AN ASSESSMENT OF THE IMPACT OF INNOVATION & BUSINESS NETWORKS ON THE PERFORMANCE OF SMES IN THE HARARE METROPOLITAN

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DEDICATION

To my wife Viola, my daughter Chikomborero and all the Mpando family, you have always wanted me to succeed. A special feeling of gratitude to my loving parents, Jonathan and Filda Mpando whose words of inspiration for persistence kept me going. I also dedicate this dissertation to my many friends and the church family who have supported me throughout the process.
Candidate’s Declaration
I, Ignatius Tichawona Mpando, do hereby declare that this dissertation is the result of my own investigation and research, except to the extent indicated in the acknowledgements, references, and by comments included in the body of the report, and that this dissertation is therefore my original work and has not been presented in part or in full for any other degree in any other University.

SignatureDate

Supervisor’s Declaration
I, Dr. M. Sandada, confirm that the work reported in this dissertation was carried out by the candidate under my supervision as School Supervisor. This dissertation has been submitted for review with my approval. In my capacity as supervisor of the candidate’s dissertation, I certify that the above statements are true to the best of my knowledge that the dissertation represents the original research work of the candidate and my contribution to the research was consistent with normal supervisory practice.

SignatureDate
ACKNOWLEDGEMENTS

This dissertation would not have been possible without the blessing of the Almighty God, the guidance of my supportive supervisor, Dr. M. Sandada, the support of my fellow classmates and family. Accordingly, it is my pleasure to thank those who have made this dissertation possible.

I am greatly indebted to my supervisor. His leadership and encouragement expressed throughout this research has been a wonderful experience, and I truly appreciate the time and dedication he gave to make this project a success. His guidance, thought-provoking comments and motivational support throughout the course of the research propelled me to produce this dissertation, and, most importantly, to grow as an individual.

I thank Mlungisi Sibanda for his assistance in data collection through establishment of a robust and efficient mailing list platform. A special thank you goes my family members especially my long suffering wife and daughter for their encouragement and patience during the period I was in graduate school.

Finally, a special thank you goes to my boss Mr. Nhena Nyagura, without him pursuit of this advanced degree would never have been started. His support, frankness and dedication made this research a complete project.
ABSTRACT

The contribution of Small and Medium Enterprises (SMEs) has been globally emphasized especially in regions like Asia and Europe. Innovation and business networks have been cited as the major drivers behind this growth. However, Zimbabwe still has high SME failure rate and little is known about the impact of innovation and business networks on their performance. Given the identified research gap, the purpose of this study was primarily to assess the impact of innovation and business networks on the performance of SMEs in Harare so as to alleviate the extremely high failure rate of SMEs through effective use of innovative capabilities and business networking.

Research data for the study was gathered using a close-ended self-administered questionnaire which was distributed to 279 SMEs in the Harare Metropolitan. Stratified random sampling was used to select respondents from the Small and Medium Enterprises Association of Zimbabwe (SMEAZ) databases with a population of 925 SMEs in various industries. The findings reflected that process innovation, organisational innovation and face to face networking activities were dominant. The responses reflected that a variation in either innovation or business networks whilst holding other variables constant caused a change in the performance of SMEs although innovation had a relatively more significant impact.

The study concluded that innovation and business networks have a positive impact on business performance of SMEs. The study also established no significant differences of respondents’ perception on the impact of innovation and business networks on the performance of SMEs across gender, educational level, and level of management. It is against this backdrop that the researcher recommends that the government create a conducive environment for SMEs through establishment of effective research and development centres, sound intellectual property policies which allows special rate or delay in payment for patents and promote regional and national exchange programs. The business practitioners must budget sufficient funds for networking and innovation activities, and make extensive use of internet for research and more create marketing innovative activities like online marketing.
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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AfDB</td>
<td>Africa Development Bank</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>ICT</td>
<td>Information, Communications &amp; Telecommunications</td>
</tr>
<tr>
<td>SEDCO</td>
<td>Small Enterprises Development Corporation</td>
</tr>
<tr>
<td>SME</td>
<td>Small and Medium-scale Enterprise</td>
</tr>
<tr>
<td>SMEAC</td>
<td>Small and Medium Enterprise Advisory Council</td>
</tr>
<tr>
<td>SMEAZ</td>
<td>Small and Medium Enterprises Association of Zimbabwe</td>
</tr>
</tbody>
</table>
CHAPTER 1 INTRODUCTION

1.1 INTRODUCTION

As more nations comprehend the significant contribution of Small to Medium Enterprises (SMEs) to the economies they operate in, innovation and business networks have attracted more attention as the major drivers to the success of these enterprises and ultimately poverty alleviation and economic growth. The focus of economists, researchers and policymakers has shifted towards SMEs as the answer to economic challenges since various growth reports of SMEs in Asia and Europe (Saeed 2002; Wiebe 2002). Findings from previous research confirms the importance of SMEs in overcoming challenges of high unemployment, high poverty rates and income inequalities in developing countries (Beck, Demirguc-Kunt, & Levine 2004). According to the Ministry of Finance (2012), the national budget clearly states that the SME sector employs more than 60% of the country’s workforce and contributes around 50% of the country’s gross domestic product (GDP). The importance of SMEs in Zimbabwe cannot be questioned given the aforementioned statistics hence there should be mechanisms to ensure the success and growth of these enterprises.

There are several ways to improve the performance of SMEs, but the purpose of this research is to assess impact of innovation and business networks on business performance as measured by customer satisfaction and firm productivity. It is against this backdrop that this research seeks to investigate the impact of business networks and innovation on the business performance of SMEs operating in the Harare Metropolitan. Verreynne and Meyer (2010) argue that it is necessary for a nation to obtain a better understanding of how business networks and innovation contribute to SME performance. SMEs are the significant drivers of economic growth (OECD 2009), as a result the researcher was excited with SMEs as the most appropriate target population for this research.

An assessment of the impact of business networks and innovation on the business performance of SMEs as measured by firm productivity and customer satisfaction will aid
business advisors and policy-makers to better serve the Zimbabwean SME sector. The research established the innovative activities and business networking activities carried out by the SMEs in the various industries and ascertain their relationship with the performance of SMEs. This chapter outline the background of this study and the problem statement. The research objectives, research questions, and the hypothesis were clearly stated. The remainder of the chapter give a justification of the study, the scope of the research and an outline of the whole dissertation. At the end of the chapter, the researcher gives a summary of the whole chapter.

1.2 BACKGROUND

Fan (2003) asserts there are many definitions of SMEs. Due to different economic conditions, different countries have adopted different definitions of SMEs. The classification differs in relation to the number of employees, value of total assets, legal structure and the value of total annual sales. Although there are several meanings given to SMEs, there is a general consensus to their significant positive contribution to economic development. Historically most nations were not keen to understand how the SMEs were operating and there was no drive to grow them, however after the global financial crisis of 2008, SMEs have been noted to be significant contributors to the gross domestic product of most nations (OECD 2009).

Table 1.1: Various Definitions of SMEs

<table>
<thead>
<tr>
<th>INSTITUTION</th>
<th>Maximum Number of Employees</th>
<th>Max Revenues or Turnover ($)</th>
<th>Maximum Assets ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Bank</td>
<td>300</td>
<td>15,000,000</td>
<td>15,000,000</td>
</tr>
<tr>
<td>MIF – IADB</td>
<td>100</td>
<td>3,000,000</td>
<td>(none)</td>
</tr>
<tr>
<td>African Development Bank</td>
<td>50</td>
<td>(none)</td>
<td>(none)</td>
</tr>
<tr>
<td>Asian Development Bank</td>
<td>No official definition. Uses only definitions of individual national governments.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNDP</td>
<td>200</td>
<td>(none)</td>
<td>(none)</td>
</tr>
</tbody>
</table>

Different organisations and countries set their own guidelines for defining SMEs, often based on headcount, sales or assets. Table 1.1 depicts the inconsistencies among the various SME definitions used across various nations. The World Bank defines SMEs as those firm with a maximum of 300 employees, $15 million as the annual revenue, and $15 million in assets whilst Inter-American Development Bank, define SMEs as having a maximum of 100 employees and turnover of less than $3 million. The most substantial difference is between how the World Bank and the Multilateral Investment Fund in relation to the maximum number of employees and revenues or turnover which are three times and five times larger respectively. As clearly shown our own African Development Bank (AfDB) is not an exception. According to Beck, Demirguç-Kunt, and Levine (2005), they stated that most definitions on SMEs are based on size and they use fundamental bases such as number of employees, financial position or annual turnover. This implies the use of any single definition of SMEs for multiple countries results in distortions of conclusions about SMEs in that economy. However in Zimbabwe, according to Small and Medium Enterprises Institute, SMEs are defined as a registered enterprise with employment levels ranging from 30 to 70 depending on the types of industry. For the purpose of this research the researcher used the Zimbabwean definition since that is where the population is drawn from.

Following the global financial crisis of 2008, SMEs are now regarded as the vital engines of employment creation and economic growth in most developing countries with SMEs accounting for about 90% of businesses and more than 50% of employment worldwide (International Finance Corporation 2012). An account of accomplishments through SMEs in some countries such as Italy, North Korea, Singapore and Taiwan has seen many nation across the globe acknowledging the important role SMEs in economic and industrial advancement (Hallberg 2001). As an example the importance of SMEs can be explained best by taking the case of China where most of its firms are dominated 99.9% by SMEs, over 80% employment is from SMEs and most importantly 71% of the country’s total turnover is generated by SMEs (Fan 2003). These impressive statistics implies SMEs are a potential solution to a country like Zimbabwe which is stuck with high unemployment levels and most of its habitants leave below the poverty datum line. This research sought to find answers
regarding improvement of the business performance of these SMEs as a function of effective use of innovation and business networks.

Although the importance of SMEs cannot be overemphasised, the contribution of the SME sector to various nations must be interpreted with caution since it is non-uniform due to the varying patterns in economic development (Verreynne & Meyer 2010). Dewar (2005) has it that the development of informal traders is accepted with mixed feelings, some believe it is a sign of underdevelopment to be corrected whilst some perceive it as a positive development which capacitate those which failed to make it into formal employment to have sound alternative sources of income for a better living (Verreynne & Meyer 2010).

Taking the analysis closer in the context of Zimbabwe, our SME sector has been reported as the source of most economic activities and its contribution to the growth of the economy is estimated to be 90% (Goriwondo 2011). Zimbabwe has faced challenging economic hardships from mid 90s to up 2009 when the multi-currency regime was introduced. During this time many shun formal employment as many formal companies failed to pay salaries and it is this time when most discovered the entrepreneurial strengths. Munyanyiwa (2009) posit that governments of many nations worldwide have made efforts to come up with sound policies and regulations to nourish SMEs since they have proved to be key engines contributing significantly towards poverty alleviation, employment creation and economic growth. In an effort to boost the financial base, raise capital and improve on the quality of the products for its SMES, the Egyptian government introduced a stock exchange for SMEs. Zimbabwe cannot be left out, the government’s commitment to nourish SMEs is evidenced by the establishment of the Small Enterprises Development Corporation (SEDCO) and appointment of the Ministry of Small and Medium Enterprise and Corporative Development to create enabling environment for economic growth (Munyanyiwa 2009).

Despite the significant contributions to economic growth across the whole world, and in Zimbabwe particularly, SMEs are still faced with numerous challenges that inhibit entrepreneurial growth. According to SEDCO (2004), the failure rate of SMEs is mainly dominant during start-up such that about 60% and 25% of SMEs in Zimbabwe fail in the
first year and first three years of establishment respectively. This leaves us with only remaining 15% being the ones likely to survive and make sound contributions to the nation’s GDP. Such a high failure rate warrants a research to assess the impact of innovation and networks on SME performance. Previous researches have been done globally and several authors found a positive relationship between networking and firm performance (Hakansson & Ford 2002). This research is meant to complement the work of previous studies by making efforts to check consistency of previous results in the case of Zimbabwe.

1.3 PROBLEM STATEMENT

The aforementioned global statistics supporting the increasing role of SMEs to economic activity implies the need to focus efforts and come up with policies that will promote SMEs to grow and establish presence at regional and global level. A recent study conducted by Abor and Quartey (2010) estimates that 91% of formal business entities in South Africa are SMEs, and that these SMEs contribute between 52% and 57% to GDP and provide about 61% to employment. It is argued that the performance of non-innovative players is nowhere near the performance of innovative players due to the unique output as a function of innovation process (Baldwin & Gellatly 2003; Mansury & Love 2008).

While on the one hand, Zimbabwe has registered relatively high SME failure rates, other regions such as Europe, North America and some parts of Asia have seen improved performance of SMEs through the effective use of business networks and innovation. Perhaps if these business tools are enforced in Zimbabwe, these enterprises could improve their performance. However, little is known in the Zimbabwean context whether innovation and business networks can lead to improved SME performance. Given the identified research gap, the research on the effect of SME performance as a function of innovation and business networks in Zimbabwe is warranted. A success in establishing the impact of innovation and business networks on SMEs will positively contribute to the existing body of knowledge and assist policy makers to provide a sound and enabling entrepreneurial business environment.
1.4 RESEARCH OBJECTIVES

The primary objective of this research is to establish the impact of innovation and business networks on business performance of SMEs in Harare. The secondary objectives are to:

1. Determine the impact of networks on business performance of SMEs in Harare.
2. Identify the impact of innovation on the performance of SMEs in Harare.
3. Establish a model which can be adopted by SMEs for them to improve business performance through effective use of business networks and innovative activities.
4. Test if there are any statistical differences in perceptions of respondents on the effect of innovation and business networking on business performance across level of education, gender and level of management.

1.5 RESEARCH QUESTION

The major research question for this study is: What is the influence of business networks and innovation on the performance of SMEs in Zimbabwe? The question is further divided into sub questions as follows:

1. What is the effect of business networks on the performance of SMEs in Harare?
2. How does innovation affect the performance of SMEs in Harare?
3. Are there any significant differences in perceptions of respondents on the effect of innovation and business networking on business performance across level of education, gender and level of management?

1.6 HYPOTHESIS

A hypothesis refers to an educated and logical guess which serves to provide an unconfirmed explanation for a phenomenon under investigation (Leedy & Ormrod 2005). A
hypothesis is important since it provides direction to the research and a framework for reporting conclusions of the study independent of the researcher’s own values and opinions (Leedy & Ormrod 2005). The major proposition for this researcher is that innovation and networks positively influence business performance of SMEs. The major hypothesis was further divided into the following sub hypotheses:

**H₁:** Business networks positively influence business performance of SMEs.

**H₂:** Innovation positively impacts business performance of SMEs.

**H₃:** There are no significant differences in respondent’s perception concerning the effect of innovation and business networking on business performance across level of education, gender and level of management.

