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**THE IMPACT OF NETWORKING ON ACCESS TO FINANCE AND PERFORMANCE OF  
SMES IN THE BUFFALO CITY MUNICIPALITY, EASTERN CAPE, SOUTH AFRICA.**

**BY**

**MACHIRORI TAFADZWA LEROY**

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**SUPERVISOR: DR. O.O. FATOKI**

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## **ABSTRACT**

This study investigates the impact of networking on access to finance and performance of small and medium enterprises (SMEs) in the Buffalo City Municipality in the Eastern Cape Province of South Africa. The objectives of this study are to examine (1) whether entrepreneurial characteristics of the SME owner and the firm characteristics of the SME are related to networking by SMEs, (2) whether networking is related to access to bank loans and trade credit by SMEs, (3) whether networking is related to the performance of SMEs and (4) whether access to debt finance by SMEs mediates the relationship between networking and performance of SMEs. The results reveal that the gender and education of SME owners and the age, size and legal status of SMEs are the entrepreneurial and firm characteristics that are positively related to networking by SMEs. In addition, the results indicate that there is a positive relationship between networking and access to finance and performance of SMEs. The results of this study further reveal that access to debt finance partially mediates the relationship between networking and performance of SMEs. Lastly, the study recommended that SMEs should network more to gain access to information, resources and contact sharing. This will increase the likelihood of SMEs obtaining finance, and will also improve the performance of SMEs.

## DECLARATION

I, the undersigned, Tafadzwa Leroy Machirori hereby declare that this dissertation is my own original work and it has not been submitted and will not be presented at any other University for a similar or any other degree award.

.....

Signature

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Date

## **ACKNOWLEDGEMENT**

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## **DEDICATION**

I dedicate this project to my family, my father Weston, my mother Jane, and my sisters Mavis and Yemurai, you will always be my rock, strength and motivation. I will always love you.

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# **CHAPTER 1**

## **INTRODUCTION AND BACKGROUND TO THE STUDY**

### **1.1 INTRODUCTION TO THE RESEARCH**

Small and Medium Enterprises (SMEs) and their importance globally have been well documented in literature (Beck, Demiguc-Kunt and Levine, 2004:1; Department of Trade and Industry, 2008: xxvi; Ganbold, 2008:1). In addition, SMEs are very important to the social-economic development of South Africa. South Africa suffers from high unemployment with an official unemployment rate estimated at 25% (Statistics South Africa, 2011). Furthermore, South Africa experiences huge levels of poverty (57% of South Africans live in absolute poverty) and income inequality (Gini co-efficient 0.67) (World Bank, 2008:21). SMEs are expected to be an important vehicle to address the challenges of job creation, sustainable economic growth, equitable distribution of income and the overall stimulation of economic development in South Africa (Maas and Herrington, 2006:17). According to the Organisation for Economic Cooperation and Development (2006:21) SMEs and entrepreneurship are now recognised worldwide to be a key source of dynamism, innovation and flexibility. SMEs are responsible for most net job creation and they make an important contribution to productivity and economic growth.

However, despite the significant contributions of SMEs alluded to in the literature, SMEs in South Africa suffer from weak performance and a high failure rate. Fatoki and Odeyemi (2010:129) observe that the failure rate of SMEs in South Africa is approximately seventy-five percent (75%). On the other hand, Herrington (2010:6) states that approximately one percent (1%) of all newly established SMEs are likely to grow and survive beyond the first year. The weak performance and high failure rate of SMEs may impact on their ability to achieve the objectives of poverty alleviation, employment creation, income redistribution and economic growth. Bowen Morara and Mureithi



(2009:17) note that given the importance of SMEs to development and given their high failure rate, it becomes essential to research into the factors that will enable SMEs to survive and grow.

The World Bank report (2010) suggests that one of the major causes of SME failure is limited access to external finance. The report further observes that SME loans as a percentage of total bank loans are generally smaller compared to large firms. Approximately ten percent (10%) of all formal SMEs have access to a bank credit line. Fatoki and Odeyemi (2010:127) also note that seventy-five percent (75%) of all applications by SMEs (especially new ones) for bank credit in South Africa are rejected. FinMark Trust (2006) provides evidence that only two percent (2%) of all start-up SMEs in South Africa are able to access bank loans.

It should be noted that though access to finance is one of the major causes of SME failure, this is not to suggest that it is the only cause of SME failure. Inadequate managerial competencies (Watson, 2003); lack of government support (April, 2005); increased competition (Bowen *et al.*, 2009) are also cited as causes of SME failure. However, finance is the life-blood of any business enterprise and no enterprise, no matter how well managed, can survive without enough funds for working capital, fixed assets investment, employment of skilled employees and development of markets and new products (Agnew, 2003:1). Therefore, access to finance is essential to the survival and performance of any business enterprise.

There are two sources of finance available to SMEs; equity finance and debt finance. According to Myer's (1987) pecking order theory and Miller and Modigliani's (1958, 1963) static trade-off theory, debt financing is preferred to external equity. Myers (1987) points out that when external finance is needed by a firm, debt is preferred to external equity. Modigliani and Miller (1963) argue that the interest on debt is tax-deductible, thereby creating tax savings for the borrower. Thus it becomes possible for enterprises to minimise their cost of capital and maximise shareholders' wealth by using debt. The tax advantage of debt makes debt financing cheaper and more preferable to external equity financing for SMEs. In addition, most SMEs do not have access to external equity

as they cannot issue out shares. In addition, Venture capital funds are not interested in providing the small amounts of funding sought by many new SMEs. Inaccessibility to external equity leaves SMEs highly dependent on debt finance (Blumberg and Letterie, 2008:188). Despite the dependence of SMEs on debt finance, paradoxically access to debt finance is paradoxically very limited for many SMEs, especially in developing countries such as South Africa. Rwigema and Venter (2003) observe that the main sources of debt finance available to SMEs include bank loans and trade credit. Therefore, for the purposes of this study, debt finance will also refer to access to bank loans and trade credit by SMEs

Sha (2006:102) in a research on the factors that influence the survival and performance of SMEs finds that business performance is strongly influenced by access to finance. Therefore, enterprises that have access to debt finance should perform better than those without access to finance. One prominent factor that can enhance the probability of an SME accessing debt finance, and thus lead to high performance and survival, is networking or social capital (Small Business Project, 2009:6). Networking is defined as an enterprise, or its employees and owners, linking with other individuals or enterprises, sharing contacts, information and exchanging resources with those enterprises which are not under their direct control in a cost effective way (Sawyer, McGee and Peterson, 2003:270).

Empirical literature is inconclusive on the impact of networking on access to debt finance by SMEs. Pandula (2011) finds that formal business networks are positively associated with access to debt finance. Similarly, Atieno (2009:13) finds that participation in business networks is positively associated with access to finance by SMEs. However, Chua, Chrisman, Kellermanns and Wu (2011) argue that most SMEs, given their small size and lack of resources, are not able to make use of social capital to gain debt finance and rely on the social networks of friends and family to gain access to debt finance. Ngoc and Nguyen (2009) suggest that most studies relating networking to access to debt have thus been inconsistent as to the types of networks that influence access to debt finance. Similarly, empirical literature on the impact of networking on the performance SMEs have produced mixed results. Thrikawala (2011) finds a significant

positive relationship between an SME's engagement in various networks and the performance of the SME. Similarly, Watson (2007) also finds that SMEs that are involved in networking will have higher performance and survive longer. On the other hand, Rowley, Behrens and Krackhardt (2000) find a negative association between networking and performance.

However, empirical studies on SME networking, access to finance and performance in South Africa are limited. Sefoko (2003) analyses the role of networks in the commercialisation of rural weavers of Northern KwaZulu-Natal in South Africa. Zaiman (2006) analyses the existence and form of social networks in large organisations in South Africa. Hellyer (2008) investigates the impact of skills and social networks on the South African biotechnology sector. Greyling (2008) conducts research on the impact of social networks formed on the golf course on organisations. Nwosu (2010) investigates the role of network diversity on local South African entrepreneurial development. Kliphuis (2010) conducts research on the value added by social networking to the entrepreneurial process. Zeno (2011) evaluates the role of networks with business angels on the business start-up financing options in South Africa.

However, no study has examined how networking impacts on access to debt finance and performance of SMEs in South Africa. Based on inconclusive empirical studies on the impact of networking on SME access to debt finance and performance and the dearth of South African studies, the aim of this study is to investigate the impact of networking on access to finance and performance.

## **1.2 PRELIMINARY LITERATURE REVIEW**

According to Watson (2007:854) a lot of terminologies are used to denote the concept of networking. These may include social capital, business networks, formal networks, informal networks and social networks. Generally, networking involves sustained relationships between individuals and business enterprises which are mutually beneficial to all the parties involved (Hallén and Johanson, 2004:160). Networking may also be defined as a set of sustained relationships, which entail cooperation and collaboration and are mutually beneficial to all the parties involved (Chipika and Wilson, 2006:971).

Sawyer *et al.* (2003:270) define networking as an enterprise, or its employees and owners, linking with other individuals or enterprises, sharing contacts and exchanging resources with those enterprises in a cost effective manner. On the other hand, Scalera and Zazzaro (2009:3) define networking as a set of stable links established for cost effective economic transactions among the network members founded on formal and informal links with mutual goals.

The various definitions of networks suggest that networking involves information and resources sharing, reduction of transaction costs and social interactions that exist between individuals. This is in line with networking theories such as the transaction cost theory (Commons, 1934), social network theory (Moreno, 1937) and resource dependency theory (Pfeffer and Salancik, 1978). The transaction cost theory proposes that SMEs network in order to reduce the costs of performing market transactions. On the other hand, the social network theories proposed by Granovetter (1973), Coleman (1988) and Burt (2000) suggest that firms network because of the social interaction and relationships that exist between individuals. Thus, there will always be some level of networking among firms because of the social interaction of different individuals in different firms. Lastly, the resource dependency theory proposed by Pfeffer and Salancik (1978) suggests that firms will network in order to obtain share resources or information to gain competitive advantages in the market.

These theories of networking differentiate between networking with individuals (social networks) and networking with enterprises (business networks). In line with this, empirical literature also differentiates between different networks. Ngoc and Nguyen (2009:871) suggest that networks can be categorised as either official networks, managerial networks or social networks. Official (general) networks involve membership in trade associations (Pandula, 2011; Ngoc and Nguyen, 2009) ties with government officials (Talavera *et al.*, 2010) use of accountant (Watson, 2007) relationships with external consultants (Thrikawala, 2011). Managerial networks involve networks with suppliers, customers as well as similar enterprises (Ngoc and Nguyen, 2009; Thrikawala, 2011). On the other hand, social networks involve networks with family and friends as well as membership in social clubs (Atieno, 2009). This broad categorisation

allows for the integration of the different network types and examination of their impact, individually, on access to debt finance and performance of SMEs. In addition, it also allows for the investigation of whether entrepreneurial and business networks have an impact on the networking of SMEs.

Huang, Li and Ferreira (2003) investigate the role of firm age on networking and find that older firms are more engaged in general networks with government officials, institutions and other formal enterprises. In addition, Huang *et al.* (2003) find that the ownership (legal) status brings legitimacy to the firm and will impact on the firm's networking. Brush, Carter, Gatehood, Greene and Hart (2004) suggest that gender has a significant impact on the type of networks individuals and enterprises engage in with female firm owners rely on social networks business networks as compared to male firm owners. Callaghan and Lenihan (2008) observe that firm size is positively related to networking. Younger firms tend to rely on social networks of family and friends. Thomson (2008) establishes that there is a significant relationship between the education of the firm's owner and the networking of the firm. Klyver and Grant (2010) suggests that the age of a business owner significantly affects the social networking and the generation (and participation in) general networks. This suggests that entrepreneurial characteristics (gender, age, education) and the firm characteristics (legal status, firm age, firm size, industry) will have a significant positive impact on networking (and the type of networks) of the firm.

According to Chung (2006) linkages with government agencies or associations are essential in most developing countries. In addition, a firm's manager who has ties with government officials or the ruling party will derive benefits from that tie. This is because ties to government agencies provide firms with government guarantees on the legitimacy and legality of the firm (Ngoc and Nguyen, 2009:870). In addition, government agencies such as the Small Enterprise Development Agency (SEDA) provide training, information and mentoring to firms. This assists firm owners in managing successful enterprises as well as writing business plans. Rungani (2009:185) suggests that a business plan is essential when applying for bank loans and trade credit. Thrikawala (2011) also finds that linkages with government associations improve performance of firms by providing

resources and information to the firm. On the other hand, Talavera (2010) states that a firm's affiliation with business associations increases access to bank loans and trade credit. Atieno (2009) also finds that membership in trade associations as well as linkages with financial institutions are positively associated with SME performance. Business associations conduct seminars and workshops to develop various skills and knowledge of the members or on preparing project proposals for banks and managing finances in the business (Pandula, 2011:262). Training, seminars and trade fairs are assumed to provide information that will assist firms in accessing bank loans. In addition, the use of external consultants and accountants also brings formality to firms and is expected to provide business support to firms (Nguyen, Alam, Perry and Prajogo, 2009:61). Watson (2007:856) finds that use of external accountants and consultants may improve the performance of SMEs. This may also improve access to bank loans and trade credit by SMEs as most banks usually seek information from external accountants about the viability of loaning to the firm (Deakins, North, Baldock and Whittam, 2008:12). Therefore, it is hypothesised that general networking (links with government associations, accountants, consultants; membership in business/trade associations and attending training, conventions and seminars) impacts positively on access to debt finance and performance of SMEs.

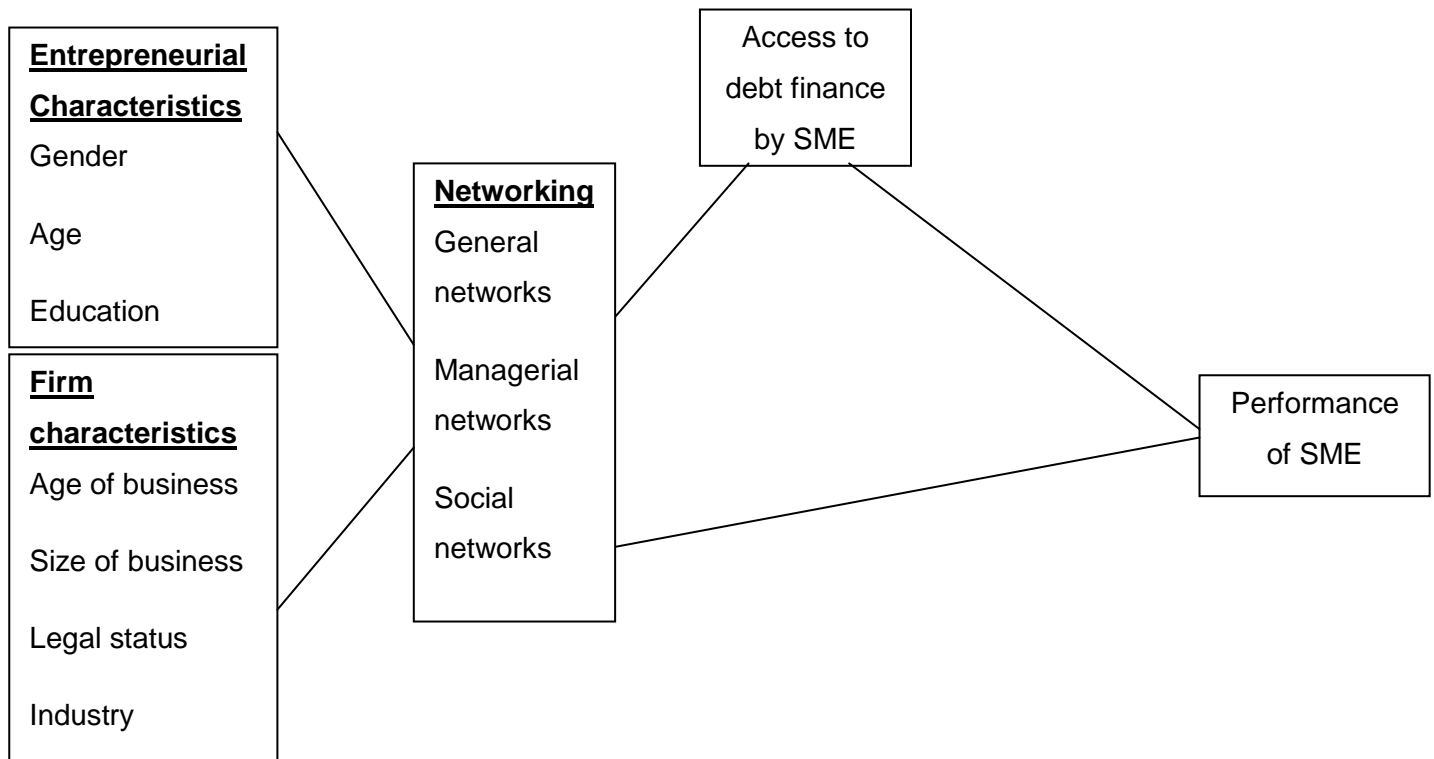
Managerial networks involve networking with suppliers and customers as well as networking with similar enterprises and they help in increasing the legitimacy of firms (Ngoc and Nguyen, 2009). Khwaja, Mian and Qamar (2011) find that managerial networks of firm owners may improve the sharing of information and contacts. Through information and contact sharing firms with owners/managers involved in that network will gain legitimacy. In addition, these firms may also gain access to bank loans from the banks that were supplying other firms. Through networking with suppliers, firms obtain easy access to trade credit and, sometimes, bank loans. However, because trade credit exists when one firm provides goods or services to another with an agreement of deferred payment, managerial networks usually only improve access to trade credit and not bank loans. In addition, managerial networks will enable a firm to gain more clients, business associates, suppliers, and technical and market knowledge (Farinda, Kamarulzaman, Abdullah and Ahmad, 2009:152). This mutual support from firms in the

same managerial networks will lead to better performance of the firms (Thrikalawa, 2011). This suggests that managerial networks can impact positively on the performance of SMEs. This suggests that the use of managerial networks positively impacts on access to bank loans and positively related to access to trade credit for suppliers.

