.23.4 per cent had successfully opened new markets and 15.6 per cent had received awards in annual shows.7.8 per cent of the respondents had been successful in corporate social responsibility activities and 13 per cent had received awards in national competitions.7.8 per cent of the participants claimed that they had not been successful in any of the areas mentioned. However, 3.9 per cent had achieved success in other things not listed in the questionnaire. Nevertheless, most of the SMEs had achieved success in the development of new products.

6.4.5 New markets

Participants were asked whether or not they had opened a new market since they started operating. Their responses are presented in Table 6.11.

Table 6.11: Have you ever opened a new market since you started operating?

		Frequency	Per cent	Valid Percentage	Cumulative Percentage
Valid	Yes	259	78.4	78.4	78.4
	No	71	21.6	21.6	100.0
	Total	330	100.0	100.0	

As shown in Table 6.11, approximately 78.4 per cent of the respondents indicated that they had managed to open new markets since they started operating. However, 21.6 per cent of the respondents indicated that they had not been able to open new markets since they started operating. Therefore, the majority of the SMEs in this study had opened up new markets.

6.4.6 Markets served

The participants were asked about the markets they serve. The results are shown in Table 6.12.

Table 6.12: Which markets do you serve?

		Frequency	Per cent	Valid Percentage	Cumulative Percentage
Valid	Local	146	44.2	44.2	44.2
	Foreign	111	33.8	33.8	77.9
	Both	73	22.1	22.1	100.0
	Total	330	100.0	100.0	

Table 6.12 shows that 44.16 per cent of the respondents served the local markets and 33.8 per cent served the foreign markets. 22.1 per cent of the respondents served both markets. Thus, most of the SMEs in this study served the local market.

6.4.7 Innovative activities

The questionnaire also requested the participants to describe their innovation activities and their responses are outlined in Figure 6.7.

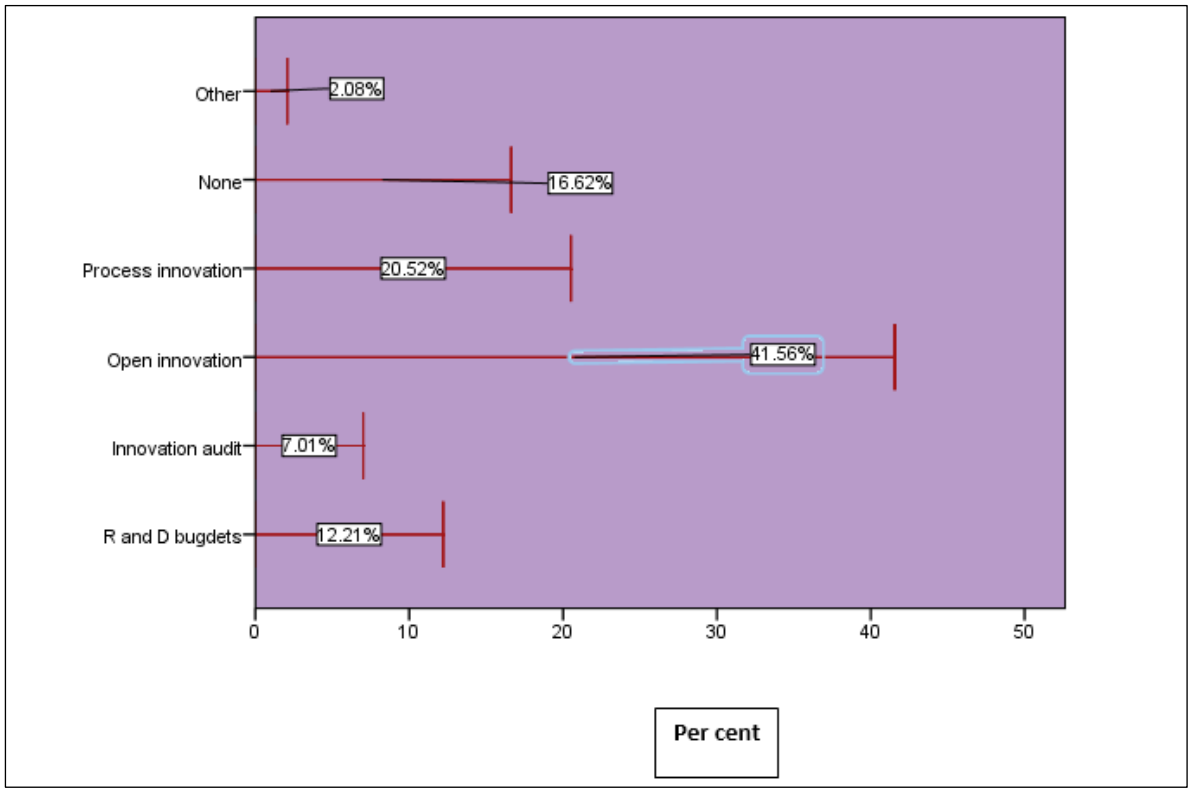


Figure 6.7: Which of the following best describe your innovation activities in the company?

From Figure 6.7 it can be observed that most of the small to medium enterprises (41.6 per cent) were involved in open innovation followed by process innovation. 20.5 per cent indicated that they were involved in process innovation. 16.1 per cent were not involved in any of the given innovation activities.12.2 per cent of the respondents described their innovation activities through the research and development budgets.7 per cent claimed that innovation audit described their innovation activities and 2.1 per cent described their innovation activities through other ways.

6.4.8 Rewarding employees with innovative ideas

The questionnaire asked the respondents whether or not employees who brought in innovative ideas were rewarded by the company. Their responses are shown in Table 6.13.

Table 6.13: Does the company reward employees who bring in innovative ideas?

		Frequency	Per cent	Valid Percentage	Cumulative Percentage
Valid	Universities	60	15.6	15.6	15.6
	Government	40	10.4	10.4	26.0
	Other companies	30	7.8	7.8	33.8
	Companies	80	20.8	20.8	54.5
	Research centres	40	10.4	10.4	64.9
	None	130	33.8	33.8	98.7
	Other	5	1.3	1.3	100.0
	Total	385	100.0	100.0	

It can be observed from Table 6.13 that the majority of the respondents (58.7 per cent) claimed that their companies rewarded people who bring in innovative ideas. However, the minority (41.3 per cent) claimed that their companies did not reward employees who brought in innovative ideas.

6.5 The relationship between innovation and the growth of SMEs

The second objective was to explore the relationship between innovation and the growth of SMEs in the manufacturing sector. Both qualitative and quantitative data were collected and analysed. Regression and correlation analysis was performed on the data collected to determine the impact innovation had on SMEs growth and survival.

To understand the nature and direction of the relationship between innovation and SMEs growth in Zimbabwe, the key informants were asked to describe and explain their views with regards to the strength, the direction and the impact of the different types of innovation have had on the growth of SMEs in Zimbabwe.

Almost all of the interviewees indicated that there is a positive relationship between innovation and firm performance. However, the participants expressed different views regarding the strength of the effect each innovation types has on firm growth. While the key informants generally agreed that organisational innovation as a strategy improves customer performance, internal business process

performance and growth performance, it emerged that most of them were of the view that product and process innovation had the most marked influence on company growth and survival.

In an attempt to establish the relationship between innovation and the growth of SMEs within the Mashonaland West Province, the respondents were asked a number of questions and the descriptive statistics are presented in this section. Inferential statistics were presented at the end of the section.

6.5.1 R and D Budget

Breakthrough innovations are usually a result of concerted efforts through research and development, serendipity, ingenuity. The respondents were thus asked whether they had an R and D budget in their company. Their responses are noted in Figure 6.8.

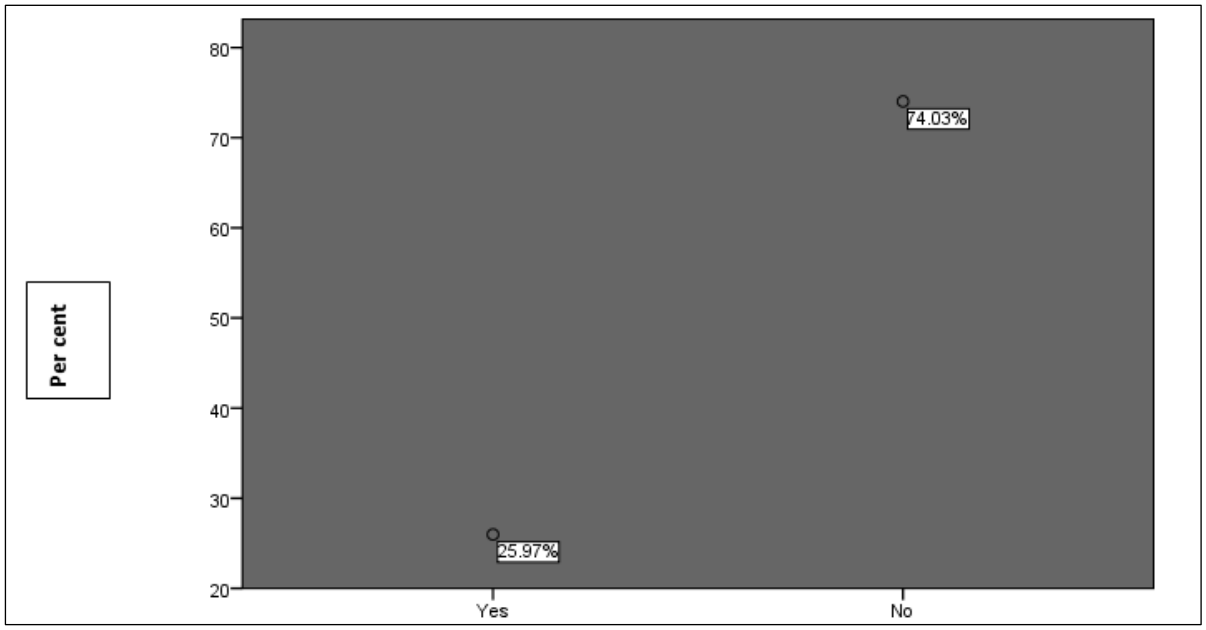


Figure 6.8: Do you have R and D budgets in your company?

Figure 6.8 shows that the majority of the participants (74 per cent) did not have research and development budgets in their companies. However, the minority (26 per cent) of the respondents had research and development budgets in their companies.

6.5.2 Formalised Department for R and D

Previous empirical evidence supports the view that formalized planning improves firm growth (Kraus *et al*., 2006). It emerged from the interviews with that key informants that SMEs due to their unique characteristics possess inherent capabilities to undertake innovations successfully, however, due to lack of formalisation most innovations do not produce the expected growth. It alluded that SMEs are likely to gain more systematic knowledge of the characteristics of its environment and of alternative innovative strategies if they formalise their research and development. According to one of the interviewees, "the process of creating formalised research and development plans forces management

to systematically deal with the goals and strategies of the firm." The respondents to the questionnaire were asked whether or not they have a formalised Department for R and D. Their responses are shown in Figure 6.9.

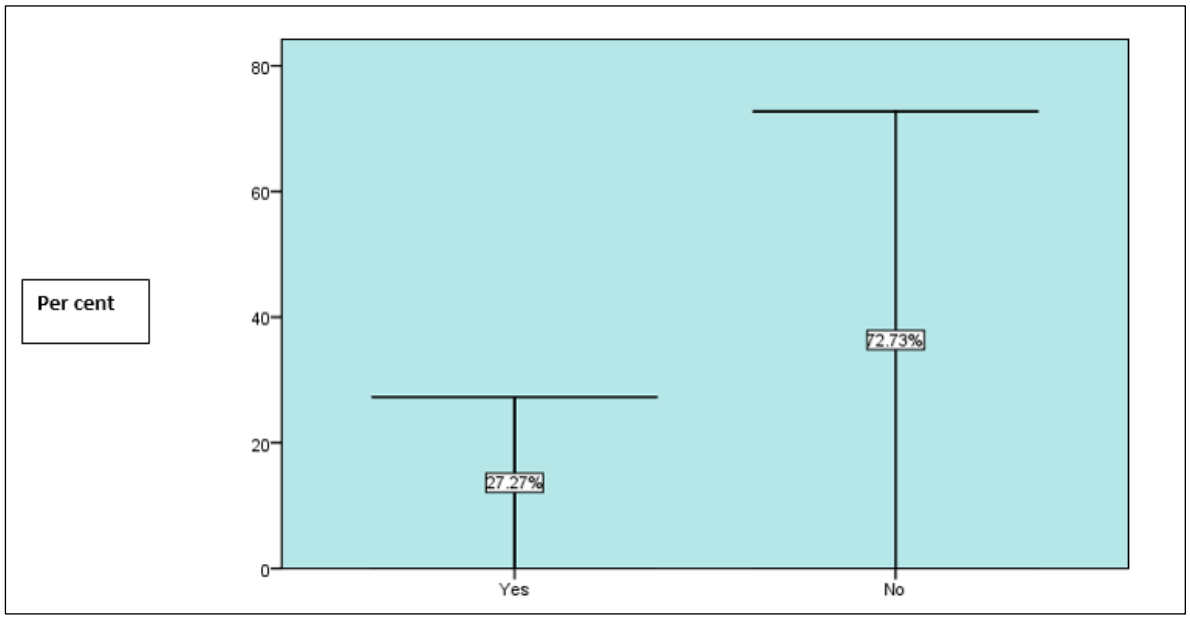


Figure 6.9: Do you have a formalised Department for R and D?

Figure 6.9 shows that the majority of the participants (72.7 per cent) did not have formalised Departments for R and D and only 27.3 per cent did have formalised departments. These results concur with Nyamwanza's (2014) findings that SMEs have informal, dynamic strategies. This is evidenced by the majority of SMEs who claimed that they did not have formalised Departments for Research and Development.

6.5.3 Specific and constant suppliers

From the interviews with the key informants, it was established that supply chain process innovation is important for companies of all sizes. The majority of the participants indicated that inbound supplier flexibility (ISF) has a stronger positive effect on SMEs' product innovation performance. It was argued that in today's competitive, dynamic business world, it is crucial for SMEs to become innovators in order to transform its supply chain. To establish the extent to which the SMEs had adopted specific and constant suppliers, the respondents were asked whether or not they had specific and constant suppliers of their raw materials. Their responses are presented in Figure 6.10.

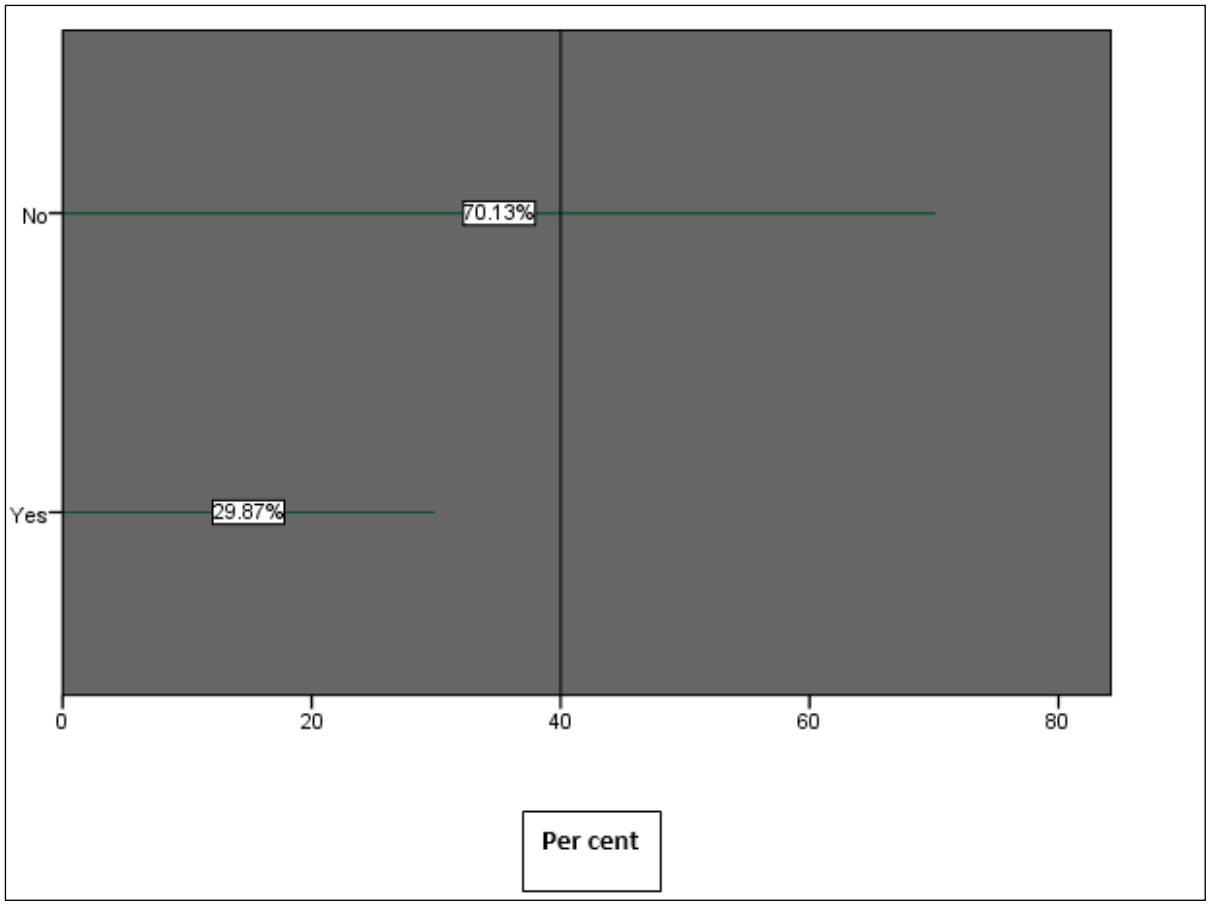


Figure 6.10: Specific and constant supply of raw materials

Figure 6.10 shows that the majority of the respondents (70.1 per cent) had no specific and constant suppliers of their raw materials, while only 29.9 per cent had specific and constant suppliers of their raw materials.

6.5.4 Suppliers of raw materials

The respondents were also asked where they get their raw materials. Their responses are outlined in Table 6.14.

Table 6.14: Where do you get your supplies of raw materials from?

		Frequency	Per cent	Valid Percentage	Cumulative Percentage
Valid	Local	159	48.1	48.1	48.1
	Outside the country	90	27.3	27.3	75.3
	Both	81	24.7	24.7	100.0
	Total	330	100.0	100.0	

The results in Table 6.14 show that the majority of the respondents (48.1 per cent) sourced their raw materials locally whereas 90% got the bulk of their supplies outside Zimbabwe. Approximately, 24.7 per cent obtained their raw material both locally and outside the country. Considering the foreign exchange challenges currently experienced in Zimbabwe, it is imperative for SMEs to come up with innovative supply chain system which is cost effective.

6.5.5 Innovation policy of the company

The participants were asked whether or not they had an innovation policy in their companies. Their responses are noted in Figure 6.11.

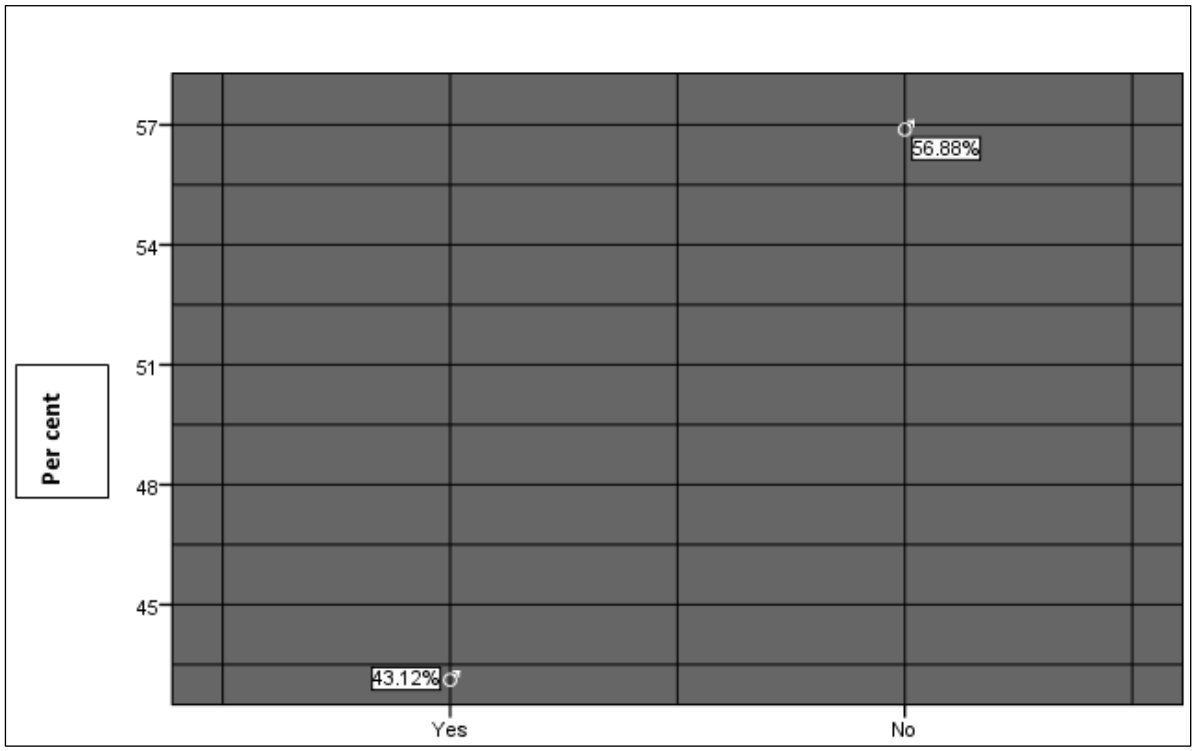


Figure 6.11: Do you have an innovation policy in your company?