### 1.7 JUSTIFICATION OF STUDY

Research on business networks focused mainly on issues to do with network formation and relationships among firms as compared to business performance outcomes (Kapasuwan 2006). Thus there is need for business research to shift and focus on network relationships in order to understand SMEs’ performance. Although most of previous findings argue in favour of business networking as beneficial (Havnes & Senneseth 2001), however there is little empirical evidence of an association between firm performance and the use of business networks, particularly for established businesses in Zimbabwe. This study aims to add to the existing body of literature on SMEs performance as a function of the effective use of innovation and business networks. This will benefit the academics as they will have a more varied insight of the subject area. The policy-makers will also be enlightened to craft sound and more effective policies which support innovation and networking for improved business performance of SMEs. Business practitioners will benefit as they gain a heightened appreciation of where to concentrate their efforts and why they may need to build relationships.
Despite the government’s focus on SMEs, researchers question the role of SMEs in maintaining the growth of the country’s economy and the role of innovation in the overall performance of the SMEs. The concern stems from the visible downfall in the growth rate since late 1990s which is argued to be attributed to nations being victims of middle income(Hill, Tham& Zin2012). Thus, the main focus of the present study is to evaluate the role of innovation towards SMEs performance and growth. Studying SMEs can enhance our understanding of their needs in respect to growth and development. Such understanding would enable practitioners, and policy-makers to formulate sound support innovative strategies for SMEs.

1.8 SCOPE OF THE STUDY

The research was carried out in Zimbabwe with a focus on SMEs in the Harare Metropolitan. The period under consideration is one and half years from January 2013 to June 2014. The research was carried out on registered SMEs from various industries as defined by the SMEAZ database. The research focused on how established business networks and innovativeness impacts business performance as measured by firm productivity and customer satisfaction. The research also sought to account for the percentage contribution of networks and innovation to business performance. It is also not the purpose of this study to explore other critical factors which may be contributing to the failure of SME businesses in Zimbabwe.

1.9 DISSERTATION OUTLINE

This dissertation contains five chapters which are the introduction and background, literature review, methodology, results and findings, and lastly conclusion and recommendations. The introduction basically introduces the topic and a background of the study, the objectives which the research seek to achieve through answering the outlined research questions, and
why it is imperative to carry out the research. The Literature Review on chapter two gave an account of what other researchers say about the subject area. It provides a thorough synthesis of the previous research work in order to bring out diverging and converging views. Chapter three outlines the methodology which explain research design employed by the researcher in data gathering, analysing the data and emerging trends. Justification of the methodology employed was also presented. Chapter four links the findings and results to the research objectives by giving an in depth analysis of the findings in relation to providing answers to the research question. Chapter five being the last chapter spells the researcher’s conclusion against the research proposition. It also outline some recommendations which the industry players and policy makers may adopt and implement. Possible areas of further study are also cited in this last chapter. Figure 1.1 which shows the comprehensive outline of this dissertation.

**Figure 1.1: Dissertation Outline**
1.10 CHAPTER SUMMARY

The purpose of this research is to establish the impact of business networks and innovation on SMEs in Zimbabwe with a focus on the Harare Metropolitan. As the significance of SMEs has grown extensively globally, regionally, and even locally in their positive contribution towards employment creation, poverty alleviation, and GDP. The Zimbabwean government has made various initiatives to guard against the failure of SMEs and supporting them to become sound international players. The research seeks to ascertain the business networking activities, innovative activities, and how they impact on the performance of SMEs as measured by customer satisfaction and firm productivity. There are various definitions of SMEs which may be a potential source of inconsistent results across the globe. The rationale of the research is to add to existing body of knowledge and develop a model which can be adopted by the policy makers and practitioners on making effective use of business networks and innovation to improve business performance. The next chapter provide an in-depth analysis of the existing knowledge concerning the variables under studyrevealing the key diverging and converging views of previous findings on this topic.Since this study is not the first ever, there is need to review what has been done previously so as to avoid mere repetition but aim to value add the existing body of knowledge.
CHAPTER 2 LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter outlined the purpose of the research together with the objectives which this study seeks to attain by providing answers to the stated research questions. The researcher has also hypothesised on the relationship of the variables involved and why is it even necessary to carry out the study in the first place. The focus of this chapter is to give an account of what other researchers in the same area of study discovered and concluded about the research topic. This was achieved through a review of the research variables which are business networks, innovation and business performance. This is an acknowledgement that this is not a ground breaking study to be carried out on this topic hence the need to refer to previous findings and conclusions. In section 2.1, the theory underpinning the study is explored. In section 2.2, the variables constituting the conceptual framework are discussed. The conceptual framework and relationships of the variables is covered in Section 2.3. Finally, section 2.4 provides a summary of this chapter.

2.2 SOCIAL NETWORK THEORY

The Social Network Theory is a social science concept introduced by Moreno in 1937 to explain the connection and relationship in a social structure (Kadushin 2004, p. 7). The concept explains who interacts with whom and how many total connections exist in an individual's network. Relationships can represent any form of social behaviour, from cooperative and helpful to hostile and competitive (Krause, Croft, & James 2007). In a network, there are flows between objects and actors and exchanges, which might contain an advice, information, friendship, emotional support, motivation, and cooperation, can lead to very important ties (Kadushin 2004). These actors could be roles, individual persons, organisations, industries, or even nation states. There are various bases on which such ties
may be established and these include and are not limited to friendship, economic exchanges, conversation, kinship, affection, authority, and information exchange (Kadushin 2004, p. 28). This implies network relationship can also be regarded as tactics which focus on the creation and sustenance of long-term relationships with mutual benefits between entrepreneurs and their network colleagues.

Social network theory is applicable to a number of fields, including organisational behaviour, anthropology, sociology, medicine and in understanding of human social organisations by building up social structures from individual-level interactions (Krause, Croft & James 2007). This theory originated in the mathematical graph theory and is applicable in various disciplines such as information technology, communication systems, animal behaviour science, and dominantly visible in the social sciences and psychology (Croft, James, Ward, Botham, Mawdsley & Krause, 2005). In the management discipline, interest in social network theory sparked in the 1990s and has increased since then (Bruton, Lohrke & Lu 2004).

In sum, the application of the social network lens in the business field is a more current event whose promise lies in its potential to capture some of the complexities of organisations that avoid other methods of networking. Therefore, the central foundation of this dissertation is based on social network theory, which implies the transmission of resources and newthinking or information through inter-personal ties and social contacts with individuals. Drawing from the above theory, this study therefore asserts innovation and business networks have a positive impact on business performance.

2.3 RESEARCH VARIABLES

In research a variable also known as a construct is a property or symbol of event that takes on different values (Cooper & Schindler 2014, p. 55). There are various ways to classify variables but for this study we explain independent and dependent variables since the focus of this study is to understand the relationship amongst variables. Independent variables is
what the researcher is testing and is the only thing that is changed or manipulated by the researcher, whilst dependent variable is the response to the independent variable that can be observed and measured (Saunders, Lewis & Thornhill 2009, p.369). For this study the independent variables are business networks and innovation and the dependent variable is business performance.

2.3.1 Business Networking

A business network refers to a formal or informal relationship between one entity and one or more other entities interrelating to gain business growth and success (Indarti & Langenberg 2004; Lin & Zhang 2005). The earliest successful networks were tiny cottage-industry companies as a result of a tradition of familialism coupled with a complex web of connections established in countries such as Japan and Italy where the barriers to building and maintaining relationships were lower than in the United States (Inzerelli 1990). A business network consists of positions which are occupied by network nodes as well as links or ties manifested by some relationship or lack of it between the nodes (Brass, Galaskiewicz, Greve & Tsai 2004). It involves the firm’s resources being invested in establishment, building, and sustenance of the relationships between or amongst the different network-players (Holmen, Pedersen & Torvtn 2005, p.1244). Wickham (2004, p.324) argues that the establishment of these relationships should not be seen as a waste of time and cash resources but the opportunity to create and support a competitive advantage in business through strategic partnering and exchange of noble ideas. Davis (2006) posit that a network consists of nodes and ties, nodes being actors, such as persons, teams, or organisations whilst ties refer to the relationships among the nodes. It is also imperative to appreciate that networks are evolving organism and their dynamics are caused by the fact that actors, relationships, needs, problems, capabilities, and resources change over time (Ojasalo 2008). In spite of differences in defining business networks, almost all definitions refer to common themes which are social interaction (of individuals acting on behalf of their organisations), relationships, connectedness, collaboration, collective action, trust, and cooperation (Provan, Fish and Sydow 2007).
Network research at the firm level is concerned with uncovering the benefits derived from networks measured mostly as economic or financial firm performance (Ozman 2009). Kay (2004, p.166) posit that certain people appear to be born with the instinct for building and the natural ability to build the appropriate connections and relationships. Others may have to acquire these skills by trial and error and the approach to acquiring these depends largely on the individual’s attitude and willingness to move out of his or her comfort zone. Networking is not restricted to specific situations and people can network at any time and place, which makes every opportunity a networking opportunity (Yeung, 2006, p.18). Networking relationships allow for successful business practices and the development of mutual respect (Kay, 2004, p.6), trust and social capital, which contribute to the success of networking efforts in a business (Yeung, 2006: 9). In order to benefit fully from networking, the resources being employed in the network must be interdependent, managers must first acknowledge the importance of networking and establish strategic networking relationships (De Klerk & Kroon 2008, p.89). Paul and Kaltenbach (2004, p.32), amongst others, support the finding that a network can be built at work through mutually beneficial and strong relationships within a business by means of professional and personal contacts.

2.3.2.1 Types of Networks

Businesses engage in networking relationships on different levels, for instance on industry level, on a group level and then within the business on their own level of connections (De Man 2004, p.118-129). Networks can occur within a business or between businesses and combinations of these networks may differ in terms of the flow and/or sharing of products, services or resources and the relationships between the businesses (Grandori 1999, p.92). Different relationships exist between businesses and this range from arm’s length relationships with lower levels of trust and commitment, to strategic alliances and partnerships with higher levels of trust and commitment (Moberg & Speh 2003, p.2). Even though there are many different networks, for instance information and technology networks, e-commerce, career and social networks, this study takes its vantage point from a business networking perspective.
Another classification of networks is weak ties and strong ties. Granovetter (1973) emphasises the importance of weak ties when connecting members of separate small groups, hence the argument that weak ties are more important distribution channels of new information than strong ties because distant actors have better access to alternate information sources than nearby actors. Networks may also be categorized such as business, knowledge and social networks. Business networks include vertical linkages with suppliers and clients and lateral linkages with other producers. Social networks refer to networks based on kinship, friendship, common ethnic or linguistic background, neighborhood association etc. Knowledge networks, on the other hand, involve technological cooperation (Powell & Grodal 2005). Different types of networks will result in different information content being exchanged and thus affecting firm performance differently.

2.3.2.2 Importance of Networking

Business networking is argued to involve relationships between different businesses and the utilisation of these relationships to create and support a competitive advantage in business (Wickham 2004, p.324). Businesses are empowered through their relationship networks in that societies can be shaped, and the economies of countries can even be affected by these relationship connections through enhancing living standards and economic growth (Beck 2000, p.2).

Exploration or exploitation of a network entails the optimal utilisation of role-players in terms of productivity, efficiency, reducing costs, and improving existing resources such as information, technology, skill and expertise (Nielsen 2005, p.1200). Hence success of networking lies in the way in which the different levels of relationships webs are managed. Despite the aforementioned benefits associated with business networking, one of the largest obstacles in maintaining and establishing business networks is the concern held by business owners about the risks of sharing information and resources with other businesses (Gulati & Gargiulo 1999). Another
school of thought views building and maintaining network relations as costly for entrepreneurs and there are preconceived threats to productivity (Witt 2004).

2.3.2 INNOVATION

Innovation has been and continues to be an important topic of study for a significant number of different disciplines, including economics, business, engineering, science, and sociology. Although innovation has been a topical issue in a number of disciplines, it however remains the term often poorly understood and in many cases confused with related terms such as change, invention, design, and creativity. According to Organisation for Economic Co-operation and Development (2005), innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations. Innovation refers to creating something new and implementing it successfully at a market. Innovation in firms takes place when knowledge is commercialised, for example in the form of new products, services, processes, or business models (Baldwin & Gellatly 2003). However, some authors have reserved the term “innovation” just for the result of the innovation process, and “innovation management” for the managerial activities that attempt to control the innovation process. In simple terms innovation involves the generation, development and adaptation of novel ideas which can be a completely new idea or an improvement of an existing thinking. This research adopted the OECD Oslo Manual (2005) definition since it offers a comprehensive, consistent and worldwide recognised framework for explaining and evaluating innovation.

Kanter (2006) regards human effort as the only limitation for one to access innovation. In a nutshell, innovation is simply creation or acceptance, adaptation and utilization of a value-added uniqueness in trade and industry domains, rejuvenation of products, services and markets, and establishment of new organisational setups (Polder, Leeuwen, Mohnen, Raymond, 2010). SMEs are argued to be more innovative than larger firms since they are more flexible and swift to integrate inventions activities (Verhees & Meulenberg 2004).
2.3.2.1 Types of Innovation
Innovation can be broadly categorised as radical or incremental, where radical innovations are new technologies, processes or new products that fill needs perhaps not yet recognized while incremental innovations improves what already exists (Chetty & Stangl, 2010). The distinction here is about the degree of change associated with the innovation and the resulting impact on a firm’s perceived risk and existing core competencies. The OECD Oslo’s Manual (2005) identifies four types of innovation as product innovation, process innovation, marketing and organisational innovation. They all aim to make major improvements to existing technologies, and to create new technologies.

**Product Innovation**
Product innovation means introducing the new or significantly improved products or services (Polder et al., 2010). For product innovation, the product must either be a new product or significantly improved with respect to its features, intended use, components and material. Change in design that brings significant change in the intended use or characteristics of the product is also considered as product innovation (OECD, 2005). It is also argued that the reason why firms aim product innovation is to bring efficiency in the business (Polder et al., 2010). Duranton and Puga (2001) argues that something new to the firm, variation to the existing portfolio, and new to customers as dimensions of product innovation. Most firms have been forced to innovate in one way or the other due to the shorter product life cycle of the products.

**Process Innovation**
Process innovation means improving the production and logistic methods significantly or bringing significant improvements in the supporting activities such as purchasing, accounting, maintenance and computing (Polder et al., 2010). OECD (2005) defined the process innovation as implementation of the production or delivery method that is new or significantly improved. This
includes significant changes in techniques, equipment and software. Process innovations can be intended to decrease production unit costs, to increase quality, or to produce or deliver new or significantly improved products.