Social networks with friends, family and belonging to a social club or association is important especially for SMEs (Kadushin, 2004:4). Florin, Lubatkin and Schulze (2003:375) suggest that social networks can provide value to members by allowing them access to the social resources embedded within a network as well as access to influential individuals. The resources embedded in social networks will reduce the amount of time and investment required to gather information and improve performance (Zhang, Cavusgil and Roath, 2003, cited in Chen and Chao, 2006:346). It is beneficial for enterprises to accumulate their social network as it promotes their business size, market share and performance (Chen, Tzeng, Ou, and Chang, 2007:227). Talavera (2010:12) finds that in order for a firm to obtain bank loans the owner/manager of the firm has to have access to the relevant social network. This suggests that social networks impact positively on access to debt finance and performance of SMEs.

The literature discussed above is represented diagrammatically by the conceptual framework in figure 1.1

**Figure 1.1: The conceptual framework for the research**



Source: Developed by the author.

### **1.3 STATEMENT OF THE PROBLEM**

Based on the preliminary literature review, the following research problems can be formulated:

- What is the relationship between the entrepreneurial characteristics and firm characteristics and networking by SMEs?
- What is the relationship between networking and performance of SMEs?
- What is the relationship between networking and access to debt finance by SMEs?
- Does access to debt finance mediate the relationship between networking and performance of SMEs?



## **1.4 RESEARCH OBJECTIVES**

- To investigate the relationship between entrepreneurial characteristics and firm characteristics and networking by SMEs
- To investigate the relationship between networking and performance of SMEs.
- To investigate the relationship between networking and access to debt finance by SMEs.
- To investigate whether access to debt finance mediates the relationship between networking and performance of SMEs.

## **1.5 RESEARCH HYPOTHESES**

H<sub>0</sub>: There is no significant relationship between the entrepreneurial characteristics of an SME owner and the firm characteristics of SMEs and networking of SMEs.

H<sub>1</sub>: There is a significant positive relationship between the entrepreneurial characteristics of an SME owner and the firm characteristics of the SME and networking of SMEs.

H<sub>0</sub>: There is no significant relationship between networking and performance of SMEs.

H<sub>1</sub>: There is a significant positive relationship between networking and performance of SMEs.

H<sub>0</sub>: There is no significant relationship between networking and access to debt finance by SMEs.

H<sub>1</sub>: There is a significant positive relationship between networking and access to debt finance by SMEs.

H<sub>0</sub>: Access to debt finance does not mediate the relationship between networking and performance of SMEs

H<sub>1</sub>: Access to debt finance mediates the relationship between networking and performance of SMEs

## **1.6 SIGNIFICANCE OF THE RESEARCH**

One of the most important challenges facing SMEs is to overcome distortions that hinder their growth. SMEs face difficulties in obtaining finance, have a high failure rate, experience weak performance and have inadequate capitalisation (Altenburg and Eckhardt, 2006:26). Therefore, it is significant to examine whether networking can improve access to debt finance and performance of SMEs. This will enable SMEs to positively contribute to the development challenges facing South Africa such as unemployment, poverty, income inequality and weak economic growth. Therefore, the extrinsic value of the results of this research is to provide empirical evidence about whether SMEs that engage in networking will improve their sustainability and performance and, in the long-run, reduce the failure rate of SMEs in South Africa.

## **1.8 RESEARCH METHODOLOGY AND DESIGN**

### **1.8.1 Survey Area and Population Frame**

The research was conducted in the Buffalo City Municipality in the Eastern Cape Province. The Buffalo City Municipality encompasses the towns of King Williams Town, Bhisho and East London. The population frame refers to the total group of units or elements from which the sample will be selected (Bryman and Bell, 2003:62). Using the Yellow Pages Telephone Directory, a population of 612 SMEs were identified. The number of employees was used as the proxy to measure SMEs.

### **1.8.2 Research Method**

In conducting the research study, a quantitative research method was used. Quantitative research method derives empirical generalisations which can be used to determine future courses of action or which solve a particular research problem. Quantitative research is usually used in descriptive research studies and subjects the results to statistical tests in order to quantify data and generalise the results obtained from a representative sample to the target population (Hollensen, 2003; Tustin, Ligthelm, Martins and Van Wyk, 2005). The research format for this research followed descriptive research as it provides a useful analysis of the research variables based on the data to be collected as well as answer questions on “who”, “what”, “where” and “how”.

### **1.8.3 Sample Size**

For the purposes of this research, the population frame is 612 SMEs, the margin of error of five percent (5%) the confidence level of ninety-five percent (95%) with a response distribution of fifty percent (50%). Using Raosoft (2004) the sample size was calculated to be 237 SMEs.

### **1.8.4 Sampling Technique**

The survey will utilise a simple random sampling technique to select respondents from the target population. Respondents will also be selected using the probability sampling method. Probability sampling method is a sampling method in which every element in the population has a known non-zero chance of being selected as a sample element (Tustin *et al.*, 2005; Cooper and Schindler, 2003).

### **1.8.5 Data Collection**

Gerber-Nel, Nel and Kotze (2005:88) identify three primary data collection methods namely, observation, experiment and survey. Observation is a process through which primary data is obtained by observers (humans or machines) about the behavioural

pattern of people, objects or occurrences. With the experiment method of data collecting, the researcher manipulates an independent variable and then measures the effect. The experimental setting can be in a laboratory or in the field. In a laboratory, experiments are conducted in an artificial or laboratory setting. In survey research, the researcher selects a sample of respondents from a population and administers a standardized questionnaire to them. This study used survey research. Surveys can be divided into four major types: personal interviews, telephone surveys, mail surveys and self-administered surveys as pointed out by Gerber-Nel *et al.* (2005:94). Data for the research study was gathered through self-administered questionnaires. One fieldworker assisted the researcher in distributing and collecting the questionnaires.

#### **1.8.6 Pre-Testing the Questionnaire**

The research instrument was pretested on 20 respondents in a pilot study. This enabled the researcher to detect questionnaire weaknesses and make adjustments to the questionnaire.

#### **1.8.7 Data Analysis**

Data was subjected to statistical analysis using descriptive statistics and regression analyses.

#### **1.8.10 Ethical Considerations**

Ethics refer to commonly accepted standards of right and wrong behaviour (Cant, Gerber-Nel and Kotze, 2005). The population under study has a right to privacy implying the researcher will have to accept any refusal from a respondent to take part in the research. The researcher ensured that embarrassing and prying questions were avoided to ensure that respondents are comfortable. The researcher sought the informed consent of the respondents.

In addition, respondents were informed about the objectives of the research, the duration of the research interview, why the research is being conducted and how the

results are to be distributed. During the data collection, objectivity was maintained by the researcher and field workers, thus making sure that the data was collected accurately. During data analysis, ethical considerations were followed by the researcher by reporting all the findings of the research. Confidentiality and anonymity of the respondents was strictly adhered to in order to protect the rights to privacy of SME owners/managers. Ethical consideration was followed in all the stages of the research study.

## **1.9 LIMITATIONS OF THE STUDY**

The study focused on a limited geographical area of King Williams Town, East London and Bhisho in the Eastern Cape Province of South Africa. Therefore, care should be exercised in the generalisation of the findings to the whole of South Africa. The research setting was selected because of their proximity to the researcher.

## **1.10 OUTLINE OF THE PROPOSED RESEARCH**

This covers the intended topics to be included in the research.

- **Chapter 1 - Introduction and Background to the study.** This chapter will provide an introduction to the research study at hand. An extensive review of background literature will be conducted; research objectives and hypotheses as well as the research methodology to be followed will be highlighted.
- **Chapter 2 - SMEs and Development.** Chapter 2 will review the role of SMEs in socio-economic development internationally and in a South African context. An overview of factors affecting development in South Africa (crime, unemployment) as well as important SME issues that hinder SME growth and development in South Africa will be provided.
- **Chapter 3 – Access to Finance.** This chapter will explore, extensively, the concept of access to debt finance in regards to SMEs. Particularly, the sources of finance as

well as the capital structure theories will be explored. In addition, the performance of SMEs in South Africa will also be discussed.

- **Chapter 4 - Networking.** This chapter will explore, extensively, the concept of networking. The theoretical foundation of networking will be discussed and the various elements and constructs of networking will be explored. Furthermore, empirical literature related to the impact of networking on access to finance and performance will also be discussed.
- **Chapter 5 - Research methodology.** The research methods will be comprehensively discussed in this chapter. The research design, sampling methods, scope of the research as well as details on how the research was conducted will be outlined. Data analysis technique, data preparation, reliability and validity of the research instrument will also be discussed.
- **Chapter 6 - Research results.** This chapter will provide responses obtained from the sample elements as well as provide some explanations to these responses. The research hypotheses will also be tested.
- **Chapter 7 - Conclusions and recommendations.** The conclusions and recommendations based on the results of the research study will be outlined in this chapter. Limitations to the research study will be stated and areas for further study will be identified and highlighted.

## **CHAPTER 2**

### **SMES AND DEVELOPMENT**

#### **2.1 INTRODUCTION**

The purpose of this chapter is to analyse the link between SMEs and development from a global and South African perspectives. According to the United Nations Development Program (2010:23) the major development issues facing most developing countries include high unemployment rates, growing poverty and income inequalities. SMEs are believed by institutions like the United Nations and the World Bank to be the most important drivers in solving these development challenges. Therefore, the role SMEs play in alleviating poverty, reducing unemployment and income inequality will be discussed. Furthermore, the definitions attributed to SMEs, both from a South African perspective and from an international perspective will be discussed.

According to Matarirano (2008:24) for SMEs to have a meaningful role in development, they have to be sustainable and be able to grow. Therefore, this chapter will also discuss SME failure and the main causes of SME failure in South Africa. An overview of SME failure rates across selected developing and developed countries will also be provided. Section 2.2 will provide an overview of development. The development challenges facing South Africa will also be discussed.

#### **2.2 DEVELOPMENT**

According to Williams (2003:37) development is a social fact. Williams (2003) offers sociology of development and suggests that development is a puzzle. The author states that three (3) fundamental questions need to be answered in development. “*What are we studying in development? What constitutes a development problem? What makes a*

*policy a development policy?"* Williams (2003) suggests that development originated in the need to address the negative consequences of capitalism particularly in developing economies.

Similarly, Kohn (2009:237) states that the main question in development is why some countries are more developed than others. Development is, therefore, concerned with how underdeveloped economies can develop into modern industrial economies. Furthermore, Kim (2009:41) outlines the origin of development and finds that scholars such as Adam Smith in his book titled "Wealth of Nations" discussed development issues since the 1700s. According to Kim (2009) Smith considered that the best way for countries to achieve economic growth was free markets and the entrepreneurial nature of private enterprise with limited government intervention. Smith suggests that for countries to develop and accumulate wealth they have to progress through stages from primary subsistence of agriculture to secondary activities of manufacturing. Finally, Smith suggests that countries further progress from the manufacturing stage to a modern exchange economy characterised by tertiary activities of commerce (Kim, 2009:58).

Hartmann (2009:3) refers to Schumpeter's (1912) book on the theory of economic development. According to Hartmann (2009) Schumpeter illustrates development as the historical process of structural changes which are driven by innovation. From Schumpeter, development, therefore, refers to 4 dimensions which include new products, new processes of production, new inputs and new markets (Hartmann, 2009:5).

The classical forms of development proposed by Adam Smith and Schumpeter explained development in terms of industrialisation and economic growth (Pieterse, 2009:6). Tridico (2010:999) defines economic growth as the rate of growth of the economy as measured by indices which include gross domestic product or national income. According to Pieterse (2009:6) developing countries were expected to achieve economic growth through industrialisation and efficient resource allocation between



agriculture and industry. It was assumed that developing economies were supposed to follow trends set by developed economies to achieve economic growth.

Nafziger (2005:2) disputes the economic growth approach to development discussed by Adam Smith and Schumpeter. Seers (1969) as cited in Nafziger (2005:2) argues that the meaning of development as suggested by classical economists is not applicable worldwide. Furthermore, the author states that development should go beyond basic economic growth. Seers (1969) argues that basic economic growth which does not raise the standards of living for people could not be termed development (Nafziger, 2005:2). Therefore, development should involve poverty reduction, employment creation and income redistribution. Where poverty, unemployment or income inequalities have worsened, the result cannot be termed development even if the gross national income per capita has risen.

Tridico (2010:999) agrees that development spreads beyond economic growth and encompasses human development factors such as unemployment, poverty and income inequality. Tridico (2010) further argues that economic growth does not bring about a process of development if any of unemployment, income inequality or poverty increases.

Szirmai (2004:6) on the other hand, argues that development should refer to economic development. The author states that economic development involves economic growth as measured by an increase in the gross domestic product (GDP) per capita or income accompanied by some change in the general welfare of the people in a country. Tridico (2010:980) agrees that economic development involves economic growth together with a wider range of social and human objectives which include housing, access to health services, education and life expectancy.

Similarly, Kates, Parris and Leiserowitz (2005:11) suggest that development involves three (3) stages which include human development, economic development and social development. Nafziger (2005:1) states that development should encompass reduction of deprivation which involves the broader goal of eradicating poverty primarily through reducing hunger, illiteracy, poor health and powerlessness.

In line with the United Nations Millennium Development Goals, development has evolved to refer to sustainable development (Dasgupta 2007:3). Sustainable development was introduced by the United Nations after the realisation that development leads to environmental degradation and depletion of resources (European Commission, 2006:2).

According to the World Business Council for Sustainable Development (2005:3) central to sustainable development is a long term vision of progress that integrates social development, economic development and environmental development. Therefore, sustainable development is defined as the economic progression along which the average well-being of the present population increases without compromising the ability of future generations to meet their own (Kates *et al.*, 2005:12).

According to Kohn (2009:237) the main question in development is why some countries are more developed than others. This implies that countries can be categorised as either developing or developed countries. The World Bank (2010) uses economic measures to classify countries as either developing or developed. The gross national income (GNI) per capita is one primary measure. Countries that have a high GNI are regarded as developed countries while countries with a low GNI described as developing countries. Furthermore, the Human Development Index (HDI) can also be used to classify countries. Stats SA (2011) describes the HDI as a measure of average achievement in basic human capabilities such as educational attainment, health and decent standard of living combined with some measure of economic growth. Therefore, a developed country is a country that has a high HDI index while a developing country is one with a low HDI index.

South Africa is regarded as a developing country. However, the country has a two-tiered economy, to one end it can be regarded as a middle income country while to the other the country is a low income country (United Nations Development Program Report, 2010:23). South Africa has experienced a massive growth in the gross domestic product (GDP). The nominal value of GDP for 2010 was estimated at R2.7 trillion which signified

a growth of R267 billion from 2009 (Stats SA, 2011). Furthermore, the GNI per capita rate for South Africa in 2009 based on purchasing power parity (PPP) was \$10 050 indicating that South Africa is one of the wealthier countries in the world. In terms of economic development, South Africa is well advanced and is regarded as a developed country.

However, the development issues in South Africa manifest in the broader spectrum of development in terms of poverty and human development (Ploch, 2011:5). In this regard South Africa can be regarded as a developing country with a high-tech first world dimension within a broader third world dimension where approximately half of the population lives below the poverty line (Nicholson, 2005:2). Furthermore, the author argues that the disparity in income distribution in the country is immense while the level of education is significantly low. Fatoki and Garwe (2010:729) further argue that unemployment in the country is significantly high. The poor public health system presents a further development challenge for South Africa. An increasing mortality rate triggered by the HIV/AIDs epidemic and chronic illnesses such as tuberculosis have further reduced the life expectancy in the country.

Conclusively, literature shows that development goes beyond the propositions of economic growth suggested by Adam Smith and Schumpeter. Development refers to economic growth and changes in human life with focus on poverty reduction, employment creation and income redistribution. Furthermore, development should be sustainable. Sustainable development includes environmental preservation above the human development and economic development objectives. In the context of development, South Africa is regarded as a developing country characterised by high unemployment, rampant poverty, high mortality and uneven income distribution.