Figure 6.11 shows that 56.9 per cent of the participants did not have innovation policies and 43.1 per cent of the respondents had innovation policies. These findings support Nyamwanza's (2014) finding that SMEs have informal, dynamic strategies hence very few have innovation policies.

6.5.6 Number of branches

Participants were asked about the number of branches they had. Their responses are shown in Figure 6.12.

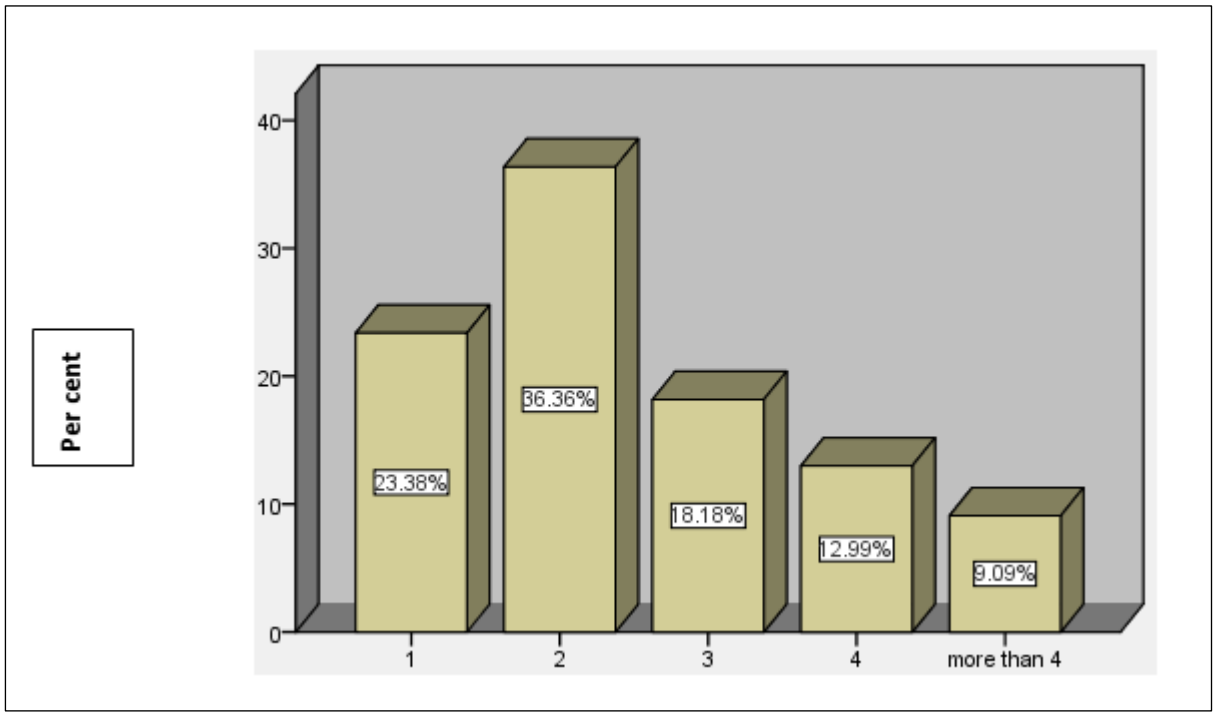


Figure 6.12: How many outlets/branches do you have?

As presented in Figure 6.12, 23.4 per cent of the SMEs had 1 branch and 36.4 per cent had 2 branches while 18.2 per cent, as well as 13 per cent, had 3 and 4 branches respectively. Only 9.1 per cent had more than 4 outlets. These results imply that most of the SMEs have got very few branches and this agrees with Nyamwanza's (2014) finding that SMEs rely on a small number of customers and operate in limited markets.

6.5.7 Adequate equipment

Although SMEs due to their unique characteristics possess inherent capabilities to undertake technological innovations, it emerged from the interviews that one of the most prominent constraint to successfully undertake innovations among SMEs in the manufacturing sector in Zimbabwe is technical capacity. The questionnaire asked the participants if their equipment was adequate or not. Their responses are recorded in Figure 6.13.

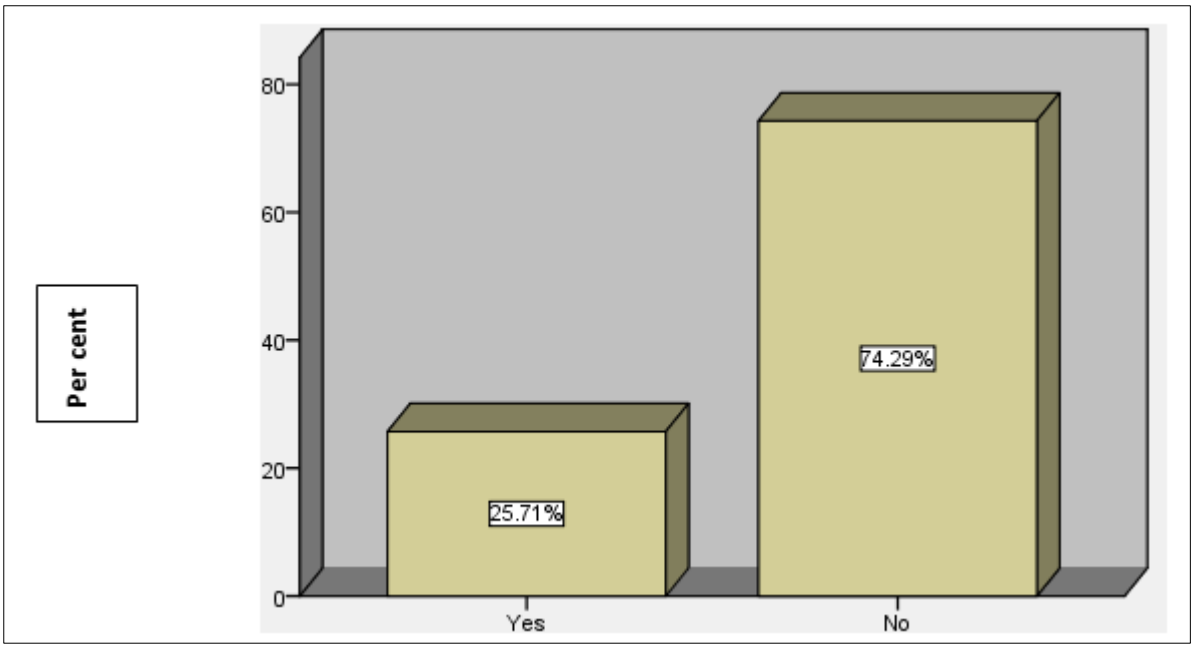


Figure 6.13: Is your equipment adequate to fulfil your orders?

Figure 6.13 shows that the majority of the respondents (74.3 per cent) did not have adequate equipment to fulfil their orders and only 25.7 per cent had adequate equipment. These results concur with Muponda's (2013) findings that SMEs have got severe resource limitations in terms of management and manpower, as well as finance.

6.5.8 Capacity to satisfy the current market

The participants were asked whether they have enough capacity to satisfy their current market. Their responses are depicted in Table 6.15

Table 6.15: Do you have enough capacity to satisfy your current market?

		Frequency	Per cent	Valid Percentage	Cumulative Percentage
Valid	Yes	77	23.4	23.4	23.4
	No	253	76.6	76.6	100.0
	Total	330	100.0	100.0	

Table 6.15 shows that the majority of the respondents (76.6 per cent) do not have enough capacity to satisfy their current market and only 23.4 per cent of the participants had enough capacity.

6.5.9 Alliances with institutions

The findings from the interviews showed that even where SMEs have some internal technical competence, they often find the need for external support due to their lack of internal technical strength or involvement in very limited or occasional innovations. The respondents to the questionnaire survey were, therefore, asked whether or not they have alliances with other institutions. Their responses are shown below in Figure 6.14.

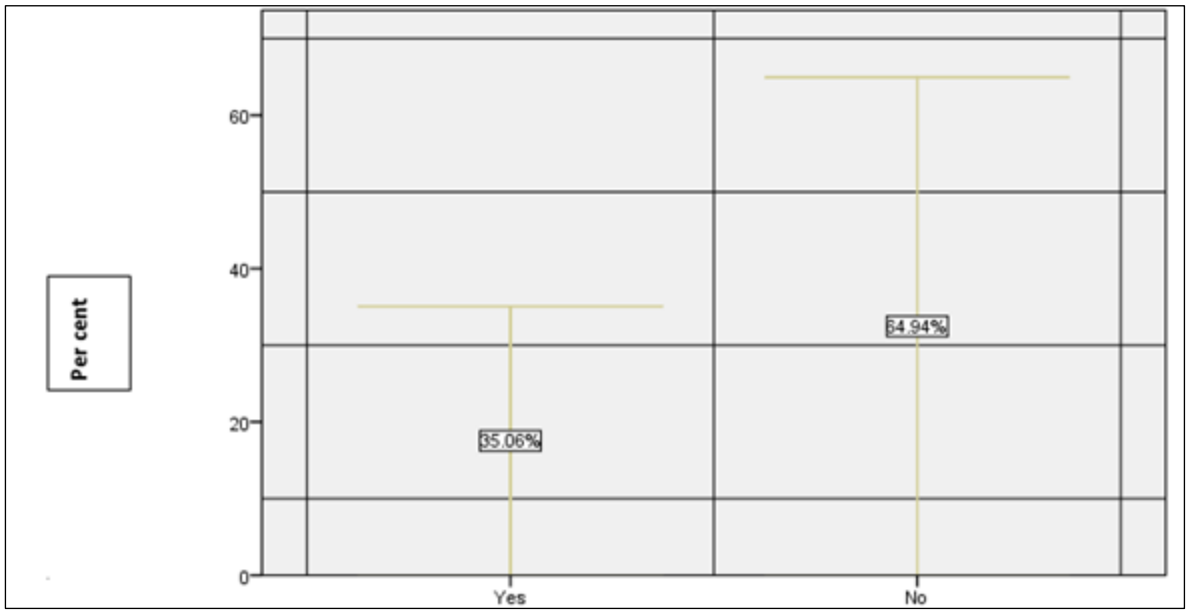


Figure 6.14: Do you have any alliances with institutions like universities and Research Centres e.g. SIRDC?

Figure 6.14 shows that most of the participants (64.9 per cent) did not have alliances with institutions like universities and Research Centres. Only 35.1 per cent had alliances with the institutions. This, therefore, suggests that the majority of SMEs have carried out innovations only with internal efforts.

6.5.10 Growth of the company

Since the second objective of the study was to determine the relationship between innovation and growth of SMEs both the participants and respondents to the interviews and questionnaire survey respectively were asked to state whether SMEs were growing or not as a result of the innovation efforts, they engaged in. Although some of the interviewees indicated that there was growth, the majority of the participants were of the view that SMEs fail within the first five years of their existence. Similar views were also expressed by the respondents to the questionnaire as shown in Figure 6.15.

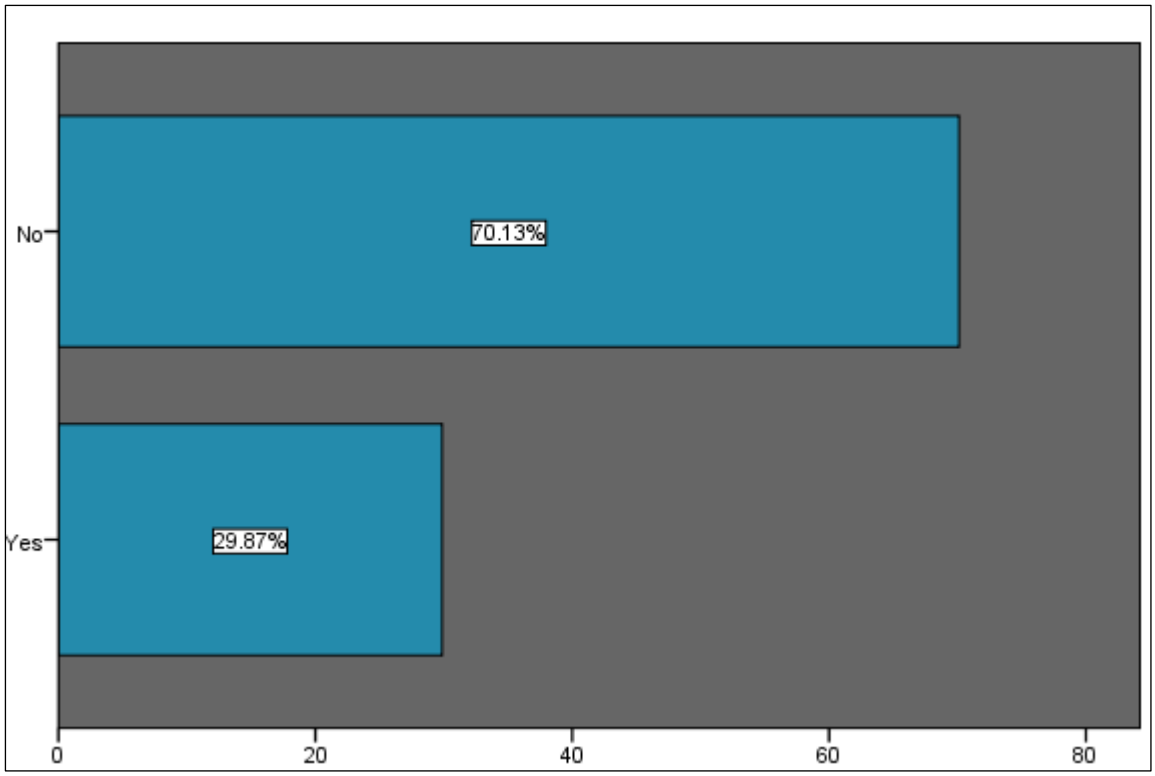


Figure 6.15: Do you think the company is growing?

The results presented in Figure 6.15 show that the majority of the participants (70.1 per cent) believe that their SMEs were not growing and 29.9 per cent claimed that their companies were growing. These results are in agreement with the SEDCE's (2012) finding that there has been stunted growth and sluggish development in the Small and Medium enterprises sector in the country.

6.5.11 Inferential tests on the relationship between innovation and growth

To measure growth, employment growth was used as an indicator for performance (dependent variable) considering that financial data are reported to be unreliable in the context of SMEs hence employment growth is a more stable indicator than turnover growth, since firms only add employees when a higher level of business volume is likely to be stabilized in the future. The growth was measured by the increase in the number of full-time employees since the SME under study were established. Since the distribution of employment growth differed one organisation to the other, the variable was dichotomized in group 0 (decline or no growth) and group 1 (positive growth). The independent variables were: product innovation, process innovation, marketing innovation and organisational innovation. Table 6.16 shows that Spearman rank correlation between the variables.

Table 6.16: Correlation between innovation type and organisational growth

			Product innovation	Marketing innovation	Process innovation	Organisational innovation	Company growth
Spearman's rho	Product innovation	Correlation Coefficient	1.000	.435**	.610**	.796**	.860**
		Sig. (2-tailed)	.	.000	.000	.000	.000
		N	330	330	330	330	330
	Marketing innovation	Correlation Coefficient	.435**	1.000	.700**	.734**	.342**
		Sig. (2-tailed)	.000	.	.000	.000	.000
		N	330	330	330	330	330
	Process innovation	Correlation Coefficient	.610**	.700**	1.000	.872**	.480**
		Sig. (2-tailed)	.000	.000	.	.000	.000
		N	330	330	330	330	330
	Organisational innovation	Correlation Coefficient	.796**	.734**	.872**	1.000	.626**
		Sig. (2-tailed)	.000	.000	.000	.	.000
		N	330	330	330	330	330
	Company growth	Correlation Coefficient	.860**	.342**	.480**	.626**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.
		N	330	330	330	330	330

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

The results shown in Table 6.16 show that there is a positive and significant correlation between product innovation and company growth (r=0.860; *p*=0.00). The findings also show that there is a positive and significant correlation between marketing innovation and company growth (r=0.342; p=0.00). The relationship between process innovation and company was also positive, moderate and significant (r=0.480; *p*=0.00). The relationship between organisational innovation and company growth was also positive, moderate and significant (r=0.626; p=0.00). Based on the correlation coefficients presented in Table 6.16, the findings suggest that product innovation impacts most on company growth followed by organisational and process innovation in that order. Marketing innovation had the least impact on company growth. The positive correlations suggest that when innovation increases, company growth also increases thereby enhancing the chances of the business' survival. The following regression model was used to evaluate the impact of innovation on organisational growth

$$Y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \in$$

Where

Y	=	SMEs growth
α	=	Intercept
$\beta_1, \beta_2 \beta_3 \beta_4$	=	Standardised regression coefficients
X_1	=	Product innovation
X_2	=	Marketing innovation
X_3	=	Process innovation
X_4	=	Organisational innovation
$\in$	=	Random error term

Table 6.17: Model summary

Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	.866[a]	.749	.746	.231

a. Predictors: (Constant), Product innovation, Marketing innovation, Process innovation, Organisational innovation

The model summary presents the coefficient of correlation (R) and the coefficient of determination, the R-square value, which denotes the explained variance in the dependent variable (company growth). Based on the results in Table 6.17 the R square value of 0.749 implies that the independent variables predict the dependent variable by 74.9%, thus, leaving out 25.1% unexplained. This suggests that there

are other factors that were not evaluated and included in the model that are significant in explaining variation in SMEs growth through innovation.

To test the statistical significance of the regression model on whether it is a good descriptor for the relationship between the predictor variables and the dependent variable, the analysis of variance (ANOVA) was performed. Table 6.18 shows the ANOVA.

Table 6.18: Analysis of Variance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	60.417	4	15.104	283.678	.000[b]
	Residual	20.233	380	.053		
	Total	80.649	384			

a. Dependent Variable: SMEs growth

b. Predictors: (Constant), Product innovation, Marketing innovation, Process innovation, Organisational innovation

The results shown in Table 6.18 suggest that the regression model is a good descriptor of the relationship between organisational competitiveness and the independent variables (F=283.678; p=0.000). This means that the independent variables significantly explain the variation in the dependent variable.

The Beta standardised coefficients were used to determine the significance and the level each of the predictor variables contributes to the variation in organisational growth of manufacturing SMEs. The regression coefficients are presented in Table 6.19

Table 6.19: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.401	0.083		4.854	0.000
	Product innovation	0.221	0.009	0.809	25.642	0.000
	Marketing innovation	-0.066	0.056	-0.059	-1.176	0.240
	Process innovation	-0.004	0.055	-0.005	-0.080	0.936
	Organisational innovation	0.038	0.022	0.140	1.726	0.085

a. Dependent Variable: SMEs growth

The results presented in Table 6.19 indicate that products innovation contributes the most weight or amount of variation to SMEs growth (β= 0.221; p= 0.000), followed by organisational innovation, (β= 0.038; p= 0.000). However, organisational innovations, process innovations and marketing innovations are not significant predictors of SMEs growth.

The results support the findings of Ngugi, McOrege and Muiru (2013:29) who in a study that targeted 4560 SMEs in Nairobi County who are registered by Ministry of Industrialization and Ministry of Trade found a positive correlation between company innovativeness and company growth. Also, the results are consistent with the findings by Ibidunni, Iyiola and Ibidunni (2014:206) who in a study that investigated how product innovation, as a strategy, enhances the survival of SMEs in Nigeria, using Prodco Foods Nigeria Limited as a case study found that product innovation has a positive effect on sales volume of SMEs.

6.6 The drivers of, and the factors that hinder innovation in manufacturing SMEs

In an attempt to establish the drivers of, and the factors that hinder innovation in manufacturing SMEs, a number of questions were asked in the questionnaire which sought to elicit the responses of the respondents on this issue.

6.6.1 Government support

The participants were asked whether or not Government support was vital for innovation to be successful. Figure 6.16 shows their responses.

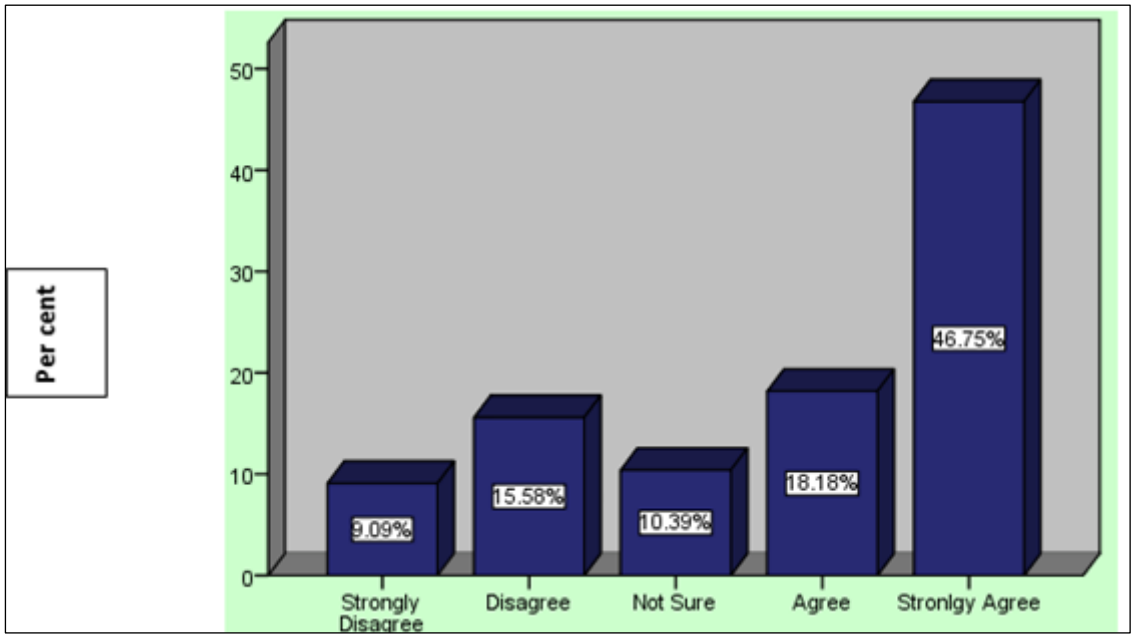


Figure 6.16: Government support is vital for innovation to be a success

Figure 6.16 shows that the majority of the participants (46.8 per cent) strongly agreed and 18.2 agreed that Government support is vital for innovation to be a success. However, 10.4 per cent were not sure

while 15.6 per cent and 9.1 per cent disagreed and strongly disagreed. Hence, most of the respondents believe that government support is vital for innovation to be successful.