**Marketing Innovation**

Marketing innovation is defined as the identification of new markets and finding out how they are better served or how they may become more receptive to the available products (Shergill & Nargundkar 2005). The objective of marketing innovation being to increase the sales and market share and opening new markets, it includes activities such as implementing new marketing method that involve significant changes in the packaging, design, placement and product promotion and pricing strategy (Chou 2009). The distinctive feature for the marketing innovation from the other types of innovation is the implementation of new marketing method that the firm has never implemented before. The new formats of trading, like online store is also example of marketing innovation.

**Organisational innovation**

It is defined as introduction of new practices of doing business, workplace organizing methods, decision making system and new ways of managing external relations (Polder *et al.*, 2010). OECD (2005) defined the organisational innovation as implementing new ways of organizing business practices, external relations and work place.

2.3.2.2 Sources of Innovation

Oluwajoba (2007) argues there are internal and external sources of innovation capabilities. The internal sources are as follows:

- The educational background and prior working experience of the leader(s)
- The professional credentials of the personnel.
- The various kinds of technological effort which prompt further accumulation of technological capabilities for instance research and development.
Those generated from external sources included:

- Frequency of networking with a variety of other players and various institutions
- Any geographical proximity advantages associated with networking
- The nature and extent of institutional support received.

2.3.2.3 Importance of Innovation

According to Allocca and Kessler (2006), the ability to develop and launch innovative initiatives quickly before competitors, or soon thereafter, is a key factor in gaining first mover advantage, achieving product success, capturing market share, increasing return on investment, and long-term viability. In this vein it is imperative to assess the role played by innovation on the sustainable performance of SMEs in Zimbabwe, Harare in particular. Innovation is an important tool that provides opportunities to new inventions and building of new markets (Kuhn & Marisck 2010). Remaining competitive in today’s modern world require organisations to pursue innovation (Teece 2007), thus for Zimbabwean SMEs to grow and participate on the global scene they must innovate.

2.3.2.4 Factors influencing Innovation

OECD Oslo Manual (2005) identified a number of reasons why SMEs innovate and these include and are not limited to competition and opportunities for entering new markets. The manual cites high costs or lack of demand, lack of skilled personnel or knowledge, and legal factors, such as regulations or tax rules as reasons for less incentive to innovate. The general argument which is supported by many is the lack of lack of entrepreneurial innovation culture amongst the SME owners and managers (Verhees & Meulenberg 2004). However, it is still argued that knowledge about types of innovation SMEs embark on and by what means is incomplete (Oke, Burke & Myers 2004) especially in the developing countries (Bala-Subrahmanya, 2005). It has been suggested by researchers that SMEs have limited innovation as compared to larger enterprises. However, this fallacy has been refuted by Kaufmann and Todtling (2002) who argue that SMEs are more innovative due to their heterogeneous character but are restricted in innovative capacity due to their limited financial and human assets.
2.3.3 **BUSINESS PERFORMANCE**

Business performance is defined as a measure of how well organisations are managed and the value they deliver to customers and other stakeholders (Smith & Reece 1999, p.153). Although most organisations assess their performance to some extent, there is however a large disparity in terms of which performance indicators are used with many primarily focusing on financial measures. Firm performance is a multidimensional concept that uses objective and or subjective indicators. According to the Sink and Tuttle model, performance of an organisational system is a complex interrelationship between performance indicators such as effectiveness, efficiency, quality, productivity, and profitability (Sink and Tuttle, 1989). Performance is the vital indicator for success using both empirical and theoretical models (Man, Lau & Chan 2002). Increases in earnings, sales revenues, and employment are also indicators of performance (Pangarkar 2008). Mansury and Love (2008) asserts that Return on Investment (ROI), Turnover or number of customers, efficiency as measured by growth in profitability, and effectiveness as measured by the growth of sales and product range are the most commonly used indicators of business performance.

The other dimensions of evaluating business performance are innovative, production, market, and financial performance (Hagedoorn & Cloodt 2003; Yilmaz, Alpkan & Ergun 2005) are innovative performance, production performance, market performance and financial performance. The indicators of innovative performance are R&D inputs, new product announcement, patent citation and patent count (Hagedoorn & Cloodt, 2003). Innovation performance in the organisation leads to the other types of performance as marketing, production and financial performance. The elements of production performance are quality improvement, cost efficiency, speed to production and flexibility in production. The production performance leads the organisation directly to profitability (Günday, Ulusoy, Kılıç, & Alpkan 2011).

Many studies show a preference for subjective measures during the assessment of business performance due to difficulties in obtaining objective financial data. Managers often refuse to provide accurate, objective performance data to researchers. Even if
objective data is made available, the data often do not fully represent firms’ actual performance, as managers may manipulate the data to avoid personal or corporate taxes. Consequently, managers are often encouraged to evaluate business performance through general subjective measures that can reflect more-specific objective measures (Wall, Michie, Patterson, Wood, Sheehan, Clegg, & West 2004). Subjective measures of business performance are argued to enable cross comparison of business in different industries, time horizons, cultures or economic conditions hence it is an effective way of examining business performance (Song, Droge, Hanvanich & Calantone, 2005). Many managers of small and private firms consider objective performance measures to be confidential, and guard them from public scrutiny (Gruber, Heinemann, Brettel, & Hungeling, 2010). There are several reasons why companies measure business and some of the major ones are to enable order so as to monitor and control proactively, reward, drive improvement, maximize the effectiveness of any improvement initiatives, achieve organisational goals and objectives alignment (Wall et al, 2004). For this research business measurement was carried out using customer satisfaction and firm productivity which the researcher felt not to present much of a challenge to obtain unlike more objective measure like sales volumes and profitability.

2.4 CONCEPTUAL FRAMEWORK & HYPOTHESIS DEVELOPMENT

The previous discussion on the three basic variables make up the model depicted by Figure 2.1. The conceptual model is grounded on the Social Network theory which provides solid and sound foundation for the study. These variables are innovation, business networks and business performance of SMEs. The hypothesized relationships between the outlined variables in the conceptual model were discussed hereunder. A hypothesis refers to an educated and logical guess which serves to provide an unconfirmed explanation for a phenomenon under investigation (Leedy & Ormrod 2001). A hypothesis is important since it provides direction to the research and a framework for reporting conclusions of the study independent of the researcher’s own values and opinions (Groat & Wang 2002).
proposition for this researcher is that innovation and networks positively influence business performance of SMEs.

![Figure 2.1: Conceptual Framework](image)

### 2.4.1 BUSINESS NETWORKS & BUSINESS PERFORMANCE

The definition of networking upon which this study is based relies on business relationships and approaches the network as a net or web of relationships that are interwoven, and the collective results of networking are greater than individual connections would have been. Business opportunities can be co-created (Giovagnoli & Carter-Miller 2000, p.151), knowledge and relational support can be communicated and exchanged to add value and link the different role players successfully (Breiger, Carley & Pattison 2003 p.368). Lin (2008) posit that business networks and understanding at firm level will enable SMEs to trust each other and establish strategic partnership thus enhancing the likely chance of instrumental returns. The focal point here is on the benefits, returns, and social rents of networking not at the individual level but rather at the firm level. The impact of business networks on profitability is best illustrated by the case of the Japanese Keiretsu. A well-supported and defended hypothesis in the literature has been that Keiretsu networking promotes joint profit maximisation and profitability (Nakatani 1984). Although business networking is associated with
cooperation costs, these are outweighed by the positive long-term impacts which arise from reduced time and cost to innovate coupled with risk sharing (Marinova & Phillimore 2003; Zhou, Wu, & Luo 2007).

Besides networks being a cheap and quick source of external resources, it also facilitates the creation and exploitation of social capital which is a source of competitive advantage (Florin, Lubatkin, & Schulze 2003), thus business networks are directly and positively associated with firm performance in SMEs. Indarti and Langenberg (2004) stated that characteristics of entrepreneur, characteristics of SMEs and factors such as information access, legality, government support, social network, capital access, entrepreneurial readiness, marketing and technology, would lead to business success. Network theory suggests that network relationships provide access to otherwise unavailable resources and information and may thus have a positive influence on firm performance (Watson 2007; Prashantham & Dhanaraj, 2010). Based on this, the following hypothesis was proposed:

\[ H_1: \text{Business networks positively influence business performance of SMEs.} \]

**2.4.2 INNOVATION & BUSINESS PERFORMANCE**

The explanation given so far would make one conclude there is a clear relationship between networks and business performance, however there is another school of thought which argues that innovation mediates the relationship between business networks and business performance (Rodan 2010). In short, the core of innovation is the newness of an idea that in turn improves organisational performance (Camisón-Zornoza, Lapiedra-Alcamí, Segarra-Ciprés, & Boronat-Navarro 2004). Previous studies showed that new product development has positive impact on the performance of the firm (Ettlie & Reza 1992). Fagerberg, Mowery and Nelson (2004) argues that the effect of innovation on business performance is not uniform across all the types of innovation, for instance product innovation may have clear results of income growth whilst process innovation may have a hazy effect due to its cost-cutting nature.
There is no consensus in literature that support a certain type of innovation to result in more or less impact to business performance, however there is a general agreement that all the types of innovation must be implemented in conjunction to maximize performance output (Walker, 2004). This clearly shows the need for more research which will not only focus on specific type of innovation but consider the all the types. The investigation of innovation in SMEs is fairly recent (Audretsch & Lehmann 2005) and, although the evidence of a strong correlation between innovation and SME performance is overwhelming (Baldwin & Gellatly 2003; Mansury and Love 2008), the dynamics of this relationship remain ambiguous.

Similarly, Rosenbusch, Brinckmann, and Bausch (2011) have identified several factors that affect the relationship between innovation and SME performance. They are of the view that new SMEs benefit more from innovation than the mature organisations mainly due to their flexibility to accept change in their environment or industry. The empirical research indicates that there is positive relationship between innovation and growth of the firms if there is a constant supply of finances (Hyttinen & Toivanen, 2003). In the presence of innovation, the overall firm performance would enhance (Rosli & Sidek, 2013; Lin & Chen 2007, Van Auken, et al. 2008; Li, et al. 2010; Salim & Sulaiman, 2011). Research supports the notion that SMEs that engage in innovation activities are better performers (Vermeulen 2005, Westerberg & Wincent 2008, Verhees & Meulenberg 2004). On the back of these arguments the study proposed that:

\[H_2: \text{Innovation positively impacts business performance of SMEs.}\]

2.4.3 BUSINESS NETWORKS & INNOVATION

Although it is not the purpose of this research to cover the relationship between innovation and networks, it is worth discussing the current position from existing knowledge. Networks are conceived to increase exposure to ideas and opportunities and also reduce the transaction cost in developing and adopting innovation (Ernst, 2004). There is now a significant amount of literature that supports the idea that innovation
results are favored by the presence of relationships, networks, alliances, and other different forms of interaction with external knowledge sources (Powell & Grodal 2005; Tether 2002). Previous research confirms that network ties can be a valuable tool for fostering innovation performance (Chen, Chen, & Vanhaverbeke 2011; Nieto & Santamaria 2007; Rammer, Czarnitzki, and Spielkamp 2009; Rogers 2004; Zeng, Xie, & Tam 2010). Making effective use of the knowledge links would result in SMEs being able to easily access to new ideas and smooth transfer of knowledge from universities and research units to business activities.

Previous research findings concluded innovation activities of firms are not exclusively a result of internal processes (Chesbrough, Vanhaverbeke, & West 2006; Powell and Grodal 2005; Tether 2002). Thus few SMEs are able to embark on an innovative project investment alone. There is also a broad consensus on the importance of external collaboration for the innovation performance of firms. Tether (2002) argues innovation is progressively seen by analysts as both an interactive and distributed process. A significant number of studies (Chen, Chen, and Vanhaverbeke 2011; Love and Roper 2001; Nieto and Santamaria 2007; Rogers 2004; Zeng, Xie, and Tam 2010) supports that firms must increase their number of interactions with other market players such as customers and suppliers or research institutions. The relevance of such intervention stems from the lack of internal knowledge resources and a desire to minimize the risks associated with innovation.

2.5 CHAPTER SUMMARY

Research on business networks focused mainly on issues to do with network formation and relationships among firms as compared to business performance outcomes (Kapasuwan 2006). Thus there is need for business research to shift and focus on network relationships in order to understand SMEs’ performance. Although most of previous findings argue in favour of business networking as beneficial as outlined before, there is little empirical evidence to date of an association between firm performance and the owner's use of networks, particularly for established businesses. Innovation is also explained as a necessity such that if
the firm fail to innovate then it will eventually die. The next chapter outline the blueprint of
the research which cover the research philosophy, strategy, population size and the sampling
techniques which guide the collection of the research data.
CHAPTER 3 RESEARCH METHODOLOGY

3.1 INTRODUCTION

In the preceding chapter the author reviewed the existing literature on the constructs under review, a synthesis of converging and diverging views together with the findings and conclusions of past research. A conceptual framework was developed to evaluate the impact of business networking and innovation on business performance. The focus of this chapter is to explain and justify the principles guiding the research, and the actual tools, techniques, steps or processes employed to conduct research. This chapter covers research design, population and sampling techniques, data sources, collection procedure, and data analysis. Lastly it highlights the research limitations and the ethical considerations which the research has been subjected to in an effort to ensure credible and trustworthy results.

3.2 RESEARCH DESIGN

Research methodology refers to an outline of theories and principles which guide the methods and procedures of gathering research data which are to be used as a basis for inference and interpretation, for explanation and prediction (Holloway 2005 p.293; Cohen, Manion & Morrison 2007 p.47). Often research methodology is often confused for research methods but this is not the same thing. McGregor & Murnane (2010) define methodology as the philosophy applied to conduct research and method as the technical procedure applied to conduct research. The various research methodologies are differentiated by four principles which are epistemology, ontology, logic, and axiology. This section is the blue print for the collection, measurement, analysis and presentation of research data. The research design serves to ensure that we attain answers to the research questions unambiguously and convincingly.
3.2.1 Research Philosophy

Saunders, Lewis and Thornhill (2009, p. 107) describes research philosophy as the development of knowledge and the nature of that knowledge as shaped by our assumption of what is important and what can be known. There are four research philosophies which are positivism, realism, interpretivism, pragmatism (Saunders, Lewis & Thornhill 2009). This knowledge does not necessarily be a new theory but it can be simply seeking an answer to a specific problem. There is no one philosophy superior to another, but they are equally good at achieving different things as long the researcher adhere to its underlying assumptions. The researcher’s perception on what constitutes knowledge and how it should be attained significantly determine one’s preference for a given philosophy. It also depends what the researcher perceive as important in a research for instance, one researcher looking for facts and another concerned about perceptions.