### **2.2.1 Development Challenges facing South Africa**

The Millennium Development Goals (MDGs) set by the United Nations provide an irrefutable baseline measurement when analysing the development challenges facing South Africa. Using the definitions of development derived by Seers (1969) and Sen

(1999) as cited in Nafziger (2005) South Africa lags behind in several major aspects of development. The World Bank (2010:20) points out that the most pressing development challenges facing South Africa include widespread poverty, high unemployment and gross income inequalities.

#### **2.2.1.1 Poverty**

One fundamental question that needs to be answered is, “What is poverty”? According to Barber (2008:2) the definition of poverty is complicated as there is no general definition of the term. Barber (2008:2) points out that poverty encompasses different definitions from sociology to economics. Vandenberg (2006:8) states that, generally, poverty is the instance where the general population lack satisfactory material resources or are unable to access basic services required for survival. However, Mukras (2003:59) argues that poverty should be defined from an economic view using the income poverty line or the consumption poverty line. The income poverty line specifies the minimum income level required for a basic standard of living. On the other hand, the consumption poverty line specifies the level of expenditure that is necessary for the purchase of a minimum standard of basic necessities.

According to the United Nations (2010:6) poverty alleviation is one of the fundamental objectives of governments worldwide and organisations such as the World Bank and United Nations. Approximately 3 billion of the world's population survive in absolute poverty living under \$2 per day. Furthermore, approximately 1 billion among them survive on less than \$1 per day. However, Sachs, McArthur, Schmidt-Traub, Kruk, Bahadur, Faye and McCord (2004:122) conclude that the incidence of poverty remains hard felt in Africa. The authors argue that Africa is stuck in a poverty trap. Aina (2007:1) concurs with Sachs *et al.* (2004) adding that in Africa, poverty among the general populace is always rising impacting negatively on development. The Accelerated and Shared Growth Initiative South Africa (ASGISA) report (2005:2) notes that the South African government realises that reducing poverty is one of its core challenge.

Agupusi (2007:2) finds that approximately 57% of South Africa's population, of which over 95% are black Africans, live below the poverty line of \$2 per day. Agupusi (2007:2) adds that despite significant economic growth in the country since the end of apartheid in 1992, poverty remains high in the country. Literature suggests that poverty alleviation is much more complicated than had been anticipated.

Agupusi (2007:2) further argues that poverty is a global problem. However, the author concedes that the poverty rate is higher in developing countries than in developed countries. Table 2.1 provides an overview of the poverty rates across selected developed and developing countries.

**Table 2.1: Poverty rates across selected countries**

Country	Poverty rate
Ghana	29%
South Africa	57%
Sierra Leone	70%
Japan	11%
China	4.6%
United Kingdom	14%

Source: World Bank (2009).

From Table 2.1 it can be deduced that developing countries have higher poverty rates than developed countries. The question that is raised by policy makers then is why the incidence of poverty is greater in developing countries than developed ones? Furthermore, how can developing countries significantly reduce the incidence of poverty in their countries?

Mandal (2008:3) suggests that government cannot eradicate poverty alone. Collective action from different stakeholders is required to overcome the poverty challenge in developing countries. The World Business Council for Sustainable Development report (2004:3) suggests that the key to poverty alleviation in developing countries is economic

development that reaches the majority of the people. The SME sector is one of the fundamental tools in achieving this type of development and reducing poverty (Mukras, 2003:58).

The Department of Trade and Industry (2008:51) agrees that SMEs are the most important vehicle in addressing development challenges in South Africa. This is evidenced by the Department of Trade and Industry, assertion that “*SMME development is a key aspect of the Government’s economic development, poverty alleviation and job creation strategy*” (DTI, 2008:26). Lloyd (2010:2) also suggests that SME growth in the country represents the most logical “launch” instrument to economic development and poverty alleviation in the country.

Empirical evidence supports the role of SMEs in poverty alleviation. According to Ganbold (2008:3) SMEs are labour intensive creating more employment than large enterprises. Ganbold (2008) argues that, from this perspective, SME development represents the most superior poverty alleviation tool in developing countries. Similarly, research conducted by Vandenberg (2006:42) also finds a positive relationship between SMEs and poverty alleviation. Furthermore, the author states that SMEs alleviate poverty through employment creation. Vandenberg (2006) further argues that through employment creation SMEs generate income for their employees and owners thereby reducing poverty.

Consistent with Ganbold (2008) and Vandenberg (2006) Mnenwa and Maliti (2008) in their study on the role of SMEs in poverty alleviation in Tanzania also find a positive relationship between SMEs and poverty alleviation. According to the authors, most of the SMEs surveyed generate income which exceeds the income and consumption poverty lines. This further proves the importance of SMEs in reducing poverty.

Koshy and Prasad (2007) compare the poverty alleviation potential of SMEs to the poverty alleviation potential of aid, grants and charity. The authors argue that while aid, assistance and charitable interventions are essential, they create dependency and not development and are insufficient in alleviating poverty. According to Koshy and Prasad

(2007) the solution to poverty lies in empowering and enabling the poor to take the initiative of creating poverty alleviating enterprises. The authors conclusively suggest that promoting SMEs provides a long term development strategy for an equitable and poverty-less welfare state (Koshy and Prasad, 2007:4).

Aina (2007) compares the effect of government poverty alleviation strategies to the potential of SMEs in reducing poverty in Nigeria. The author finds that government programmes have not yielded much in terms of poverty reduction as these programmes are poorly implemented and executed. Aina (2007:125) suggests that the effective articulation of SMEs represents the most effective poverty alleviating tool which may eradicate grass-root poverty and reduce urban poverty to a bare minimum.

However, some studies dispute the view that SMEs are a driver of poverty alleviation. In their research on SMEs and poverty, Beck *et al.* (2004) argue that SMEs do not assist in poverty alleviation. Beck *et al.* (2004) find that there is no significant relationship between SMEs and any measure of poverty. The results of cross-country comparisons indicates that SMEs do not exert beneficial impacts on the incomes of the poverty stricken (Beck *et al.*, 2004:25). The authors conclude that there is no evidence that SMEs alleviate poverty.

Similar to Beck *et al.* (2004) research conducted by Gebremeriam, Gebremedhin and Jackson (2004) also finds a strong inverse relationship between the relative size of SMEs and poverty alleviation. Gebremeriam *et al.* (2004) state that there is no direct relationship between SMEs and poverty alleviation but rather the poverty alleviation effect of SMEs should be considered through their impact on economic growth (Gebremeriam *et al.*, 2004:20).

In summation, though arguments raised by Beck *et al.* (2004) Gebremeriam *et al.* (2004) dispute the view that SMEs are essential for poverty alleviation, compelling evidence and literature exists to the contrary. According to the World Bank (2008) poverty alleviation in developing countries should be approached primarily through GDP growth, employment creation, healthcare provision, education and equitable income distribution.

Enhancing the development and growth of SMEs is essential for poverty reduction (World Bank, 2008:3).

#### **2.2.1.2 Unemployment**

The definition of unemployment in South Africa is two-fold (Winegardener, 2010:1). The official or narrow definition refers to people between the ages 15 to 65 who are unemployed but are actively searching for employment or have taken steps to start a business. The broader definition of unemployment refers to the economically active population who want to work even though they have not actively searched for employment as well as people who have been discouraged from seeking employment.

According to the World Bank (2010:5) despite the advantages of a relatively positive business environment, South Africa faces high unemployment which remains a major development challenge facing the government. Moodley (2003:1) points out that the South African economy is failing to support the employment requirements of a growing population. The labour market in the country is complex with informal sector employment low when compared to other developing countries (Tovey, 2009:12). The author adds that unemployment in the formal sector is normally compensated by an increase in employment in the informal sector. However, Tovey (2009:12) also argues that this is not the case in South Africa. The unemployment rate in the country, using the official definition, is approximately 24% and is one of the highest in the world (Statistics South Africa, 2011). Table 2.2 provides an overview of the unemployment rates across selected countries in 2010.



**Table 2.2: Unemployment rates across selected countries**

Country	Unemployment rate (as percentage)
Japan	4.6%
United Kingdom	7.6%
United States of America	9.1%
Egypt	8.9%
South Africa	24%
Morocco	9%

Source: International Labour Organisation (2011).

From Table 2.2, it is evident that South Africa has one of the highest unemployment rates in the world. According to Fox (2005:2) the SME sector has been identified as the major employment creator in both developing and developed countries generating employment much more than large enterprises. This is in line with Birch (1979) propositions that SMEs and not large enterprises are the major net employment creators in the United States of America (Headd, 2010:3).

The South African government has undertaken to reduce unemployment by 50% by 2014. According to the ASGISA (2005) SMEs are believed to be the engine of employment creation in the country. Similarly, the Small Business Project report (2009:4) states that SME development has been identified by the South African government as the most viable tool in creating employment to solve the high unemployment challenge in the country. Agupusi (2007:2) adds that there has been a renewed focus on the promotion of SMEs from the government as the key to employment creation in the country.

Lloyd (2010:23) agrees that SMEs have a fundamental role in stabilising employment by absorbing excess labour and spill over labour resulting from large enterprise downsizing in South Africa. Similarly, research conducted by the World Bank (2010) in South Africa finds a positive relationship between SMEs and employment creation. SMEs generate employment to the same extent as employment generated by large enterprises (World

Bank, 2010:3). These findings are in line with Headd (2010) and Ayyagari *et al.*, (2005) who find that SMEs create the most employment in both developed and developing countries.

However, Kesper (2002:1) disputes the notion that SMEs in South Africa contribute significantly to employment growth. According to the author, SMEs are viewed as the driving force to employment growth. However, Kesper (2002) argues that only a few dynamic SMEs have the potential to contribute to rapid employment creation in the country. In contrast, Kongolo (2010:2292) contends that the highest net employment creation in South Africa is among large enterprises which create approximately 47.4% of all net new employment. Similarly, from a developed country perspective de Rugy (2005) finds that SMEs are not the main source of net employment creation in America. The author concludes that there is no reason to base policies on the idea that SMEs deserve government assistance more than large enterprises. de Rugy (2005:18) conclusively suggests that there is no legitimate argument for the preferential treatment of SMEs.

Though several studies dispute Birch's (1979) suggestion that SMEs create the most net employment, empirical studies like Ayyagari *et al.*, (2005) provide compelling evidence to the contrary. Statistical evidence also reveals the importance of SMEs to employment creation. In South Africa, SMEs incorporate approximately 66% of private sector employment signifying the high labour absorption capacity of the SME sector (Fatoki, Herbst and Roberts-Lombard, 2010:374). Table 2.3 provides an analysis of employment creation of the SME sector across several selected countries.

**Table 2.3: Contribution of SMEs to employment**

Country	Employment Creation by SMEs (Formal Sector)
Japan	74%
United Kingdom	56%
United States of America	52%
South Africa	66%
Nigeria	16%
Zambia	36%

Source: Ayyagari *et al.* ( 2005:25).

From Table 2.3, it can be deduced that SMEs contribute significantly to employment creation. The SME sector in South Africa accounts for one of the highest employment creation rates globally. Fatoki *et al.* (2010:374) agree that the employment absorption capacity of the SME sector in South Africa exceeds the labour absorption capacity of SMEs in most developing and developed countries. This indicates the importance of the SME sector in reducing unemployment in the country.

#### **2.2.1.3 Income inequality**

South Africa suffers from gross inequalities. According to Asaf, Cato, Jawoko and Rosevear (2010:6) poverty and inequality remain the defining feature of South Africa despite significant economic growth in the country. Although there has been a general decrease in income inequality, the inherited inequalities of apartheid remain hard felt (Asaf *et al.*, 2010:7). According to the mid-term South African Millennium Development Goals report (2007:6) income inequality in South Africa is one of the highest in the world.

What is inequality? According to the Social report (2010) inequality has two different definitions. The first definition of inequality is from an economic perspective while the alternative definition is from a sociological view. From an economic view, inequality can be defined as the disparity or imbalance of income between the low-income households

and the high-income households within a specific population (Social Report, 2010:64). From a sociological perspective, inequality refers to the deprivation or lack of resources or power to some individuals of society because they belong to different social groups (Barber, 2008:4). The author adds that poverty is a form of inequality.

The United Nations Development Program (2010) states that the South African government has realised the importance of closing the gap of income inequality. *“The government of South Africa has identified the reduction of income disparity and general socio-economic inequalities as central to its development policies”* (United Nations Development Program, 2010:37).

Asaf *et al.* (2010:6) note out that despite the promising decrease of the poverty rates in South Africa, the distribution of income remains extremely high. The authors point out that the number of South Africans living in poverty is progressively diminishing. However, the distribution of income continues to grow more unequal. Furthermore, Asaf *et al.* (2010:6) suggest that the primary source of income redistribution is social transfers. However, the increase of these government grants is significantly outpaced by increases in the income of those in the 70<sup>th</sup> income percentile or higher. Therefore, the income disparity between those in the lower income quintiles and those in higher income quintiles remains high in the country. As such, government social transfers are inadequate for equitable income distribution.

The World Bank (2008) indicates that the Gini-coefficient in South Africa in 2008 was 0.67. The Gini-coefficient measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution (World Bank, 2008). Therefore, a Gini-coefficient of 0 indicates equal distribution of income while a Gini-coefficient of 1 indicates perfect income inequality (Bosch, Rossouw, Claassens and du Plessis, 2010:2). The Gini-coefficient tends to be higher in developing than developed countries. Table 2.4 provides an overview of the Gini-coefficient rates across several selected developed and developing countries.

**Table 2.4: Gini-coefficient in selected countries**

Country	Gini-coefficient
South Africa	0.67
Nigeria	0.56
Namibia	0.70
Japan	0.24
United Kingdom	0.36
United States of America	0.40

Source: World Bank, (2008).

Table 2.4 signifies that income inequality is profound in developing countries than in developed countries. According to Mnenwa and Maliti (2008:12) SMEs are essential in reducing income inequality and poverty in developing countries. Similarly, a vibrant SME sector has been recognised by the South African government as the sustainable solution for poverty alleviation and income redistribution (Department of Trade and Industry, 2005:3).

Berry, von Blottnitz, Cassim, Kesper, Rajaratnam and van Seventer (2002:1) agree that SMEs are the best tool in achieving the objectives of economic growth and income redistribution in South Africa. Fatoki *et al.* (2010:374) acknowledge that SMEs are an important medium to address the challenges of employment creation, economic growth and equitable distribution of income in South Africa.

Turner, Ligthelm, Martins and Wyk (2008:15) argue the contribution of SMEs to income redistribution in South Africa is through their numbers. According to the author, the SME sector accounts for approximately 90% of all business enterprises in South Africa. Given their vast numbers, SMEs will directly or indirectly help in overcoming the challenge of income inequality.

Research conducted by Graaf (2007) in South Africa found that SMEs account for approximately 43% of the wages and salaries in the country. Graaf (2007) suggests that

by contributing significantly to the salaries and wages in South Africa, SMEs represent one of the fundamental tools in income redistribution (Graaf, 2007:9). This is in line with Lloyd (2010) assertion that SMEs in South Africa are essential for income redistribution through their significant contribution to the country's salaries and wages (Lloyd, 2010:21).

According to the United Nations (2010:3) government welfare programs which seek to address the inequalities of income distribution are insufficient in overcoming the rift between the low income households and the high income households in South Africa. The report concludes that the SME development is vital in achieving the goal of equal income distribution in the long term.

However, some studies contrast the view that SMEs contribute significantly to income redistribution. Research conducted by Beck *et al.* (2004) found that SMEs do not decrease income inequality. The authors argue that a larger SME sector does not make income distribution more equal (Beck *et al.*, 2004:26). Similarly, Bannock (2005) as cited in van der Sterren (2008:6) finds that there is no direct causal relationship between SMEs and income redistribution. The author argues that the SME sector is not the driver of income redistribution and should not receive preferential policies from government.

Though studies like Beck *et al.* (2004) and Bannock (2005) found a negative relationship between the SME sector and income distribution, literature provides a contrasting view. Furthermore, studies which include Graaf (2007) Lloyd (2010) and Turner *et al.* (2008) provide evidence that SMEs reduce income inequalities in South Africa. By contributing to the salaries and wages of the country, SMEs are essential in income redistribution. Therefore, the development of the SME sector is vital in reducing income inequality in South Africa.

In summation, section 2.2 examined the development challenges facing South Africa. Literature revealed that SMEs contribute significantly to reducing the primary development challenges of unemployment, income inequality and poverty facing South Africa. However, to completely analyse the contribution of SMEs, it is critical to define

the meaning of the term. Section 2.3 will provide an overview of the definitions accorded to the term SME from a global and South African perspective.