6.6.2 Support

The respondents were asked whether or not they were getting any form of support from the government and their responses are shown in Table 6.20.

Table 6.20: Are you getting any support from the government?

		Frequency	Per cent	Valid Percentage	Cumulative Percentage
Valid	Yes (State)	91	27.5	27.5	27.5
	No	239	72.5	72.5	100.0
	Total	330	100.0	100.0	

Table 6.20 shows that only 27.5 per cent of the respondents were getting support from the government. However, 72.5 per cent of the respondents were not getting any support from the government in their operations.

6.6.3 Rules, laws and regulations and the development of SMEs

The respondents were asked whether or not the rules, laws and regulations in the country were conducive for the development of SMEs. Their responses are shown in Figure 6.17.

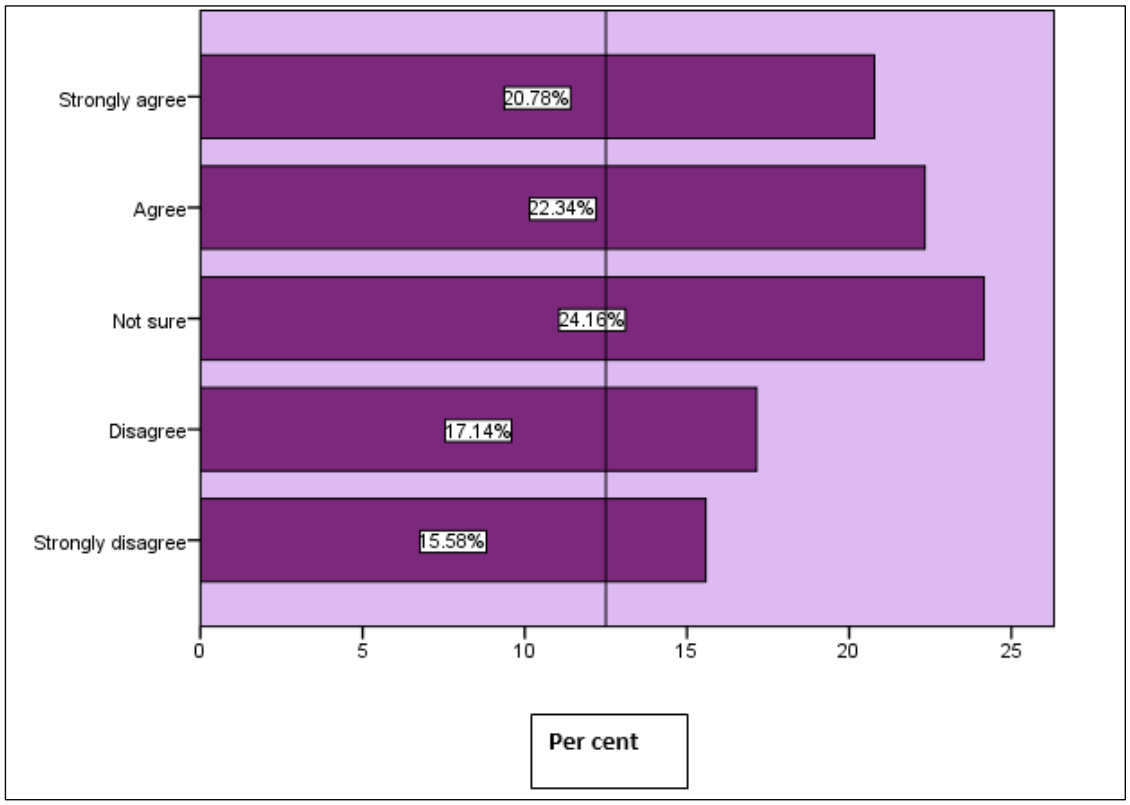


Figure 6.17: Rules, laws and regulations are not favouring the development of SMEs in Zimbabwe

Figure 6.17 shows that only 15.6 per cent of the respondents strongly disagreed and 17.1 per cent disagreed that the rules, laws and regulations were not favouring the development of SMEs.24.2 per cent were not sure and 22.3 per cent agreed while 20.8 per cent strongly agreed.

6.6.4 Improving the innovativeness of the company

The qualitative data from the interviews show that some SMEs have better internal technical competence characterised by technically qualified entrepreneurs and exclusive in-house design facilities. This according to an official from the Ministry of Small and Medium and Enterprises development has had a positive influence on the innovative capacity of some SMEs. However, the official indicated that their Ministry still has a long way to go in ensuring that employees in the SME sector are trained to gain the requisite skills. The respondents to the questionnaire survey also were asked whether or not skill and competences has improved the innovations of their companies. Their responses are recorded in Figure 6.18.

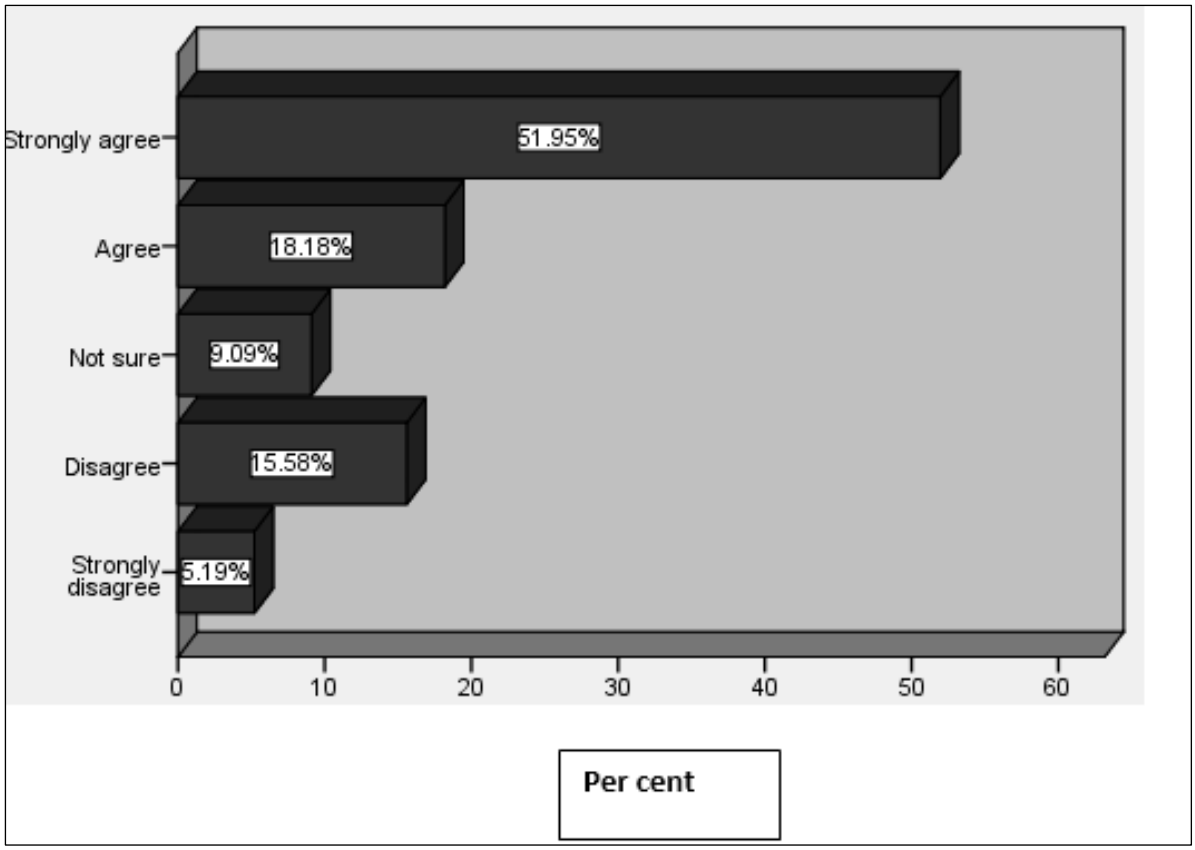


Figure 6.18: Skill and competences improve the innovativeness of a company

Figure 6.18 shows that most of the respondents (51.9 per cent) strongly agreed and 18.2 per cent agreed that skill and competences improved the innovativeness of the company. However, 9.1 per cent of the respondents were not sure while 15.6 per cent and 5.2 per cent agree and strongly agreed.

6.6.5 Innovation and the culture of the organisation

The questionnaire asked the participants whether or not there was a need for innovation to be embedded in an organisation's culture. Their responses are noted in Table 6.21.

Table 6.21: Innovation needs to be embedded into the organisation's culture

		Frequency	Per cent	Valid Percentage	Cumulative Percentage
Valid	Strongly disagree	39	11.7	11.7	11.7
	Disagree	34	10.4	10.4	22.1
	Not sure	17	5.2	5.2	27.3
	Agree	86	26.0	26.0	53.2
	Strongly agree	154	46.8	46.8	100.0
	Total	330	100.0	100.0	

Table 6.21 shows that 46.8 per cent of the respondents strongly agreed and 26 agreed that innovation needs to be embedded in the organisation.5.19 per cent were not sure while 10.4 per cent and 11.7 per cent disagreed and strongly disagreed**.**

6.6.6 State of utilities

Respondents were asked to rate the state of utilities in the area in which they operated. Their responses are recorded in Table 6.22.

Table 6.22: Rate the state of the following utilities in the area in which you operate

	Very poor	Poor	Not good	Moderate	Good	Very good	Excellent	Total
Water	27.3%	25.4%	14%	14.8%	7%	7.3%	4.2%	100%
Electricity	28.8%	23.4%	15.6%	13%	10.4%	5.2%	3.6%	100%
Telephone network	31.2%	20.8%	18.2%	11.7%	9.1%	5.2%	3.9%	100%

Table 6.22 per cent of the respondents ranked the state of their water utilities as very poor, 25.4 per cent as poor and 14 per cent as not good. However, 14.8 per cent ranked the state of their water utility as moderate, 7 per cent as good and 7.3 per cent as very good. Only 4.2 per cent ranked the state of their water utility as excellent. 28.8 per cent of the respondents ranked the state of their electricity utilities as very poor, 23.4 per cent as poor and 15.6 per cent as not good. However, 13 per cent ranked the state of their electricity utility as moderate, 10.4 per cent as good and 5.2 per cent as very good. Only 3.6 per cent ranked the state of their water utility as excellent. 31.2 per cent of the respondents ranked the state of their telephone network utilities as very poor, 20.8 per cent as poor and 18.2 per cent as not good. However, 11.7 per cent ranked the state of their telephone network utility as moderate, 9.1 per cent as good and 5.2 per cent as very good. Only 3.9 per cent ranked the state of their telephone network utility as excellent.

6.6.7 State of road networks

Respondents were also asked to indicate the state of the road networks in the area in which they operate. Their responses are shown in Figure 6.19.

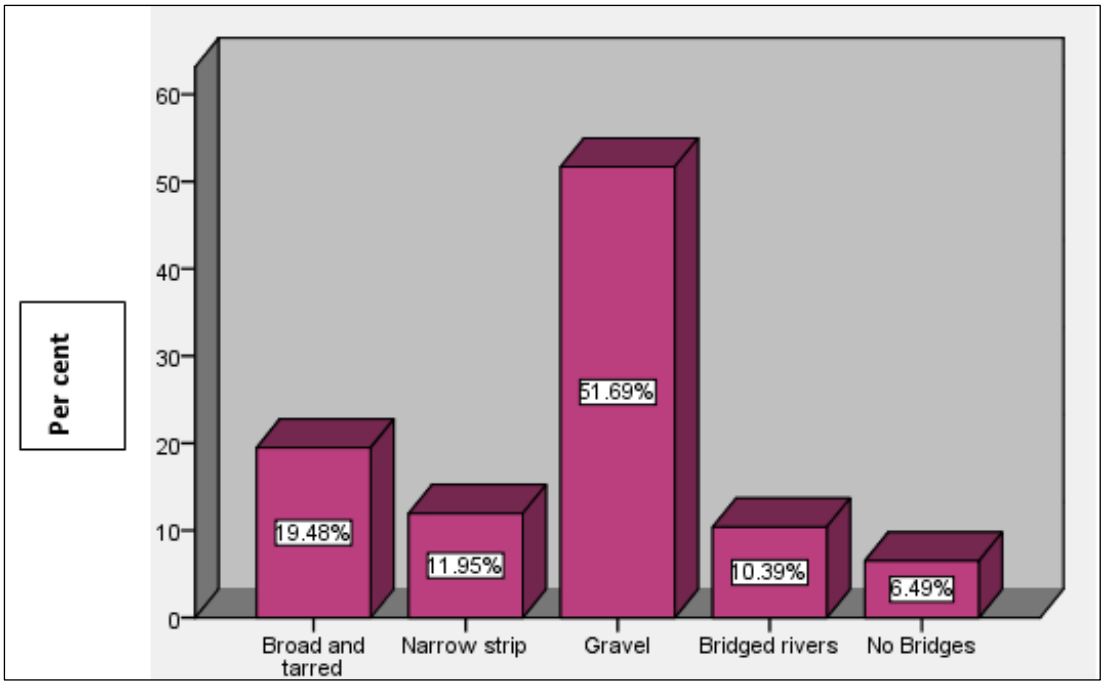


Figure 6.19: What is the state of the road network in the area you operate in?

As shown in Figure 6.19, 19.5 per cent of the SMEs are served by a broad and tarred road network while 11.9 per cent are served by narrow strip roads. 51.7 per cent are served by gravel roads, 10.4 per cent are served by roads with bridged rivers and 6.5 per cent are served with roads that have no bridges.

6.6.8 Relationship with stakeholder

Respondents were asked to rate their relationship with their stakeholders. Their responses are shown in Table 6.23.

Table 6.23: Can you rate your relationship with stakeholders listed

	Very poor	Poor	Not good	Moderate	Good	Very good	Excellent	Total
Customers	29.1%	25.5%	19.2%	11.9%	7.8%	5.2%	1.3%	100%
Suppliers	26%	23.4%	18.2%	11.7%	9.1%	6.5%	5.2%	100%
Creditors	29.9%	20.8%	16.9%	13%	10.4%	6.5%	2.6%	100%
Banking Institutions	30.4%	19%	15.8%	12.7%	9.9%	9.1%	3.4%	100%
Government	31.2%	18.2%	15.6%	11.7%	10.4%	7%	6%	100%
General Community	27.8%	21.6%	18.2%	11.7%	10.4%	5.2%	5.2%	100%
Employees	36.4%	15.8%	13%	11.7%	10.4%	7.8%	5.2%	100%
Support institutions	33.8%	19.5%	15.8%	13%	7.8%	5.2%	4.9%	100%

Table 6.23 shows that 29.1 per cent of the respondents ranked their relationship with their customers as very poor, 25.5 per cent as poor and 19.2 per cent as not good. However, 11.9 per cent ranked their relationship with their customers as moderate, 7.8 per cent as good and 5.2 per cent as very good. Only 1.3 per cent ranked their relationship with their customers as excellent. Additionally, 26 per cent of the respondents ranked their relationship with their suppliers as very poor, 23.4 per cent as poor and 18.2 per cent as not good. However, 11.7 per cent ranked the relationship with their suppliers as moderate, 9.1 per cent as good and 6.5 per cent as very good. Only 5.2 per cent ranked their relationship with the suppliers as excellent. Furthermore, 29.9 per cent of the respondents ranked the relationship with their creditors as very poor, 20.8 per cent as poor and 16.9 per cent as not good. However, 13 per cent ranked the relationship with their creditors as moderate, 10.4 per cent as good and 6.5 per cent as very good. Only 2.6 per cent ranked the relationship with their creditors as excellent. 30.4 per cent of the respondents ranked the relationship with their banking institutions as very poor, 19 per cent as poor and 15.8 per cent as not good. However, 12.7 per cent ranked the relationship with their banking institutions as moderate, 9.9 per cent as good and 9.1 per cent as good. Only 3.4 per cent ranked their relationship with the banking institution as excellent.31.2 per cent of the respondents ranked the relationship with their government as very poor, 18.2 per cent as poor and 15.6 per cent as not good. However, 11.7 per cent ranked the relationship with their government as moderate, 10.4 per cent as good and 7 per cent as very good. Only 6 per cent ranked the relationship with their government as excellent.27.8 per cent of the respondents ranked the relationship with their general community as very poor, 21.6 per cent as poor and 18.2 per cent as not good. However, 11.7 per cent ranked the relationship with their general community as moderate, 10.4 per cent as good, and 5.2 per cent as very good. 5.2 per cent ranked the relationship with their general community as excellent.36.4 per cent of the respondents ranked the relationship with their employees as very poor, 15.8 per cent as poor and 13 per cent as not good. However, 11.7 per cent ranked their relationship with their employees as moderate, 10.4 per cent as good and 7.8 per cent as very good. Only 5.2 per cent ranked the relationship with their employees as excellent. 33.8 per cent shows that the respondent ranked the relationship with other support institutions as very poor, 19.5 per cent as poor and 15.8 per cent as not good. However, 13 per cent ranked the relationship with other support institutions as moderate,7.8 per cent as good and 5.2 per cent as very good. Only 4.9 per cent ranked their relationship with other support institution as excellent. The majority of the respondents think that the relationship with their stakeholders was either very poor or poor.

6.6.9 Institutions providing services and support

Respondents were asked to indicate which institutions had provided them with service and support. Their responses are shown in Figure 6.20.

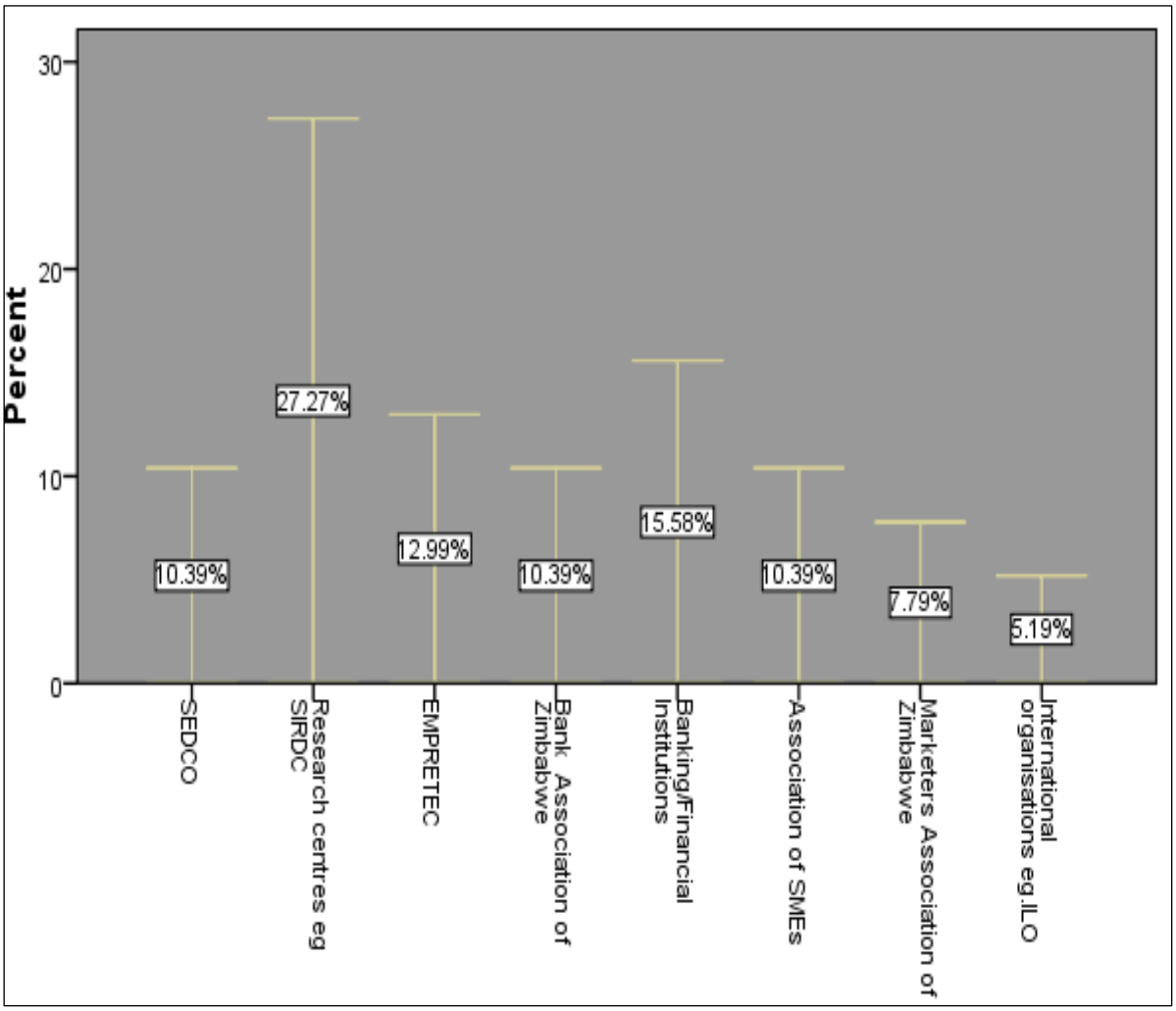


Figure 6.20: Indicate the institutions that have provided you with services and support.