One may wonder why select a philosophy in the first place and not just go ahead and do a survey or carry out an interview. The selection of a research philosophy is important because it enhance our understanding of the way in which we approach the study through guidance on how you do your work, shaping the methods to be employed, and to explain and justify selection of certain tools and techniques. The researcher’s assumptions about the way the world operates and the commitment to particular views (Ontology) together with the researcher’s view regarding what constitutes acceptable knowledge (Epistemology) are the major ways to think of research philosophy.

3.2.1.1 Positivism

Positivists assume that there is one external and objective truth which is knowable and directly measurable. The researcher views reality as independent of social actors focus on law like generalisations such that different researchers using the same instruments must attain same conclusions. The extent to which these findings of different researchers match forms the basis to evaluate the success of a research. This approach simplifies research setup by examining a few variables whilst holding constant the rest of the environment (Easterby-Smith, Thorpe & Jackson, 2008). It also involves deduction research approach as the researcher test hypothesis developed
from existing theory through measurement of observable social realities. Thus social world is assumed to exist objectively and externally, that knowledge is valid only if it is based on observations of this external reality. Following the analysis universal or general laws exist which can generalise, explain cause and effect relationships, and predict outcomes. Facts gathered through empirical measures using quantitative statistical analysis methods is subjected for truth and validity (Saunders, Lewis & Thornhill 2009; Eriksson & Kovalainen, 2008; Easterby-Smith, Hatch & Cunliffe, 2006). What truly happens in the real world can only be discovered through scientific measurement (Hatch & Cunliffe 2006).

3.2.1.1 Interpretivism
This represents the other extreme end of the research philosophy continuum. This philosophy assumes there is more than one version of reality which will constantly changes and can be known through interpretations of people (Saunders, Lewis & Thornhill 2009, p.116). Hatch and Cunliffe (2006) asserts that positivist focus on quantification at the expense of important matters not easily counted thus oversimplifying the complexity and the conditional nature of reality. In the social world meaning is constructed and it constantly change over time due to many differing interpretations since individuals have different experience, memories and expectations. Thus it is imperative to discover and understand these meanings and the contextual factors that influence the interpretations reached by different individuals (Saunders, Lewis & Thornhill, 2009, p. 116). Since researchers here aim work alongside others as they make sense of, draw meaning from and create their own realities (Hatch and Cunliffe, 2006), it implies an inductive or theory building research approach is applied.

The focus of the researcher is to have indepth understanding of social actors and to appreciate reality from their point of view making it highly contextual and hence is not widely generalisable (Saunders, Lewis & Thornhill, 2009). Understanding what people are thinking and feeling, as well as how they communicate, verbally and non-verbally are considered important (Easterby-Smith, Hatch & Cunliffe 2008). Eriksson
& Kovalainen(2008) asserts that qualitative approaches to data gathering is more appropriate given the subjective nature of this paradigm, and the emphasis on language, it is associated with. Self-reflection is advised in this paradigm given the close nature of the researcher and the researched which may give rise to risk of bias.

The primary aim of this study is to assess the impact of business networks and innovation on business performance of SMEs. Literature was used to inform the study, and the study set out to test pre-existing theory through the use of hypothesis and relied upon quantitative data. The researcher believed there is one answer to this relationship and it can be quantifiable holding the rest of the environment. The study was deductive, rather than inductive and theory testing rather than theory building. Since the study sought to test already established theory leading to explaining the relationship amongst business networks, innovation and business performance, the positivist paradigm was selected. The study sought to explain underlying mechanisms, or identifying causal effects. The data collected was observed and tested against the objective universal law in order to accept or reject the hypothesis as acceptable true knowledge. Since the research sought to establish the cause and effect relationship a positivist paradigm was employed.

3.2.2 Research Strategy

A research strategy is a general plan of how you will go about addressing the research question (Saunders, Lewis & Thornhill, 2009). The key strategies commonly used in any research strategy are surveys, case studies, experiments, grounded theory, ethnography, and action research. The research strategy used for this study was a survey. Survey strategy is normally associated with deductive approach and is normally used to answer who, what, where, how much, and how many type of questions. Surveys are popular as they collect large amount of data from sizeable population in a highly economic way (Saunders, Lewis & Thornhill, 2009). In line with our research objectives, the survey enabled the researcher to collect large amount of quantitative data which were analysed quantitatively using descriptive and inferential statistics. A survey was elected as a more appropriate strategy for this research for the chief reason that data collected using a survey strategy can be used to model and explain the variable relationships.
Consistent with the elected survey strategy this research employed cross-sectional assessment of the impact of business networks and innovation on the performance of SMEs. This was mainly because of time and financial constraints hence a cross-sectional analysis was more appropriate. The purpose of this study as above-mentioned can be classified as explanatory since it sought to establish relationship between business networks and business performance, innovation and business performance, and business networks and innovation. This research adopted a quantitative type of research since the researcher believed there is one truth to explain the relationship of the constructs that was objectively studied through numerical values using mathematical and statistical treatment.

3.3 POPULATION & SAMPLING TECHNIQUES

The chief purpose of research is to discover principles that have universal application, however in most cases studying the whole population in order to arrive at generalization would not be viable, if not impossible. In some instances the population is so large that their characteristics cannot be measured or they might change before the whole population is measured. Data can be collected from a population or a sample and the choice is a function of the nature and demands of the study and the need to generalise the results.

3.3.1 POPULATION

Population refers to well-defined individuals with certain characteristics which are of interest to a researcher and from which a sample can be drawn (Saunders, Lewis & Thornhill 2009). Brynard and Hanekom (2005 p.43) posit that ‘population’ does not refer to the population of a country, but refers to the objects, subjects, phenomena, cases, events, and its definition depends on the context of the study. Although studying a population produces results that are known with certainty, the benefits of more precision in the resulting values of the key indicators would need to outweigh the additional costs for such an exercise to be worthwhile especially if the population is large and geographically dispersed (Brynard & Hanekom, 2005 p.43). The chief downside of
studying a population is that it is not practical and or economical since significant costs involved in collection and compilation of all the data collected. Target population is the group a researcher hopes to understand and generalise. Accessible population also known as study population is that subset of the target population which is accessible as a function of time and resources of the researcher.

For this research the objects of interest are SMEs and they are characterised by the following attributes as defined by the Small Enterprises Development Corporation Amendment of 2011:

- Business owners must be 18 years and above.
- SMEs must be registered in terms of their legal status.
- Employing up to seventy-five employees as well as entrepreneurs without any employees.

Figure 3.1: Distribution of SME Owners
Figure 3.1 depicts the distribution of SME owners in Zimbabwe and Harare is the second largest with 13% after Midlands which had 18%. According to the recent survey there are 2.8 million SMEs in Zimbabwe (Finscope 2012). This research was not conducted on a population because of time and financial constraints. The accessible population for this study is all SMEs registered with the SME Association of Zimbabwe in the Harare Metropolitan area. The SMEAZ database had a total SME entries of 1555 from various industries and the accessible population was 925 which were the number of SMEs in Harare. Due to the high costs and complication in studying the population this study resorted to sampling.

3.3.2 SAMPLING

Sampling is the act, process, or technique of selecting a group of people, events, behaviours, or other elements which are a representative part of a population with which to conduct a study (O’Leary 2004 p.103; Saunders, Lewis & Thornhill 2009). It involves the selection of a group of cases from a larger collection of such cases according to specific procedure to come up with a sample from which information about the population can be obtained. It is constituted of elements (people or objects) selected from the accessible population for participation in a study. A Sampling frame refers to all the elements in the population from which the sample is drawn. Sample design refers to a set of rules or procedures that specify how a sample is to be selected. There are two standard categories of the sampling methods which are probability (random) sampling and non-probability (non-random) sampling.

3.3.2.1 Probability Sampling

Probability sampling is defined as a controlled procedure which ensures that each element from the population has a nonzero probability of being included in the sample (Cooper and Schindler 2014, p. 361). This means every subject or unit has an equal chance of being selected from the accessible population. There are four types of probability sampling which are simple random sampling, systematic random sampling, stratified random sampling, and cluster sampling.
3.3.2.2 Non-probability Sampling

Non-probability sampling refers to arbitrary and subjective methods without mathematical guidelines used to decide which elements are included in the sample (Cooper and Schindler 2014, p. 358). It does not give all the elements in the population equal chance of being selected. The three primary categories for non-probability sampling are quota sampling, purposive sampling, and convenience sampling. The advantage of non-probability sampling is that it a convenient way for researchers to assemble a sample with little or no cost and/or for those research studies that do not require representativeness of the population.

This research made use of probability sampling approach, proportionate stratified random sampling to be more precise. This approach has been selected since the researcher wanted to ensure all the SMEs have an equal chance of being selected so as to minimise bias and ensure a certain level of confidence in the data collection. In a nutshell sampling was elected so as to reduce research costs, conduct research more efficiently, have greater flexibility, and provide for greater accuracy. The researcher also sought to generalise the results to the general population hence the efforts to ensure a representative sample. Although the risk of bias due to unrepresentative sample always occur, the sample sizes was determined based on the desired level of precision of the data which was 95% confidence interval.

Stratified random sampling also known as Quota random sampling is a probability sampling procedure in which the target population is first separated into mutually exclusive, homogeneous segments, and then a simple random sample is selected from each segment. Stratified random sampling can either be proportionate or disproportionate. This study employed proportionate stratification which involves having the number of elements allocated to the various strata proportional to the representation of the strata in the target population. Thus the size of the sample drawn from each stratum is proportional to the relative size of that stratum in the target population.
The reason for electing this method was because some characteristic about the SMEs were known e.g. industry, number of employees employed etc., researcher was aware of the various numbers of members in each subgroup, giving each element an equal chance of being selected, and make detailed analyses within a relatively small stratum and/or compare strata to each other. The sampling was calculated aiming 95% confidence interval thus allowing a sampling error of 5%. The sample was calculated using the below:

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

Where:
- \( N \) = population size
- \( n \) = sample size
- \( e \) = sampling error or precision level

\[ n = \frac{925}{1 + 925(0.05)^2} \]

\[ n = 279 \]

Therefore the sample size for this study is 279 SMEs.

The accessible population for this study of 9255 from the SMEAZ database was divided into nine industries as outlined in Table 3.1. The researcher then established the proportion of each industry in relation to the accessible population and this is shown by the population frequency column.

**Table 3.1: Population & Sample Size**

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>POPULATION</th>
<th>PROPORTIONATE SAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Population</td>
<td>Frequency</td>
</tr>
<tr>
<td>Automotive, Transport &amp; Logistics</td>
<td>80</td>
<td>8.6%</td>
</tr>
<tr>
<td>Building &amp; Construction</td>
<td>87</td>
<td>9.4%</td>
</tr>
<tr>
<td>Events Mgt &amp; Accommodation</td>
<td>93</td>
<td>10.0%</td>
</tr>
<tr>
<td>Financial &amp; Consulting Services</td>
<td>115</td>
<td>12.4%</td>
</tr>
<tr>
<td>General Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>ICT</td>
<td>83</td>
<td>8.9%</td>
</tr>
<tr>
<td>Manufacturing &amp; Engineering</td>
<td>136</td>
<td>14.7%</td>
</tr>
<tr>
<td>Other Services</td>
<td>133</td>
<td>14.3%</td>
</tr>
<tr>
<td>Shopping &amp; Retail</td>
<td>80</td>
<td>8.7%</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>925</td>
<td>100%</td>
</tr>
</tbody>
</table>

After establishment of the stratum and their frequency in relation to the population, the sample size was determined to be 279 as clearly shown above. The respondents for each stratum was elected using simple random sampling from the SMEAZ database guided by the already established proportions for each stratum.

### 3.4 SOURCES OF DATA

Data are the basic inputs to any decision making process in business and is equally important for conclusions which a researcher would make. Data sources can be classified as primary source and secondary sources. Primary sources are first-hand and not interpreted by anyone else. A primary source is a document created at the time of your research subject, about your research subject. Primary data are original in nature and directly related to the issue or problem and current data without interpretation or pronouncements that represent an official opinion (Cooper and Schindler 2014, p. 96). These documents are directly connected with the events or people being researched and is collected through various methods like interviews, surveys, questionnaires etc. Secondary source is a document created at a later time than the event being researched, by someone who did not experience the said event. Secondary sources are information sources that interpret, describe, or draw conclusions based on works written by others (Cooper and Schindler 2014, p. 96). These documents have no direct connection with the events or people being researched. This data already exists in the public domain, thus they are collected by someone else prior to the study and for purposes which may be different to the current study.
This research made use of a mixture of primary and secondary data sources so as to leverage on the advantages offered by both types of sources. The researcher used existing surveys and government publications the reason being that they provide economical and easy access to information best for uncovering background or historical information. This information is important for broadening understanding of the topic by exposing the researcher’s thinking to other perspectives, interpretations, and conclusions. The primary data source that was used is the self-administered questionnaire. Since this source provided current, original, and relevant data to the topic it improve the degree of accuracy. Appropriate mixture of the two sources enabled the research to be conducted with less cost, time and effort whilst ensuring relevant information for the specific topic is attained.

3.5 DATA COLLECTION PROCEDURE(S)

Research instrument refers to measurement tools designed to obtain data on a topic of interest from research subjects. The tool is designed to measure the variables, or information of interest, often a behavioural or psychological characteristic. These tools can be broadly classified as researcher-completed and subject-completed, distinguished by those instruments that researchers administer versus those that are completed by participants. Some of the tools commonly used includes survey, test, questionnaires or scales. The researcher elected a questionnaire as the research instrument since it was a previously validated collection instrument hence it saves time and increase credibility of the study.

Questionnaire is a tool used to acquire information on participant social characteristics, present and past behaviour, standards of behaviour or attitudes and their beliefs and reasons for action with respect to the topic under investigation (Cooper and Schindler 2014, p. 296). It is simply a tool containing set of questions prepared to collect answers from respondents relating to the research topic. This tool is classified into three categories which are structured questionnaire, unstructured questionnaire and semi-structured questionnaire. Questionnaires are restricted to two basic types of questions which are close-ended and open-ended. They
can be administered by mail, telephone, face-to-face interviews, as hand-outs, or electronically. This study made use of email platform and hand-outs.