## **2.3 DEFINITION OF SMEs**

According to Lloyd (2010:15) defining SMEs is a challenge across the world. Lloyd (2010) further points out that before SMEs can be analysed in detail, it is important to distinguish them from large corporate enterprises. Furthermore, Matarirano (2008:18) argues that because of differences in the economic structures of countries, it is important to define SMEs in reference to the country under study. The main argument raised by Matarirano (2008) is that the definition of SMEs in one country can be significantly different to the definition of an SME applied in another country. Similarly, Headd (2010:11) suggests that it is critical to define the meaning of SMEs before the term can be used.

Stamatovic and Zakic (2010:152) posit that there is no universal definition of SMEs. However, quantitative and qualitative measures are utilised to define SMEs and to measure whether a business can be classified as a small or medium enterprise (International Institute for Sustainable Development Report, 2004:2). Street and Cameron (2007:240) state that quantitative measures include the number of employees, performance characteristics such as amount of annual turnover and the value of assets. The United Nations Industrial Development Organisation report (2004:5) provides a substantive qualitative definition. SMEs are regarded as having highly personalised contacts, are labour intensive and have a weak and undefined competitive position in the market.

However, the quantitative definition of SMEs has been utilised in several research studies and for the purposes of this study, a similar approach will be adopted. The European Union, on the other hand, defines an SME as a business enterprise that employs not more than 250, achieves an annual turnover not exceeding €50 million with an annual balance sheet or gross asset value of not more than €43 million (European Commission, 2005:14).

From a regional perspective, SMEs in Tanzania are defined as business enterprises that employ between 5 and 99 employees with a capital investment of over 5 million Shillings but less than 800 million Shillings (Aiguran, 2007:2). In Nigeria, enterprises whose total cost (excluding cost of land) is between ~~N~~10million and ~~N~~100million, a labour force of between 11 and 70 full-time employees and a total turnover of not more than ~~N~~10million, are small enterprises (Onugu, 2005:28). Medium enterprises are enterprises with total costs of more than ~~N~~100million but less than ~~N~~300million, a labour force of between 71 and 200 employees and annual turnover of not more than ~~N~~20million.

The South African definition of SMEs is derived from the National Small Business Act of 1996 or as amended in 2003. The National Small Business Act states that, qualitatively, SMEs can refer to any enterprise, whether or not incorporated or registered under any law, which consists mainly of persons carrying on small business concerns in any economic sector, or which has been established for the purpose of promoting the interests of small business concerns. Alternatively, an SME can also refer to any separate and distinct entity, including cooperative enterprises and non-governmental organisations, managed by one owner or more which, including its branches or subsidiaries, if any, is predominantly carried out in any sector or sub-sector of the economy (Government Gazette: National Small Business Amendment Act, 2003).

For the purpose of this research study, the working definition of SMEs is that derived from the National Small Business Act (2003) as mentioned in Table 2.5.



**Table 2.5: Quantitative definition of SMEs**

Size of the enterprise	Number of employees	Annual Turnover	Gross Asset Value
Small	Not more than 50.	Less than R2million or R25million, depending on the industry.	Less than R2million or R4.5million, depending on the industry.
Medium	Not more than 100 or 200, depending on the industry.	Less than R4million or R51million, depending on the industry.	Less than R2million or R18million, depending on the industry.

Adapted from: Government Gazette: National Small Business Amendment Act (2003).

This study will use the number of employees as one of the measures of performance. Section 2.2 and 2.3 examined the contribution of SMEs to development and the definition of SMEs in South Africa respectively. Literature revealed that the definition of SMEs differs worldwide. In South Africa, the quantitative definition of SMEs is the official definition of SMEs. Furthermore, SMEs were found to contribute significantly to income equality, poverty alleviation and employment creation. However, despite the contribution of SMEs to development challenges, SMEs suffer from a high failure rate which may prevent them from meeting the development challenges facing South Africa.

Section 2.4 will now examine the performance of SMEs in South Africa. However, the performance of SMEs is also linked to the failure of SMEs. This is because failure corresponds to weak or negative performance. Therefore, the primary causes of the weak performance of SMEs will also be discussed.

## **2.4 SME PERFORMANCE**

The aim of this section is to comprehensively discuss the concept of performance in relation to SMEs. Particularly, the definition of performance will be provided.

Furthermore, the various measures of performance will be discussed as well as the theories of SME performance.

According to Sha (2006:34) SMEs have been identified as the engine for economic growth, employment creation and poverty alleviation worldwide. The author argues that despite their significant contributions, the SME sector is characterised by weak performance and an extremely high failure rate. Similarly, Gaomab, (2004:3) suggests that SMEs experience the highest rates of failure in comparison to large enterprises. Gaomab (2004) further points out that the rate of SME failure is higher for SMEs in Africa and most developing countries than for SMEs in developed countries. Consistent with Gaomab (2004) assertion that SMEs in Africa have a low survival rate, Herrington (2010:6) observes that in South Africa, the survival rate of established SMEs is extremely low. Approximately just 1.4% of all established SMEs were likely to survive in 2009.

**Table 2.6: Summary of SME failure rates**

Country	SME Failure Rate (as a percentage)
Australia <sup>(a)</sup>	23%
Malaysia	60%
Botswana <sup>(b)</sup>	80%
South Africa <sup>(c)</sup>	75%

Source: <sup>(a)</sup> Ahmad and Seet (2009:99); <sup>(b)</sup> Temtime and Pansiri (2004:19); <sup>(c)</sup> Fatoki and Odeyemi (2010:128).

Table 2.4 indicates that the failure rate of SMEs in developing countries is higher than the failure rate in developed countries. However, in order to understand why the rate of SME failure is high, it is important to define what SME failure is.

#### **2.4.1 Definition of Performance**

A wide variety of definitions of firm performance have been proposed in literature (Barney, 2002, cited in Mackey, Mackey and Barney, 2007:819). Investopedia (2011) defines performance as a measure of how well a firm can use its assets from its primary mode of business and generate revenues. On the other hand, Investorwords (2011) defines performance as the results of the activities of a firm or investment over a given period. Performance can also be defined as the accomplishment of specified business objectives measured against known standards, completeness and cost (Business Dictionary, 2011).

However, Watson (2011:8) notes that in literature, the definition of performance cannot be separated from the definition of business failure and it can be inferred that firms that have not failed (weak performance) are successful (high performance). Thus in terms of failure, performance may refer to bankruptcy, the sale of an enterprise to minimise further losses, discontinuance of ownership, and discontinuance of business (Ihua, 2009:200). Similarly, Fatoki and Garwe (2010:731) define weak performance as discontinuance of business for any reason and formal bankruptcy or the winding down of an enterprise with subsequent losses to the owner(s).

Having defined firm performance (or failure) it is now essential to focus on the various measures of firm performance. There are different measures of performance which will now be discussed in section 2.4.2.

#### **2.4.2 Measures of Performance**

According to Schayek (2011) SME performance may be measured using objective, subjective, or operational measures. Richard, Devinney, Yip and Johnson (2008) suggest the goal approach as a composite measure of SME performance. The goal approach measures performance using financial (objective) and non-financial measures (subjective) measures.

#### 2.4.2.1 Financial (objective) measures

Financial measures of performance can be referred to as the results of a firm's operations in monetary terms (Business Directory 2011). According to Kellen (2003) financial measures of performance are derived from the accounts of a firm or can be found in the firm's profit and loss statement or the balance sheet. In addition, financial measures are also referred to as objective measures because they can be individually measured and verified.

- **Return on Assets (ROA):** Cooke and Uchida (2004:5) suggest that the ROA is used as a vital measure of profitability. The ROA provides information about how much profits are generated, on average, by each unit of the assets of the firm (Petersen and Schoeman, 2008:1). In addition, Petersen and Schoeman (2008) note that ROA can be measured using the equation: 
$$ROA = \frac{\text{Net Profit After Tax}}{\text{Total Equity}}$$

This suggests that ROA is an indicator of how efficiently a firm is being operated with the assets available to the firm.

- **Return on Equity (ROE):** According to Watson (2007:860) ROE should be the starting point for any systematic analysis of firm performance. ROE relates the earnings left over for equity investors after debt service costs have been factored in to the equity invested in the firm (Damoradan, 2007:11). The equation used to measure ROE can be represented as: 
$$ROE = \frac{\text{Net profit after interest before Tax}}{\text{Total Equity}}$$
- **Sales growth:** This refers to an increase in sales over a specific period of time, usually but not always annually (Investor Words, 2011). Delmar, Davidsson and Gartner (2003:190) suggest that if there is one measure of SME performance that could be used then it has to be sales growth.
- **Profitability growth:** This refers to the growth in the profits of a firm. Profitability growth can also refer to the continuous increase in the financial profit or gain after all expenses have been paid over a given period of time (Business Dictionary, 2011).

An increase in the profitability of an enterprise is an objective measure of performance as it shows that the firm is continuously improving.

However, Schayek (2011) argues that most SME owners/managers are very sensitive about disclosing information relating to their firm's financial performance. In addition Watson (2007:860) suggests that because most SMEs are not required to report and publish their financial records, it is difficult to obtain, directly, the financial figures on sales and profitability of most SMEs. This problem may be more prevalent in developing countries, where despite the high failure rate of SMEs; limited follow up is conducted on how they perform annually. Therefore, most research studies such as Lechner, Dowling and Welpé (2006) and Watson (2007) have developed the use of a five point Likert scale which measures sales growth and profitability growth as financial performance measures. A similar technique is used by Sawyerr *et al.* (2003) Thrikawala (2011) and Watson (2011). This approach is implemented as it avoids the direct approach of asking for sales or profitability figures but infers the performance, indirectly, through the responses on the level of satisfaction with sales and profitability growth of the firm.

However, sales and profitability growth should not be viewed in isolation as profits and sales may increase as a result of some underlying factor such as price increases or sales promotions, respectively, and not due to the improved performance of the firm or its products. Thus it is essential to introduce non-financial measures of performance in conjunction with financial measures in order to fully measure performance.

#### **2.4.2.2 Non-financial (subjective) measures**

Non-financial measures are measures not found in charts of accounts of a firm (Kellen, 2003). The non-financial measures are also known as the subjective performance measures of performance. Using the subjective performance measures, Likert scaling questions are used to measure firm performance from the top management perspectives (Selvarajan, Ramamoorthy, Flood, Guthrie, MacCurtain and Liu, 2007, cited in Marimuthu, Arokjasamy and Ismail, 2009:266). The use of non-financial measures of performance supplements accounting measures and gives data on progress relative to

customer requirements or competitors and other non-financial objectives that may be important in achieving profitability. In addition, non-financial measures can provide indirect, quantitative indicators of a firm's intangible assets such as intellectual capital and customer satisfaction and loyalty which are driver of success (Ittner and Larcker, 2003:1).

- **Employee growth:** Employee growth is an increase in the number of employees that are working in the firm and represents a non-financial measure of performance. An increase in the number of employees will indicate an increase in performance while a decrease in employees will indicate a decrease in firm performance.
- **Customer satisfaction:** Generally, customer satisfaction is defined as a customer's feeling of pleasure or disappointment resulting from comparing a good or service's performance to the customer's own expectations (Kotler and Keller, 2006:144). Customer satisfaction is an important non-financial measure of performance as satisfied customers are likely to return for repeat purchases and spread positive word of mouth publicity for a firm. Juhl, Kristensen and Østergaard (2002:327) argue that satisfied customers will become loyal customers and the firm will obtain positive net operating margins as well as referrals thus increasing market share of the firm.
- **Satisfaction with performance compared to competitors:** Another non-financial performance measure which can be used to measure SME performance is satisfaction with the performance of the firm compared to competitors. Because most SMEs are reluctant to divulge direct figures of their sales or profits, measuring the overall satisfaction compared to competitors is a composite measure of performance.
- **Overall satisfaction:** The overall satisfaction with performance of the SME is also a significant non-financial performance measure. SME owners that are overallly satisfied with the performance of their SMEs perform better than SME owners who are dissatisfied with the performance of their firms.

In measuring SME performance, the Financial Directory (2011) suggests that no one measure of performance should be taken on its own and to obtain a true measure of how a firm is performing, different measures should be used together. Marimuthu *et al.*

(2007) uses a combination of both financial and non-financial performance measures utilising sales growth and employment growth as the measures of performance. Rauf (2007:48) also uses high profitability and high employment as the measures of performance. Dzansi (2004) and Schayek (2011) utilise a five point Likert scale measuring satisfaction with sales growth and profitability growth as the primary measures of financial performance. Fatoki (2011) utilises satisfaction with overall performance and satisfaction with performance compared to competitors as the measures of non-financial performance. Schayek (2011) states that measuring both financial and non-financial performance through indirect questions on sales growth, profitability and overall satisfaction improves the response rates of SMEs. In addition, it also enables an objective measure of SME performance.

Having defined performance and discussed the various measures of SME performance, it is now essential to discuss the theories related to SME performance. Section 2.4.4 will now discuss the theories closely related to SME performance.

#### **2.4.4 Performance of SMEs in South Africa**

According to Dzansi (2004:24) there are several constraints that inhibit SME growth and development in any economy and ultimately lead to weak performance and failure. However, some of these reasons vary between developing and developed countries mainly due to the differences in economic structure, political environment and social variables (Matarirano, 2008:30). Fatoki and Garwe (2010:738) argue that most of the reasons attributed for SME failure are a result of the internal business environment or the external business environment.

One of the most profound reasons for SME weak performance and failure refers to the inability of SMEs to access debt finance. According to the World Bank (2010:2) access to finance is a significant business environment issue for the SME sector in South Africa. Access to finance for SMEs, even in the most developed countries, is a major reason for SME failure. Bernanke (2010:3) acknowledges that the formation and growth of small businesses depends critically on access to credit yet these businesses report that credit

conditions remain a key cause of failure. However, lack of capital and access to finance has been attributed as the main cause of the weak performance, and ultimate failure, of small businesses. Because SMEs experience a higher failure rate than larger enterprises, financial service providers are inclined to consider SME financing more risky (Rabbani and Sulaiman, 2006:2).

Consistent with Rabbani and Sulaiman (2006) the World Bank (2010) argues that in South Africa, SMEs which lack collateral security are risky and access to finance for these enterprises is limited. Similarly, Fatoki and Odeyemi (2010) found that commercial banks in South Africa hesitate lending to newly established SMEs. According to the authors 75% of all applications by new SMEs for bank credit in South Africa are rejected (Fatoki and Odeyemi, 2010:129). The World Bank (2010) points out that only 10% of all formal SMEs in South Africa have access to a bank credit line (The World Bank, 2010:14). Borgarello, Marignani and Sande (2004:10) found that banks tend to forge strong linkages with larger more established enterprises. The authors observe that lending markets usually favour large enterprises than smaller, less established business enterprises. This suggests that SMEs with weak access to debt finance will thus suffer from weak performance, and have a high failure rate.

However, SME owners/managers argue that the failure to obtain finance as well as credit loans arises because of severe regulations and requirements by financing institutions attaching blame to the suppliers of credit. For example, the South African Venture Capital Association fails to provide SMEs with finance. The South African Venture Capital Association has approximately sixty-five (65) venture capital funds controlling a total of R29 billion. However, as little as R1.1 billion, which represents just 3.8%, is reserved for SMEs. This further supports arguments raised by borrowers of finance that financial institutions are the main reason of SMEs lack of finance in South Africa (Fatoki and Odeyemi, 2010:129).

In contrast, Watson (2003:1) argues that access to finance is not the primary reason for SME weak performance and failure. The author found that the primary reason for SME weak performance and failure is the lack of management skills among SME



owners/managers. Herrington and Wood (2003) point out that in South Africa, lack of education and training has reduced management capacity in new SMEs in South Africa. This is attributed as one of the reasons for the low level of entrepreneurial creation, weak performance and the high failure rate of new enterprises (Fatoki and Garwe, 2010:731).

Mabaso (2008) conducted a research on SMEs established by retrenched Telkom workers who were given finance to start a business in South Africa. The author found that inadequate managerial skills, failure to manage finance as well as lack of education and training are the major reasons for the weak performance and failure of these SMEs. Similarly, research conducted by Onugu (2005) concludes that managerial problems are the major cause of small business weak performance and failure in Nigeria. According to the author, on a scale of 1 to 10, the entire survey population ranked managerial problems as the most prevalent problem facing SMEs.

However, according to April (2005) lack of managerial competencies is not the primary cause of small business weak performance and failure. Darroll, Bannock, Schlemmer, Ahmad, Dagut, Hampton and Irvine (2004) assert that the red-tape or costs for complying with government regulations are extremely high in South Africa. The authors state that approximately 38% of SMEs regard government policy and regulations as one of the prominent factors leading to failure. Furthermore, the authors argue that given their size, SMEs bear the heaviest burden when compliance costs were measured against turnover. Compliance costs for enterprises with an annual turnover of less than R1million represent 8.3% of turnover. However, when the same measure is utilised for enterprises with an annual turnover of R1billion or more, these costs are slightly above 0.2% (Darroll *et al.*, 2004:12). This further provides proof that SMEs will suffer from weak performance and high failure.