Figure 6.20 shows that 5.2 per cent received service and support from SEDCO.5.2 per cent received service and support from Research Centres. 10.4 per cent received service and support from EMPRETEC.7.8 per cent received service and support from Bank association.7.8 per cent received Banking/Financial Institutions.

6.6.10 Assistance received from the Government and institutions

Participants were asked about the form of assistance they received from Government and Institutions, their responses are shown in Table 6.24.

Table 6.24: What form of assistance do you receive from the external institutions

		Frequency	Per cent	Valid Percentage	Cumulative Percentage
Valid	Training and Skill Development	34	10.4	10.4	10.4
	Infrastructure Development	90	27.3	27.3	37.7
	Financial	43	13.0	13.0	50.6
	Policy Development	34	10.4	10.4	61.0
	Technological Development	51	15.6	15.6	76.6
	R and D /Innovations	34	10.4	10.4	87.0
	None	26	7.8	7.8	94.8
	Other	17	5.2	5.2	100.0
	Total	330	100.0	100.0	

Table 6.24 shows that 10.4 per cent received Training and skill development support from the government. 27.3 per cent received Infrastructure development from the government. 13 per cent received financial support from the government. 10.4 per cent received Policy development from the government.15.6 per cent received Technology development.10.4 per cent received R&D/Innovations. 7.8 per cent did not receive anything from the government.5.2 per cent received assistance from other institutions not mentioned specifically in the table.

6.6.11 Environmental factors that affected the ability of a company to innovate

Respondents were asked whether or not environmental factors affected the ability of their company to innovate. Their responses are recorded in Table 6.25

Table 6.25: Negative influence of environmental factors on the ability of a company to innovate

	Highest	High	Not so high	Moderate	Not so low	Low	Least	Total
Political	31.2%	24.7%	22.1%	7.8%	5.2%	4.7%	4.4%	100%
Economic	34.5%	21.6%	20.5%	14%	3.6%	3.1%	2.6%	100%
Socio-cultural	28.6%	23.4%	17.7%	14.3%	9.4%	3.9%	2.9%	100%
Technological	31.4%	23.1%	16.9%	12.5%	9.1%	5.7%	1.3%	100%
Legal	27.3%	22.1%	18.2%	14.3%	9.4%	4.9%	3.9%	100%
Ecological	36.1%	18.4%	16.9%	15.3%	7.8	4.2%	1.3%	100%
Global	33.8%	23.4%	17.7%	15.5%	5.2%	3.1%	1.3%	100%

Approximately 31.2 per cent of the respondents ranked political factors highest in negatively affecting the ability of an SME to innovate. 24.7 per cent ranked political factors high, 22.1 per cent ranked political factors as not so high. However, 7.8 per cent ranked these as moderate. 5.2 per cent ranked political factors not so low in negatively affecting the ability of an SME to innovate, 4.7 per cent ranked them as low while only 4.4 per cent ranked them as the least to affect innovation.

In addition, 34.5 per cent of the respondents ranked economic factors highest in negatively affecting the ability of an SME to innovate. 21.6 per cent ranked economic factors high, 20.5 per cent not so high. However, 14 per cent were moderate. 3.6 per cent ranked economic factors not so low in negatively affecting the ability of an SME to innovate, 3.1 per cent ranked them as low while only 2.6 per cent ranked them the least.

Of these respondents, 28.6 per cent ranked socio-cultural factors highest in negatively affecting the ability of an SME to innovate. 23.4 per cent ranked socio-cultural factors high, 17.7 per cent not so high. However, 14.3 per cent were moderate. 9.4 per cent ranked socio-cultural factors not so low in negatively affecting the ability of an SME to innovate, 3.9 per cent ranked them as low while only 2.9 per cent ranked them the least to affect innovation.

In addition, 31.4 per cent of the respondents ranked technological factors highest in negatively affecting the ability of an SME to innovate. 23.1 per cent ranked technological factors high, 16.9 per cent not so

high. Nevertheless, 12.5 per cent were moderate. 9.1 per cent ranked technological factors not so low in negatively affecting the ability of an SME to innovate, 5.7 per cent ranked them as low while only 1.3 per cent ranked them the least.

Furthermore, 27.3 per cent of the respondents ranked legal factors highest in negatively affecting the ability of an SME to innovate. 22.1 per cent ranked legal factors high, 18.2 per cent not so high. But, 14.3 per cent were moderate. 9.4 per cent ranked legal factors not so low in negatively affecting the ability of an SME to innovate, 4.9 per cent ranked them as low while only 3.9 per cent ranked them the least.

Also, 36.1 per cent of the respondents ranked ecological factors highest in negatively affecting the ability of an SME to innovate. 18.4 per cent ranked ecological factors high, 16.9 per cent not so high. However, 15.3 per cent were moderate. 7.8 per cent ranked ecological factors not so low in negatively affecting the ability of an SME to innovate, 4.2 per cent ranked them as low while only 1.3 per cent ranked them the least.

In addition, 33.8 per cent of the respondents ranked global factors highest in negatively affecting the ability of an SME to innovate. 23.4 per cent ranked global factors high, 17.7 per cent not so high. However, 15.5 per cent were moderate. 5.2 per cent ranked global factors not so low in negatively affecting the ability of an SME to innovate, 3.1 per cent ranked them as low while only 1.3 per cent ranked them the least. Table 6.26 shows the rank assigned to the environmental factors in driving innovation

Table 6.26: Positive influence of environmental factors on the ability of a company to innovate

	Driver/Positive							
	Highest	**High**	**Not so high**	**Moderate**	**Not so low**	**Low**	**Least**	
Political	3.4%	3.9%	6.5%	9.4%	12.5%	20.8%	43.6%	100%
Economical	2.6%	3.9%	5.2%	10.4%	16.9%	22.1%	39%	100%
Socio-cultural	1.3%	4.2%	6.5%	11.7%	15.3	15.6%	45.5%	100%
Technological	2.9%	5.2%	6.5%	7.8%	13%	18.2%	46.5	100%
Legal	1.6%	2.3%	3.9%	10.4%	18.2%	20.8%	42.9%	100%
Ecological	3.1%	7%	8.3%	12.7%	19.5%	23.1%	26.2%	100%
Global	2.3%	2.6%	5.2%	12.7	19.7%	22.6%	34.8%	100%

About 3.4 per cent of the respondents ranked political factors highest in positively affecting the ability of an SME to innovate. 3.9 per cent ranked political factors high, 6.5 per cent not so high. 9.4 per cent were moderate. 12.5 per cent ranked political factors not so low in positively affecting the ability of an

SME to innovate, 20.8 per cent ranked them as low while 43.6 per cent ranked them as having the least effect.

Moreover, 2.6 per cent of the respondents ranked economic factors highest in positively affecting the ability of an SME to innovate. 3.9per cent ranked economic factors high, 5.2 per cent not so high. However, 10.4 per cent were moderate. 16.9 per cent ranked economic factors not so low in positively affecting the ability of an SME to innovate, 22.1 per cent ranked them as low while 39 per cent ranked them the least.

Close to 1.3 per cent of the respondents ranked socio-cultural factors highest in positively affecting the ability of an SME to innovate. 4.2 per cent ranked socio-cultural factors high, 6.5 per cent not so high. However, 11.7 per cent were moderate. 15.3 per cent ranked socio-cultural factors not so low in positively affecting the ability of an SME to innovate, 15 Per cent ranked them as low while 45.5 per cent ranked them the least. 2.9 per cent of the respondents ranked technological factors highest in positively affecting the ability of an SME to innovate. 5.2 per cent ranked technological factors high, 6.5 per cent not so high whilst 7.8 per cent were moderate. 13 per cent ranked technological factors not so low in positively affecting the ability of an SME to innovate, 18.2 per cent ranked them as low while only 46.5 per cent ranked them the least in importance. 1.6 per cent of the respondents ranked legal factors highest in positively affecting the ability of an SME to innovate. 2.3 per cent ranked legal factors high, 3.9 per cent not so high whilst 10.4 per cent were moderate. 18.2 per cent ranked legal factors not so low in positively affecting the ability of an SME to innovate, 20.8 per cent ranked them as low while 42.9 per cent ranked them the least.

Only 3.1 per cent of the respondents ranked ecological factors highest in positively affecting the ability of an SME to innovate. 7 per cent ranked ecological factors high, 8.3 per cent% not so high whilst 12.7 per cent were moderate. 19.5 per cent ranked ecological factors not so low in positively affecting the ability of an SME to innovate, 23.1 per cent ranked them as low while 26.2 per cent ranked them the least.

About 2.3 per cent of the respondents ranked global factors highest in positively affecting the ability of an SME to innovate. 2.6 per cent ranked global factors high, 5.2 per cent not so high whilst 12.7 per cent were moderate. 19.7 per cent ranked global factors not so low in positively affecting the ability of an SME to innovate, 22.6 per cent ranked them as low whilst 34.8 per cent ranked them the least.

6.7 Effective ways to manage innovation in SMEs in the manufacturing sector

Although the interviews revealed that some SMEs have some internal technical competence to undertake innovations, the majority of SMEs need external support to effectively manage their innovations. This is because how effectively a firm transforms the investment made in R&D to

innovation depends on the individual competence of a firm which most local SMEs lack due to their limited involvement in innovations. In an attempt to establish effective ways of managing innovation in SMEs in the manufacturing sector, a number of questions were asked in the questionnaire.

6.7.1 New products introduced

Respondents were asked about the products they had introduced over the past 5 years. Their responses are shown below in Figure 6.21.

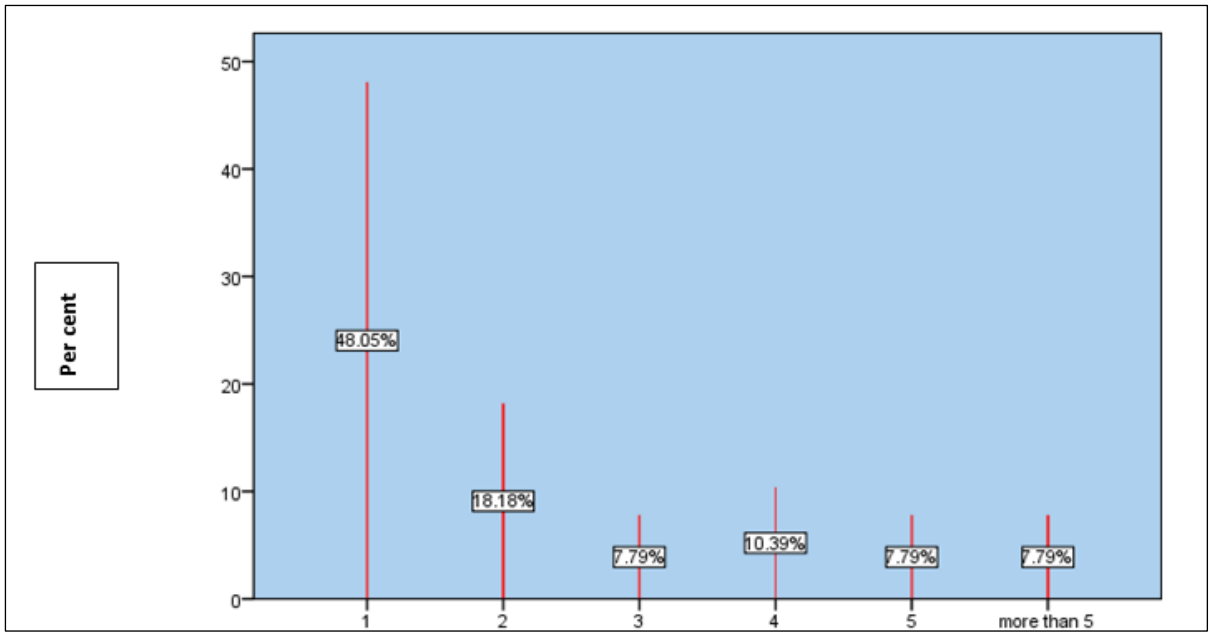


Figure 6.21: How many new products have you introduced over the past five (5) years?

Figure 6.21 shows that most of the respondents (48.1 per cent) introduced one new product in the past 5 years. 18.2 per cent and 7.8 per cent introduced 2 and 3 new products. 10.4 per cent introduced 4 new products and 7.8 per cent introduced 5 new products. 7.8 per cent introduced more than 5 new products over the past 5 years.

6.7.2 Returns inward received

The participants were asked how frequently they had received returns inward over the past two years. Table 6.27 shows their responses.

Table 6.27: Returns inward received

		Frequency	Per cent	Valid Percentage	Cumulative Percentage
Valid	Weekly	43	13.0	13.0	13.0
	Monthly	171	51.9	51.9	64.9
	Quarterly	39	11.7	11.7	76.6
	1/2 yearly	34	10.4	10.4	87.0
	Yearly	43	13.0	13.0	100.0
	Total	330	100.0	100.0	

Table 6.27 shows that most of the respondents (51.9 per cent) received monthly returns inward and 13 per cent weekly. 11.7 per cent of the respondents received quarterly returns while 10.4 per cent received this half yearly. 13 per cent received this yearly.

6.7.3 Product rework

The questionnaire asked how often the participants did product rework. Their responses are highlighted in Figure 6.22

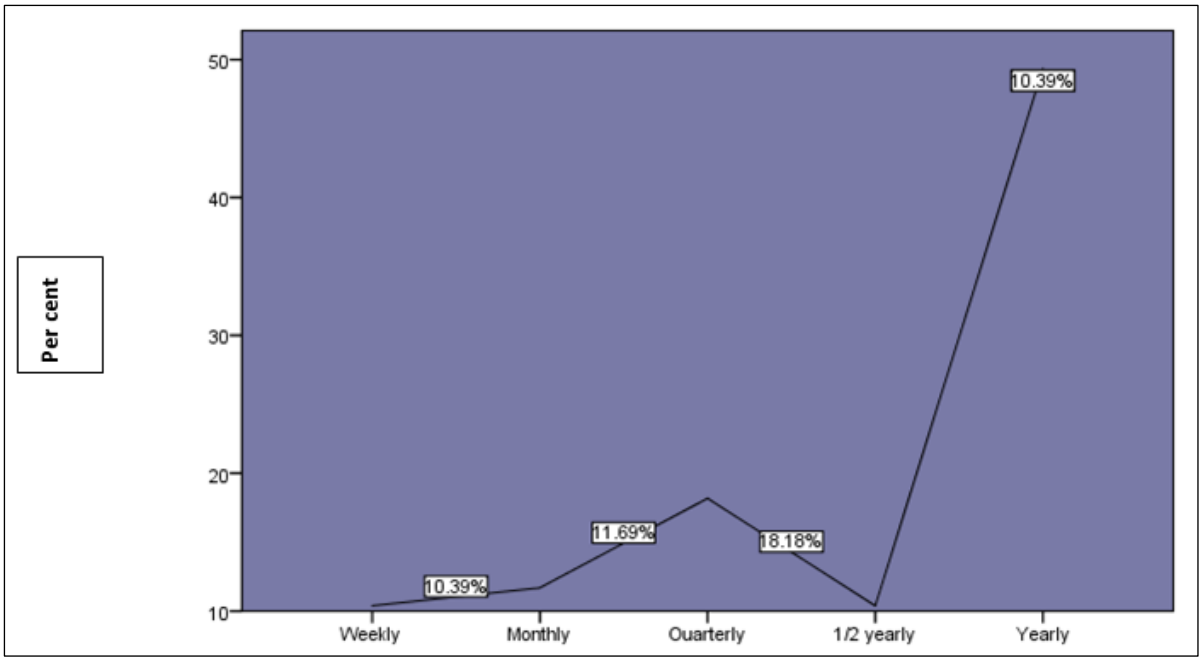


Figure 6.22: How often do you do product rework?

Figure 6.22 shows that 10.4 per cent of the respondents did their product rework weekly. 11.7 per cent and 18.2 per cent do their products rework monthly and quarterly while 10.4 per cent did it half yearly. However, most of the respondents (49.4 per cent) did their product rework annually.

6.7.4 New cost reduction

Respondents were asked whether they had ever introduced new cost-reduction responses. Their responses are indicated in Figure 6.23.

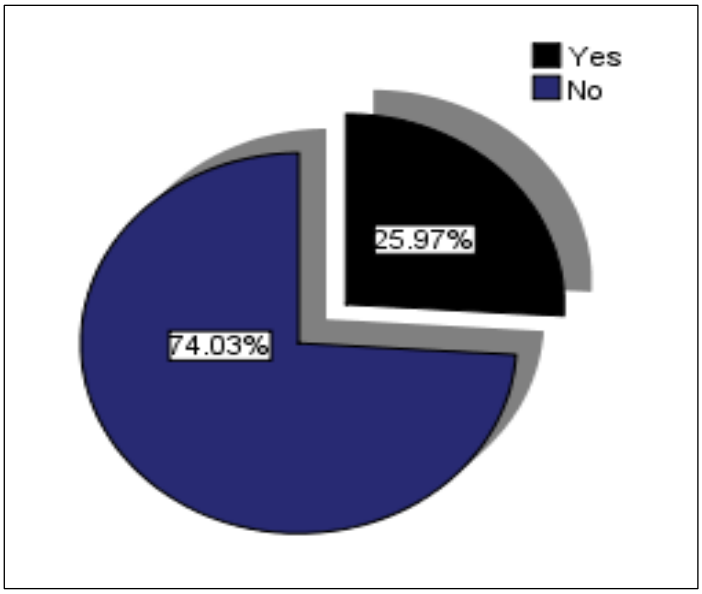


Figure 6.23: Have you ever introduced a new cost-reduction process?

As shown in Figure 6.23 the majority of the respondents (74 per cent) disagreed and only 26 per cent

agreed that they had introduced new cost reduction processes**.**

6.7.5 New process introduced

Participants were asked if they had introduced a new process. Table 6.28 shows their responses.

Table 6.28: Have you ever introduced a new process?

		Frequency	Per cent	Valid Percentage	Cumulative Percentage
Valid	Yes	214	64.9	64.9	64.9
	No	116	35.1	35.1	100.0
	Total	330	100.0	100.0	

As shown in Table 6.28 shows that most of the SMEs (64.9 per cent) had introduced a new process while 35.1 per cent did not introduce a new process.

6.7.6 Impact on production

Respondents were asked about the impact that introducing new processes had on their production. Their responses are reflected in Figure 6.24.

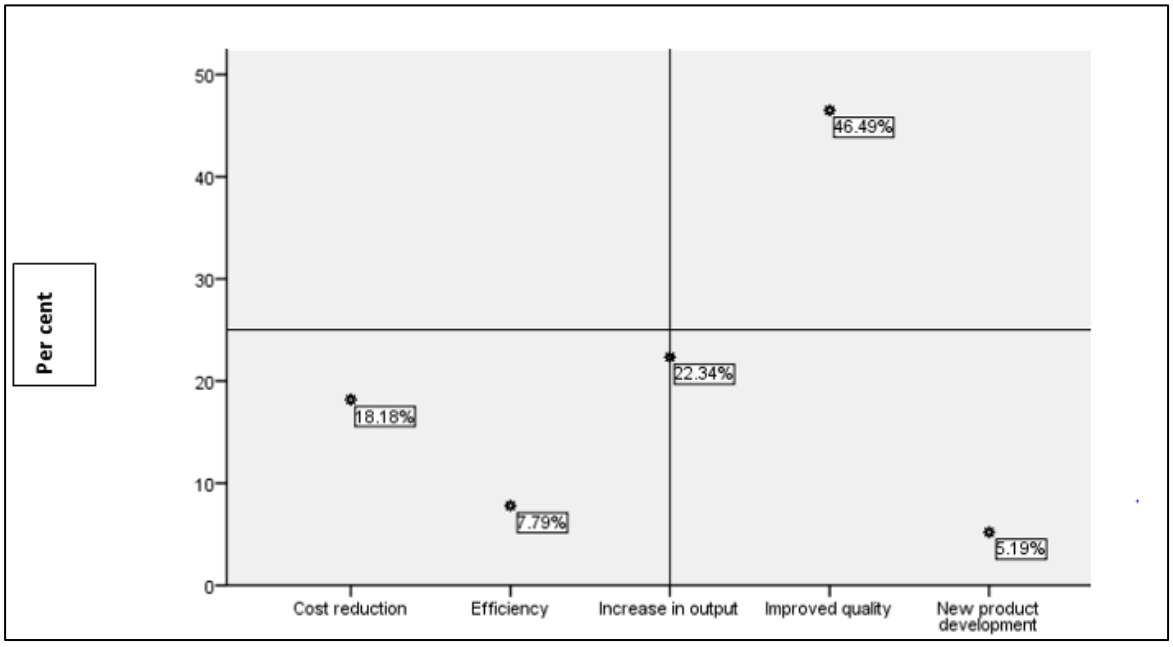


Figure 6.24: What impact did it have on your production?

Figure 6.24 shows that introducing new processes had a cost reduction impact on 18.2 per cent of the SMEs, additionally, it resulted in efficiency increasing to 7.8 per cent, increased output to 22.3 per cent

and improved quality to 46.5 per cent and it resulted in new product development in 5.2 per cent of the SMEs.

6.7.7 Innovation commercialised

Participants were asked whether they had commercialised any innovation or not. Their responses are noted in Figure 6.25.