In this study, a structured close-ended questionnaire was used to collect data on business networks, innovation and business performance. The questionnaire made use of close-ended questions throughout as it is an economical method of surveying large samples and attaining statistical data which is easy to analyse and code. It also allowed respondents to answer in the privacy of their own home and at leisure, thereby giving more candid answers. Although the tool elected has so many advantages as alluded before, however its downside is it can be used only in situations where literacy rates are sufficiently high and there is no room to probe the respondents regarding their responses.

The dependent variable of interest was business performance, which was measured in terms of firm productivity and customer satisfaction. In an effort to encourage meaningful participation the researcher designed simple and concise questionnaire. Cooper and Schindler (2014, p.297) argues the questionnaire layout significantly quality of feedback on self-completed questionnaire. See Appendix 1 for the questionnaire.

3.5.1 PILOT STUDY

Cooper and Schindler (2014, p.85) define a pilot study as the trial collection of data so as to detect and correct weakness in design instrument. The questionnaire was compiled and discussed with the researcher’s supervisor, fellow MBA students, experts on the subject area, and a statistician. The questionnaire consists of the following four sections which are General Information, Business Networking, Innovation, and Business Performance. The researcher randomly selected 15 MBA colleagues which were used to test the questionnaire. This exercise was meant to identify and correct confusing or offensive questions. The feedback highlighted the need to give a brief description of innovation terms which an average respondent would need to further research before answering. The feedback was processed using SPSS version 16, the responses to the test questionnaire scored a Cronbach’s alpha of 0.64 and it was improved by eliminating questions on customer and competitor interactions. Cronbach’s alpha coefficient being a measure of the
internal consistency of an instrument gives the researcher confidence to go ahead with the full blown scale of data collection if a result of more than 0.70 is attained (George and Mallery 2003, p.231). The researcher can have confidence to generalise the responses to the whole population if a high alpha is attained as it confirms internal validity and reliability of an instrument (Tavakol & Dennick 2011). The objective was to gather the desired information fully from the respondent and record it without errors. Missing data make the results not truly representative, in addition to making analysis difficult. Some important questions were added and the questions had to be re-arranged and re-worded in simple language that the participants could comprehend without the assistance of the researcher. Some of the questions which were causing the reliability value to be too low were deleted.

3.5.2 QUESTIONNAIRE ADMINISTRATION

Most of the questionnaires were distributed through e-mail and respondents had the choice to fill the attached questionnaire. The researcher also had to hand deliver hard copies of the questionnaire for some of the respondents. Due to unexpected high rate of email bounce-back, the researcher had to distribute more hard copies than had initially planned.

3.6 DATA ANALYSIS

Data analysis refers to the use of numbers to discover and describe patterns in your data to uncover what it means. It is more than number crunching. The researcher collected the data through the use of self-administered questionnaire which were distributed to the SME owners or senior management constituting the sample. SPSS version 16 was used to process and analyse the collected data. Descriptive analysis was used to analyse the distribution of the population. The frequency distribution, tables were prepared and placed in the report to present the data comprehensively. Correlation analysis was used to identify the association of independent variables (innovation and business networking) on the dependent variable (business performance). The researcher also made use of regression analysis to establish the effect of independent variable on the dependent variable.
3.7 RESEARCH LIMITATIONS

Masters or undergraduate dissertations just like any other research study have a set of limitations (Leedy & Ormrod, 2005). Creswell (2005 p.198) posit that research limitation refers to uncontrollable potential weaknesses or problem with the design or methodology that impacted or influenced the application or interpretation of the results of the study identified by the researcher. Irrespective of whether such research limitations are anticipated or not, they should be explicitly acknowledged and discussed. Explicitly stating the research limitations is vital in order to allow other researchers to replicate the study, expand on a study and most importantly judge the extent to which the findings can or cannot be generalized to other people and situations (Creswell, 2005, p.198).

As alluded to earlier on the definition of SMEs varies from one country to the next and even within industries. For this research we adopted the definition of SMEs in the Zimbabwean context as provided by Small and Medium Enterprises Institute which limits the interpretation, comparison and generalization of the results to Zimbabwe and neither to the southern Africa region nor African continent. As a result of company policies some respondents were conservative in providing much information, especially business performance indicators are useful to the research. After seeking clearance, for each targeted SME three questionnaires were sent for senior management. In order to motivate cooperation from SMEs, the researcher emphasized that the information is strictly for academic purposes. The research assumed business networking takes place at senior level and ignoring networking at lower levels. The researcher made sincere effort to ensure the questions contained in the questionnaire were structured in such a way that it involves networking at all business levels.

Another limitation of this study relates to time, funds and logistics constraints, which resulted in limited area coverage of the study. Although SMEs are spread throughout Zimbabwe, this study focused on SMEs in the Harare Metropolitan Area where there is a relatively high concentration of the SMEs. The dissertation is supposed to be submitted within six months hence making it
difficult to conduct a comprehensive longitudinal study at the background of financial constraints. In an effort to counteract these limitations, the researcher designed the study so as to adequately test the hypothesis and measure its results. This includes and is not limited to sampling from Harare, making use of a large sample to ensure fair representation. Data gathering was limited to the use of self-administered questionnaires only thus lacking observing reality and probing the respondent further. The researcher being aware of this limitation carefully kept observation notes, avoided summarizing information where possible.

The most apparent limitation of this study was its cross-sectional design. This meant data were gathered at one specific point in time only. No pre- and post-event testing was used. Cross-sectional studies suffer from a temporal limitation, and in the case of business performance construct under investigation may fluctuate over time or in response to external circumstances or variables. This limitation should be kept in mind which makes it difficult to draw firm conclusions about the directions of causality implied in the model. This means relationships among variables under study must be interpreted with caution since true causal inferences can only be drawn testing models using longitudinal data.

3.8 RESEARCH ETHICS & DATA CREDIBILITY

3.8.1 RESEARCH ETHICS

Cooper and Schindler (2014, p.28) define ethics as the standards of conduct that guide decent choices about how we relate with others. Ethical considerations must be observed throughout the stages of formulating a research topic, design of our research, gaining access, collecting data, processing and storage of the data, analysis of data and write up of research findings. The goal of ethics in research is to ensure that no one is harmed or suffers adverse consequences from the research activities (Cooper & Schindler 2014, p.28). The protection and welfare of participants was the researcher’s priority to ensure participants were free from physical or mental harm throughout the research process. The researcher ensured respect for informed consent of every participant assisting in the research by attaching a clear statement to the questionnaire and it stated what the research
is about, the participant’s role in the research. No participant was forced to contribute and they were free to withdraw from the research at any time they wished to do so, without giving a reason and irrespective of inducement offered.

Ethical conformity during data collection, the researcher sought supervisor’s approval of the questionnaire it was distributed. The researcher’s role was neither agreeing nor disagreeing with participants, but to facilitate the expression of participant’s views. The researcher ensured anonymity through designing the questionnaire such that it will not require too much pieces of information that if presented together, it becomes easier to identify someone e.g. name, job title and address of respondent. Although it is not a requirement of the University to handover the raw data collected, the researcher made an effort to retain data in a safe dry cool personal library. The research asked for innovative activities of the participants, and some participants may find it sensitive hence the need to ensure anonymity and confidentiality. Whilst the researcher sought to contribute to the body of existing SMEs knowledge, careful attention was made to not make use the ideas or words of another person without giving appropriate credit.

3.8.2 DATA CREDIBILITY

In every research regardless of area of study, issues emanating from validity and reliability must be addressed (Leedy & Ormrod, 2005). Although the concepts of validity and reliability originally started in quantitative research approaches, recently validity and reliability are being addressed in qualitative and mixed-methods approaches as well (Maxwell, 2005). According to Leedy and Ormrod (2005, p. 31), the extent to which a researcher may derive sound learning from a study and the extent of meaningful conclusions is determined by the validity and reliability of the measurement instrument. To ensure research credibility this research has focused on two particular aspects of research design which are reliability and validity.

3.8.2.1 Reliability

Reliability seeks to ensure if the measure will yield the same results on different occasions. Reliability concerns the question if someone who would try to repeat
the procedure on the same case would end up with unchanged results (Saunders, Lewis & Thornhill 2009, p. 156). Reliability is the consistency or repeatability of a findings, thus giving the same result over and over again if measuring a constant variable (Easterby-Smith et al 2008, p.109). It's a measure of the extent to which all the variables in your scale are positively related to each other. Armstrong and Foley (2003) suggests that a more reliable and acceptable value for the Cronbach's alpha coefficient is the one that is closer to one (1.00). Although an acceptable value for Cronbach's alpha has always been a topical issue, however Nunnally (1978) offered a rule of thumb of (Alpha >0.7 is acceptable) which the researcher adopted for this research. This research made use the multiple Likert questions in a questionnaire that form a scale and the value was used to determine if the scale is reliable.

### 3.8.2.2 Validity

Validity is defined as an indication of how sound a research is as expressed by the degree to which a research study measures what it intends to measure (Saunders, Lewis & Thornhill 2009, p. 157). Simply put it is the test's ability to measure what it is supposed to measure. Validity deals with the matter of whether the investigators have been able to measure what was intended to be measured. In order to assess accurately, the impact of business networks and innovation on the business performance of SMEs, the researcher made use of a pilot study and consulted subject experts. The pilot study was meant to ensure respondents comprehend the questionnaire and accurately complete it effortlessly.

### 3.9 CHAPTER SUMMARY

This chapter has outlined the methodology employed for this research. The research philosophy, strategy was outlined which governed how appropriate tools of data collection and analysis were developed in relation to the research objectives. The sources from which data was obtained has also been discussed and how this data was analysed has been outlined
at high level. Now that we have our data collected through the use of the self-administered questionnaire, it is now time to deduce meaning from the figures through processing and analysis using SPSS. The data was presented, summarised, analysed and interpreted in the subsequent chapter (Chapter 4) according to the relevant sections of the questionnaire.

CHAPTER 4 FINDINGS & ANALYSIS

4.1 INTRODUCTION

The methodology for this research was discussed fully in the preceding chapter, where the philosophy and strategy employed to gather data for this research was explained and justified. In this chapter, the researcher presented a summarization of the most interesting and relevant major findings and analysis. A detailed discussion of the findings in relation to previous findings cited by major authors in literature review was also be referenced. This chapter began with an analysis of the response rate, then a presentation of results, analysis and discussion of each research objective. Testing of the research hypothesis then followed. The chapter further provides the basis upon which conclusions and recommendations of the study were drawn. Finally the chapter ended with a chapter summary giving a bird’s eye view of this chapter.

4.2 DESCRIPTIVE ANALYSIS

This section describe the nature of the data that was collected. Before making inferences from data it is essential to present and describe the data in a meaningful way to enable
simpler interpretation. It is simply a way to describe data but we cannot make conclusions beyond the data we have analysed or reach conclusions regarding any hypotheses we might have made.

4.2.1 RESPONSE RATE

A high response rate gives the researcher a sound basis to rely on for meaningful conclusions to be made about the responses. The response rate was analysed in two stages since a dual mode was used (i.e. Email and Drop-Off Questionnaire Delivery). The objective of using dual mode was to allow strengths of one survey design to compensate for the weaknesses of another and maximize the likelihood of securing data from different types of respondents (Dillman, 2007; Selm & Jankowski, 2006). The researcher sent emails to 191 recipients, only 56 emails were received with feedback and 32 bounced back due to email boxes no longer functional or wrongly captured email addresses on the database. The electronic mail registered a relatively low response rate of 35% despite the questionnaire being attractive, full of clear questions, the researcher sending follow-up emails, and the high internet penetration reported by Postal and Telecommunications Regulatory Authority of Zimbabwe (POTRAZ). This low response is in line with previous findings in literature which highlights that response rates range from 7 to 44 percent for Web surveys and from 6 to 68 percent for e-mail surveys (Dillman, 2007). The Figure 4.1 depicts the response rate:
The second approach of personal delivery of questionnaires registered a high response rate of 82% and this is in line with a study by Melevin, Dillman, Baxter, Lamiman (1999) which registered increased response rate of 81% as a result of telephone follow-up reminders. The researcher made efforts to remind the respondents through phone calls. The personal interaction with the respondents helped to attain high response because the respondents managed to ask any unclear areas about the study. The overall response rate is 55% as shown in Table 4.1.

**Table 4.1: Overall Response Rate**

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>Sample</th>
<th>Sample as a % of Population</th>
<th>Completed Forms</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive, Transport &amp; Logistics</td>
<td>24</td>
<td>9%</td>
<td>12</td>
<td>50%</td>
</tr>
<tr>
<td>Building &amp; Construction</td>
<td>26</td>
<td>9%</td>
<td>11</td>
<td>42%</td>
</tr>
<tr>
<td>Events Mgt &amp; Accommodation</td>
<td>28</td>
<td>10%</td>
<td>14</td>
<td>50%</td>
</tr>
<tr>
<td>Financial &amp; Consulting Services</td>
<td>35</td>
<td>12%</td>
<td>17</td>
<td>49%</td>
</tr>
<tr>
<td>General Services</td>
<td>25</td>
<td>9%</td>
<td>12</td>
<td>48%</td>
</tr>
<tr>
<td>ICT</td>
<td>41</td>
<td>15%</td>
<td>28</td>
<td>68%</td>
</tr>
<tr>
<td>Manufacturing &amp; Engineering</td>
<td>40</td>
<td>14%</td>
<td>24</td>
<td>60%</td>
</tr>
<tr>
<td>Other</td>
<td>24</td>
<td>9%</td>
<td>14</td>
<td>58%</td>
</tr>
<tr>
<td>Shops &amp; Retail</td>
<td>36</td>
<td>13%</td>
<td>22</td>
<td>61%</td>
</tr>
</tbody>
</table>
Overall | 279 | 154 | 55%

4.2.2 Gender

The data depicted in Table 4.2 show that more and more female participants are actively participating in registered SMEs. This can be attributed to the women empowerment efforts expended by the government and non-governmental organisations. As part of the government’s ongoing commitment to empower women, on 19 July 2012, they launched the Broad Based Women’s Economic Empowerment Framework (BBWEE) which is a medium-term development plan whose prime objective is that of gender equality and the empowerment of women in all sectors of the economy. It is argued that women face more resistance and violence in all spaces thus affecting their economic participation. Political representation of women remains low, thereby limiting the influence and voice that women have in allocating, accessing and controlling economic resources (UN Women, 2013).

Table 4.2: Gender Frequency

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>56</td>
<td>36.4</td>
<td>36.4</td>
<td>36.4</td>
</tr>
<tr>
<td>Male</td>
<td>98</td>
<td>63.6</td>
<td>63.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.3 depicts that most female respondents do not actively participate in networking especially online social networking except for Facebook. This may be attributed to our African culture which requires the female to be with the children and or family most of the time that male counterparts. There is an encouraging attendance to managerial networking through workshops and interaction with the government though there is still room for improvement. The high interaction with the government may be due to this player being the biggest sponsor of women led economic activities.