Bowen *et al.* (2009) however, argue that increased competition is the main cause of the weak performance and failure of SMEs. The authors observe that SMEs account for approximately 90% of all business enterprises in South Africa. Given their immense numbers, stiff competition characterises the South African economy. Furthermore,

competition brought about through globalisation and from large enterprises further enhances the probability of weak performance of SMEs and the high rate of SME failure in the country (Bowen *et al.*, 2009:24).

In contrast, research conducted by the Small Business Project (2009) found that social environment burdens in South Africa are the cause of the weak performance and high rate of failure of SMEs in the country. The high level of crime severely constrains business enterprise productivity in South Africa. National crime statistics in South Africa indicates that there were more than 70 000 burglaries in 2009 at business premises, an increase from the 63 000 in 2008 (Small Business Project, 2009:6). On the same note, research conducted by the World Bank (2005) on the investment climate in South Africa found that crime is one of the four major constraints on small enterprise operations, growth and development (World Bank, 2005:1).

On the other hand, Chopra, Lawn, Sanders, Barron, Karim, Bradshaw, Jewkes, Karim, Flisher, Mayosi, Tollman, Churchyard, Coovadia (2009:1) argue that the HIV/AIDS epidemic is a major cause of SME weak performance and failure in South Africa. Health in South Africa is dire with the country experiencing one of the highest HIV/AIDS rate globally. Furthermore, HIV/AIDS related mortality has increased in South Africa while an estimated 5.54 million people are infected with HIV/AIDS in South Africa (HIV/AIDS Strategic Plan report, 2007:6). The high prevalence of HIV/AIDs is a serious threat to SMEs and negatively affects business success (Kunene, 2009:36). Similarly, Connelly and Rosen (2005:613) state that HIV/AIDS has a negative effect on SME performance.

The literature discussed above reveals that there are many causes of SME weak performance and failure in South Africa. Some studies suggest that SME failure may be the result of poor managerial competencies of SME owners/managers, lack of government support, high competition as well as crime. In addition, the prevalence of HIV/AIDS is also a leading cause of SME failure in the country. However, access to finance is the most common and frequently appearing variable to SME failure. Lack of access to finance is deemed to be the most constraining inhibitor to SME growth and

development. Literature suggests that access to finance is the primary cause of SME failure.

## **2.5 SUMMARY**

This chapter examined SMEs in South Africa. SMEs have been singled out as the engine for economic growth, employment creation, poverty alleviation and income redistribution. Furthermore, this chapter analysed the meaning of development which has changed over time. Classical theorists believed that development referred to economic growth. This view has since evolved and development now refers to sustainable development that encompasses economic growth, social and human development. South Africa faces development challenges which include poverty, income inequality and high unemployment.

The government of South Africa has identified the SME sector as the main tool in overcoming the development challenges facing the country. Similarly, empirical evidence supports the role of SMEs in countering the development challenges in South Africa. However, disparities exist in literature with some scholars arguing whether the role of SMEs in poverty alleviation and income redistribution is profound to warrant their continued preferential treatment.

The definitions of SMEs were discussed. Matarirano (2008) suggests that no universal definition of SMEs existed. A review of the literature indicated that failure to provide a concise definition of SMEs results in distortion in the findings of many research studies. The quantitative definition of SMEs is used in South Africa and is adopted for the purpose of this research.

Despite SMEs being identified as the engine for sustainable development, SMEs in South Africa experience a high failure rate. To fully comprehend SME failure, the definition of the term was discussed. South Africa suffers from a high SME failure rate with approximately 75% of all SMEs failing within their first 42 months of existence. There are many causes of SME failure in South Africa. However, literature on SME

performance has revealed that SMEs in South Africa have weak performance. This weak performance will ultimately lead to SME failure. Thus there is an inseparability of weak performance and SME failure. Literature revealed that lack or weak managerial competencies, limited government support, social problems such as crime, health problems such as HIV/AIDS are all causes of SME weak performance and failure. However, access to finance was identified as one of the primary causes of SME failure. On the one hand, SME owners argued that suppliers of finance had stringent requirements in order to provide them with finance or credit. On the other hand, suppliers of finance argued that SMEs were unwilling to access finance due to financing costs and loan repayments and in some instances did not possess the skill and technical know-how to actually apply for funds.

Ihua (2009:206) argues that even though different authors have found some SME failure factors statistically significant than others, the significance of all these factors cannot be ignored as they are all fundamental reasons of why SMEs fail. However, improving SME access to finance can effectively decrease the failure of SMEs and improve their performance. Chapter three will discuss the financing options of SMEs in South Africa.

## **CHAPTER 3**

### **FINANCING OPTIONS OF SMEs**

#### **3.1 INTRODUCTION**

In the previous chapter, access to finance was identified as one of the major constraints to the creation and survival of SMEs in South Africa. If SMEs do not have access to finance for investments, their ability to survive and grow is seriously impaired. Therefore, the financing decision (the use of equity and debt) of SMEs has important implications for the economy, given the role that SMEs play in employment growth, competition and innovation.

This chapter will examine the financing options of SMEs in South Africa. SMEs need funds to finance fixed asset acquisition, working capital, product development and initial losses. In addition, capital structure theories such as the static trade-off theory, the agency theory and the pecking order theory and how they affect the financing of SMEs will be discussed. Furthermore, the sources of finance for SMEs will also be discussed.

#### **3.2 THE FINANCIAL NEEDS OF SMEs**

According to Boateng (2004:57) capital is essential to the success of a business enterprise as it forms the foundation of the business. Agnew (2003:1) suggests that no firm can survive without enough money to develop products, hire employees, establish markets and attract customers. Winton and Yerramilli (2008:52) note that once the market opportunity and the strategy for seizing the opportunity have been well defined, a firm may begin to examine the financial requirements in terms of asset needs and operating needs.

### **3.2.1 Fixed Assets**

Fixed assets (capital investments) involve expenditure on buildings, machinery, fixtures, fittings and vehicles. These are long-term tangible assets held for business use and not expected to be converted into cash in the current fiscal year of the firm. SMEs need capital investments to survive, innovate and grow. While it may be possible for the owners of SMEs to fund its initial activities, it becomes increasingly difficult for them to do so when it comes to buying property, constructing buildings, purchasing equipment, or investing in other capital projects (Barringer and Ireland, 2006:231).

Berger and Udell, (2006:2949) note that one advantage SME can obtain from having fixed assets is that it can be used as collateral. Furthermore, the value of a fixed asset is relatively more stable compared to current assets such as inventories and accounts receivable, which can fluctuate greatly as they are being consumed in the normal operation of the firm. Therefore, lenders prefer fixed assets rather than current assets as collateral.

Falkena, Abedian, Von Blottnitz, Coovadia, Davel, Madungandaba, Masilela and Rees (2002) acknowledge that even though fixed assets are essential for SMEs, investment in fixed assets by SMEs is low in South Africa. SMEs in South Africa have a low propensity to invest in fixed assets. The reason for this may be attributed to the huge financial outlay that is required for investment in fixed assets. In addition, SMEs are also faced with limited access to finance which further inhibits their ability to invest in fixed asset acquisition.

### **3.2.2 Working Capital and Cash Flow**

According to Padachi, Narasimhan, Durbarry and Howorth (2008:41) the flow of funds is essential to maintain and grow a business. The authors also point out that if the working capital of a firm becomes weak, the firm can barely survive. Firer, Ross, Westerfield and Jordan (2004:5) suggests that working capital refers to a firm's short-term assets and liabilities. Short-term assets include cash, inventory, debtors and prepayments and

short-term liabilities include overdrafts, accounts payable and accruals. Positive working capital means the firm is able to pay off its short-term liabilities. Negative working capital means that a firm currently is unable to meet its short-term liabilities with its current assets. Therefore, the failure to plan for increasing working capital needs can lead to serious cash flow problems, weak performance and failure. Specifically, Firer *et al.* (2004) suggest that working capital is needed to pay wages, suppliers and other expenses before sales revenue received from sales.

There is a positive relationship between lack of working capital and the failure of SMEs. In other words, SMEs that have limited working capital are more likely to fail than those SMEs that have positive working capital. Garcia-Teruel and Martinez-Solano (2007:166) found that the non-availability of working capital is a major constraint to the survival and growth of SMEs. Thus the success of an SME depends on its ability to generate cash receipts in excess of the financial obligations and expenses of the SME. Therefore, even if a business is enjoying success in other areas, a shortage of cash can result in technical insolvency, which will lead to bankruptcy and possible liquidation (Gumede, 2002:381).

However, one major disadvantage of working capital is that it is often unacceptable as collateral. This could affect the availability of debt finance to SMEs (Nguyen and Ramachandran, 2006:192). Thus asset structure is an important determinant of a firm's ability to obtain external finance. Firms that have relatively higher levels of fixed assets compared to current assets in their asset structures are better able to access debt finance from commercial banks. This also suggests that SMEs will have limited access to debt finance because of their weak capitalisation.

### **3.2.3 Product Development and Initial Loses**

According to Barringer and Ireland (2006:231) SMEs need to raise funds to pay for the upfront costs of lengthy product development cycles. Product development often takes years and requires adequate funding to bring it to fruition. However, not all new SMEs develop new products. Mohamed (2005) defines product development as the process of

acquiring knowledge to create a new product to serve the needs and wants of customers who are already buying the firm's products. Product development also refers to improving an existing product. Thus product development has become a key determinant in gaining competitive advantage.

Baron and Shane (2005:182) note that while some SMEs show profitability during the startup phase, it is more common to have income statement losses until the venture generates adequate revenues to cover expenses. This implies that most SMEs have initial losses and negative cash flow in the early phases of the business and this may result in failure if additional cash is not available from some source.

#### **3.2.4 Other Reasons**

According to Cardon, Wennberg, Wiklund and De Tienne (2009:20) SMEs also require financing in order to develop their human capital. Human capital refers to the employees of the firm. Employees contribute positively to the growth of SMEs by helping entrepreneurs execute their objectives. An SME may require more specific expertise and highly skilled workers than a mature firm. As the SME enters into the expansion stage, it may be able to use less skilled workers to meet production demands. In addition, while the founders are able to assume some of the responsibilities of managing the business, other activities will have to be managed by hiring some key and non-founder employees who have the knowledge and skills to help the firm grow

The literature discussed above proves that SMEs require significant financial outlays especially in the start-up phase of the firm. Thus SMEs need some additional capital; either in the form of debt or equity, in order to remain operational, more especially in the start-up phase. This is known as the capital structure of a firm. Section 3.3 will discuss the definition of capital structure and also the theories of capital structure.



### **3.3 CAPITAL STRUCTURE**

Capital structure can be defined as the specific mix of debt and equity a firm uses to finance its operations. At the earliest development stages, the finance of small enterprises is critically dependent on the owners and individuals close to them. As successful SMEs develop, they soon outgrow sources of internal equity and graduate to external capital, including venture capital, corporate investment and bank debt. Therefore the capital of the business is vital since it forms the foundation of the firm (Boateng, 2004:57). Studying the capital structure of SMEs helps in evaluating existing models of capital structure by focusing on an environment in which many of the modelling assumptions are particularly salient. This provides a natural laboratory for testing the predictions of many existing theories of capital structure (Robb and Robinson, 2009).

#### **3.3.1 Capital Structure Theories**

The theoretical principles underlying capital structure can generally be described in terms of the static trade-off theory by Modigliani and Miller (1958, 1963) the agency theory by Jensen and Meckling (1976) and the pecking order theory by Myers (1984). It must be noted that capital structure theories are not restricted to these three. For a more complete analysis of capital structure theories please refer to Harris and Raviv (1991). According to Sogorb-Mira (2002) the most relevant capital structure theories that explain the capital structure of SMEs are those related to static trade-off, adverse selection and moral hazard (agency theory) and the pecking order theory.

##### **3.3.1.1 The static trade-off theory**

According to Andree and Kallberg (2008) the genesis of modern capital structure theory lies in the work of Modigliani and Miller (1958) in their famous proposition I – often referred to as the “irrelevance theorem”. The theorem suggests that, as an implication of equilibrium in perfect capital markets, the choice of capital structure does not affect a firm’s market value. However, the theory proposed by Miller and Modigliani (1958) was

revised in 1963 to represent a real life scenario. Modigliani and Miller, (1963) introduced the effect of tax and interest deductibility of debt. By revising the two propositions, Miller and Modigliani (1963) showed the effect of tax rates and interest rate deductibility on the capital structure and expected return of the firm's shares. Firms could, through interest rate deductibility of debt, shift payments from going to the government and instead direct them to the firm's shareholders and creditors by increasing leverage (Miller and Modigliani, 1963:444). The tax deductible effect of interest on debt creates tax savings for the firm and makes debt financing cheaper than equity finance. Miller and Modigliani (1963) thus suggest that a firm should have 100% debt in its capital structure and this enables the firm to take absolute advantage of the tax-shield. However, Scott (1972:45) argues that, theoretically, 100% tax shield does not exist in reality because of the interest repayment obligations of debt. Debt leads to a legal obligation to pay interests and principal. If a firm cannot meet its debt obligations it is forced into bankruptcy and incurs associated costs.

Berger and Udell (2006:2948) point out that almost fifty years have passed since the seminal work of Modigliani and Miller (1958 and 1963) on the importance of capital structure, yet the seemingly simple question of how firms should best finance their assets remains a contentious issue. The empirical evidence regarding a firm's optimal mixture of financing during this time period is both voluminous and mixed in aggregate. Although there is no consensus, two other competing theories have emerged. These are the agency theory and the pecking order theory.

#### **3.3.1.2 The agency theory**

Jensen and Meckling (1976:306) identify two types of agency conflicts. The first focuses on the conflict between shareholders and managers and the second on the conflict between equity-holders and debt-holders. Conflicts between shareholders and managers arise because managers do not hold total residual claim thus they cannot capture the entire gain from their value-maximizing activities. The second type of conflict arises between debt holders and equity holders because debt contracts give equity holders an incentive to invest sub optimally. The debt contract results in asymmetric

distribution of the gains, meaning that, if an investment is profitable above the face value of debt, most of the gain is captured by equity holders, while if investment fails, debt holders bear all the consequences because of the limited liability of the equity holders. As a result, equity holders may benefit from investing in very risky projects, even if they are value-decreasing. Such investments result in a decrease of the value of debt, while the loss in the value of equity due to poor investment is more than offset by the gain in equity value transferred from debt holders.

According to Stiglitz and Weiss (1981:394) agency problems such as asymmetric information and moral hazards can impact negatively on the availability of credit and thus capital structure of SMEs. Stiglitz and Weiss (1981) named this phenomenon as credit rationing. In the Stiglitz and Weiss (1981) formulation a competitive market or a loan market may be characterised by credit rationing through interest rate manipulation by credit institutions. This is because when faced with two borrower types, a bank does not know whether a safe or risky borrower is applying for credit. Because of imperfect information, Stiglitz and Weiss (1981) suggest that adverse selection will occur where some potential borrowers receive credit while others are denied. Adverse selection also occurs because banks prefer borrowers that are most likely to repay their loans since the banks' expected returns depend on the probability of repayment. In addition, there are also problems of moral hazard. This is the risk that the enterprise will not perform in a manner sufficient to meet the repayments or the borrower engages in risky projects after receiving the loan.

Therefore, in attempting to identify borrowers with a high probability of repayment, banks are likely to use the interest rates that borrowers are willing to pay as a screening device. Interest rates are viewed as having an effect on credit rationing in an imperfect market characterised by information asymmetries. Interest rates are thus assumed to sort potential borrowers which lead to adverse selection. Stiglitz and Weiss (1981) suggest that riskier projects offer a higher return compared to safe projects. Thus risky borrowers are usually willing to pay a higher interest rate than safe borrowers. On the other hand, risky projects are more likely to fail than safe projects reducing the bank's

profitability. Therefore, it would be advantageous to the bank to charge lower interest rates on the safe borrowers and higher interest rates on the riskier investors.

However, because of information asymmetry, banks lack intimate knowledge of the type of borrower or the riskiness of the project. Banks thus set a common interest rate for both borrower classes. Therefore, Stiglitz and Weiss (1981) theory suggests that because the bank is not able to control all actions of borrowers due to imperfect and costly information, it will formulate the terms of the loan contract. This is done to induce borrowers to take actions in the interest of the bank and to attract low risk borrowers. Thus in markets with incomplete information, banks set an equilibrium rate of interest at which the demand for credit will exceed the supply. There will, therefore, be credit rationing in credit markets where among loan applicants, some will receive and others are denied. Furthermore, there are identifiable groups of individuals who at a given supply of credit are unable to obtain credit at any interest rate (Stiglitz and Weiss, 1981).

The theory of credit rationing advanced by Stiglitz and Weiss (1981) is relevant to why small businesses have limited access to finance. According to the theory, information asymmetry that characterises most developing countries results in adverse selection as banks do not possess intricate knowledge about the enterprises. Thus banks, in an attempt to decrease the negative effects of defaulting customers, usually charge a uniform interest rate to all its customers. However, these interest rates are usually high and discriminate against small enterprises as they lack collateral and prove to be highly risky projects to finance.