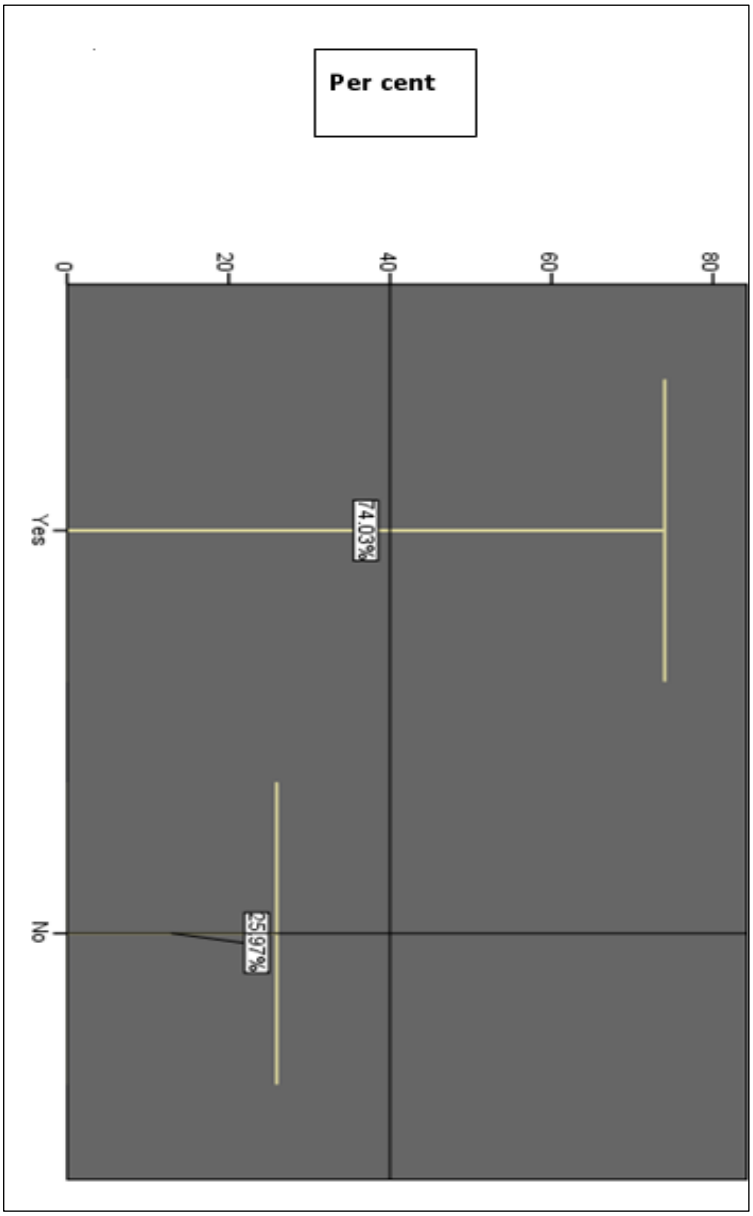


Figure 6.25: Commercialised innovation

Figure 6.25 shows that the majority (74 per cent) of the respondents had commercialised innovations whilst 26 per cent, had not.

6.7.8 Holding refresher courses on innovation

The respondents were also asked whether they ever held refresher courses for training in innovation in their company and their responses are shown in Figure 6.26.

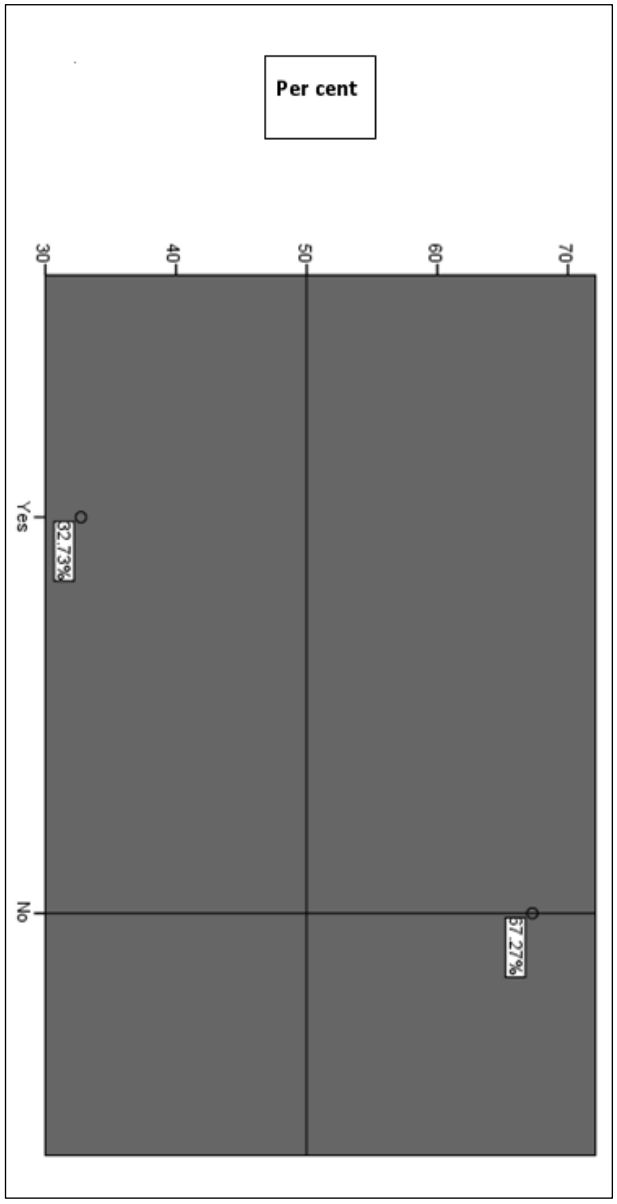


Figure 6.26: Do you ever hold refresher courses for training in innovation in your company?

Figure 6.26 shows that 32.7 per cent of the participants either held or still hold refresher courses or training in innovation in their companies. On the other hand, 67.3 per cent of the respondents do not hold and have never held refresher courses for training in innovation in their companies.

6.7.9 Alliances

Participants were asked to indicate the institutions with which they had alliances. Their responses are shown in Table 6.29.

Table 6.29: With which of the following do you have alliances?

		Frequency	Per cent	Valid Percentage	Cumulative Percentage
Valid	Universities	51	15.6	15.6	15.6
	Government	34	10.4	10.4	26.0
	Other companies	26	7.8	7.8	33.8
	Companies	69	20.8	20.8	54.5
	Research centres	34	10.4	10.4	64.9
	None	111	33.8	33.8	98.7
	Other	4	1.3	1.3	100.0
	Total	330	100.0	100.0	

Table 6.29 shows that 15.6 per cent of the SMEs had alliances with the Universities and 10.4 per cent had alliances with the Government. 7.8 per cent had alliances with other companies. 20.8 per cent had alliances with Companies. 10.4 per cent had alliances with the Research centres. 33.8 per cent did not have any alliances with the list mentioned.1.3 per cent had alliances with the other entities.

6.7.10 Rewarding innovative employees

The respondents were asked whether or not rewarding innovative employees was necessary for boosting their morale and encouraging others to be innovative. Their responses are shown in Figure 6.27.

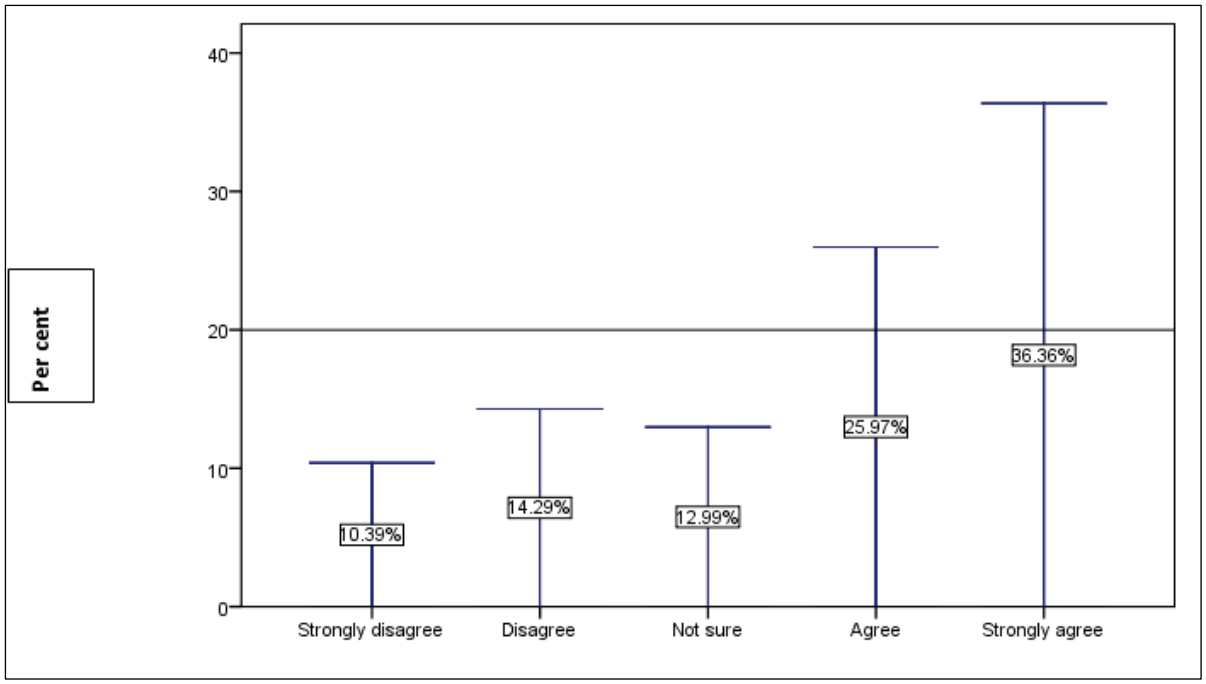


Figure 6.27: Rewarding innovative employees boost their morale and encourage others to be innovative.

Figure 6.27 shows that only 10.4 per cent of the respondents strongly disagreed that rewarding innovative employees boosts morale and encourages others to be innovative. 26 per cent of the respondents agreed and 36.4 per cent of the respondents strongly agreed that rewarding employees who are innovative boosts their morale and at the same time encourage other employees to be innovative.

6.8 Reliability

The reliability or internal consistency of the questionnaire was assessed using Cronbach's alpha (α). This statistic was calculated by correlating the score for each scale item with the total score for each individual survey respondents' response and then comparing that to the variance for all individual item scores. The items measuring a particular underlying construct were grouped and subjected to a reliability test.

6.8.1 Reliability of key drivers of, and factors that hinder innovation in manufacturing SMEs

Table 6.30 shows the internal consistency of the underlying construct for the drivers of or factors that hinder innovation in manufacturing SMEs.

Table 6.30: Reliability of items measuring the key drivers or factors hindering innovation in manufacturing SMEs

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.987	0.987	5

The questionnaire comprised 5 items which measured the key drivers of or hindrances to innovation namely, government support, rules and regulations, employee skills and competencies, organisational culture with regards to innovation and the influence of rewarding innovative employees on encouraging innovation. The reliability analysis showed that correlation of the score for each scale item with the total score for each individual survey respondents was highly intercorrelated implying that the items were measuring the same underlying concept. Table 6.30 shows the inter-item correlation matrix for the five items used to measure the key drivers of, or factors hindering innovation in manufacturing SMEs.

Table 6.31: Inter-item correlation matrix for key drivers of innovation

	Government support	Legislation	Skills and competencies	Organisational culture	Rewards
Government support	1.000	0.919	0.962	0.969	0.968
Legislation	0.919	1.000	0.890	0.897	0.932
Skills and competences	0.962	0.890	1.000	0.963	0.940
Organisational culture	0.969	0.897	0.963	1.000	0.949
Rewarding innovation	0.968	0.932	0.940	0.949	1.000

Table 6.31 shows how each item used to assess the key drivers of innovation correlates to all of the other items. Since all the items correlate well with each other, the researcher assumed that all the items are measuring the same concept.

The Friedman test and Kendall's coefficient of concordance (*W*), were used determine if there were any significant difference in mean score given by the respondents for different items assessing the key drivers of innovation in manufacturing SMEs, the results are summarised in Table 6.32.

Table 6.32: ANOVA with Friedman Test for drivers or hindrances of innovation in manufacturing SMEs

		Sum of Squares	Df	Mean Square	Friedman's Chi-Square	Sig
Between People		3412.712	384	8.887		
Within People	Between Items	152.779[a]	4	38.195	713.835	0.000
	Residual	176.821	1536	0.115		
	Total	329.600	1540	0.214		
Total		3742.312	1924	1.945		

a. Kendall's coefficient of concordance W = 0.041.

The results presented in Table 6.32 suggest that there was a significant difference in the mean scores given by the respondents. This was further confirmed by Kendall's coefficient of concordance, a test used to normalise the Friedman test statistic which had a score of *W = 0.041*. The Kendall's coefficient of concordance (*W*) is normally used to assess agreement among respondents and the value of *W* ranges between 0 and 1 where scores of zero suggest that there is no agreement and scores of 1 imply complete agreement. Since Kendall's coefficient of concordance was close to zero, it was concluded that there was no agreement among the respondents hence the need to further exploration for the drivers or, or factor hindering innovation in manufacturing SMEs.

Also, to test whether all items on the scale which measured the key drivers of or factors hindering innovation within the SMEs in the manufacturing sector had the same mean, the Hotelling's T-square test was used. Table 6.33 shows the results of Hotelling's T-square test.

Table 6.33: Hotelling's T-square test drivers or hinderances of innovation in manufacturing SMEs

Table 6.33: Hotelling's T-square test drivers or hinderances of innovation in manufacturing SMEs

Hotelling's T-Squared	F	df1	df2	Sig
649.458	161.096	4	381	0.000

The results suggest that there means for the items in the questionnaire were significantly different at *p=0.000*.

6.8.2 Reliability of state of utilities in SMEs work environments

The reliability of the questionnaire with regards to the items measuring the state of utilities in the areas the respondents operated in was also analysed. Table 6.34 shows the internal consistency of the underlying construct for the state of utilities within the SMEs working environments.

Table 6.34: Reliability of items measuring the status of utilities in the SMEs work environment

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.973	0.980	4

The questionnaire comprised 4 items which measured the status of utilities in the working environment of SMEs namely, water, electricity, telephone network reception and connectivity and the status of road networks. The reliability analysis showed that correlation of the score for each scale item with the total score for each individual survey respondents was highly intercorrelated implying that the items were

measuring the same underlying concept. Table 6.34 shows the inter-item correlation matrix for the items used to measure the state of utilities.

Table 6.35: Inter-item correlation matrix for key utilities in the SMEs work environment

	Water	Electricity	Telephone Network	Road Network
Water	1.000	0.979	0.984	0.875
Electricity	0.979	1.000	0.972	0.860
Telephone Network	0.984	0.972	1.000	0.881
Road Network	0.875	0.860	0.881	1.000

As shown in Table 6.35, all the items correlate well with each other which imply that the items on the questionnaire effectively measured the same construct.

In order to establish whether there were any significant differences in the ranking scores given by the respondents for the different types of utilities, the Friedman test and Kendall's coefficient of concordance test were used. The results are shown in Table 6.36.

Table 6.36: ANOVA with Friedman's test for the state of utilities in SMEs work environments

		Sum of Squares	df	Mean Square	Friedman's Chi-Square	Sig
Between People		3627.197	384	9.446		
Within People	Between Items	4.699[a]	3	1.566	17.970	0.000
	Residual	297.301	1152	0.258		
	Total	302.000	1155	0.261		
Total		3929.197	1539	2.553		

a. Kendall's coefficient of concordance W = .001.

The results presented in Table 6.36 suggest that there was a significant difference in the mean scores given by the respondents for the state of utilities. This was further confirmed by Kendall's coefficient of concordance (*W = 0.001*) which suggest that there was no agreement among the respondents, therefore, warranting the need to further look at other factors which affect innovation within SMEs.

6.8.3 Reliability of items measuring the relationships of SMEs with their stakeholders

Table 6.37 shows the internal consistency of the items measuring the relationships between the SMEs and their different stakeholders.

Table 6.37: Reliability of items used to measure the relationship between SMEs and other stakeholders

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.997	0.997	8

A reliability analysis was carried out on the perceived relationship with stakeholders using 8 items: customers, suppliers, creditors, banking institutions, government, community, employees, other support institutions. The Cronbach's α showed that the items on the questionnaire had exceptionally high covariance which suggests the presence of redundant variables. Since the items measures a single latent construct, that is the perception of the relationship with other stakeholders, each individual item must, therefore, correlate with the scale overall and the items within such a scale must be positively correlated. Presented in Table 6.38 is the inter-item correlation matrix showing how each item correlates to all of the other items.

Table 6.38: Inter-item correlation for SMEs relationship with other stakeholders

	Customers	Suppliers	Creditors	Banks	Government	Community	Employees	Others
Customers	1.000	0.971	0.973	0.971	0.975	0.973	0.967	0.974
Suppliers		1.000	0.984	0.984	0.983	0.995	0.975	0.977
Creditors			1.000	0.986	0.982	0.988	0.975	0.980
Banks				1.000	0.993	0.984	0.984	0.974
Government					1.000	0.984	0.989	0.978
Community						1.000	0.975	0.980
Employees							1.000	0.980
Others								1.000

The findings presented in Table 6.38 show that the inter-item correlations were consistently high across the board. Therefore, the results further suggest that the questionnaire should be considered as reliable. Friedman's test and Kendall's coefficient of concordance were used to determining if there were any significant difference in the mean score given by the respondents. The results are presented in Table 6.39.

Table 6.39: ANOVA with Friedman's test for the relationship between SMEs and their stakeholders

		Sum of Squares	df	Mean Square	Friedman's Chi-Square	Sig
Between People		9540.579	384	24.845		
Within People	Between Items	31.895[a]	7	4.556	366.552	0.000
	Residual	202.605	2688	0.075		
	Total	234.500	2695	0.087		
Total		9775.079	3079	3.175		

a. Kendall's coefficient of concordance W = 0.003

As shown in Table 6.39 there was a significant difference in the mean scores given by the respondents on their relationship with the different stakeholders. The Kendall's coefficient of concordance of 0.003 further indicates that there was no agreement among the respondents which necessitates the need to further look at other attributes affecting innovation within SMEs.

6.8.4 Reliability of measures of environmental factors that influence innovation in SMEs

A reliability analysis was carried out on the perceived positive and negative impacts political, economic, socio-cultural, technological, legal, ecological and global factors on innovation in the SMEs in the manufacturing sector. Table 6.40 shows the

Table 6.40: Reliability of the impact of environmental factors on innovation

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Positive effect of the environmental factors	0.995	0.995	7
Negative effects of the environmental factors	0.995	0.996	7

The Cronbach's alpha coefficient for the items used to measures the environmental factors effect on innovation in the SMEs was 0.995 which is too high suggesting multi-colinearity. The high correlation implies that the measures effectively measure the same construct since they seem to vary together.

6.8.5 Summary of the reliability of the questionnaire

Table 6.41 summarises the reliability results.

Table 6.41: Reliability of the questionnaire

Underlying constructs	Cronbach's Alpha	Number of variables
Drivers of, and factors hindering innovation	0.987	5
State of utilities in Mashonaland West	0.973	4
Relationship with stakeholders	0.997	8
Environmental factors affecting innovation	0.995	7

Cronbach's α coefficient of reliability for the different constructs ranged between 0.973 and 0.997. In general, Cronbach's α scores range from 0 to 1 whereby if the scale items are entirely independent of one another and α approximates 0 when the scale items have high covariances, the Cronbach's α approaches 1. According to George and Mallery (2003), a good α coefficient lies between 0.65 and 0.8 or higher. Since the Cronbach's α coefficients obtained in this study were all greater than 0.95, the internal consistency of the questionnaire was deemed to be acceptable implying that the items effectively measured the same underlying constructs (Tavakol and Dennick, 2011). However, the analysis of variance with Friedman Chi-Square test and Kendall's coefficient of concordance showed that there were significant differences between the means of the respondents across the province and that there was no agreement in the way the respondents responded. This, therefore, warranted the need to conduct further analysis of the data. Exploratory factor analysis (EFA) was there used to identify the key drivers of, or hindrances to innovation among SMEs in the manufacturing sector.

6.9 Exploratory factor analysis (EFA)

Exploratory Factor Analysis was used to condense a large number of variables in the questionnaire and to identify the underlying relationships between the variables thereby allowing the classification of the measures into smaller sets of the principal underlying factors. Data reduction and structure detection were accomplished using the Principal Component Analysis (PCA) method where only those items with eigenvalues greater than or equal to 1 were selected. The Varimax rotation was then used to simplify the components into smaller sub-components for easy interpretation. Before the factor analysis was conducted, The Kaiser-Meyer-Olkin (KMO) and Bartlett's test were used to detect the sample adequacy.

6.9.1 Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity

Table 6.42 shows the measures of sampling adequacy.

Table 6.42: Measures of sampling adequacy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.965
Bartlett's Test of Sphericity	Approx. Chi-Square	30735.813
	Df	276
	Sig.	0.000

In general, the KMO measure of sampling adequacy ranges from 0 to 1 and an index of 0.6 and above is deemed acceptable. Since the calculated KMO value is 0.965, the sample size used in this study was considered adequate. The Bartlett's Test of Sphericity was significant implying that the calculated correlation matrix deviated significantly from the identity matrix hence there was no singularity among the variables. Therefore, the conditions for factor analysis were satisfactorily met and the Principal Component Analysis was performed proficiently on the dataset.