Table 4.3: Networking by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
4.2.3 Educational Levels

It is so encouraging that the decision makers and owners of most SMEs in Harare are being led by well educated people with 49.4% (33.8%+15.6%) population of degreed people. As shown in Table 4.4, Information, Communication & Telecommunications, Manufacturing & Engineering and Financial Services being the top industries with most educated respondents. The possible reason for these industries to have high learned personnel is that they are knowledge intensive industries. They also have well established standards and technologies which keep changing from time to time and would require one to keep learning and updated. They also have well established boards for example Zimbabwe Institution of Engineers which require sound educational attainments to be recognized as an Engineer. SMEs in the ICT sector are encouraged to attain certifications for them to establish dealerships and partnerships with international companies such as Cisco Systems, Huawei and Hewlett-Packard Company. This enables the firms to be supplied genuine equipment with very competitive price and can access adequate product support from the manufacturer.

Table 4.4: Education Levels

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship with Suppliers</td>
<td>34</td>
<td>Male: 76</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>Relationship with Government</td>
<td>31</td>
<td>Male: 59</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>Workshops</td>
<td>29</td>
<td>Male: 71</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Industry &amp; Professional Associations</td>
<td>27</td>
<td>Male: 59</td>
<td>86</td>
<td></td>
</tr>
<tr>
<td>Business Improvements Events</td>
<td>29</td>
<td>Male: 65</td>
<td>94</td>
<td></td>
</tr>
<tr>
<td>Facebook</td>
<td>41</td>
<td>Male: 67</td>
<td>108</td>
<td></td>
</tr>
<tr>
<td>LinkedIn</td>
<td>22</td>
<td>Male: 53</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Twitter</td>
<td>11</td>
<td>Male: 30</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Skype</td>
<td>25</td>
<td>Male: 72</td>
<td>97</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>249</strong></td>
<td><strong>Male: 552</strong></td>
<td><strong>801</strong></td>
<td></td>
</tr>
</tbody>
</table>

Percentages and totals are based on responses.

a. Dichotomy group tabulated at value 5.
More and more females are taking active participation in learning activities. It is evident from the results that education is important in running SMEs regardless of which industry one belongs to. Table 4.5 reflects 82% \( \frac{(10+9+22+5)}{56} \times 100\% \) of females have at least a certificate as compared to 87.9% \( \frac{(12+25+30+19)}{56} \times 100\% \) males with at least a certificate.

### Table 4.5: Education Levels by Gender

<table>
<thead>
<tr>
<th>Count</th>
<th>Education</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
<td></td>
</tr>
<tr>
<td>Primary Education</td>
<td>4</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>6</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Certificate</td>
<td>10</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>Diploma</td>
<td>9</td>
<td>25</td>
<td>34</td>
</tr>
<tr>
<td>Degree</td>
<td>22</td>
<td>30</td>
<td>52</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>5</td>
<td>19</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>56</td>
<td>98</td>
<td>154</td>
</tr>
</tbody>
</table>

**4.2.4 LEVEL OF MANAGEMENT**

Data captured include management levels of the respondents and table 4.6 illustrate the results. Although the management level description would vary from one organisation or industry to the next, emphasis was placed on decision making. These groups were classified as junior management, middle management, senior management and owner manager. The results depicted by Table 4.6 shows that the respondents were composed of 61% senior management followed by 19.5% middle management. The least response was from owner managers who were only 5.2% of the total respondents.
4.2.5 Networking Activities

A cross tabulation of gender and the various networking activities was generated for the respondents participated in these networking activities. The results for this generated cross tabulation are show in Table 4.7. The findings of this study identified most of business networking activities used by SMEs are Facebook, Workshops and Supplier engagement. This result is in line with findings by Goad and Mooney (2008) where face to face events were the most preferred, and about 30% of respondents regularly used online social networks such as LinkedIn, Facebook or Ecademy. Table 4.7 also shows that Twitter is the least preferred media of networking followed by LinkedIn. The researcher believes it is mainly because these are fairly new networking media but with great potential for formal professional business networking.

Table 4.7: Networking & Gender Cross Tabulation

<table>
<thead>
<tr>
<th>Gender</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship with Suppliers</td>
<td>34</td>
<td>76</td>
<td>110</td>
</tr>
<tr>
<td>Relationship with Government</td>
<td>31</td>
<td>59</td>
<td>90</td>
</tr>
<tr>
<td>Workshops</td>
<td>29</td>
<td>71</td>
<td>100</td>
</tr>
<tr>
<td>Industry &amp; Professional Assoc</td>
<td>27</td>
<td>59</td>
<td>86</td>
</tr>
<tr>
<td>Business Improvement Events</td>
<td>29</td>
<td>65</td>
<td>94</td>
</tr>
<tr>
<td>Facebook</td>
<td>41</td>
<td>67</td>
<td>108</td>
</tr>
</tbody>
</table>
Percentages and totals are based on responses.

a. Dichotomy group tabulated at value 5.

### 4.2.6 INNOVATIVE ACTIVITIES

#### Table 4.8 Innovative Activities

<table>
<thead>
<tr>
<th>Industry</th>
<th>PRODUCT</th>
<th>PROCESS</th>
<th>MARKETING</th>
<th>ORGANISATIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Shopping &amp; Retail</td>
<td>12</td>
<td>10</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Automotive, Transport &amp; Logistics</td>
<td>9</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Manufacturing &amp; Engineering</td>
<td>6</td>
<td>18</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>Events Mgt &amp; Accommodation</td>
<td>7</td>
<td>7</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>10</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Building &amp; Construction</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>General Services</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>ICT</td>
<td>8</td>
<td>20</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>Financial &amp; Consulting Service</td>
<td>3</td>
<td>14</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>61</td>
<td>93</td>
<td>47</td>
<td>108</td>
</tr>
</tbody>
</table>

The table 4.8 clearly shows that product innovation was dominant in Manufacturing & Engineering, ICT and Financial & Consulting Services, and these were the same industries which were actively involved in organisational and process innovation. The ICT industry was actively involved in all the innovation types and this evidenced by the rate at which new ICT gadgets and connectivity ways are improving. This is consistent with research that suggests that SMEs engage in a range of different types of innovation (Menrad, 2004). Although all the SMEs acknowledged the positive influence of innovation on their business operations, the innovative activities varied from one industry to the other. This finding is in line with the research that suggests that one type of innovation is more or less important than another type for SMEs (La Foret and Tann, 2006). Generally, the SMEs are actively involved in process innovation and organisational innovation more than anything else. This could be attributed to the
economic challenges which is driving business to employ minimal cost structures for survival and better performance hence the review of organisational structures, process flows and operational efficiency more often. The ultimate goal of innovation activities is the improvement of business results.

4.3 RELIABILITY TEST

In order to establish if all the items in the scale tap into the same construct and internal consistency, the researcher made use of the Cronbach’s Alpha. The closer Cronbach’s alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. George and Mallery (2003) state as a rule of thumb that the Cronbach’s Alpha coefficient can be interpreted as follows: “_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and < .5 – Unacceptable” (p. 231). The results for the Cronbach’s Alpha are shown in table 4.9 and table 4.10.

Table 4.9: Reliability Statistics

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.860</td>
<td>18</td>
</tr>
</tbody>
</table>

The overall Cronbach’s Alpha is 0.86 for the 18 items. According to the rule of thumb by George and Mallery (2003), this result means that the items have relatively high internal consistency. The researcher carried out a pilot study with 15 SMEs and reliability was improved through the use of item-total statistics table through deletion of items which improved reliability by a significant value if deleted. It is the results of this pilot study which helped in shaping the reliability of the questionnaires before its distribution.

The consistency for each item is shown by Table 4.10. In this table it is column “Cronbach's Alpha if Item Deleted” that is more important as it represents the Cronbach’s alpha reliability.
coefficient for internal consistency if the individual item is removed from the scale. For this research, only one item “Twitter” resulted in the Cronbach’s Alpha improving from 0.860 to 0.863 if the item is deleted thereby slightly increasing reliability. However since the difference is not significant the researcher decided to maintain the item.

The researcher also conducted a reliability test of the transformed data making up the independent and the dependent variable. The table for the variables Cronbach’s Alpha are shown in table 4.11. The results are consistently showing an acceptable level of internal consistency, thus ensuring internal consistency of the research instrument and the selected variables under study.

### Table 4.10: Item-Total Statistics

<table>
<thead>
<tr>
<th>Item</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship with Suppliers</td>
<td>57.6039</td>
<td>295.404</td>
<td>.543</td>
<td>.850</td>
</tr>
<tr>
<td>Relationship with Government</td>
<td>58.0455</td>
<td>300.684</td>
<td>.418</td>
<td>.855</td>
</tr>
<tr>
<td>Workshops</td>
<td>57.7857</td>
<td>300.326</td>
<td>.442</td>
<td>.854</td>
</tr>
<tr>
<td>Industry &amp; Professional Associations</td>
<td>58.1494</td>
<td>303.069</td>
<td>.378</td>
<td>.857</td>
</tr>
<tr>
<td>Business Improvements Events</td>
<td>57.9416</td>
<td>292.944</td>
<td>.545</td>
<td>.850</td>
</tr>
<tr>
<td>Facebook</td>
<td>57.5779</td>
<td>308.507</td>
<td>.332</td>
<td>.859</td>
</tr>
<tr>
<td>LinkedIn</td>
<td>58.4351</td>
<td>292.234</td>
<td>.540</td>
<td>.850</td>
</tr>
<tr>
<td>Twitter</td>
<td>59.3182</td>
<td>316.140</td>
<td>.222</td>
<td>.863</td>
</tr>
<tr>
<td>Skype</td>
<td>57.8636</td>
<td>300.197</td>
<td>.437</td>
<td>.854</td>
</tr>
<tr>
<td>New or Changed Products</td>
<td>57.9675</td>
<td>289.809</td>
<td>.593</td>
<td>.847</td>
</tr>
<tr>
<td>Manufacturing &amp; Producing Methods</td>
<td>57.5519</td>
<td>307.700</td>
<td>.348</td>
<td>.858</td>
</tr>
<tr>
<td>Operations Support Activities</td>
<td>57.6299</td>
<td>297.097</td>
<td>.511</td>
<td>.851</td>
</tr>
<tr>
<td>Product Promotion</td>
<td>58.1753</td>
<td>297.675</td>
<td>.459</td>
<td>.854</td>
</tr>
<tr>
<td>Sales &amp; Distribution Methods</td>
<td>58.2792</td>
<td>300.033</td>
<td>.421</td>
<td>.855</td>
</tr>
<tr>
<td>Business Re-engineering</td>
<td>58.2792</td>
<td>294.229</td>
<td>.510</td>
<td>.851</td>
</tr>
<tr>
<td>Work Structure and Decision making</td>
<td>57.8117</td>
<td>300.755</td>
<td>.432</td>
<td>.855</td>
</tr>
<tr>
<td>Firm Productivity</td>
<td>57.5584</td>
<td>299.751</td>
<td>.724</td>
<td>.847</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>57.5390</td>
<td>298.721</td>
<td>.791</td>
<td>.845</td>
</tr>
</tbody>
</table>

### Table 4.11: Transformed Variable Reliability
<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of Items</th>
<th>Cronbach's Alpha value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation</td>
<td>7</td>
<td>0.718</td>
</tr>
<tr>
<td>Business_Networking</td>
<td>9</td>
<td>0.732</td>
</tr>
<tr>
<td>Business_Performance</td>
<td>2</td>
<td>0.853</td>
</tr>
<tr>
<td><strong>Overall Cronbach's Alpha</strong></td>
<td><strong>18</strong></td>
<td><strong>0.860</strong></td>
</tr>
</tbody>
</table>

4.4 NORMALITY TEST

Before proceeding with any advanced statistical measures, it is vital to establish the normality of the data under consideration so as ascertain if parametric or non-parametric methods are applicable. A lot of statistical tests (e.g. t-test) require normally distributed data and therefore we should always check if this assumption is not violated. Shapiro-Wilk is a standard test for normality that is recommended for small and medium samples up to $n = 2000$, else the Kolmogorov-Smirnov test is recommended. In this research, since we have only 154 elements, the Shapiro-Wilk test is used. The Shapiro-Wilk null hypothesis for normality test is that data are normally distributed, which is only accepted if the p-value are greater than 0.05 ($p>0.05$).

Firstly, the researcher presented the normality for the individual items, Table 4.11 show the normality test for the transformed data representing the independent and dependent variables being investigated by the research. For our research we focused on the right side of the table which depicts Shapiro-Wilk test. The equivalent of p-value in SPSS’s output is the Sig-value. Since the output show that Sig=0 for all the items, we then reject null hypothesis. According to the terms of the Shapiro-Wilk test, we can assume our data are not normally distributed. The conclusion that our data are not normally distributed implies the researcher made use of non-parametric statistical methods to further explore and investigate the data since they make no assumption of the data distribution. Normality of the transformed data reflect that our data are consistently not normally distributed as shown by table 4.12.

**Table 4.12: Normality Test for Transformed Variables**

<table>
<thead>
<tr>
<th>Kolmogorov-Smirnov(^a)</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
</table>

65
The SPSS output for normality test of the individual items is depicted by Table 4.13. The table shows the normality of the items constituting the independent variables (innovation and business networking) and the dependent variables (business performance).

Table 4.13: Normality Test on Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Statistic</th>
<th>df</th>
<th>Sig.</th>
<th>Statistic</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation</td>
<td>.142</td>
<td>154</td>
<td>.000</td>
<td>.926</td>
<td>154</td>
<td>.000</td>
</tr>
<tr>
<td>Business_Networking</td>
<td>.151</td>
<td>154</td>
<td>.000</td>
<td>.943</td>
<td>154</td>
<td>.000</td>
</tr>
<tr>
<td>Business_Performance</td>
<td>.230</td>
<td>154</td>
<td>.000</td>
<td>.848</td>
<td>154</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Lilliefors Significance Correction

Consistent with our previous findings of normality on the transformed variables, the normality of the individual items also reflects all gives a sig value of zero (sig = 0). We can conclude that our data are not normally distributed according to the terms of the Shapiro-Wilk test. Thus further test to which our data was subjected to ensure that any assumption on data distribution was not be violated.
4.5 CORRELATION ANALYSIS

Spearman Correlation Coefficient is also referred to as Spearman Rank Correlation or Spearman's rho. Its purpose is to test the degree of association between variables. The Spearman’s correlation is a non-parametric rank-based statistical test for unevenly distributed data (Zammit, 2010), hence the results were examined using the Spearman’s rank correlation “rho” as the sample data was not normally distributed. In addition this analysis reflects the direction and the strength of a relationship. The correlation values range from -1.0 for a perfect negative relationship to +1.0 for a positive relationship (Kanbur 2009). The closer the output value to either extreme means the stronger the relationship, thus if the output value is zero then there is no relationship between the variables.