### **3.3.1.3 The pecking order theory**

According to Myers (1984:575) there is no well defined optimal capital structure. Therefore, management has a preference to choose internal financing before external financing. However, when a firm seeks to use external financing, Myers (1984) suggests that firms prefer to finance new investment using debt first, and then external equity. The pecking order theory thus argues that firms should use internal finance first before moving into external finance. Furthermore, when using external finance debt should be

used before new equity. Contemporary finance researchers however find that new SMEs especially in developed countries use internal equity together with debt at start-up. This is termed the modified pecking order theory.

The theories of capital structure discussed above suggest that the sources of finance for SMEs are equity and debt. Equity can be divided primarily into two types; internal and external equity. Section 3.3.2 will examine the various sources of equity and debt available to SMEs.

### **3.3.2 Equity**

Equity is any financing vehicle that has a residual claim on the firm, does not create a tax advantage from its payments and does not have priority in bankruptcy (Investorwords, 2011). Equity implies that the equity holder has a management claim in the firm. In addition, equity holders are entitled to receive dividend payments but the equity issuer has full discretion over dividend payments. Equity holders are also known as residual owners because they receive what is left after all the claims on the firm's assets and incomes, such as debenture interests and preference share dividends, have been satisfied. Equity can also be divided into internal and external equity.

#### **3.3.2.1 Internal equity**

Internal equity primarily constitutes owners' contributions, contributions from family and friends and retained earnings and is used more widely by SMEs. The owners of a new SME contribute what is known as 'sweat equity' to the firm. It is essential for a firm owner to have some personal assets in the business which are usually derived from personal savings of the firm owner. Credit providers and banks may be reluctant to grant credit to an SME if the owner does not have his or her own money at risk. In addition, contribution from friends and family are another important source of finance for SMEs. Contributions from family and friends are usually known as "love money" which can consist of outright gifts, loans or investments (Ou and Haynes, 2006:157).

Internal equity capital provides long-term funding with minimal cash flow drains typically associated with debt financing. In addition, internal equity enhances the creditability of an SME when sourcing for external finance. Internal sources of finance are preferable to SMEs because new equity holders will expect a higher rate of return on their investments because they have less information about the firm than existing equity holders. This means it will cost the firm more to issue fresh equity shares than to use internal funds of retained earnings and owner's funds (Abor, 2008:3). Similarly, Carpenter and Petersen (2002:299) note that firms prefer internal funds over external sources of finance such as debt and equity. According to the authors, internal equity allows the firm's owners to retain control of the firm, avoid floatation costs such as legal, accounting and underwriting fees as well as allowing flexibility to the owners.

### **3.3.2.2 External equity**

External equity consists of equity contributions from external sources such as business angels, venture capitalists as well as issuing equity to external investors. Berger and Udell (2006:2953) suggest that venture capitalists are firms who make equity investments in other firms with an opportunity for growth. Venture capitalists are formal business entities that maintain strong oversight over the firms they invest in and that have clearly defined exit strategies for the firms. Generally, venture capitalists seek high growth firms with a competitive advantage or niche in a growing or emerging market and will nurture the SME in order to achieve high growth. This is because venture capitalists seek to maximise their investments and will be looking to recoup at least five times their investment in around five years (Rungani, 2009:89).

Brealey and Myers (2006) argue that using venture capital has certain advantages. Funding from venture capitalists is committed to the business and the intended projects, investors only realise their investment if the business is doing well and the right venture capitalists bring valuable skills, contacts and experience to the business. Furthermore, investors have a vested interest in the firm's success; that is its growth, profitability and increase in value. However, Brealey and Myers (2006) also note the disadvantages of venture capital. Venture capitalists usually influence the control and decision making of

the firm in an attempt to protect their investments. In addition, SME owners will lose total control when making important decisions with regards to the firm.

Another source of SME equity financing comes from business angels. Business angels represent a diverse group of high net-worth individuals who invest part of their assets in high risk high return firms. Business angels can also be referred to as individuals who invest their money, skills and time in newly created businesses in exchange for a share of their capital. In addition, business angels are also called informal investors who invest in unquoted young entrepreneurial firms (Berger and Udell, 2006:2954). Brealey and Myers (2006) suggest that the advantages of business angels are many. Business angels usually invest in newly created firms without, necessarily, requiring a positive track record giving a chance to entrepreneurial firms. In addition, business angel contracts tend to follow informal relationships between the business angel and the firm owner allowing for autonomy in decision making as compared to venture capitalist contracts which tend to be formal. Business angels are also geographically closer to the firms they sponsor thus benefiting the firms through their personal networks and linkages. However, there are also disadvantages of business angel financing. Because most business angel contracts are informal, the firm owner will be subjected to the varying degrees of influence over the management of the business. In addition, there is also a dilution in the control of the firm.

External equity can have a positive impact on the performance of SMEs. Kutsuna and Honjo (2005) investigate the relationship between external equity and the performance and find that SMEs financed by business angels are more likely to increase sales. On the other hand, Van Auken (2002:289) also found that venture capital funding is a signal about the quality of SMEs and also provides information about the credibility of the firm. This can help SMEs source other forms of finance such as debt capital. However, Bate and Bradford (2008:491) argue that external equity is the most expensive source of finance for a firm because of flotation and other costs associated with external equity. This suggests that external equity should be the last capital resort for new SMEs. Furthermore, external equity such as venture capital is not available to most SMEs in South Africa. This implies that internal equity represents the most viable source of

finance for SMEs. However, internal equity is insufficient for SMEs. At the same time, despite the many sources of external equity for SMEs, access to external equity remains a major constraint for SMEs and this phenomenon is termed the equity gap.

### **3.3.2.3 The equity gap**

According to Harding and Cowlings (2006:116) the equity gap is described as the situation where there is a shortage of equity investments during the initial stages of a firm's life-cycle. On the other hand, the equity gap can also be defined as the difference between the demand for equity by firms and the supply of equity by external equity holders (Park, Lim and Koo, 2008:1).

Forsaith and McMahon (2002) suggest that a factor impacting on the financial structure of SMEs is the limited availability of certain sources of funding to SMEs. This includes both venture capital funds and business angel finance. Forsaith and McMahon (2002) observe that external equity finance in the form of venture capital is, generally, unavailable to SMEs without strong growth prospects. Shane (2008) also found that access to venture capital is very limited for SMEs in both developed and developing countries. According to the authors, less than 1% of SMEs in the United Kingdom have financial input from venture capitalists while in the United States, venture capitalists provide only 1.85% of funding requirements of new SMEs. Fatoki and Odeyemi (2010:129) state that in South Africa only R1.1 billion (representing approximately 3.8%) of the R29 billion controlled by the South African Venture Capital Association has is reserved for SMEs.

Similarly, access to external equity through public listing on the stock exchange is unavailable for SMEs because most SMEs are unable to meet the minimum size (as well as financial) requirements for listing. For most SMEs, the only feasible source of equity funding apart from owners contribution is contribution from relatives and friends. Due to the lack (and high cost) of external equity, SMEs become heavily reliant on debt finance as the major source of external financing.



### **3.3.3 Debt**

Debt is a form of finance which has a fixed cost and requires the payment of interest for its use (Gitman, 2003:522). Debt is, therefore, a form of finance which creates a fixed obligation to make cash payments and also provides insurance for debt holders with prior claims if the business enterprise fails (Sanders, 2007:1). This implies that using debt has certain disadvantages for small enterprises. Essentially, two disadvantages of debt finance can be found. The risk of bankruptcy if the enterprise's returns fail to cover interest and loan repayments and the loss of flexibility are the major costs of debt financing faced by SMEs (Matarirano, 2007:5). However, debt also has certain advantages. The use of debt results in tax advantages also referred to as tax savings, for business enterprises because of the deductibility of interest payments on debt from profits or earnings (Hoenig, 2011:1).

However, external financing sources for SMEs are limited to bank loans and trade credit in both developing and developed countries (Ayadi, Bernet, Westerfield, Franck, Huyghebaert, Gaspar, Bovha-Padilla and Veugelers 2009:21). Similarly, Rwigema and Venter (2003:390) acknowledge that the main sources of debt finance available to SMEs include bank loans and trade credit. Rungani (2009:66) commercial banks primarily offer loans as well as overdraft facilities to SMEs.

#### **3.3.3.1 Commercial banks**

According to Rungani (2009:66) commercial banks are a principal source of debt finance for new SMEs. Commercial banks offer new SMEs a wide range of services in their own right or through wholly or partially owned subsidiaries. These services cover every aspect of the financial market such as overdraft facilities, term loans, trade bill financing, factoring, leasing, export and import finance, and even government loan guarantee schemes. Commercial banks are in a better position to gather information on SMEs through established relationships which they and their staff have with SMEs and their owners. In addition, commercial banks have extensive branch networks that can be accessed by new SMEs even in remote locations. Furthermore, the financial conditions of small firms are usually rather opaque to investors, and the costs of issuing securities

directly to the public are prohibitive for most SMEs. Thus, without financial intermediaries like banks it would simply be too costly for most investors to learn the information needed to provide the credit, and too costly for the small firm to issue the credit itself. Banks, performing the classic functions of financial intermediaries, solve these problems by producing information about borrowers and monitoring them over time, by setting loan contract terms to improve borrower incentives, by renegotiating the terms if and when the borrower is in financial difficulty. In addition, Feakins (2005:56) points out that overdrafts and term loans are the two major products offered by commercial banks to new SMEs.

#### **3.3.3.1.1 Bank overdraft**

A bank overdraft is a facility given by banks to allow an enterprise (or individual) to overdraw the amount available in the enterprise's bank account (Rwigema and Venter, 2004:391). The bank thus enables enterprises to use funds which are over and above the funds available in the enterprise's account (Matarirano, 2008:52). In addition, an overdraft is also useful when bridging finance is required where a gap exists between a long-term debt and the long-term source of finance becoming available. Overdrafts also assist an enterprise with immediate working capital enabling the SME to meet its day to day expenses in the short term.

However, in South Africa, overdrafts are very expensive in nature and are not suitable for new SMEs. With the rate of interest payments on overdrafts currently ranging between 26% - 28%, overdrafts are not preferable to small enterprises with cash flow problems. This is because they increase the risk of failing to meet the payments on the overdraft by the enterprise. Rungani (2009:67).

Therefore, because overdrafts are relatively expensive, they are not a highly recommended source of debt finance for SMEs. The following section examines term loan as another source of debt finance available to SMEs.

### **3.3.3.1.2 Term loans**

Term loans are the most common type of loan. They typically carry fixed interest rates and monthly or quarterly repayment schedules and include a set maturity date of repayment. However, term loans are usually classified into two categories, namely intermediate term loans and long term loans. Intermediate loans usually run for less than three years and are generally repaid in monthly installments from a business's cash flow. On the other hand, long term loans are commonly set for between three and ten years while in some instances, for as long as twenty years. The assets of the enterprise usually act as collateral for the loan and they typically require quarterly or monthly payments derived from profits or cash flow. These loans usually carry wording that limits the amount of additional financial commitments the business may take on including other debts may require that a certain amount of profit be set-aside to repay the loan (Entrepreneur, 2011).

### **3.3.3.1.3 Trade credit**

Trade credit exists when one enterprise provides goods or services to a customer with an agreement of deferred payment, or to receive a shipment or service from a supplier under a similar agreement. The time lag between receipt of the goods or services and payment for the goods and services allows an enterprise to generate income before the payment is due. Trade credit offers benefits over and above the deferred payment stipulations of the agreement. Trade credit offers an enterprise the chance of saving money by paying less due to the discounts provided for early settlement of accounts (Gitman, 2003:80).

Gitman, (2003:80) suggests that trade credit reduces the required capital investment to operate a business enterprise if it is managed properly. In addition, Correia, Flynn, Uliana and Wormald (2007:19) contend that there is no cost involved on trade credit except when an enterprise does not utilise the discount period and only pays in accordance with the agreement. Trade credit can thus be viewed as an essential element of an SME's capitalisation. An enterprise which takes advantage of trade credit granted by its suppliers will save money and enjoy favourable working capital flows.

Selima (2007:17) states that there are three major theories of trade credit. Brennan, Maksimovic and Zehner (1988) introduced the price discrimination theory which suggests that suppliers provide trade credit in order to price discriminate between cash and credit customers. In other words, the theory suggests that suppliers attempt to evaluate customers with those that pay promptly receiving a cash discount while credit customers do not. Customers that settle their accounts at the due date will face an implicit interest cost in the form of forgone cash discounts for early repayment, while those customers paying after the due date may also incur additional costs in the form of explicit interest charges and penalties.

The theory of trade credit proposed by Brennan *et al* (1988) is relevant to small businesses. Because small enterprises are faced with weak capitalisation, it is essential for them to be able to purchase on credit. This allows the enterprise to take advantage of trade discounts and lower their operating costs of production. In addition, trade credit allows small enterprises to develop relationships with their suppliers. Therefore, an enterprise will gain from this relationship through trade discounts and reliable service (Cunat, 2000, cited in van Horen, 2004: 2) while suppliers will gain through positive mouth publicity which attests to the quality of their products (Long, Malitz and Ravid, 1993).

On the other hand, Long *et al.* (1993) argue that suppliers grant trade credit to some customers as a warranty for quality of their products as well as to allow customers sufficient time to test the product. Therefore, the terms of a trade credit may be chosen in such a way that they indicate the quality of the product. Improved terms of credit extension, such as longer repayment periods reflect a supplier's high perceptions on the quality of its products.

However, Cunat (2000) articulates the theory of trade credit from another dimension. Cunat (2000) explains trade credit by suppliers in terms of customised products. Customers that require products that are tailor-made or involve learning by doing or other sources of sunk costs will generate a surplus that will increase with the length of the relationship. This will increase the amount of credit that suppliers are willing to

provide because it ties an enterprise to its suppliers. This results in the development of supplier-customer relationships. The longer this relationship, the more likely such customers are to get trade credit and the larger the amount of trade credit suppliers are willing to extend to those customers.

The analysis of the literature shows that access to debt finance for SMEs is limited to trade credit from suppliers and loans as well as overdrafts from commercial banks. However, access to debt is also limited. This suggests that there is a gap between the requirements of debt by SMEs and the supply of loans by commercial banks.

### **3.3.3.3 The debt gap**

According to Poutziouris, Wang and Chan (2002:385) the debt gap is represented by the problematic flow of debt from credit holders to SMEs. Debt finance is viewed as a critical element for the development of SMEs yet most SMEs depend on borrowed money from family and friends as the closest source of finance.

However, the literature on the inaccessibility of debt finance by SMEs has already been alluded to in the previous chapter (*please refer to par. 2, pg. 43*). Therefore, an in-depth discussion of the literature on SME access to debt in South Africa and globally is not necessary. The differences in the sources of finance for SMEs in developing countries (South Africa and Ghana) and developed countries (e.g. Canada) can be depicted in table 3.1 below.

**Table 3.1: Sources of finance for SMEs in South Africa and Ghana**

Sources of finance	South Africa (%)	Ghana (%)
Internal equity	78	82
Banks	5	6
Trade credit	1	4
Government	1	1
Other sources	17	7

Source: Balkenhol and Evans-Klock (2002) Abor (2004:65).

It can be observed from Table 3.1 above that SMEs in developing countries are dependent on internal equity as the major source of finance. This is despite the fact that empirical literature and theories of capital structure suggest that internal equity is usually inadequate to meet the financial requirements of SMEs. In addition, the use of venture capital and other sources of external equity by new SMEs are extremely limited in both developed and developing countries. Debt finance is also more readily available in developed than in developing countries. This further reinforces the fact that external equity, especially from private investors, is not an available source of finance for SMEs. This also suggests that there is a debt gap as the requirements for debt by SMEs exceeds the supply of debt by credit holders. Therefore, improving the availability of debt finance seems to be one of the options to reduce the high failure rate of SMEs in South Africa as well as other developing countries. With access to finance proving to be a major reason why SMEs fail, it is essential to establish the factors which may improve an SME's access to finance.

### **3.4 SUMMARY**

This chapter examined the financing of SMEs. SMEs require capital in order to finance investments, working capital, and product development and cover initial losses. The empirical literature revealed that investments in fixed assets by SMEs are low as compared to investments in working capital in South Africa. This negatively impacts on SMEs access to debt finance as it leads to weak collateral. Furthermore, the theories of capital structure such as the static trade off theory were also discussed. The theories suggest that internal equity represents the cheapest and best source of capital for SMEs. However, internal equity is limited for SMEs. Thus external sources of finance are required to finance the growth of SMEs. When faced with the option of obtaining external finance, external financing, the SME is faced with either debt finance or equity finance. External equity is, however, not available in developing countries and is also very expensive. This suggests that there is an equity gap because the demand for external equity such as venture capital is more than the availability of these funds. This suggests that debt finance remains one of the major financing options that SMEs can utilise.