6.9.2 Extraction of factors driving or hindering innovation in SMEs using PCA

The extraction of the key drivers that affect the ability of SME companies to innovate was done using the Principal Component Analysis (PCA) method where only the components with eigenvalues greater than or equal to 1 were selected. Figure 6.28 shows the components and their eigenvalues. The communalities generated by the factor analysis using principal component analysis showed that the least communality value was 0.862 associated with the item, "road network" and the item with the highest communality was the relationship with the general community and the technological factors both with a value of 0.986. Ideally, the communality values must be above 0.5 for each item and in this study, all the items had relatively high values which according to George and Mallery (2003) suggest that the variables were highly correlated.

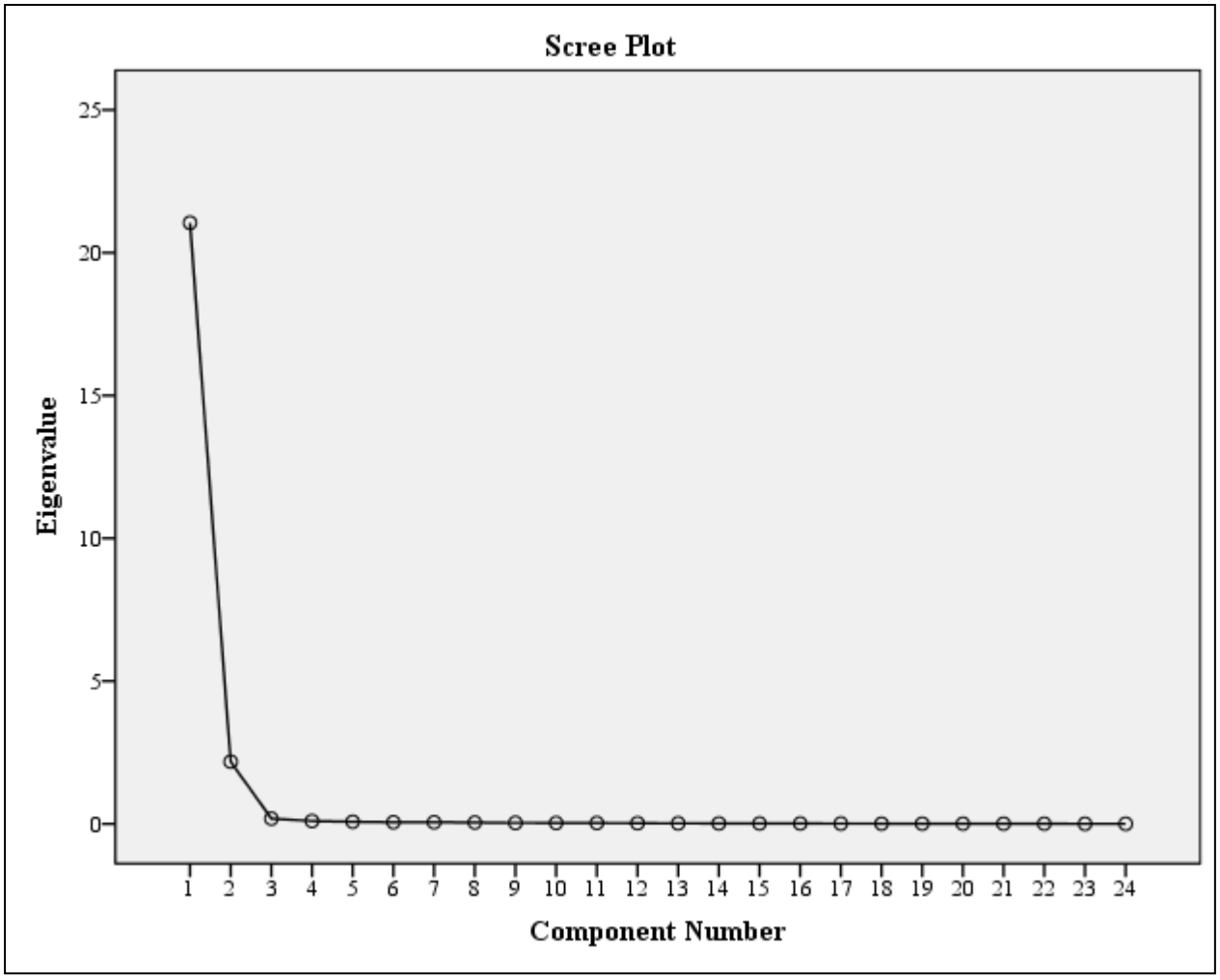


Figure 6.28: Scree plot showing the components and their eigenvalues

Figure 6.28 shows that only two out of the twenty-four components had eigenvalues greater than 1 while the rest of the components had values below. This suggests that only two underlying factors affected the ability of companies in the SME sector to innovate. The total variance explained by the components is presented in Table 6.43.

Table 6.43: Total variance explained by extracted factors

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	21.048	87.699	87.699	21.048	87.699	87.699	11.821	49.252	49.252
2	2.179	9.078	96.777	2.179	9.078	96.777	11.406	47.525	96.777
3	0.184	0.768	97.545						
4	0.101	0.421	97.966						
5	0.075	0.314	98.279						
6	0.059	0.244	98.523						
7	0.056	0.231	98.755						
8	0.049	0.205	98.959						
9	0.036	0.152	99.111						
10	0.034	0.140	99.251						
11	0.030	0.126	99.377						
12	0.024	0.102	99.479						
13	0.021	0.088	99.567						
14	0.018	0.075	99.641						
15	0.015	0.064	99.705						
16	0.015	0.061	99.766						
17	0.012	0.048	99.814						
18	0.009	0.039	99.853						
19	0.009	0.036	99.888						
20	0.007	0.029	99.917						
21	0.007	0.027	99.944						
22	0.006	0.025	99.969						
23	0.004	0.017	99.986						
24	0.003	0.014	100.000						

Table 6.43 shows that only the first 2 components had eigenvalues ≥ 1 and these factors accounted for 96.77% of the explained variance. According to Byrne (2010), ideal results must show at least 75% of the variance being accounted for by the least number of factors. In this study as shown in Table 6.43, only 3.23% of the variation is not explained. This, therefore, suggests that the study has managed to capture all the factors which affect the ability of SMEs to innovate except for 3.23% which is not explained by the identified two latent factors.

6.9.3 Varimax Rotation

The Varimax rotation was used to simplify the components into smaller sub-components for easy interpretation. The two components identified through PCA where subjected to Varimax rotation to maximizes the sum of the variances of the squared loadings and to eliminate any problems of multicollinearity. Table 6.44 shows that rotated component matrix.

Table 6.44: Rotated component matrix

Loading items	Factors	
	1	2
Access to water	0.892	
Relationship with other support institutions	0.902	
Telephone network reception and connectivity	0.898	
General Community	0.890	
Relationship with Employees	0.890	
Relationship with Suppliers	0.888	
Relationship with Government	0.888	
Relationship with Customers	0.885	
Relationship with Creditors	0.885	
Relationship with Banking Institutions	0.881	
Access to Electricity	0.876	
Favourableness of rules, laws and regulations	0.688	
Road Network	0.674	
Technological factors		0.916
Political environment		0.911
Socio-cultural environment		0.894
Economic environment		0.889
Legal environment		0.887
Organisational culture influence on innovation		0.886
Skills and competencies		0.881
Support from government		0.862
Global environment		0.851
Rewarding of innovative employees encourages innovation		0.827
Ecological environment		0.814

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 3 iterations

6.9.4 Key drivers or factors hindering innovation and growth of SMEs

About 13 items loaded on the first component and these accounted for 87.699% of the total variance explained whereas 10 items loaded onto the second component explained the remaining 9.078% of the total explained variance. The items which loaded onto the first factor were reclassified as infrastructure and relationship with stakeholders while the second factor was considered as environmental factors. Therefore, the two key drivers of, or factors hindering innovation in SMEs within the manufacturing sector are access to good infrastructure combined with the existence of a good relationship between the SMEs sector with their key stakeholders and the availability of a conducive environment that enables innovation to take place. The results are in support of the findings of Palei (2015) who in a study assessing the impact of infrastructure on global growth and competitiveness found that growth is influenced basically by environmental factors and other seven factors chief among them being infrastructure which is determined mainly by the quality of roads, railroad infrastructure, air transport and electricity supply.

6.10 Chapter Summary

Findings from the research have been presented and analysed in this chapter. These findings include the response rate, the demographic profile and the main research findings of this study on innovation as a strategy for the growth and survival of small to medium enterprises with a particular focus on the Mashonaland West Province. Data were presented in tabular and graphic form. Several types of graphs were used, and these include pie charts, bar graphs and several others. The reliability test showed that the questionnaire was reliable. The main factors which affect innovation were found to be relationships with stakeholder, utilities (87.70%) and environmental factors (90.80%). The next chapter will discuss the results of the study.

7 CHAPTER 7: DISCUSSION OF RESULTS

7.1 1ntroduction

This chapter discusses the results of this study on innovation as a strategy for the growth and survival of small to medium enterprises with a particular focus on the Mashonaland West Province. Evaluations will be made with the findings from the literature with a view to instituting whether or not there are similarities or differences between this study and other studies.

7.2 The focus of the study

This research mainly focused on investigating the issue of the efficacy of innovation as a means for ensuring survival and achieving growth by small to medium enterprises. To this regard, the research study attempted to provide answers to the following research questions:

7.2.1 What is the degree of innovation in SMEs in the manufacturing sector?

7.2.2 Is there any relationship between innovation and growth in SMEs?

7.2.3 What are the drivers of and barriers to innovation in SMEs in the manufacturing sector?

7.2.4 What are the effects of innovation on SMEs?

7.3 Problem Statement

Although SMEs in Zimbabwe have been given preferential treatment by the government in an effort to support their operations and despite the fact that they contribute to the national economy, they have failed to meet expectations. Mufudza (2013) confirms that Zimbabwe's economic performance continues to deteriorate despite government policy interventions which are aimed at providing a conducive environment for SMEs. To compound the situation, Chichoni (2011) argue that about 75 per cent of new businesses that start in the country eventually fails. Therefore, it is imperative for SMEs to use internal mechanisms in order to survive and grow. According to Gassmann et al., (2010) innovation is one such internal mechanism which is a promising means for SMEs to overcome their challenges and to increase their profitability. Innovation strategies are variables that SMEs have direct control over, unlike external elements like government policy. Innovation is thus a logical step for many SMEs to take. Therefore, there is a need to examine the nature of the innovation strategies within SMEs in the manufacturing sector and to explore the relationship between these innovation strategies and the survival and growth of these SMEs.

7.4 To investigate the extent of innovativeness in SMEs in the manufacturing sector

In an attempt to establish the extent of innovativeness of the SMEs in the manufacturing sector within

the Mashonaland West Province, the respondents were asked a number of questions in the questionnaire. It must be noted that an SME's level of innovativeness can be measured by a number of variables.

7.4.1 Innovation policy of the company

According to Borras and Edquist (2013), an innovation policy comprises all combined actions that are undertaken by organisations that influence innovation processes. Thus, organisations use innovation policies as tools to influence the innovation process. Therefore, having an innovation policy is of the utmost importance for any organisation that wishes to be innovative. However, findings from this study revealed that the minority of the SMEs in the study had innovation policies. A possible reason why these SMEs have innovation policies may be that they are aware of the invaluable role that an innovation policy plays in pursuing innovation. On the other hand, the majority of the respondents did not have innovation policies in their organisations. This implies that most of the SMEs in this study are not guided by any strategy or plan regarding innovation within their organisations. Hence, it may be difficult for these organisations without innovation policies to be able to be innovative since innovation policies influence innovation processes. These SMEs may not be aware of the importance of having an innovation policy possibly because no one ever explained to them the importance of having one.

7.4.2 Innovative activities

Findings from the study revealed that the small to medium enterprises in the study are involved in a number of innovation activities which include research and development budgets, open innovation, innovation audit and process innovation. However, open innovation and process innovation were the most common innovation activities among the SMEs. Wynarcyzk (2013) confirms that in the area of international competitiveness, SMEs are highly reliant on open innovation practices. These findings concur with findings on innovation policies which revealed that the majority of the SMEs in the study did not have innovation policies. Thus, 17.2 per cent of the SMEs in this study are not involved in any innovation activity because they do not have innovation policies to guide them as to which innovation activity to pursue. In addition, the OECD (2012) found that 30-60 per cent of SMEs in the OECD area are characterised as innovative in the expansive sense. They may, however, be more prospective to be innovative in other ways through creating or re-engineering products or services to meet new market demands, introducing new organizational approaches to improve productivity, or developing new techniques to expand sales (OECD, 2012). Given these results, SMEs in the Mashonaland West Province can be said to be innovative in the broad sense.

7.4.3 Rewarding employees with innovative ideas

The survey revealed that most of the SMEs in the Mashonaland West Province reward employees who

bring in innovative ideas. Rewarding employees has the effect of encouraging and motivating them to offer their innovative ideas for the benefit of the company. According to Leavitt (2011) "the purpose of rewarding and recognising, as we all understand, is to tell employees that their contributions are valuable to the organisation. It matters to employees because they feel validated, important and respected. Studies show that there is a statistically significant relationship between reward and recognition and motivation and satisfaction respectively". In the event that an employee brings in an innovative idea and they are not rewarded, they may not feel the need to share an innovative idea the next time they think of one. Thus, rewarding employees incentivises them to keep innovative ideas coming. Since most of the SMEs in this study do reward their employees when they bring in innovative ideas, it can be argued that these SMEs acknowledge the importance of innovation in their organisations. Thus, innovation can help these organisations to grow and survive given the harsh economic environment to which they are exposed. Hence, SMEs in the Mashonaland West Province can be said to be innovative to some extent.

7.4.4 Research and Development Budget

The survey revealed that the majority of the participants did not have research and development budgets in their companies. Yoshino and Taghizadeh-Hesary (2016) believe that business enterprise expenditure on research and development (BERD) is an important driver of innovation and economic growth. During the last decade, BERD intensity rose significantly in many Asian economies like the Republic of Korea, the People's Republic of China, and India (Yoshino and Taghizadeh-Hesary, 2016). However, in many other Asian economies, it slowed down or did not increase significantly. An economy's R&D is generally concentrated in a limited number of large firms (Yoshino and Taghizadeh-Hesary, 2016). In some economies, however, small and medium-sized firms account for a significant share of the total business R&D effort (Yoshino and Taghizadeh-Hesary, 2016). This may be due to a relatively large body of SMEs or to SMEs that perform a large amount of R&D (such as specialized R&D units that are part of a larger group). The share of SMEs in total BERD in some Asian economies is low, like Japan with only 5 per cent; this is, presumably, one of the important reasons behind the slower economic growth in Japan (OECD 2013). The study also revealed that most of the SMEs in the study did not have research and development budgets in their companies. These findings are in agreement with the OECD's (2012) findings that on average, SMEs are less likely to conduct research and development (R&D) than larger firms. However, the survey results contradict Wynarczyk's (2013) findings that in international competitiveness, SMEs are highly dependent on two key internal components which include R & D capacity and managerial structure and competencies and two external factors which include open innovation practices and the ability of the firm to attract government grants for R & D and technological development. Given the advent of globalization in the country, one would expect the majority of the SMEs to have research and development budgets, but this is not the case in Zimbabwe. Instead, only a few SMEs have research and development budgets in their companies.

7.4.5 Types of products produced

It must be noted that the type of products that an SME produce can also be used to measure the extent of innovativeness of that SME. The survey revealed that manufacturing SMEs in the Mashonaland West province produce a wide range of items including food, steel, confectionary, clothing and furniture. However, the majority of the SMEs are into the production of other products which include timber products, adhesives, stationary, plastic and leather products. An interesting finding in Sibanda's, (2010) study was that there were about 11 nationally recognised industrial groups in the manufacturing sector in Zimbabwe. These include:

- Foodstuffs;
- Wood and Furniture;
- Textiles (Cotton Ginning);
- Metal and Mineral Products;
- Paper, Printing and Publishing;
- Cloth and Footwear;
- Beverages and Tobacco;
- Non-Metallic Mineral Products;
- Chemical and Petroleum Products;
- Transport Equipment; and
- Other Manufacturing.

However, some of the above-mentioned products such as petroleum products are not produced by SMEs in the Mashonaland West Province. Nevertheless, there are many different reasons why SMEs in the Mashonaland West Province do not produce products such as chemical and petroleum products, and non-metallic mineral products. This may be because these SMEs are deficient of the technological know-how and expertise proficiency to operate some aspects of the industries. Furthermore, the relatively and comparatively limited market size and centrifugal forces disadvantage them when compared with already established conventional firms in Harare seems to hamper the development progress of this industrial group. The unavailability and inaccessibility of raw materials and capital to invest in the various industries have also hindered the development of the manufacturing sector in the Mashonaland West Province. However, judging by the types of products produced by these SMEs, they

can be said to be innovative to some extent.

7.4.6 Successes achieved

The survey revealed that most of the SMEs in the Mashonaland West Province had successfully developed new products and successfully opened new markets. Developing new products and opening new markets are some of the end products of innovative behaviour in firms. According to Kraiczy (2013), innovation is a technological product that is new to the firm and developed, produced and introduced to the market by this firm. Given the successes achieved by most SMEs in the Mashonaland West Province of developing new products and opening new markets, these SMEs can be said to be innovative to some extent since these successes fit well into the meaning of innovation.

7.4.7 New markets

According to Kastelle (2009), opening new markets is one of the manifestations found in defining innovation. Through innovation, new products are created and new markets open (Kastelle, 2009). New markets for businesses are created therefore increasing the market base and the annual revenues of the company. In Zimbabwe, Proton Bakeries introduced varieties of bread apart from the white loaf. The introduction of whole wheat and the coconut flavour created a new market for those bread varieties as other people bought the other alternatives. This literature concurs with the findings from this study that most (78.4 per cent) SMEs in the Mashonaland West Province managed to open new markets since they started operating. This is such a huge statistic which makes one question the study findings that the majority of the SMEs did not have innovation policies. However, one may argue that those SMEs that managed to open new markets did so passively without planning for it to happen. Thus, most of these SMEs opened new markets without a clear objective of being innovative. On the other hand, 21.6 per cent of the respondents claimed that they had not been able to open new markets since they started operating. This can be attributed to the fact that these SMEs did not have innovation policies and were not involved in any innovation activities. However, based on these results, SMEs understudy can be said to be innovative to some extent although they do not have innovation policies. Their activities of opening new markets can to some extent be viewed as being innovative.

7.5 The relationship between innovation and the growth of SMEs

In an attempt to establish the relationship between innovation and the growth of SMEs within the Mashonaland West Province, the respondents were asked a number of questions in the questionnaire. Their responses to these questions are discussed in this section.

7.5.1 Number of branches

Findings from the study revealed that there is no relationship between having an innovation policy and

the number of branches an SME can have. Thus, having or not having an innovation policy does not influence the number of branches or outlets that an SME can have. As shown in the findings, an SME can have an innovation policy but can still have fewer branches than an SME that does not have an innovation policy. On another note, an SME may have an innovation policy and have more outlets than an SME which does not have an innovation policy. Nevertheless; this is not to say that having an innovation policy has an impact on the growth of the company in terms of increasing its branches. These findings are not in alignment with Ackelsberg's (2011) findings which suggested that there was a clear correlation between innovation and growth. The results from Ackelsberg's (2011) study revealed that the most innovative SMEs were growing at a rate that was 16 per cent higher than the least innovative SMEs.

7.5.2 Growth of the company

The study revealed that the majority of the participants believe that their businesses were not growing. This might be because most of these SMEs did not have innovation policies. Hence, there seems to be a positive correlation between having an innovation policy and the general growth of the SME. This implies that the growth of the SME is dependent on whether the SME has an innovation policy or not. Thus, SMEs with innovation policies are likely to grow than those that do not have.

7.5.3 Years of operation

According to various writers, the age of the firm is an important factor influencing the growth of the firm (Storey, 1994; Barkham et al., 1996). There is strong evidence to suggest that younger firms grow faster than older ones (Stoke, 1995). Storey (1994) stated that in the United Kingdom and the United States of America younger SMEs grew more rapidly than older enterprises. Thus, literature seems to suggest that there is a significant relationship between the age of the firm and the level of growth attained for instance firm growth decreases with firm age. These studies concur with this study's findings that most of the SMEs in the Mashonaland West Province have been operating for more than 9 years. Hence, their growth is expected to decrease with age which is the case in this study in that 70.1 per cent of the SMEs are not growing. So, this could be because of their age as most of the SMEs have been running for more than 9 years. However, one wonders how these SMEs have managed to grow and survive for such a long time give that most of them do not have innovation policies. This, therefore, suggests that there is no clear relationship between innovation and the growth of a firm.

7.5.4 Educational level

Formal education of employees and owner-managers has an influence on the growth of an SME. There is no question as to the fact that basic education enhances the overall quality of the employees and the owner-manager by providing them with basic numeric and literacy skills, thus increasing the chance of

survival (Carter and Jones-Evans, 2009). Some studies state that the fact that a manager or employee has a higher education degree or even a postgraduate degree seems to stimulate the growth of the firm, thus having an impact on both survival and growth. The converse argument is that owner-managers and employees of SMEs who had degrees generally achieved lower rates of growth than those less well educated (Hall, 2000; Barkham et al., 1996).

Thus, there is a significant relationship between the educational qualification of the owner-manager and employees and the level of growth attained; growth is higher in firms where the owner-manager and employees have college or university degrees. In this study, the majority of the respondents (46.6 per cent) had attained bachelor's degrees. This was affirmed by the mode which shows that the most common qualification among the respondents was the bachelor's degree. 19 per cent of the respondents had Masters Degrees followed by 15.6 per cent with O' level certificate. 13.8 per cent of the respondents had A' level certificates while 3.4 per cent and 1.8 per cent had below O' level certificates and doctorates. Hence, most of the employees and owner- managers had college or university degrees. However, these findings contradict the literature that claims that growth is higher in firms where the owner-manager and employees have college or university degrees. This is because, although the owner-managers and employees in the study have college or university degrees, their SMEs are not growing.