Table 4.14: Correlations Matrix

<table>
<thead>
<tr>
<th></th>
<th>Innovation</th>
<th>Business_Performance</th>
<th>Business_Networking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman’s Innovation rho Correlation Coefficient</td>
<td>1.000</td>
<td>.832**</td>
<td>.660**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>154</td>
<td>154</td>
<td>154</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Innovation</th>
<th>Business_Performance</th>
<th>Business_Networking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business_Performance Correlation Coefficient</td>
<td>.832**</td>
<td>1.000</td>
<td>.674**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>154</td>
<td>154</td>
<td>154</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Innovation</th>
<th>Business_Performance</th>
<th>Business_Networking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business_Networking Correlation Coefficient</td>
<td>.660</td>
<td>.674**</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td>154</td>
<td>154</td>
<td>154</td>
</tr>
</tbody>
</table>

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

The level of association between (innovation and business networks) independent variables and dependent variable performance measures are shown in the table 4.14. This output is called a multiple correlation matrix and it lists of all the variables across the top, and the same list down the side. The diagonal is always all 1’s, because it reflects the correlation.
between each variable and itself. This p-value tells you whether the correlation right above it is statistically significant or not.

The Spearman’s rho value is where the two variables in question intersect. The two stars next to the numbers reflect if the correlation is significant. It is imperative that we always note that correlation alone does not make for causality. A Spearman’s correlation was run to determine the relationship between 154 innovation and business performance values. There was a very strong, positive monotonic correlation between innovation and business performance \( (r_s = .832, \ n = 154, \ p < .001) \). Thus large values of innovation are monotonically associated with large business performance values. The significant Spearman correlation coefficient value of 0.674 was for business networks and business performance and this confirms a strong positive correlation between the two variables. There was a strong, positive monotonic correlation between business networking and business performance \( (r_s = .674, \ n = 154, \ p < .001) \). Thus large values of business networking are associated with large business performance values.

Multicollinearity also known as Collinearity refers to the extent to which two or more independent variables are correlated with each other (Saunders, Lewis, & Thornhill, A 2009, p.463). The researcher went on further to check for multicollinearity between innovation and business networking and table 4.13 reported a value of 0.660. Saunders, Lewis, & Thornhill (2009, p.463) provides as a rule of thumb that substantial collinearity is indicated values from 0.90 and above, and 1 representing extreme collinearity which may require the researcher to drop one of the variables. Since the reported collinearity value was 0.660 it implies there is no significant collinearity thus making it easier for the researcher to isolate the effects innovation and business networking on business performance.

### 4.6 REGRESSION ANALYSIS
Now that the direction of association and strength of the relationship between the variable under study has been explored. The researcher sought to understand the extent to which the independent variables (innovation and business networking) may be used to predict the performance of SMEs through the use of multiple regression. Regression analysis makes use of correlation as a basis to predict the value of one variable from the value of the combination of several variables. This predictive model makes use of the coefficient of determination ($R^2$) to measure how much the variance in one variable is explained by another experience. The rule of thumb is to report adjusted $R^2$ when it substantially differs from $R^2$ (Green & Salkind, 2010).

### Table 4.15: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.825$^a$</td>
<td>0.681</td>
<td>0.677</td>
<td>0.65949</td>
</tr>
</tbody>
</table>

*Predictors: (Constant), Business_Networking, Innovation

The $R$ value range from 0 to 1, a larger value indicating a larger correlation and 1 representing an equation that perfectly predicts the observed value of the dependent variable. The result of $R=0.825$ in Table 4.15 indicates the two independent variables (innovation and business networking) and the dependent variable (business performance) are positively correlated and the strength of the relationship is strong at $0.825$. $R^2$ indicates the proportion of variance that can be explained in the dependent variable by linear combination of the independent variables and its values range from 0 to 1. The result indicates that innovation and business networking explains 68.1% ($R^2=0.681$) of the variance in business performance. This implies that the other (100% - 68.1%) 31.9% is explained by other variables which are not covered by this study. The difference between $R^2$ and $R^2$ adjusted (0.681 and 0.677) is not significant hence the researcher did find it worth reporting adjusted $R^2$ (Green & Salkind, 2010), but explain a high degree of goodness of fit of the regression model.

### Table 4.16: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
</table>

69
The ANOVA table 4.16 provides the results for a test of significance for R and $R^2$ using the F-statistic. In this analysis, the p-value is well below 0.05 ($p < 0.001$). Therefore, we can conclude that the R and $R^2$ between innovation and business performance is statistically significant. In this analysis, $R$, $R^2$ and adjusted $R^2$ for the multiple regression conducted predicting business performance based on linear combination of innovation and business networking is statistically significant. The F-test result was 161.357 with a significance (‘Sig.’) of .000 which meant that the probability of these results occurring by chance was less than 0.0005.

### Table 4.17: Coefficients$^a$

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.815</td>
<td>.183</td>
<td>4.453</td>
<td>.000</td>
</tr>
<tr>
<td>Innovation</td>
<td>.654</td>
<td>.059</td>
<td>.666</td>
<td>11.060</td>
</tr>
<tr>
<td>Business_Networking</td>
<td>.236</td>
<td>.065</td>
<td>.220</td>
<td>3.650</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Business_Performance

The regression model with all two predictors produced $R^2 = .681$, $F(2, 151) = 161.36$, $p < .001$

Table 4.17 gives us the “a”, “b” values for the prediction formula, and the p-value to check for significance. From the results shown in table 4.16 the independent variables recorded sig values of (innovation=0.00 $p < 0.05$, business networking=0.00 $p < 0.05$), this implies each of the variables have a predictive ability for the dependent variable (business performance). Since the Sig value was less than 0.05, it implies the relationship was reliable and can be used to make predictions. Making use of beta values, it was clear that innovation has the strongest relationship with business performance as evidenced by $\beta = 0.654$ compared to a $\beta =$
0.236 for business networking. The evidence from the presented correlation and regression findings showed that innovation and business networking were statistically significant to describe a positive relationship with business performance. Thus for this study, we can accept the hypotheses $H_1$ and $H_2$.

$H_1$: There is a positive correlation between business networks and business performance of SMEs. : ACCEPT

$H_2$: Innovation is positively correlated to business performance of SMEs. : ACCEPT

4.7 TESTS OF INDEPENDENCE

4.7.1 MANN – WHITNEY U TEST

The Mann-Whitney test, is a nonparametric test typically used to compare two dichotomous groups of data. There are several dependency tests that compare the mean scores of two or more groups such as the F-test, ANOVA and the t-test family, however this research made use of the Mann-Whitney U test which does not assume any properties regarding the distribution of the underlying variables. We checked independence of variables on the assessment of innovation and business networking on the performance of SMEs for the two groups which are female and male respondents. The statistically significant results for the Mann–Whitney U test, the p-values should be above 0.05 for a given 2 tailed test.

The results illustrated by table 4.18 indicates that the Mann–Whitney U test values for the respective variables were as follows Innovation (p-value = 0.084 > 0.05), Business Networking (p-value = 0.304 > 0.05), and Business Performance (p-value = 0.106 > 0.05). Based on the Mann–Whitney U test values presented above, there are no statistically significant differences between male and female respondents in relation to assessing the impact of innovation and business networks on performance of SMEs in Harare.
Table 4.18: Mann-Whitney U Test for Gender

<table>
<thead>
<tr>
<th></th>
<th>Innovation</th>
<th>Business_Networking</th>
<th>Business_Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>2184.500</td>
<td>1986.500</td>
<td>2322.000</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>3780.500</td>
<td>3582.500</td>
<td>3918.000</td>
</tr>
<tr>
<td>Z</td>
<td>-2.124</td>
<td>-2.870</td>
<td>-1.617</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.084</td>
<td>.304</td>
<td>.106</td>
</tr>
</tbody>
</table>

a. Grouping Variable: Gender

This means consistent results can be attained on the impact assessment of innovation and business networks on business performance of SMEs if any individual male or female is randomly picked from any part of the Harare Metropolitan and inferences can be made on the business performance impact of innovation and business networking.

4.7.2 **Kruskal – Wallis Test**

It is a generalization of the Mann-Whitney U test, the difference being that Mann-Whitney U test is based on two groups of ranked data and it compares three or more groups. The Kruskal-Wallis test tells us if the differences between the groups are so large that they are unlikely to have occurred by chance. It is imperative to note that the Kruskal-Wallis test merely tells us that the groups differ in some way without precisely informing on how they differ. With the Kruskal-Wallis test, a chi-square statistic is used to evaluate differences in mean ranks to assess the null hypothesis that the medians are equal across the groups. The Kruskal – Wallis test was conducted to ascertain whether there were statistically significant differences across all variables in relation to two variables namely management level and educational level. The results presented in table 4.19 portrays the Chi-Square test was not statistically significant with degrees of freedom of three and significant levels of Innovation (0.120), business networking (0.803), and business performance (0.169) and all satisfy the condition p>0.05.

Table 4.19: Management Level Test Statistic

<table>
<thead>
<tr>
<th></th>
<th>Innovation</th>
<th>Business_Networking</th>
<th>Business_Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>9.851</td>
<td>14.143</td>
<td>7.106</td>
</tr>
<tr>
<td>df</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.120</td>
<td>.803</td>
<td>.169</td>
</tr>
</tbody>
</table>

a. Kruskal Wallis Test
b. Grouping Variable: Level of Management

72
Table 4.20: Educational Level Test Statistic

<table>
<thead>
<tr>
<th></th>
<th>Innovation</th>
<th>Business_Networking</th>
<th>Business_Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>23.196</td>
<td>23.330</td>
<td>14.436</td>
</tr>
<tr>
<td>df</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.091</td>
<td>.061</td>
<td>.513</td>
</tr>
</tbody>
</table>

a. Kruskal Wallis Test  
b. Grouping Variable: Education

The results of the analysis indicates in table 4.20 that there is a non-significant difference in the medians with degrees of freedom of 5 and significances levels of 0.91, 0.061 and 0.513 for innovation, business networking and business performance respectively. However it is important to consider the result for business networking as it is close to being significant. This suggests the need for policy makers to come up with educational programmes for SMEs inorder to improve their networking capabilities.

4.8 DISCUSSION OF FINDINGS

Now that a clear picture of the researcher’s findings have been collected, presented and summarized clearly, it is very important for us to check the consistency of our findings with what already exists in the body of knowledge. This gave us the areas of convergence and divergence of the findings and the possible explanations for the findings varying from one region to the next. In an attempt to assess the impact of innovation and business networks on performance of SMEs, the researcher established two hypothesis and the research sought for the evidence and basis on whether to accept or reject them.

4.8.1 INNOVATION AND BUSINESS PERFORMANCE

Our findings reflects that innovative SMEs are better business performers. These findings are in agreement with previous research which was done in Zimbabwe for SMEs by Mbizi, Hove, Thondhlana, Kakava (2013), which concluded a positive correlation between innovation and business performance. This compliments other empirical studies
which proved innovation to enhance firm performance since among other things innovation comes with increased competitiveness, rare and unique internal capabilities (Mohannak 2007; Love, Roper, and Du 2009). Although a positive correlation between innovation and business performance was observed, the highest contribution came from organisational innovation and the least being marketing innovation. This is consistent with previous study which showed that 88% of highest performing SMEs achieved it through selling more of their existing products and services to their existing market (Burns & Myers, 1994). This high organisational innovation may be attributed to the high operational costs which has forced most SMEs to seriously consider how they organisations are structured. It looks like most of the SMEs believe that they should “stick to the knitting” and focus on incremental innovation.

There is an extensive number of studies confirming the positive effect of innovativeness on firm performance (Jiménez-Jiménez & Sanz-Valle, 2011, Cho and Pucik, 2005; Chapman, 2006; Armbruster, Bikfalvi, Kinkel, and Lay, 2008). Despite the positive impact of innovation on business performance, it is a fact that it comes with a requirement for huge costly investments and requires the entrepreneur to be prepared to take risk (Long, 2006). The findings revealed a significant and positive relationship between innovation and firm performance which suggested that when SMEs put in place well maintained structures, efficient processes, required competences, this will ultimately result in enhanced business performance.

### 4.8.2 Business Networking and Business Performance

There is a positive correlation between the use of business networks and business performance of SMEs, this result is consistent with previous study (Ebbers, 2013). Although there exist a relationship between networking and business performance it is much less pronounced. This finding is in line with arguments posed by Gronum, Verreynne, and Kastelle (2012), which states that effects of networks are more pronounced through innovation on business performance. This observation seem to support that networking alone will not make much impact on business performance but it
is now that which that relationship build upon that makes the business tick. This suggests a gap for an in-depth study to clearly understand what the SMEs perceive to be enhancing their performance. The chief reasons networking of SMEs managers and owners they act as channels through which to access necessary resources for business start-up, growth and success (Kristiansen, 2003). A comparison of the contribution of the variables to business performance clearly shows a stronger relation of business performance with innovation as compared to business networking. It is also observed that education levels of the SME managers and owners impact on drive to network. Since it can be observed that SMEs makes less use of social media for networking, although female respondents reported to make more use of Facebook. This result is partially in line with findings by Robinson and Hans (2010) which concluded that best performing SMEs women used family and friends more often than men; but men used business contacts more often than women.

4.9 CHAPTER SUMMARY

This chapter was dedicated to summarisation and presentation of findings for easy interpretation. The major findings were analysed so as to bring meaning from the data in relation to the already set out goals. Further, the researcher also made an extensive comparison of the research findings in relation to what the already established body of knowledge state. The results showed that innovation has a significant positive correlation with business performance and a predictive power expressed by $\beta = 0.654$. Networking also has a positive correlation with business performance though it was relatively not well pronounced and it had a predictive power of $\beta = 0.236$. The findings of this research were not significantly different as explained by the gender, management level and the level of education. However, there was a slight significant difference in responses to business networking as a function of the level of education. The subsequent and final chapter will give conclusions that can be made about the research consistent with the findings presented in this chapter. In addition, this last chapter gives policy and managerial related recommendations, and state study limitations leading to suggestions for further study.
CHAPTER 5 RECOMMENDATIONS & CONCLUSION

5.1 INTRODUCTION

In the preceding chapter the researcher presented the findings and a clear analysis of the data in an effort to seek answers to the research question. Frequency distributions and cross tabulations were used so as to give a clear description of the data collected. The use of correlation and regression analysis were employed so as to ascertain the direction and strength of the relationship between variables. This chapter marks the end of this research and it is this chapter where all issues are wrapped up and a conclusion is stated. This chapter gave clear conclusions of the researcher following the close analysis and interpretation of the findings revealed in the preceding chapter. The researcher formulated two hypothesis which were further explained and supported with literature in Chapter two, this chapter expressed the final position regarding the acceptance or rejection of the hypotheses. Section 5.4 discussed the recommendation put forward by the researcher. Last but not least is section 5.5 which focus on the limitations of the study and suggests possible area for future research.