In addition, the only types of debt finance available to SMEs in most developing countries are bank loans and trade credit. However, the literature also revealed that SMEs find it difficult to access debt finance leading to a debt gap. The existence of the equity gap and the debt gap suggests that there is a shortage of finance for most SMEs in developing countries. This hinders the growth of SMEs, leads to their weak performance and high failure rate. With access to finance proving to be a major reason why SMEs fail, it is essential to establish the factors which may improve an SME's access to finance. Networking has been identified as one of the factors that may have an impact on access to debt finance by SMEs and, ultimately, the performance of SMEs.

The following chapter will explain the role of networking on the access to finance by SMEs and, ultimately, the performance of SMEs. United Nations Industrial Development (2002:7) notes that most of the obstacles faced by SMEs are the result of lack of networking rather than their size. All enterprises must operate in an economy in which their business strategies are also influenced by the activities, views and demands of external parties, such as consumers, government, and competitors. Networking and linkages provide an alternative form of capital which allows SMEs to access information, resources, access to finance which will also impact on their performance.

## **CHAPTER 4**

### **NETWORKING AND SMEs**

#### **4.1 INTRODUCTION**

In Chapter 3 it was established that internal sources of financing are insufficient for SMEs. SMEs, therefore, require external financing which includes external equity and external debt financing. However, external equity sources such as venture capital are unavailable in developing countries. In addition, external equity is expensive for SMEs and dilutes the control of the SME owner. Thus most SMEs are dependent on debt finance as the most viable source of external finance. However, SMEs also have limited access to debt finance. This leads to the weak capitalisation, weak performance and high failure of SMEs. Premaratne (2002:11) however, argues that most of the problems faced by SMEs which lead to their weak performance and failure can be overcome by linkages or networking. The author further suggests that working in isolation is not viable for SMEs. Consistent with Premaratne (2002) Atieno (2009:11) suggests that linkages or networking will enhance access to finance by SMEs which in turn will lead to better performance of SMEs.

It is against this background that this chapter discusses, comprehensively, the concept of networking. The definitions afforded to networking, the types of networking and the theories of networking will be discussed. The final sections of this chapter will provide a review of the literature on the link between networking and SME performance as well as between networking and access to debt finance. According to Watson (2007:853) suggests that the main motivation for SME networking is that the ability of a firm to gain access to resources not under their control in a cost effective way through linkages will influence the performance of the enterprise.

Meanwhile, before a comprehensive discussion of networking is attempted, it is necessary to know the definition of networking that will be used throughout this study. Section 4.2 will review the various definitions of networking.



## **4.2 DEFINITIONAL APPROACH OF NETWORKING**

One of the fundamental questions that need to be answered is “*What is networking?*” According to Chipika and Wilson (2006:971) networking may be defined as a set of sustained relationships, which entail cooperation and collaboration and are mutually beneficial to all the parties involved in the network. Claro (2004:37) defines networking as a set of connected business relationships that form essential sources of information which provide benefits to the enterprises in terms of internal processes and trade conditions.

Networking can also be defined as an enterprise, or its employees and owners, linking with other individuals or enterprises, sharing contacts and exchanging resources with those enterprises which are not under their direct control in a cost effective way (Sawyerr *et al.*, 2003:270). Scalera and Zazzaro (2009:3) define networking as a set of stable links established for cost effective economic transactions among the network members founded on formal and informal links with mutual goals.

On the same note, the United Nations Industrial Development Organisation report (2002:9) defines networking as groups of enterprises that cooperate on a joint development initiative, complementing each other and specialising in their core competencies to overcome common problems and achieve collective efficiency. Kadushin (2004:3) summarises the definition of networking as any sort of relationship between two or more parties established for the benefit of the members of the network.

The definition of networking can be broken down into the two main composite forms of networking, namely, social networks and business networks. This allows for a discussion of the three main types of networks and an observation of the link between the three (social networks, general networks and managerial).

#### **4.2.1 General Business Networks**

Moeller (2010:30) defines a business network as voluntary inter-business cooperation between at least three enterprises, whose entrepreneurial autonomy is partially limited by their cooperation. Furthermore, Huang *et al* (2003:2) defines business networks as any formal or informal linkage between business enterprises which provides exchanges of knowledge, information and other resources among members. Furthermore, the author suggests that these exchanges should be beneficial, financially or otherwise, to all the members in the network.

Similar to Huang *et al* (2003) Xu, Lin and Lin (2008:790) define business networks as a set of two or more connected relationships, in which each exchange relation is between business enterprises that are regarded as collective actors in the network. Besser *et al.* (2006:2) provide an alternate definition of business networks. According to the authors, business networks are formal linkages composed primarily of business owners or managers established to facilitate the success of their respective enterprises.

The main line of argument for business networks that is synonymous in the various definitions is the expectation that these networks will add value to, and increase the performance of, each enterprise. This view is supported by Wilkinson, Freytag, Young and Chery (2003:2) who observe that enterprises form business relations to gain value. Consequently, the problem that arises in business networks is the coordination of each member's goals and expectations for the mutual benefit of all members. Trust and commitment are, therefore, essential in business networks (Moeller, 2009:28).

However, with trust and commitment central to business networks, Premaratne (2002:40) suggests that the social context in which business relations are embedded cannot be separated from the business networks. According to Chipika and Wilson (2006:972) members in business networks will usually have been acquainted for a long period of time through non-committal relationships with a high degree of trust and confidence.

Professional business networks, thus, follow after some degree of social or personal linkages which give rise to contacts to individuals or enterprises in professional business networks. As Ford, Gadde, Hakansson and Snohata (2003) cited in Ivason *et al.* (2010:28) suggest, there is always a social linkage in business relationships. Therefore, the interaction of these social linkages is essential for the success of the network and it is impossible to separate business networks from the social context which governs individuals (social networks).

#### **4.2.2 Managerial Networks**

According to Ngoc and Nguyen (2009:872) managerial networks involve networking with suppliers and customers as well as networking with similar enterprises and they help in increasing the legitimacy of firms. Li and Zhou (2005:2) also suggest that managerial networks involve links between the manager of a firm and the managers of other firms. On the other hand, Moe (2005:279) contends that managerial networks involve activities performed by managers in order to develop and maintain interpersonal relationships with other actors outside the firm.

Li and Zhou (2005:1) argue that managerial networking between a firm's manager and the other top managers of other firms presents opportunities for information acquisition is essential. These managerial ties have pivotal influences on firm activities; provide a source of competitive advantages and may enable the superior performance of the firm. Khwaja *et al.* (2011) opines that managerial networks of firm owners may improve the sharing of information and contacts. Through information and contact sharing firms with owners/managers involved in that network will gain legitimacy. In addition, these firms may also gain access to bank loans from the banks that were supplying other firms. In addition, managerial networks will enable a firm to gain more clients, business associates, suppliers, and technical and market knowledge (Farinda *et al.*, 2009:152). This mutual support from firms and managers in the same managerial networks may lead to better performance of the firms (Thrikalawa, 2011). Furthermore, Hicklin, O'Toole and Meier (2006:5) also found that the use of managerial networks with other managers will allow firms to gain managerial skills through which in turn improves the performance

of SMEs. However, Hicklin *et al.* (2006) submit that too much investment in managerial networks will result in diminishing returns in terms of performance. In other words, as the level of managerial networks is continuously increased, beyond some point, the benefits derived from the participation in the managerial networks will diminish.

Similar to general networks, managerial networks are also governed by the social interaction of the relationships between individuals. Thus social networks also play a role in the formation of managerial networks.

#### **4.2.3 Social Networks**

According to Hung (2006:360) social networks are linkages or social systems of individuals or groups of individuals that facilitate access to resources or valued sources of information that are beneficial to business enterprises. Similarly Lea, Yu, Maguluru and Nichols (2006:121) state that social networks are sets of people who are connected by socially meaningful relationships, such as friendship, co-working and information exchange to achieve mutual goals. Social networks can also be defined as the application and exercise of social interactions of reciprocity, trust and exchange for economic gains or purposes (BarNir and Smith, 2002: 221).

In the same line of thought, Krebs (2008:31) posits that the essence of social capital entails that it is not what individuals can do that provides competitive advantage. The author argues that the interconnectivity of human capital, internally and externally, provides enterprises with a competitive advantage over those that are not well-connected. This view is shared by Laibanca and Brass (2006). Laibanca and Brass (2006:596) argue that in business enterprises, employees' and manager's social contacts convey benefits that create opportunities for their enterprises which leads to competitive advantages.

From the definitions of social networks provided, it can be observed that social networks are essential for business enterprises. Barnir and Smith (2002) argue that business behaviour and performance is affected by the social structure, social relations and social

ties of the business owners, managers and employees. Therefore, *“the importance of social networks has been attributed to the fact that they provide resources, access to resources, or emotional support”* (Barnir and Smith, 2002:221).

For the purposes of this study, the definition provided by Sawyerr *et al.* (2003) will be used as the working definition of networking. Therefore, *“networking is defined as an enterprise, or its employees and owners, linking with other individuals or enterprises, sharing contacts and exchanging resources with those enterprises which are not under their direct control in a cost effective way”*. This definition was chosen as it integrates both the social aspect of relationships (social networking) and business networks, which are used by an SME owner/manager for acquiring information and resources which in turn enhance the performance of an SME. Furthermore, this definition integrates all the aspects of networking which are pertinent in the different theories of networking. Networking theory suggests that businesses network in order to obtain resources or information, in order to reduce transaction costs or because of the social interactions between individuals. Section 4.3 will focus on the different theories of networking which are relevant to small to medium business enterprises.

#### **4.3 THEORIES OF NETWORKING AND THEIR IMPACT ON SMEs**

According to Claro (2009:17) networking theory entails a variety of terminology and these differences result in a diverse set of conceptual ramifications. Various authors have proposed varying theoretical constructs to networking across many disciplines. Thus, the roots of the networking theory can be traced from organisational behaviour, regional and developmental economics, management, industrial organisation and sociology.

However, the purpose of this section is to trace the origins of networking for the study of small to medium business networks. Furthermore, it should be noted that the purpose of this section is not to provide a comparison of the theories or criticise the theories of networking. Therefore, even though there are numerous constraints in networking, this research study will focus on those theories most relevant to SME networks. Borrowing

from Premaratne (2002) this study will focus primarily on the Resource Dependency Theory (RDT) the Social Network Theory (SNT) and the Transaction Costs Theory (TCT). These theories view networking from different perspectives and provide insight into the development and structure of SME networks (Premaratne, 2002:31).

#### **4.3.1 Transaction Cost Theory**

The Transaction Cost Theory, which was formulated by Commons (1934) and reinforced, by Coase (1937); Arrow (1969, 1974) and Williamson (1985; 1991) provides an exquisite understanding of small business networking. However, it must be noted that similar to Premaratne (2002) the analyses of this study has no direct link with transaction cost analysis. Nevertheless, discussing the basic theoretical background for transaction cost theory provides economic rationale for small business networking.

But “*what are transaction costs?*” Arrow (1969:48) defines transaction costs as the costs involved in running the economic system. On the other hand, Kenny (2009:80) defines transaction costs as the inefficiencies that arise at the interface of activities in the production and distribution processes of business enterprises. Premaratne (2002:34) defines transaction costs as all costs involved in a transfer of goods and services from one unit to another.

The original work on transaction cost analysis was done by Coase (1937) in his book titled “Nature of the firm”. However, detailed analysis of this work can be found in Coase (1988) “*The Nature of the Firm: Meaning*”. According to Coase (1988) there are always transaction costs for carrying out market transactions. Therefore, an enterprise would prefer transactions to be organised within the enterprise if the cost would be less than the cost of carrying out the transaction in the market. As the additional costs of transactions within the enterprise exceeds the cost of carrying out the transaction through the market or in another enterprise, an enterprise will prefer the transactions to be organised outside the enterprise (Coase, 1988:19).

The theory of transaction costs was also furthered by Williamson (1975, 1978, 1985 and 1991). According to Williamson (1979:239) transaction costs are characterised by high uncertainty, type and degree of asset specificity and the frequency of occurrence. Given these characteristics, market transactions become more costly. According to Williamson (1991) enterprises attempt to reduce transaction costs by vertical integration or seeking alternatives in the market (hierarchies). The market is transformed into a hierarchy which is self-governing, ensuring a continuation of market relations and creating long-term bilateral dependency relationships between parties (Williamson, 1991:278). In this regard, Williamson (1991) is in line with Coase (1988) arguing that linkages (hierarchies) effectively reduce transaction costs for enterprises because of the bilateral nature of the relationships between the enterprises.

Thorelli (1986) further discusses the transaction costs theory to small business networking. Thorelli (1986:37) states that business enterprises exist due to their ability to minimise transaction costs and take advantage of economies of scale. Thorelli (1986:42) suggests that the existence of transaction costs, therefore, leads to the rationale for the creation of linkages between small enterprises.

The transaction costs approach (TCA) to networking is best suited for small enterprises as they lack the resources necessary to compete with large corporate enterprises. The rationale behind the TCA approach to networks is that market costs or transactions are usually prohibitive for small enterprises to overcome individually. Networking should, therefore, be viewed as an important business dimension given the resource constraints and limitations SMEs work within (Gilmore *et al.*, 2006:278).

Alternatively, the resource dependency theory provides a different view to why small businesses should be engaged in networks and linkages with other enterprises and individuals. The resource dependency theory is now discussed in section 4.3.2.

#### **4.3.2 Resource Dependency Theory**

The resource dependency approach in relation to enterprise networking was formalised by Pfeffer and Salancik (1978) and provides a different perspective to from the transaction cost theory to small business networking. The central premise of the resource dependency theory is the interdependency of business enterprises. Specifically, Pfeffer and Salancik (1978) argue that the effectiveness and performance of business enterprises is highly dependent on the enterprise's external environment. Interdependence is necessary because no one actor (enterprise) entirely controls all of the conditions necessary for the achievement of desired outcomes (performance). All business enterprise actions and outcomes are thus based on interdependent causes or agents in the external environment (Pfeffer and Salancik, 1978:40).

However, the interdependency of a business enterprise on its external environment leads to uncertainty. This uncertainty derives from the lack of coordination of activities among social units of the enterprise and the external environment. In order to overcome the problem of interdependence and uncertainty, business enterprises attempt to increase the level of coordination between themselves and their external environment.

With the need to improve performance and increase coordination between the enterprise and its external environment, there is formation of linkages. These linkages may involve enterprise exchanges and transactions which may be monetary or physical resources as well as information exchanges with external groups or enterprises (Pfeffer and Salancik, 1978:43). Furthermore, Pfeffer and Salancik (1978:145) observe that linkages will stabilise an enterprise's exchange with its external environment and reduce uncertainty.

Sengenberger and Pyke (1992) also analyse the resource dependency theory in relation to small business networking. According to Sengenburger and Pyke (1992) small enterprises lack the necessary resources and economies of scale to compete individually. Therefore, SMEs need to link together, exchanging information and sharing resources to gain strategic options and improve their performance. Consequently,



linkages and network formation are paramount to small business success (Sengenberger and Pyke, 1992:12).

However, central to both Pfeffer and Salancik (1978) and Sengenberger and Pyke (1992) approach to the resource dependency theories is the premise of the social context of relations between individuals. Social linkages with actors in the external environment provide the basis of a stable external environment ensuring favourable resource exchanges network formation. As Sengenberger and Pyke (1992:19) conclude, the social context of relations is essential in linkages and is the catalyst for the formation of all business networks. Having noted this, the social network theory to small business networking will now be discussed in section 4.3.3 which follows.

#### **4.3.3 Social Network Theory**

According to Premaratne (2002:38) the logic of the social network theory lies in that individuals in any society are involved in a number of social relationships with each other. Moreno (1937) introduced and formalised the social networking theory. Since its introduction, the social networking theory has continued to change and develop. Cartwright and Harary (1956) “graph theory”, introduced mathematical formula in Moreno’s (1937) theory. Milgram (1967) and later Watts and Strogatz (1998) developed the “six degrees of separation” theory. The “six degrees of separation” theory suggests that people are interconnected and the number of contacts required to reach any other person is as little as six (Kleinfield, 2002:62).

Other advocates of the social network approach to networking include Birley (1985, 1990) Aldrich and Zimmer (1986) and Birley and Cromie (1988). However, in relation to social networking theory relevant to small business networks, Granovetter (1973, 1985) Burt (1992) and Coleman (1988) provide revolutionary theories applicable to business networks. These theories will now be discussed in the following section.

#### **4.3.3.1 Coleman's (1988, 1990) network closure theory**

Coleman's (1988) network closure theory proposes that the greatest value in a network is gained where individuals are bound by a level of trust. This trust enables the establishment of linkages and networks where individuals in the network will help each other. Thus the extent to which actor's contacts are connected among themselves promotes an environment that facilitates access to trustworthy information, resources, role expectations and interpersonal solidarity (Rhee, 2007:368).

The central premise of Coleman's (1988) theory is trust among members who actually know each other. Coleman (1988:103) argues that within a group marked by a high degree of social disintegration (open structure or network) trustworthiness among members will be low and the value derived from such connections cannot be great. However, where there is total network closure (closed network) the mutual bonds among members create trustworthiness which leads to beneficial information and resource exchanges (Coleman, 1988:108).