7.6 The drivers of, and the factors that hinder innovation in manufacturing SMEs

In an attempt to establish the drivers of, and the factors that hinder innovation in manufacturing SMEs, a number of questions were asked in the questionnaire which sought to elicit the responses of the respondents on this issue. The respondents' responses to these questions are discussed in this section.

7.6.1 Challenges encountered

The survey revealed that SMEs in the Mashonaland West Province face numerous challenges which include capital shortages, lack of manpower, poor infrastructure, competition, lack of government support, strict and unconducive rules and regulations and technological problems. It must be noted that these challenges, in turn, affect their ability to innovate. However, the challenge that was affecting most of the SMEs in this study was that of capital shortages. These SMEs do not have the capital to finance their operations so that they can survive these harsh economic conditions. Most of the SMEs in the study reported that they were facing capital shortages which are affecting their ability to innovate. This finding is confirmed by literature which cites capital shortages as the problem that affects SMEs the most. According to Gombarume and Mavhundutse (2014), SMEs are usually financially weak in the developing world mainly due to lack of access to loans. The same is true for SMEs in Zimbabwe where financial institutions bodies are now regarding lending advancing to SMEs in a volatile economy as business suicide (Makina, 2009). These findings are also in alignment with the findings of Arinaitwe (2006) who states that SMEs in the developing world face a number of militating factors that have a

negative impact on their growth which include gross under-capitalisation, poor infrastructure, and lack of government support, lack of managerial skills, equipment, technology and access to international markets. According to Yoshino and Taghizadeh-Hesary (2016) SMEs face challenges from increased competition, the ability to adapt to rapidly changing market demand, technological change, and capacity constraints relating to knowledge, innovation, and creativity. They add that for many SMEs, however, their potential is often not fully realised due to factors related to their small scale:

- lack of resources (finance, technology, skilled labour, market access, and market information);
- lack of economies of scale and scope;
- higher transaction costs relative to large enterprises;
- lack of networks that can contribute to a lack of information, know-how, and experience of domestic and international markets;
- increased market competition and concentration from large multinational enterprises caused by globalisation and economic integration;
- inability to compete against larger firms in terms of R&D expenditure and innovation (product, process, and organization);
- subject to 'churning' and instability; and
- lack of entrepreneurial zeal, capacity, and know-how.

In addition, many small businesses find that their geographical isolation puts them at a competitive disadvantage. However, Harvie and Charoenrat (2015) are of the opinion that, despite the aforementioned substantial obstacles, many economies remain heavily dependent on SMEs, particularly for employment generation. Despite their perceived weaknesses, SMEs have not been swept away with the process of globalisation and regional integration, but, rather, their role and contribution have changed and evolved which have enabled many to remain internationally competitive and collectively to be an important source of employment generation (Harvie and Charoenrat 2015).

7.6.2 Adequate equipment

The survey revealed that the majority of the respondents (74.3 per cent) did not have adequate equipment to fulfil their orders. These findings concur with the findings of Addotei (2012) that despite the potential role of SMEs to accelerated growth and job creation in developing countries, a number of bottlenecks affect their ability to realise their full potential. SME development is hampered by a number of factors, including lack of equipment and technology. These also, in turn, hamper their innovative

potential.

7.6.3 Government support

Lack of government support has been cited in the literature as one of the major challenges that hinder SMEs from being innovative and growing (Gombarume & Mavhundutse, 2014). The survey revealed that most of the respondents were not receiving any support from the government in their operations and this may explain why most of these SMEs are experiencing stunted growth. In a study on the impact of targeted government support for SMEs growth and development in Zimbabwe, Maseko (2014) found that government targeted support advanced to SMEs was not effective in bringing about growth and development in this sector. They further concluded that the forms of targeted support to SMEs were inadequate to transform SMEs operations into viable businesses that can compete in the global marketplace. These findings are consistent with this study's findings. The majority of the small to medium enterprises in the study (72.5 per cent) are not receiving support from the government in their operations. This is disastrous both for the SMEs and the overall economy. According to literature, government assistance to small to medium enterprises is critical as these firms are faced with many problems that threaten their growth.

7.6.4 Rules, laws and regulations and the development of SMEs

Addotei, (2012) argues that regulatory constraints also pose serious challenges to SME development. Despite wide-ranging structural reforms, improving the prospects for enterprise development remain unaddressed at the firm-level. The high start-up costs for firms, including licensing and registration requirements, can impose excessive and unnecessary burdens on SMEs. The high cost of settling legal claims and excessive delays in court proceedings adversely affect SME operations. In the case of Ghana, the cumbersome procedure for registering and commencing business are the key issues often cited. The World Bank Doing Business Report (2006) indicated that it takes 127 days to deal with licensing issues and there are 16 procedures involved in licensing business in Ghana. Meanwhile, the absence of antitrust legislation favours larger firms, while the lack of protection for property rights limits SMEs' access to foreign technologies (Kayanula and Quartey, 2000).

This study also confirmed that the rules, laws and regulations in the country were not favouring the development of SMEs. The survey also revealed that the majority of the respondents are being affected by the rules, laws and regulations in the country. Literature confirms that more often than not, regulatory policies often aimed at developing other sectors of the economy have an unintended negative impact on SMEs. Quarterly (2012) argues that although some regulations may deliberately favour SMEs, many regulations exclude the smallest firms and the adverse impact of regulation on SMEs can be particularly harmful. This is because SMEs are less equipped to deal with problems arising from regulations since they have less capacity than larger firms to navigate through the complexities or regulatory and

bureaucratic networks. SMEs are more likely to be hampered by regulations because their strengths stem from their flexibility. Some regulations designed to prevent entry into the market by dynamic SMEs are particularly detrimental (OECD, 2010). Unfavourable rules, laws and regulations, in turn, deter SMEs from being innovative.

7.7 Effective ways to manage innovation in SMEs in the manufacturing sector

In an attempt to establish effective ways of managing innovation in SMEs in the manufacturing sector, a number of questions were asked in the questionnaire. The respondents' responses to these questions are discussed in this section.

7.7.1 Rewarding innovative employees

The survey revealed that the majority of the SMEs either agreed or strongly agreed that rewarding innovative employees boost their morale and at the same time encourages other employees to be innovative. These findings are consistent with Edirisooriyaa's (2014) findings in his study of the impact of rewards on employee performance in Sri Lanka. The results from Edirisooriyaa's (2014) study suggested that there was a positive relationship between extrinsic reward, intrinsic reward and employee performance. This line of thought is also shared by Pratheepkanth (2011) who suggests that a reward system is an important tool that management can use to channel employee motivation in desired ways. Thus, reward systems seek to attract people to join the organisation, motivate them to work and to perform to high expectations (Pratheepkanth, 2011).

7.7.2 Holding refresher courses on innovation

The study revealed that most of the SMEs in Mashonaland West Province do not hold and have never held refresher courses or training in innovation. This implies that small to medium enterprises in this study generally do not capacitate their employees on how best they can become innovative. Thus, these SMEs may lack the necessary knowledge of how to become innovative for the benefit of their organisations. Chichoni (2011) confirms that an entrepreneur's lack of managerial skills and innovation knowledge are two of the major reasons for stunted growth and sluggish development in Zimbabwean businesses.

7.8 Chapter Summary

This chapter discussed the results of this study. The key issues that were discussed include the extent of innovativeness in the SMEs in the manufacturing sector and the relationship between innovation and the growth of SMEs. In addition, the chapter also discussed the study results on the drivers of and the factors that hinder innovation in manufacturing SMEs and the effective ways of managing innovation

in SMEs in the manufacturing sector. The following chapter is going to conclude the study, give recommendations and suggest areas for further research.

8 CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS

8.1 Introduction

The main conclusions drawn from this study are presented in this chapter. Recommendations on how SMEs in the Mashonaland West Province can effectively use innovation as a strategy for their survival and growth are also provided in this chapter.

8.2 Chapter summaries

Chapter 1

The first chapter introduced the research and enlightened on the research problem. The researcher outlined the motivation behind pursuing the research based on the knowledge gaps and the need for the development of value-adding stratagems on the significance of innovation in the SMEs sector, as to how SMEs' business models could bargain through innovation to convert their business models in pursuit of growth and development. The research objectives and questions of the research were articulated preceded by hypotheses that were used during the research guided by the research problem. The chapter justified the essence of conducting the research based on the knowledge gaps and the need to resolve the problems and opportunities identified. The chapter delimited the research study through revealing the conceptual, physical and population frontiers, as to how the research encircled necessary variables and units of analysis. Finally, an outline of the contents carried by each chapter was provided.

Chapter 2

This chapter provided with the literature on innovation in SMEs used in the research. A thematic approach was adopted for the outlining of the contents of the chapter based on the research objectives. The literature explicated on the basic terminology of innovation and the types of innovation. Literature was also provided on the entrepreneurial and cultural factors affecting the diffusion of innovation in SMEs. The chapter also illuminated on the dimensions of innovation and the role of innovation in promoting businesses. Other thematic areas that were discussed in the chapter include, the driving forces and determinants of innovation, challenges to business innovation, the innovative firm and its environment, the concept and types of business strategy, definitions and characterisation of SMEs, the roles of SMEs to innovation development and the economy. The chapter also provided with literature from extant studies on SMEs and exposed the limitations and strengths of the papers in resolving the challenges identified by the researcher. The chapter also critiqued the empirical literature to justify the relevance of the research to adding to the board of knowledge on SME development by exposing research gaps that the research fulfilled. The literature exposed on the drivers and barriers to SME innovation adoption. Strategies for best practice were exposed that SMEs could adopt to foster the enlargement of the concept of innovation in SMEs, and justification of the strategies was based on the incentives that would be consequent to improvising of the suggested courses of action.

Chapter 3

The chapter provided with the various theories associated with the problem investigated. The chapter categorised theories based on the individual variables identified in the research, justifying the utilisation of a thematic approach of discussion in the chapter. The first theme enlightened on the theories of innovation for SME, and models that were discussed include disruptive innovation theory and the growth and survival of SMEs, Resources, Processes and Values (RPV) theory, Majaro-Innovation funnel model, Spiral model, Innovation funnel, System Development Life Cycle model (SDLC), Chain-linked Innovation model and the chain-interactive model. The chapter provides with a thorough comparison of the models to best explain the existing developments on the problem under investigation. A conceptualised model of innovation development was proposed on the barriers of SMEs and their innovation. Finally, the chapter wrapped up by proposing an innovation model for SMEs, based on the evaluation of the existing models of innovation, to explain and recommend the factors that can enlarge the innovation concept in SMEs.

Chapter 4

This section of the paper provided with a trend analysis of the various factors, from demographics to economic, that create the foundation and also influence the development of SMEs and their innovativeness. The history of Zimbabwe and the various developments after independence was explained. The chapter provided with an overview of the performance of the Zimbabwean economy challenges faced by the government of Zimbabwe, Mashonaland West province and the policies of growth of Zimbabwean SMEs that have been adopted over the years. The level of technological development and adoption was also analysed from basic methods of production to consumer products. Finally, the chapter wrapped up by outlining the technological developments and existing high-tech organisations in the country.

Chapter 5

The chapter presented the methods that were utilised in conducting the research. The research utilised a descriptive survey and explanatory research designs. A mixed methods approach was used for conducting the research. Probability and non-probability methods of research were used in conducting the research. SMEs in the manufacturing sector who were members of the SMEAZ and were operating in the Mashonaland West province of Zimbabwe constituted this study's population. The sample size of the study was made up of 385 employees, owner-managers and managers of the manufacturing SMEs in the Mashonaland West province of Zimbabwe. Data mining instruments used include questionnaires and observations. The chapter also explained the code of ethics and the methods used to enforce them in the context of the research.

Chapter 6

This chapter presented and analysed the data that was collected from the data mining processes. The chapter started by outlining the response rate, to the demographic data of the respondents. The remainder of the chapter explained the major findings from the research based on the objectives of the study. Findings were illustrated through the use of tables, pie charts, bar graph and histograms. Descriptive and inferential statistics were used in presenting the findings from the research and Statistical Package for Social Sciences was the dominant statistical package used for coding and information extraction. Cronbach's Alpha was used for measuring the reliability of the findings from the research.

Chapter 7

The chapter discussed the findings from the research. A thematic approach based on the research objectives was used to discuss the findings from the research. Content analysis was utilised to contain the findings with extant studies as well as to expose new knowledge based on the findings from the research. This chapter provided with practical information, and based on arguments, new knowledge has been created by providing the strengths of the current research in identifying and solving problems against extant literature.

Chapter 8

This is the final chapter of the research and it provided with the conclusions and recommendations for the study. The chapter provided a collective summary of the research, and conclusions based on the research objectives. A stakeholder approach was used for making recommendations for best practice. Contribution to the body of knowledge clearly outlined in the form of a model of the enabling environment for SMEs innovation. The chapter wrapped up by providing recommendations for further research.

8.3 Conclusions

8.3.1 The extent of innovativeness in SMEs in the manufacturing sector.

Although there was evidence that some of the small to medium enterprises in the Mashonaland West Province had innovation policies, most of the SMEs did not have innovation policies within their organisations. Literature has confirmed that having an innovation policy is one of the most important steps towards being innovative within an organisation. This is because, an innovation policy guides and directs the organisation in taking the appropriate route to become innovative. Most of the SMEs in the Mashonaland Province do not think that having an innovation policy is important and this attitude will not contribute to the innovative behaviour of these SMEs or to the overall economic development of Zimbabwe. Furthermore, the study draws the conclusion that the manufacturing SMEs in the Mashonaland West Province generally do not perform a large amount of research and development as

shown by their lack of research and development budgets in their companies. Additionally, organizations understudy is involved in various innovation activities, but these are seriously affected by the unavailability of innovation policies in most of the SMEs. Some of the small to medium enterprises had research and development budgets within their organisations whilst others undertook innovation audits and attempted process innovation. However, the majority of the SMEs preferred open innovation which seems to be a rather wise decision given the economic challenges experienced in Zimbabwe and also taking into account the effects of globalisation. The literature noted that SMEs tend to use open innovation when faced with international completion. Furthermore, most of the SMEs under study have managed to open new markets since they started operating. In addition to this, the study draws the conclusion that the manufacturing SMEs in the Mashonaland West Province have successfully been achieving in a number of areas which include the development of new products, opening new markets, receiving awards and corporate social responsibility activities. Moreover, the study draws the conclusion that the majority of the small to medium enterprises in the Mashonaland West Province acknowledge the importance of innovation in their organisations. This was reflected in their willingness to reward people who brought in innovative ideas into the company and most of the SMEs in this study did so. This has the effect of getting the employees encouraged and motivated to offer their innovative ideas for the benefit of the company. As a result, they keep the innovative ideas coming because of the incentives.

8.3.2 The relationship between innovation and the growth of SMEs.

The study draws the conclusion that most of the manufacturing SMEs in the Mashonaland West Province have either one or two branches at most. This is rather shocking given that most of these SMEs have been operating for more than 9 years. Hence, one would expect them to have more branches which signify growth. However, this stunted growth may be due to the numerous challenges that these SMEs are facing especially financial problems which may be hindering these firms from growing through establishing more branches. Therefore, the study concludes that most of the manufacturing SMEs in the Mashonaland West Province are not growing. However, no clear relationship could be established between innovation and the growth of SMEs.

8.3.3 The drivers of and the factors that hinder innovation in manufacturing SMEs.

The study draws the conclusion that SMEs in the Mashonaland West Province face a number of challenges which in turn hinders their ability to innovate. The challenge that is affecting most of these SMEs is that of capital shortages. Thus, the manufacturing SMEs in the Mashonaland West Province do not have the capital to finance their operations. Capital shortages affect the ability of these SMEs to innovate. This is because, without capital, it is also difficult for them to pursue their desired innovative activities. Furthermore, most of the manufacturing SMEs in the Mashonaland West Province do not

have adequate equipment. Thus, they are limited in terms of the quantity and quality of the product they can produce. This alone disadvantaged them when attempting to be innovative as some innovations require sophisticated equipment in order for them to come to fruition. Moreover, the majority of the small to medium enterprises in the study are not getting any support from the government in their operations. This is disastrous for both the SMEs and for the overall economy because SMEs need government assistance given their size and their inability to withstand challenges that large organisations can withstand. SMEs have turned to personal and family support since government support is not forthcoming. However, personal and family support is not adequate if SMEs are to innovate, survive and grow in these harsh economic conditions. Also, rules, laws and regulations in the country are not favouring the development of the manufacturing SMEs in the Mashonaland West Province. The majority of the respondents are being affected by the rules, laws and regulations in the country. Some regulations such as the minimum capital requirement are preventing SMEs from entering other markets. For example, the minimum capital requirement to establish a microfinance institution is $20 000 USD. SMEs who would like to venture into microfinance are failing to do so because of the very high capital requirements. As a result, these SMEs are failing to grow to become large companies.

8.3.4 Effective ways to manage innovation in SMEs in the manufacturing sector.

The study also makes the conclusion that SMEs believe that they could effectively manage innovation within their organizations by rewarding employees who are innovative. Rewarding employees who are innovative boosts their moral and at the same time encourage other employees to be innovative. Most of the SMEs in this study rewarded employees who brought in innovative ideas. This encourages an innovative environment and culture within the organisation and ensures that innovative ideas will keep on coming in from the employees. In addition, the study draws the conclusion that most of the manufacturing SMEs in the Mashonaland West Province do not hold or have never held refresher courses or training on innovation in their companies. Their companies do not invest in educating their employees about innovation. Employees train and educate themselves on the subject. This is not good for organisations who wish to innovate. This will hinder the growth and survival of these SMEs. If employees are not trained on how to become innovative, they may not be able to bring in innovative ideas into the company. Organisations must train their employees on how to be innovative because it will benefit the organisation in the end when employees start bringing in innovative ideas.

8.4 Recommendations

8.4.1 SMEs in the manufacturing sector must develop and adopt innovation policies within their organisations in order for them to grow. Innovation policies will guide and direct all innovative activities that these organisations will undertake and will also increase their chances of achieving their innovation objectives.

8.4.2 There is a need for SMEs to expand their markets by opening up new branches, both locally and internationally, so as to increase their customer base.

8.4.3 SME should not rely on a few sources of funding but rather should have a large portfolio of funding sources.

8.4.4 The government should take steps to increase the capacity of financial institutions to construct profitable SME lending programmes while prioritising the development of innovative solutions

8.4.5 Borrowing capacity, easy and effective loan application assessment methodologies need to be enhanced and effective debtor management systems also need to be put in place to ensure recovery of debts.

8.4.6 The SMEs need to hold refresher courses or training on innovation in their companies.

8.4.7 SMEs in the manufacturing sector need to register their firms and formalise their operations so that they can qualify for national loan programmes.

8.4.8 Manufacturing SMEs also need to network and go global and become more involved in international strategic coalitions and joint ventures so that they can respond speedily and efficiently to international market indications

8.4.9 Entrepreneurs should recognise employees that bring in innovative ideas into the company by rewarding them as a way of encouraging and motivating them to offer their innovative ideas for the benefit of the company.

8.4.10 SMEs need to have research and development budgets within their organisations to enable them to do all the necessary research and developments of high-quality products.

8.4.11 SMEs need to integrate with suppliers of raw material and equipment, both locally and internationally to ensure continuous supplies which can also foster good relations which lead to discounts on prices.

8.4.12 SMEs in the manufacturing sector also need to have alliances with supporting institutions such as universities and research centres so that they can get rich market information, knowledge as well as innovative ideas.

8.4.13 The government need to support SMEs by making the rules, laws and regulations that are favourable to the development of SMEs and also improve on the infrastructure so that SMEs can adopt the use of technology in their operations.

8.4.14 SMEs need to embrace cost reduction processes so that they can be more efficient and become

more competitive on the market since their products will end up being cheaper than those of competitors.

8.5 The contribution of the study to the body of knowledge in entrepreneurship

While numerous studies have been done on issues of development of innovation globally, most of these studies focussed on complications affecting SMEs, some of which were, financial, social and institutional. There is limited research which has been done to address the role of innovation towards the growth of SMEs, especially in developing countries. This study makes an important contribution that SMEs in developing countries have several limitations when it comes to innovation. It found that most because SMEs are not formalised, they do not have clearly laid down organisational structure, values and culture. It also concluded that lack of resources like finance, technology; training and support from government are the major hindrances towards innovation. These challenges make it difficult for some of the discussed innovation theories and models to be adopted by SMEs.

This research study hereby contributes to the body of knowledge by combining some of the innovation theories and models to come up with one composite model which can be successfully adopted by developing countries to boost the innovativeness in SMEs so that they can achieve growth as shown in Figure 8.1.