5.2 CONCLUSIONS

The following are the conclusions against the research objectives outlined in chapter one as a result of the findings presented in the preceding chapter:

Objective One: To determine the impact of networks on business performance of SMEs in Harare.

Business networks are said to benefit SMEs in a number of areas ranging from ability to access financial, strategic partnering and knowledge sharing. There was a general agreement that business networks are positively associated with business performance.
The research findings reveal that there is a moderate positive correlation between business networking and business performance as indicated by the correlation and regression results. Thus the research concludes that business networks positively influence the performance of SMEs in Harare.

**Objective Two: To identify the impact of innovation on the performance of SMEs in Harare.**

There are various studies on innovation and literature supports its positive relationship with business performance as the firm gain unique competitive advantage. The research findings also confirm that there is a significant positive correlation between innovation and business performance as shown by the correlation and regression results in the preceding chapter. This implies the more innovative SMEs will outwit the less innovative SMEs. Although innovation may prove to be costly and associated with high risk as highlighted in literature the improved benefits associated with improved business performance outweigh the risk of not innovating. The research therefore concludes a significant positive correlation between innovation and business performance of SMEs.

**Objective Three: To establish a model which can be adopted by SMEs to improve business performance through effective use of business networks and innovative activities.**

This study has managed to come up with a reliable predictive model for the relationship between business networking, innovation and business performance for SMEs. The fact that innovation has more pronounced effect on business performance means SMEs must focus their efforts on innovation but cannot afford to discard networking as an important variable. The researcher concludes that as the SMEs engage in networking activities they must focus their efforts on networks where knowledge and business secrets may be exchanged as a result maximizes the networking activities as avenues of innovative initiatives. It is a known fact in literature that SMEs fail to innovate due to lack of funding, hence the need to effectively make use of business networks which will join efforts and resources to establish partnerships with sound mutual benefits. It is clear that failure to innovate will minimize chances of survival in the near future as you will be
overtaken by events since innovation explains 65.4% of variability in business performance.

**Business Performance** = \( f(0.0815 + 0.654(\text{Innovation}) + 0.236(\text{Business Networking})) \)

Figure 5.1 represents the revised conceptual framework showing the model which is applicable in the context of Harare. This implies the influence of networking and innovation do not have same impact on the performance of SMEs which gives practitioners the area of focus for instrumental returns.

**Objective Four:** To test if there are any statistical differences in perceptions of respondents on the effect of innovation and business networking on business performance across level of education, gender and level of management.

Independence tests were conducted to establish if any significant differences in opinions from the respondents on the effect of innovation and business networking on business performance of SMEs using gender and level of education. It was established that the gender and level of management of respondents had no significant differences in terms of
how they perceive the effects of innovation and networking on business performance. However the level of education resulted in some differences to the responses regarding networking of SMEs.

The prime objective for this research was to establish the impact of innovation and networks on business performance of SMEs in Harare Metropolitan. Following the findings of the research, the general conclusion is that there is a positive correlation between innovation and the performance of SMEs. The main topic was divided in three variables which are innovation, business networking and business performance for close analysis. The research concludes that innovation and business networks have a positive correlation with business performance of SMEs in the Harare Metropolitan. The more the business networking activities the SMEs engage in the more improved the business perform. The more innovative an SME is results in a significant improved business performance. Thus policy makers must focus their investment towards creation of platforms for the SMEs to network not only with local peers but with international players as well. Lastly the owners and managers of the SMEs must be prepared to take the risk and channel a bit more of their funds towards innovation so as to maximise the potential benefits of networking and innovation on business performance.

5.3 VALIDATION OF RESEARCH HYPOTHESIS

The researcher formulated two hypothesis which the research sought to validate in an effort to assess the impact of innovation and business networking on the business performance of SMEs. The formulation of the hypotheses was guided by a review of the existing literature and the following are the position of the study in relation to each hypothesis test:

\[ H_1: \text{Business networks positively influence business performance of SMEs.} \]

The general view of the respondents suggested that a variation in business networks results in a positive variation in business performance holding other variables constant. This clearly shows that business networks do influence business performance although the impact may vary from one industry to the other. The research accepted the hypothesis.
H2: Innovation positively impacts business performance of SMEs. Results from the respondents proved that there is a variation in innovation results in a significant change in business performance of SMEs all other variables being constant. This simply explains that innovation positively affects business performance. Thus the hypothesis was accepted.

H3: There are no significant differences in respondent’s perception concerning the effect of innovation and business networking on business performance across level of education, gender and level of management. None of the independence tests conducted in Chapter 4 showed a significant relationship thus the research concluded. The hypothesis was therefore accepted.

5.4 RECOMMENDATIONS

The conclusions that have been made above do have important implications for policy makers and decision makers. It is from these conclusions that the researcher found worthwhile to suggest the following:

5.4.1 POLICY RECOMMENDATIONS

The SMEs are not actively involved in product and market innovation and this is suspected to be a result of high capital requirements, high risk and longer payback period. Thus the government must not only make financial provisions for starting up SMEs but make special provisions to grow the existing and promising SMEs. The government should setup a facility for SMEs to access Research and Development services at reasonable costs through the use of Scientific and Industrial Research and Development Centre (SIRDC) and state universities. This will promote product innovation ideas through the use of specialised skill which may not be affordable to SMEs. The formation of such innovation infrastructure includes financing, consulting and special organisation structures to facilitate innovation activities. This includes
allowing exceptions or import duty free for SMEs importing high-technology equipment.

The government should assist with patenting, such that SMEs are allowed special rate and postponements for payment of patent fees. Such support to SMEs on protection of intellectual property is likely to see a significant increase in product innovation amongst SMEs as it gives the innovator some comfort to recoup expended resources.

The government through the ministry of education should seek adaptation of the educational content to the requirements of innovation development. This integration of innovation management, protection, commercialization and marketing into study plans of secondary and university will go a long in producing innovative employee and owners of our SMEs. This includes distance and continuous learning as the most effective and feasible way of retraining and further training of human capital to think of new or improved way of doing things.

The government should aim to improve the national ICT infrastructure and delivery of ICT services at reasonable costs as this will enhance our research and development as well as provide a cheap online means of networking. Internet has proved to be a means of innovative marketing media and provides new channel or instrument for gaining market access.

The government should facilitate networking activities for SMEs with other strategic nations so as to promote the exchange of ideas and experience. Such exchange programs are expensive to be funded by SMEs as they may involve travelling and accommodation expenses. Some of these activities include the government liaising with nations like Indonesia to have our SMEs participate at Jakarta International Expo. This does not mean us travelling all the time but through the Ministry of SMEs we can arrange our own Expo and invite other countries.
5.4.2 Managerial Recommendations

SMEs should make extensive use of internet as it offers a strong weapon against geographical barriers. Networking is argued to be time-wasting but internet offers online networking through Facebook, LinkedIn and Skype thus reducing travelling time and cost for one to network. The improved use of internet by SMEs also provides room for improving their marketing innovation activities through the use of online marketing mix. This enable the SMEs to have wide coverage at minimal costs and making geographical limitations irrelevant.

SMEs must budget for training which enables them to engage more into personal networking. We are all not born with the right set of skills to network hence the need for further training on how best one should interact, network and make business friends. These courses will also advise on how best individuals should take casual relationships a step further to become a business relationship with mutual benefits.

SMEs management should seek to recruit highly learned staff since there is a slim difference on how respondents with different educational level perceive innovation. This also means that a firm led by highly educated manager is highly likely to accept and pursue an innovative idea form a subordinate that an uneducated manager. Thus more focus on training and development of managers and staff is critical and must be done religiously.

Managers are encouraged to network with different actors within and outside of their existing networks and especially with those who are relevant to the business they operate. The more networking activities the manager engages in and with varying participants will result in improved benefits as compared to one with a limited network.

Although innovation and business networking has cost implications on the SMEs, they should closely monitor and evaluate their networking and innovative activities to ensure that the potential benefits outweighs the firm resources committed to such activities.
5.5 STUDY LIMITATIONS & SUGGESTIONS FOR FURTHER STUDY

Although this study has provided some useful information about the impact of innovation and business networking on business performance of SMEs, it is not immune to study limitations hence the results should be interpreted with caution. Firstly, the research was geographically limited to SMEs in Harare and a relatively small sample from the SMEAZ database was used. This means that the results cannot be generalized to the whole country since SMEs from other cities may have different opinions and experiences regarding the relationships of the variables under study. This research also only focused on registered SMEs thus excluding the opinions of unregistered SMEs.

The use of structured questionnaires to collect data limited the depth of information received from the owners and managers of SMEs. The study could not capture in-depth knowledge regarding why SMEs engage in networking and innovative activities, the benefits they derive from such activities, challenges faced and finally what they think should be the focus to improve the performance of SMEs in Zimbabwe.

While findings of this study developed our understanding of the impact of innovation and business networks on the business performance of SME, there are areas of potential further research. A qualitative research is worthwhile to investigate the relationship of the aforementioned variables. This will contribute to the body of knowledge through explanation of how SMEs actually undertake the innovation activities for instance identify high performers and explore how the way they undertake innovation activities differ from low performing SMEs. A similar study can be carried out in other cities of Zimbabwe for comparison purposes and to establish if the findings of this study can be generalized to the whole country. Since the two variables investigated in this study explained only 68.1% on business performance, there is need to do further research incorporating the other factors outside those considered in this study. There is need for further research on how networks are explained to be a moderating variable to achieve maximum benefits of innovation on business performance since it has less significant relationship with business performance.
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**APPENDICES**

**Questionnaire**

Graduate School of Management
6 Langham Road, Mt Pleasant
Email: it.mpando@gmail.com
Cell: +263 773 399 319

10 December 2014

To Whom It May Concern

Dear Sir/Madam

**RE: REQUEST FOR COMPLETION OF A RESEARCH QUESTIONNAIRE.**

I am a final year Master in Business Administration student working under the direction of Dr. Sandada in the Faculty of Commerce’s Graduate School of Management at the University of Zimbabwe. The purpose of my research is to assess the impact of business
networks and innovation on the business performance of Small and Medium Enterprises (SMEs) in the Harare Metropolitan.

You are being asked to voluntarily participate in this study by completing the attached survey. Your honest participation is very key to the researcher and information gleaned from this study will enhance the learning process and help the policy makers and business practitioners to effectively employ innovation and networks to enhance and sustain business performance of SMEs.

Participation in this study is voluntary hence you can choose not to participate or to withdraw from the study at any time with no penalty. Your responses will remain confidential to the investigator. You are free to not answer any questions you may find objectionable.

NB The research will focus specifically for the activities that transpired between 1 Jan 2013 and 30 June 2014.

Please email the feedback to it.mpando@gmail.com at your earliest convenience.

**INSTRUCTIONS**

Please tick against the response which express best your opinion for each question.

**SECTION A: GENERAL INFORMATION**

A1 What is your gender?
- Female
- Male

A2 Please indicate your age?
- 20-30 Years
- 31-40 Years
- 41-50 Years
- Over 50 Years

A3 What is the legal status of your business?
- Sole Trader
- Company
- Partnership
- Other

A4 Which industry does your firm belong to?
Shopping & Retail  Building & Construction
Automotive, Transport & Logistics  General Services
Manufacturing & Engineering  Information Communication & Telecommunications
Events Mgt & Accomodation  Financial & Consulting Services
Other  

A5 Please indicate your highest level of education.
Primary Education  Diploma / Certificate / Apprenticeship
Secondary Education  Degree
Postgraduate  

SECTION B: BUSINESS NETWORKING

Business Networking
It is a collection of people, preferably with a broad array of experience and knowledge, to which an individual is connected and with which the individual is in periodic contact.

B1 During the year 2013 our firm sought information or advice from the following stakeholders?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1a Suppliers</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B1b Government</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

During the year 2013, which networking activities do you participate in for business purposes?

<table>
<thead>
<tr>
<th>IN-PERSON NETWORKING ACTIVITY</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2f Workshops</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B2g Industry &amp; Professional Association</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>B2h Business Improvement Events</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
SOCIAL NETWORKING ACTIVITY

B3e Facebook
B3f LinkedIn
B3g Twitter
B3h Skype

SECTION C: INNOVATION

Product Innovation
It is the market introduction of a new or significantly improved good or service with respect to its capabilities, user friendliness, components or sub-systems.

C1 Did your firm introduce new or significantly improved goods or services new to the market?
☐ Yes ☐ No

Process Innovation
A process innovation is the implementation of a new or significantly improved production process, distribution method, or supporting activity.

C2 Did your firm introduce new or significantly improved methods of manufacturing or producing goods and services?
☐ Yes ☐ No

C3 Did your firm introduce new or significantly improved supporting activities for business operations?
☐ Yes ☐ No

Marketing Innovation
A marketing innovation is the implementation of a new marketing concept or strategy that differs significantly from your firm’s existing marketing methods and which has not been used before.

C4 Did your firm introduce new or significantly improved media or techniques for product promotion?
☐ Yes  ☐ No

C5 Did you introduce any new or significantly improved sales or distribution methods?
☐ Yes  ☐ No

**Organisation Innovation**

It is a new organisational method in your firm’s business practices (including knowledge management), workplace organisation or external relations that has not been previously used by your enterprise.

C6 Did your firm introduce new business re-engineering for organising procedures?
☐ Yes  ☐ No

C7 Did your firm introduce new methods of organising work responsibilities and decision making?
☐ Yes  ☐ No

**SECTION D: BUSINESS PERFORMANCE**

Please indicate your assessment on the performance of your business to the previous year in light of the networking and innovative activities carried out by your organisation:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D1</strong></td>
<td>The firm’s productivity improved?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td><strong>D2</strong></td>
<td>Customer satisfaction improved significantly?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Thank you for your cooperation

Ẽ END OF QUESTIONNAIRE Ẽ