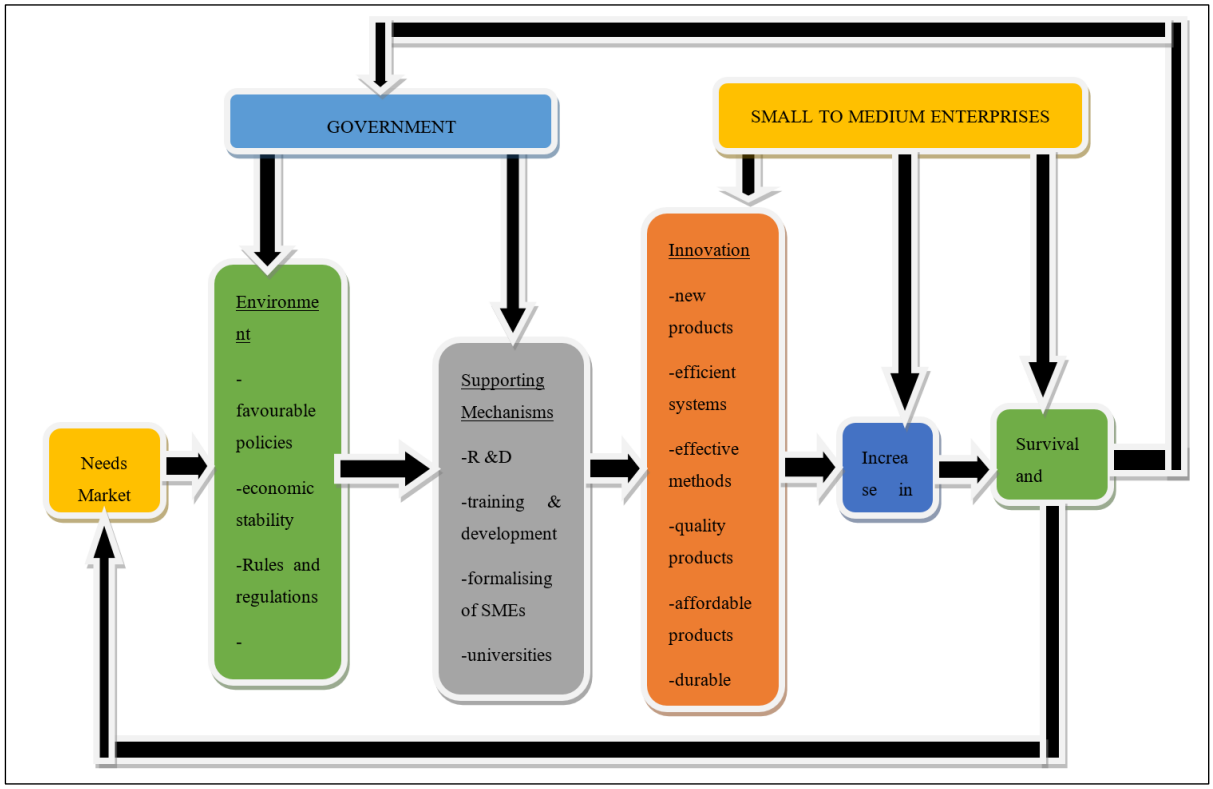


Figure 8.1: Enabling environment for SMEs innovation

Source: Compiled by researcher

Businesses respond to a need in the market in order to produce products that are readily accepted by the market. In a highly competitive environment, only new, durable and affordable products can be successful on the market. It is only through innovation that such products can be made. According to the Resource, Process and Values (RPV) theory, firms need resources to be innovative. It is the Government which needs to create and shape the environment an environment which is conducive for SMEs to successfully innovate. Funding, economic stability and appropriate infrastructure are some of the issues which the government can improve on to enhance the growth of SMEs. The infrastructure will enable the SMEs to adopt and appreciate the use of new technology in their operations. Favourable policies, rules and regulations need to be put in place to protect the SMEs from unnecessary competition which is brought about by the importation of cheap, poor quality products. In Zimbabwe, policies like the ZIMASSET and Indigenisation have been of benefit to Zimbabwean SMEs since they encouraged Ministerial and other government agents to give first priority to local SMEs when purchasing products for their operations. Supporting Ministries, like Ministry of SMEs and Youth and Indigenisation and Empowerment, come in as pillars for SMEs development on the part of the government. This conducive environment also brings about the survival and efficient service delivery of supporting mechanisms. These include institutions like SADC, SEDCO, SMEAZ and NGOs who offer training and development (T&D) and also research and development (R&D) services to SMEs who come up with their innovations for testing and certification. This is also in line with the Chain-Linked Model which indicates that information is continuously sent back to the research centre throughout the chain. The training is also highlighted in the RPV theory as it forms part of the processes. The supporting mechanisms encourage the SMEs to formalise their operations by registering their businesses. As was concluded in this research, most SMEs are not registered and do not have formal structures hence they do not have a clear philosophy.

It is in such an environment that SMEs can successfully become innovative, survive and grow. Innovation brings in new, durable and quality products as well as effective and efficient methods of production. The combination of these aspects leads to competitiveness which cascades to survival and growth of SMEs through a boost in sales. Survival and growth of SMEs afford them to create revenue for the Government through paying of taxes, increase in Gross Domestic Product (GDP) and also boost in Balance of Payment (BOP) if they manage to export their products. The market then enjoys new, durable affordable and high-quality products which are locally made for their local market. As new products enter the market, new opportunities arise, and competition increases hence the need to continuously innovate to keep growing.

8.6 Areas for further study

Further research is needed in the following areas:

- Further research should be conducted into how capital shortages affect innovation within small

to medium enterprises in the manufacturing sector. A majority of the small to medium enterprises in this study indicated capital shortage as the major challenge in their operations. Capital shortages are just one of the many variables that affect innovation and growth within small to medium enterprises and the new research should investigate the problems that are brought about by financial constraints.

- Moreover, research will also be required to find out why most of the SMEs in this study have been operating for more than 9 years when literature claims that most of the SMEs that startup in Africa usually fail. In Zimbabwe, up to 75 per cent of new businesses eventually fail (Chichoni, 2011).

- In addition, further research is also needed to find out why most of the respondents have been working for less than a year when most SMEs have been operating for more than 9 years.

8.7 Limitations

8.7.1 The use of self-reporting may not be a true reflection of an SME's level of innovativeness, there might be too much reliance on claims by owner/managers.

8.7.2 Business may participate in innovative activities and performance measurement without detailing it, henceforth there might be no written verification.

8.7.3 The opinions and perceptions of owners/managers may not essentially replicate the true state of affairs of the business. It is, however, generally accepted that, as the main role players, owner-managers' attitudes and beliefs often regulate SMEs business conduct. Thus, for the purposes of this research study, it is assumed that owner/managers' opinions on innovation and performance measurement will passably reflect the actual situation on the ground.

8.8 Conclusions of the thesis

The research introduced the study by highlighting the background to the study, objectives, research questions, justification of the study and delimitations. Literature by several scholars on innovation was also presented. This literature was guided by the research objectives. Dimensions of innovation, drivers and challenges were discussed. The literature on different business strategies, best practices and benefits of innovation as explained by other authors was presented. Various theories on innovation were discussed and compared to outline how these models can be adopted by SMEs in Mashonaland West province of Zimbabwe. A proposal was made for a model which can be suitable for SMEs in Zimbabwe to be innovative. Historical facts on innovations in Zimbabwe were presented. Several developments in the country were highlighted, which include technological and policies brought into play by the government in a bid to boost the development of SMEs. The methodology employed in carrying out the

research was discussed. Descriptive and explanatory research designs were used in this research study. The sample comprised of 385 SMEs in the manufacturing sector. Questionnaires were used to gather data and ethical issues were addressed by treating the data with strict confidentiality and maintaining the anonymity of the respondents. The obtained data was presented in the form of tables, charts, histograms and graphs. The findings were presented using descriptive and inferential statistics and SPSS was the main statistical package employed. The reliability of the questionnaire was measured using Cronbach's alpha. Whilst the research findings were discussed, new knowledge was created based on arguments from the practical information obtained from the data. It was concluded that most SMEs were not innovative and are not growing since the majority of them have at most two branches irrespective of being in operation for nine years. Lack of capital, inadequate equipment and lack of government support were found to be some of the hindrances to innovation. SMEs believed that they can manage innovation in their enterprises by rewarding innovative employees and that training on innovation can innovativeness in the employees. Recommendations made included expanding of markets, government support to be enhanced, networking with other institutions, training and refresher courses to be carried out frequently and strong integration with suppliers, amongst others. The contribution of the study to the body of knowledge was summarised in a proposed model which highlighted an enabling environment that promotes innovation in SMEs. The research folded up by highlighting areas for further study, which included why employees for SMEs do not remain with the enterprise for long periods since continuity of employment can boost innovativeness in an enterprise.

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APPENDICES

APPENDIX 1: QUESTIONNAIRE

UNIVERSITY OF KWAZULU-NATAL

School of Management, IT and Governance

PhD Research Project

Researcher: Nelia Eta Marima (+263772206313)

Supervisor: Dr M Phiri (+27332605843)

Research Office: Ms P Ximba 031-2603587

Dear Respondent,

I, Nelia Eta Marima, am a PhD student in the School of Management, IT and Governance, at the University of KwaZulu-Natal. You are invited to participate in a research project entitled

Innovation as a Strategy for Small to Medium Enterprises (SMEs) Survival and Growth in Mashonaland West Province, Zimbabwe. The aim of this study is to: Find out what is preventing SMEs in the manufacturing sector from growing and surviving through innovation. Through your participation, I hope to understand how SMEs in the manufacturing sector can use innovation as a strategy for survival and growth. The results of this survey are intended to contribute to the SMEs, the researcher, the University and academics at large. Your participation in this project is voluntary. You may refuse to participate or withdraw from the project at any time with no negative consequence. There will be no monetary gain from participating in this research project. Confidentiality and anonymity of records identifying you as a participant will be maintained by the School of Management, IT and Governance, UKZN.

If you have any questions or concerns about participating in this study, please contact me or my supervisor at the numbers listed above. It should take you about 20 minutes to complete the questionnaire. I hope you will take the time to complete the questionnaire.

I thank you in advance.

Date ……..

Please tick or fill where appropriate

A To investigate the extent of innovativeness in SMEs in the manufacturing sector

1. Gender

Male [1] Female [2]

2. Age group

Below 20 years [1] 20-24 [2] 25-29 [3]

30-34 [4] 35-39 [5] 40-45 [6]

46-50 [7] above 50 [8]

3. What is your position in the company?

Owner [1] manager [2] Owner- manager [3]

Accountant [4] Artisan [5] Foreman [6]

General Hand [7] Other [8] (specify)…….

4. For how long has the company been in operation?

Less than 1 year [1] 1-3 years [2] 4-6 years [3]

7-9 years 4 more than 10 years 5

5. How long have you been working in this company?

Less than 1 year 1 1-3 years 2 4-6 years 3

7-9 years 4 more than 10 years 5

6. What is the status of your company?

Registered 1 not registered 2

Cooperative 3 Family 4

Partnership 5 Other 6 (specify)……

7 How many employees are there in the company?

Less than 5 1 5-10 2 11-15 3

16-20 4 21-25 5 26-30 6 more than 30 7

8 What is your highest educational level?

1 2 3

Below "O" level "O" level "A" level

Bachelor' Degree [ ] Masters [ ] Doctorate [ ]

9. Do you have any professional qualification?

Yes [1] State……. No [2]

10. What products do you produce?

Furniture [1] clothing [2] confectionery (Bakery) [3]

Steel products [4] carvings [5] food [6]

Other [7] (specify)……..

11. Are you involved in the decision-making process in your company?

Yes [1] No [2]

12. Which of the following challenges have you encountered in your company?

Capital [1] Manpower [2] infrastructure [ ]

Competition [4] Government support [5] Rules and Regulations [6]

[7] [8]

Technological Other (specify)……

13. Which of the following successes have you achieved in your company?

New product(s) [1] Opened new markets [2]

Awards in annual shows [3] Corporate social responsibility activities [4]

Awards in national competitions [5] None [6] Other [7]

Specify ……..

14. Have you ever opened new markets since you started operating?

Yes [1] No [2]

15. Which markets do you serve?

Local [1] Foreign [2] Both [3]

16. Which of the following best describe your innovation activities in the company?

R and D budgets [1] Innovation audit [2] Open innovation [3]

Process innovation [4] None [5] Other [6] (specify)…..…….

17. Does the company reward employees who bring in innovative ideas?

Yes [1] How …….

No [2] Suggest……..

<u>B Explore the relationship between innovation and the growth of SMEs</u>

18. Do you have an R and D budget in your company?

Yes [1] No [2]

19. Do you have a formalized department for R and D?

Yes [1] No [2]

20. Do you have specific and constant suppliers of your raw materials?

Yes [1] No [2]

21. Where do you get your supplies of raw material from?

Local [1] Outside the country [2] Both [3]

22. Do you have an innovation policy in your company?

Yes [1] No [2]

23. How many outlets/branches do you have?

1 [1] 2 [2] 3 [3] 4 [4] more than 4 [5]

24. Is your equipment adequate to fulfil your orders?

Yes [1] No [2] Explain …….

25. Do you have enough capacity to satisfy your current market?

Yes [1] No [2]

26. Do you have any alliances with institutions like universities and Research Centres e.g. SIRDC?

Yes [1] State…… No [2]

27. Do you think the company is growing?

Yes [1] Explain…….

No [2] Explain……

C. <u>To assess the drivers of, and the factors that hinder innovation in manufacturing SMEs</u>

28. Government support is vital for innovation to be a success.

Strongly Disagree [1] Disagree [2] Not sure [3]

Agree [4] Strongly agree [5]

29. Are you getting any support from the government?

Yes [1] State…… No [2]

30. Rules, laws and regulations are not favouring the development of SMEs in Zimbabwe

Strongly disagree [1] Disagree [2] Not sure [3]

Agree [4] Strongly Agree [5]

31. Skill and competences improve the innovativeness of a company

Strongly disagree [1] Disagree [2] Not sure [3]

[4] [5]

Agree Strongly agree

32. Innovation needs to be embedded into the organisations culture.

Strongly disagree ١ Disagree ٢ Not sure ٣

Agree ٤ Strongly agree ٥

33. Rate the state of the following utilities in the area you operate in

1=Very Poor 7= Excellent

	1	2	3	4	5	6	7
Water							
Electricity							
Telephone network							

34. What is the state of the road network in the area you operate in?

Broad and tarred ١ Narrow strip ٢

Gravel ٣ Bridged rivers ٤ No Bridges ٥

35. Can you rate your relationship with stakeholders listed below

1=very poor 7=Excellent

	1	2	3	4	5	6	7
Customers							
Suppliers							
Creditors							
Banking Institutions							
Government							
General Community							
Employees							
Other support institutions							

36. Indicate the institutions that have provided you with services and support.

SEDCO [1] Research centres e.g. SIRDC [2]

EMPRETEC [3] Bankers Association of Zimbabwe [4]

Banking/Financial Institutions [5] Association of SMEs [6]

Marketers Association of Zimbabwe [7] International organisations e.g. ILO [8]

Universities [9] Government Ministries [10]

Other [11] (specify)……

37. What form of assistance do you receive from the Government and the abovementioned institutions?

Training and Skill Development [1]

Infrastructure Development [2] Financial [3]

Policy Development [4] Technological Development [5]

R and D/Innovations [6] None [7]

Other [8] (Specify) ……

38. The following environmental factors affect the ability of a company to innovate. Kindly rank these factors, the factor with the highest effect 7 and the least effect 1.

	Driver/Positive							Hindrance/Negative						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Political														
Economic														
Socio-cultural														
Technological														
Legal														
Ecological														
Global														

D. <u>To determine effective ways to manage innovation in SMEs in the manufacturing sector</u>

39. How many new products have you introduced over the past five (5) years?

1 [1] 2 [2] 3 [3] 4 [4] 5 [5] more than 5 [6]

40. How frequently have you received returns inward over the past two years?

Weekly [1] Monthly [2] Quarterly [3] ½yearly [4] yearly [5]

41. How often do you do product rework?

Weekly [1] Monthly [2] Quarterly [3] ½yearly [4] yearly [5]

42. Have you ever introduced new cost-reduction processes?

Yes [1] No [2]

43. Have you ever introduced a new process?

Yes [1] No [2]

44. What impact did it have on your production?

Cost reduction [1] Efficiency [2] Increase in output [3]

Improved quality [4] New product development [5]

45. Have you ever commercialized any innovation?

Yes [1] No [2]

46. Do you ever hold refresher courses or training on innovation in your company?

Yes [1] If yes state frequency …….. No [2]

47. Which of the following do you have alliances with?

[1] [2] [3]

Universities Government Other companies

Companies [4] Research centres [5] None [6]

Other [7] (specify)…….

48. Indicate the nature of alliance

Very weak [1] weak [2] Moderate [3] strong [4] Very strong [5]

49. Rewarding of innovative employees boosts their moral and encourages others to be innovative.

Strongly disagree [1] Disagree [2] Not sure [3]

Agree [4] Strongly agree [5]

The end

APPENDIX 2: ETHICAL CLEARANCE

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

06 July 2017

Ms Nelia Eta Marima (213570452)
School of Management, IT & Governance
Pietermaritzburg Campus

Dear Ms Marima,

Protocol reference number: HSS/0020/015D
New project title: Innovation as a strategy for Small to Medium Enterprises' (SMEs) Survival and Growth in Mashonaland West Province, Zimbabwe

Approval Notification – Amendment

This letter serves to notify you that your application for an amendment dated 04 July 2017 has now been approved as follows:

- Changes to PI's Biographical data
- Change to Project Title

Any alterations to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form; Title of the Project, Location of the Study must be reviewed and approved through an amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

Best wishes for the successful completion of your research protocol.

Yours faithfully

.....
Dr Shenuka Singh (Chair)

/ms

cc Supervisor: Dr Maxwell Phiri
cc Academic leader Research: Professor Brian McArthur
cc School administrator: Ms Debbie Cunynghame

Humanities & Social Sciences Research Ethics Committee
Dr Shenuka Singh (Chair)
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Postal Address: Private Bag X54001, Durban 4000
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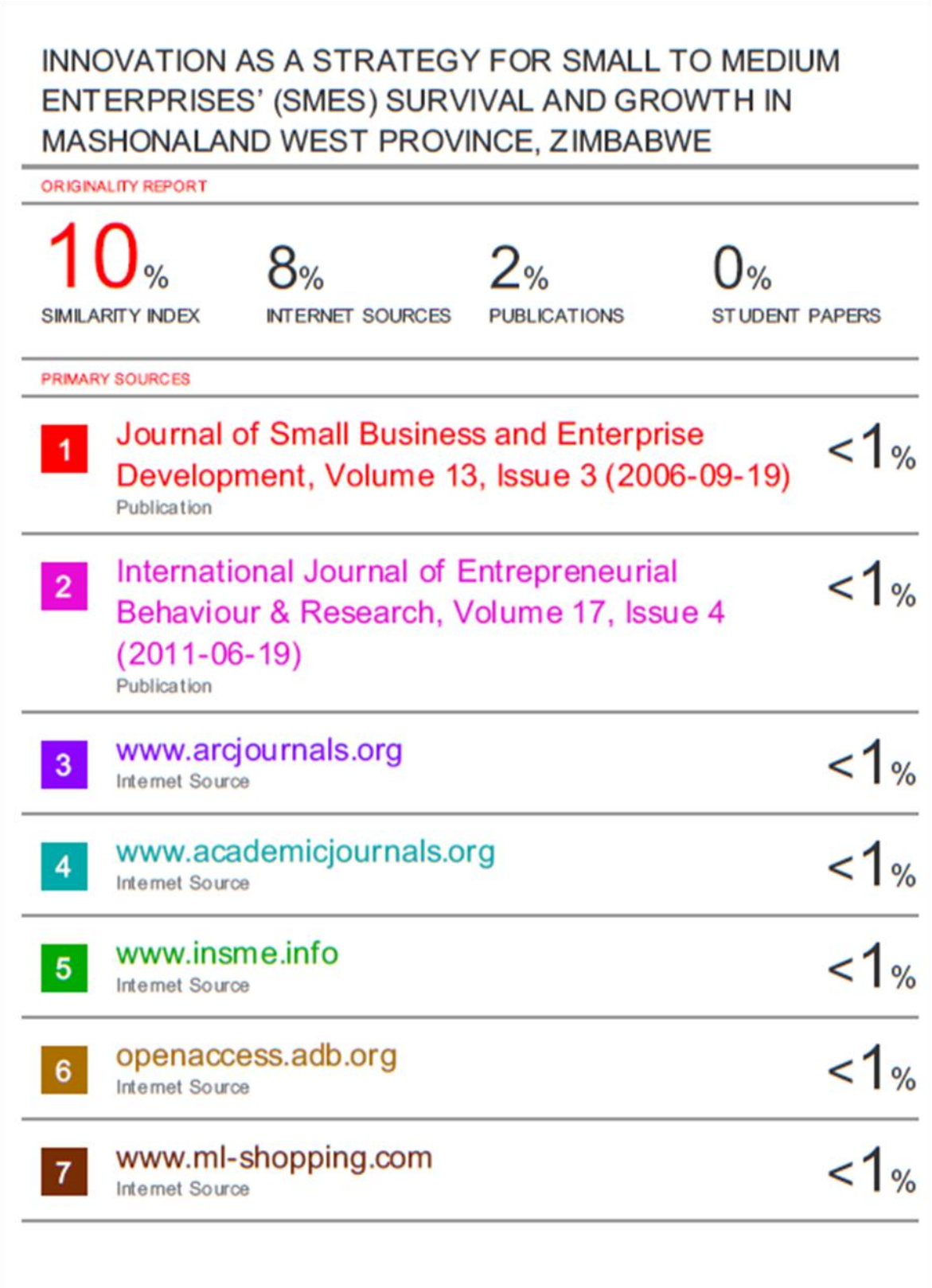
Website: www.ukzn.ac.za

APPENDIX 3. TURNITIN REPORT



INNOVATION AS A STRATEGY FOR SMALL TO MEDIUM ENTERPRISES' (SMES) SURVIVAL AND GROWTH IN MASHONALAND WEST PROVINCE, ZIMBABWE

ORIGINALITY REPORT

10%	8%	2%	0%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Journal of Small Business and Enterprise Development, Volume 13, Issue 3 (2006-09-19) Publication	<1%
2	International Journal of Entrepreneurial Behaviour & Research, Volume 17, Issue 4 (2011-06-19) Publication	<1%
3	www.arcjournals.org Internet Source	<1%
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