The rationale for small business networking by Coleman (1988) stems from the fact that SME owners/managers will seek information and resources from individuals who are trustworthy to them. These SME owners/managers will form linkages and networks with these individuals and their business enterprises will gain competitive advantages from their networks which are bound by high levels of trust. Non-members will be excluded from the networks as it is assumed that they do not provide any value addition to information and resource acquisition.

However, the propositions by Coleman (1988) though relevant, differ from other social networking theories. Below is a discussion of Granovetter's (1973) strength of weak ties theory.

#### **4.3.3.2 Granovetter's (1973) strength of weak ties theory**

In comparison to Coleman's (1988) theory, Granovetter (1973) introduced the strength of weak ties theory to networking which was built upon Milgram's (1967) "Small World's" theory. Granovetter (1973) diverges from Coleman's (1988) theory arguing that some theories in sociology theory do not relate micro-level interactions (weak ties) to macro-level patterns (strong ties). Granovetter (1973) argues that individuals whose ties comprise of close connections (strong ties) will have access to limited and less valuable information than individuals whose ties encompass many weak ties.

Weak ties actually create more value than the stronger ties (Granovetter 1973:1365). Furthermore, if certain members in a network had no relationship (weak ties) between each other, their connectedness to other members (strong ties) of the network will, inevitably, develop ties between them (Granovetter 1973:1362). Central to these ties would be information exchange and resource dependence.

Similarly, weak ties serve as bridges between strong dyadic relations that would otherwise have been unconnected (Iris, 2007:7). Therefore, an enterprise with individuals who have numerous weak ties will gain access to superior, non-redundant, information and resources. Premaratne (2002:40) summarises Granovetter's (1973) strength of weak ties theory by suggesting that strong and direct ties are homogeneous, adding little value to new information and resource acquisition. Everyone in a strong tie has access to similar information and resources while on the other hand, weak ties add diversity and new information and resource exchanges.

Granovetter's (1973) strength of weak ties theory provides a strong basis for small business networking. Small enterprises, in attempting to reduce the effects of their size, will thus access valuable information and resources from both their strong ties (family, friends) and also take advantage of their weak ties (customers, suppliers, acquaintances). This will eventually lead small enterprises to linkages of information and resource sharing from the most significant ties (strong ties) and the insignificant ties (weak ties). Granovetter's (1973) theory is also consistent with Burt's (1992) structural

holes theory which also emphasises the significance of the weak ties proposed by Granovetter (1973).

#### **4.3.3.3 Burt (1992) structural holes theory**

Burt's (1992) structural holes theory has similarities to Granovetter's (1973) strength of weak ties theory and is concerned with the notion of redundancy. Structural holes refer to the gaps between non-redundant contacts and indicate that contacts on either side of the hole acquire different flows of information (Burt, 1997:340). Primarily, the structural holes theory proposes that an individual is in an advantageous position to acquire information if he/she is connected to others who are not directly connected to each other (non-redundant contacts). Therefore, Burt's (1992) theory suggests that contacts which are not connected in any way provide overlapping information benefits.

As Burt (1992:28) reasons, irrespective of whether a relationship is strong or weak, it will always generate information benefits if it is a bridge over a structural hole. A manager who spans the structural holes by having non-redundant contacts on both sides of the structural hole will have access to different beneficial information flows (Burt, 1997:341).

The structural holes theory also provides a basis for small business networking. A small business owner/manager seeking to acquire superior information will form linkages and network with other individuals who are not directly connected to him/her. These contacts will provide the owner/manager (and the enterprise) with valuable information creating competitive advantage for the small business allowing it to compete in the market. Thus, structural holes create advantages for enterprises whose manager's relationships are not limited to their primary contacts alone (Burt, 2001:4).

Having discussed the three major relevant theoretical approaches in the field of small business networking, the discussion which follows will focus on the factors that affect networking of SMEs.

## **4.4 FACTORS INFLUENCING NETWORKING OF SMES**

There are many factors that affect the networking of firms. Farinda *et al.* (2009) suggests that necessity, reciprocity, efficiency and stability are the main factors that influence the networking of SMEs. This suggests that there are many reasons why SMEs networks and an exhaustive investigation of all these factors is not feasible. However, because SMEs lack funds to invest in human resources, the owners are usually the managers of these firms. Therefore, investigating the factors that affect the SME owner directly (entrepreneurial characteristics) and the factors that affect the SME directly (firm characteristics) is essential to determine the networking of the SME.

### **4.4.1 Entrepreneurial Characteristics**

Entrepreneurial characteristics refer to the characteristics of the SME owner/manager. These characteristic may include the gender, age and education of the SME owner/manager. In addition, the entrepreneurial characteristics of the SME owner may affect the types of networks the SME is engaged in.

#### **4.4.1.1 Gender**

Brush *et al.* (2004) found that gender has an effect on the networking of the SME. According to the authors, male's higher collective social status and common gender practices encourage them to develop human capital and social networks most conducive to business success. In addition, female entrepreneurs have access to different business and investment networks than male entrepreneurs. Brush *et al.* (2004) conclude that women owned enterprises have weaker networks than male owned enterprises. Klyver and Grant (2010) also argue that females network less than males and are less likely to become entrepreneurs because they lack in their personal social networks. However, Watson (2011:7) observed that female SME owners are not disadvantaged, relative to male SME owners, in regards to their networking activities. Runyan, Huddleston, and Swinney (2006) state that social and informal networks serve as a competitive advantage tool more especially for women business owners. Daniel

(2004) argues that women are more adept at nurturing relationships and often possess stronger people and networking skills than their male counterparts. Daniel (2004) suggests that women network more than men. Literature on the role of gender on the networking of SMEs is thus inconclusive. Based on the inconclusive nature of literature and the dearth of South African studies, this study will investigate the relationship between the gender of the SME owner and networking.

#### **4.4.1.2 Age**

In terms of the impact of the SME owner's age Greve and Salaff (2003) found that age has a positive impact on networking. The authors argue that as SME owners grow older, the level of networking will also increase due to the sustained relationships and contact building that would have developed over time. Thus, older SME owners will have build a stronger and wider social capital as compared to younger SME owners. However, King, Townsend and Ockels (2007) dispute the fact that the age of an SME owner will affect the networking of the SME. King *et al.* (2007) argue that younger entrepreneurs actually network as much as older entrepreneurs and SME owners. This is attributed to the "digital evolution" where information sharing is profound. In addition, while older SME owners network through experience and long-term accumulation of contacts, younger SME owners are extremely networked, both in their social networks and in their business networks through the digital evolution. Thus, literature on the role of age of the SME owner on networking is inconclusive. In addition, there are no South African studies that have focused on the impact of age on networking of SMEs. Given the inconclusiveness of international studies and the dearth of South African studies, this study will investigate the relationship between the SME owner's age and networking by SMEs.

#### **4.4.1.3 Education**

Greve and Salaff (2003) posit that an SME owner with a better education will also be more likely to network more than an SME owner with less background education. This may be because educated SME owners are aware of the benefits of networking.

MacGragor (2004) also found that the education level of an SME owner or Chief Executive Officer (CEO) is positively associated with the networking of the SME and the types of networks an SME is engaged in. However, analysis of the literature does not show studies which dispute the notion that education does not have an impact on the networking of firms. Therefore, this study will also investigate the relationship between education of the SME owner and networking.

#### **4.4.2 Firm Characteristics**

Firm characteristics refer to the factors that are inherent in the business or firm and may include, but are not limited to, the age of the SME, the size of the SME, the industry the SME operates in and the legal status of the SME.

##### **4.4.2.1 SME age**

Huang *et al.* (2003) found a positive association between an enterprise's age and networking. In addition, the results show that enterprise's that have been in existence for longer may be less time and financially constrained than 'newer/younger' enterprises. These enterprises are more engaged in networking activities for information exchange and resource sharing. Dowling and Helm (2006) also concur that a firm's age is positively related to the types of networks the enterprise will be engaged in. Dowling and Helm (2006) argue that the age of the business is used as a moderator and younger enterprises benefit from cooperation with other enterprises, whereas older enterprises are more successful when they network with research institutions. However, King *et al.* (2007) argue that it is younger SMEs "baby boomers" that network more than older, more established firms. This is because these newly established SMEs are established by individuals who are in the "digital generation" where their lives are extremely networked, both technologically and personally. This is also supported by Harvie, Narjoko and Oum (2010) who also contend that most SMEs that engage in production networks are younger enterprises and not older SMEs. Thus literature on the impact of the age of the SME has on networking is inconclusive. In addition, no South African

study has been conducted on the role of SME age on networking. This study will, therefore, investigate the relationship between the age of the SME and networking.

#### **4.4.2.2 SME size**

Wincent (2005) tests the impact of SME size on the networking of SMEs. The author found a positive association between SME size and networking with larger enterprises exhibiting higher networking width and higher networking depth compared to smaller enterprises. In addition, small firms are more dependent on the social networks of their owners, managers and employees and rely less on formal business networks. Larger firms, on the other hand, benefit from formal business relationships. Furthermore, Harvie *et al.* (2010) conclude that the size of the SME is an important characteristic for an SME to upgrade its position in production networks. However, Harvie *et al.* (2010) did not find any significant relationship between SME size and participation in networking. This suggests that the size of the SME does not have any impact on networking. Based on the inconclusiveness of the literature discussed above, and the dearth of South African studies, this study will investigate the relationship between the size of the SME and networking.

#### **4.4.2.3 Legal status**

According to Human and Provan (2000) the legal status of the SME will affect the networking by that SME. The authors find that sole traders are affected by their size and legal status and will most likely utilise social networks of friends and family. An SME registered as a company will have benefits of a separate legal entity which improves the legitimacy of the firm. These firms will likely participate in general and managerial networks than social networks of friends and family. However, Li, Serra and Ferreira, (2010) find that whether a firm is a privately owned sole proprietor business or whether it is a registered company, there is no effect on the likelihood to participate in different types of networks. Based on the inconclusive literature, this suggests that the legal status of the SME may impact on the networking of the SME.



#### **4.4.2.4 Industry**

BarNir and Smith (2002) posit that the sector (industry) an SME operates in is positively related to the networking of the SME. Similarly, Luo (2003) asserts that the level of networking increases when uncertainty, regulation and competition increase depending on the industry. In addition, Luo also found that the link between networking and industry dynamics is moderated by the firm's pro-activeness. However, MacGregor (2004) could not find any significant association between the business sector of SMEs and the networking of that SME. Callaghan and Lenihan (2008) evaluate the impact of industry type on the types of networks enterprises will engage in. The authors find that the type of industry has no effect on the networking of enterprises or the types of networks the enterprises will be involved in. Therefore, literature on the impact of the industry on networking is inconclusive. Based on the inconclusive literature and the dearth of South African studies that analyse the role of industry type on this networking, this study will investigate the relationship between industry type and the networking of the SME.

The literature discussed above indicates that business network formation or participation depend on various factors. Factors such as necessity, reciprocity, efficiency and stability have been alluded to in literature as some factors influencing firm networking. However, for SMEs, entrepreneurial characteristics of the SME owner/manager and the firm characteristics of the firm in particular affect SME networking. The fact that SMEs are characterised by inadequate resources, capital and experienced employees and are usually managed by the owner implies that the factors that affect the networking of SMEs may be traced to the entrepreneurial characteristics of the owner/manager and the firm characteristics of the SME. However, literature on the relationship between these entrepreneurial characteristics and firm characteristics and SME networking is inconclusive. In addition, no South African study has investigated the relationship between the entrepreneurial characteristics of the SME owner and the firm characteristics of the SME and networking of the SME. This study will thus investigate the relationship between entrepreneurial characteristics of the SME owner and the firm characteristics of the SME and networking of the SME.

However, acknowledging and investigating the factors that affect the networking of an SME is meaningless without investigating whether networking is actually beneficial to an SME. Literature alludes to the fact that most of the problems faced by SMEs, including their weak performance, can be attributed to the weak access to finance by SMEs. As Ageba and Amha (2006:64) attest, though finance is not everything, firms need finance to invest in new equipment and machinery, reach out to new markets and develop new products. In addition finance is required in order to cope with temporary cash flow shortages as well as to innovate, expand and grow the business. Therefore, it is necessary to establish whether networking will improve access to debt finance by SMEs, and ultimately, performance of SMEs. Thus, “*will an SME’s participation in networks assist in accessing debt finance?*” Section 4.5 will focus on empirical literature on the impact of networking on access to debt finance by SMEs.

#### **4.5 IMPACT OF NETWORKING ON ACCESS TO FINANCE**

Many authors have researched on the impact of networking on an enterprise’s access to finance. However, debt financing for SMEs in developing countries is mainly limited to bank loans and trade credit (Organisation for Economic Cooperation and Development, 2006:5). Therefore, most research studies have focused on the impact of networking on access to bank loans and credit by SMEs.

Talavera, Xiong and Xiong (2010) in their research on social capital and access to bank financing found that in order to access bank loans, enterprises have to belong to a network. According to the authors, in order for an enterprise to get a loan from a specific type of bank, an entrepreneur should access the relevant social network of the bank’s executives. The authors conclude that membership in business associations or networks increase the probability of obtaining a loan by approximately 14% (Talavera *et al.*, 2010:2).

Similar to Talavera *et al.* (2010) Pandula (2011) also conducted a research on SMEs access to bank finance. Pandula (2011) found that SMEs who are the members of SME representative societies or enterprises such as the Chamber of Commerce have a high

probability of accessing bank finance. According to Pandula (2011) these societies have close contacts and relationships with SME owners/managers and are aware of the problems and needs of their members. Therefore, these societies and other business associations can play a key role in assisting their members to access bank loans from banks Pandula (2011:270).

Atieno (2009) also found that SMEs that participate in business associations have better access to bank loans. In addition, membership to associations is important for SMEs as they facilitate access to financial services. Thus institutions, such as associations, which support the SME's capacity to access financial services, become an important avenue for strengthening SMEs (Atieno, 2009:13).

In a research conducted by Uzzi and Gillespie (2002) on how social relations and networks benefit enterprises seeking finance, the authors found that social embeddedness assists in providing advice, information and capital to small enterprises. Furthermore, enterprises are more likely to get loans and to receive lower interest rates on loans if their network of bank ties has a mix of embedded ties and arm's-length ties (Uzzi and Gillespie, 2002:595).

Further research on the role of networking on the access to debt finance by SMEs can be found in a research by Zhang *et al.* (2003) Biggs and Sha (2006) and Khwaja *et al.* (2011). The authors found a significant positive association between networking and access to debt. Similarly, Chua, *et al.* (2011) argue that most SMEs, given their small size and lack of resources, are not able to make use of social capital to gain debt finance and rely on the social networks of friends and family to gain access to debt finance. Ngoc *et al.* (2009) suggest that most studies relating to networking and access to debt have thus been inconsistent as to the types of networks that influence access to debt finance or whether networking significantly impacts on access to debt. The inconclusive studies on networking and access to debt finance imply that there is a gap in literature with regards to the role of networking on access to finance. Furthermore, no South African study has investigated the impact of networking (general, managerial and social networks) on access to finance by SMEs. Given the dearth of South African

studies on the impact of networking on access to finance and the inconclusiveness of international studies, this study will investigate whether networking has a significant positive impact on access to finance by SMEs in South Africa.

Literature alludes to the fact that access to finance is one of the causes of SME failure. Therefore, access to finance is vital for SME growth and survival. Furthermore, if networking can assist in SME access to finance, then networking may also, directly, have an impact on the performance of SMEs. Section 4.6 which follows will focus on the relationship between networking and SME performance.

#### **4.6 IMPACT OF NETWORKING ON SME PERFORMANCE**

In the networking theories discussed previously in this study, there is evidence that an enterprise engaged in different networks will gain advantages that will improve the performance of the enterprise. These theories also have empirical backing. Thrikalawa (2011:110) states that the idea of networking proposes that mutual support by SMEs, collaboration with larger enterprises and assistance from institutions such as chamber of commerce will lead to better performance. However, there are few studies that compare the value provided by social and business networks in improving the performance of an enterprise.

Florin, Lubatkin and Schulze (2003:375) suggest that social networks can provide value to members by allowing them access to the social resources embedded within a network. The resources embedded in social networks will reduce the amount of time and investment required to gather information and improve responses to the operating environment (Zhang *et al.*, 2003, cited in Chen and Chao, 2006:346). Burton, Wu and Prybutok (2010:123) posit that the resources exchanged through social networks have substantial value, including work-related resources of task advice and strategic formation.

Uzzi and Gillespie (2002:597) argue that social ties among individuals in business enterprises will shape economic action by creating unique opportunities and access to

those opportunities. Enterprises with individuals that have larger and more diverse sets of contacts are thus more productive. Therefore, it is beneficial for enterprises to accumulate their social capital as it promotes their business size, market share and performance (Chen *et al.*, 2007:227).

In line with the theories of social networks (Burt, 1992; Coleman, 1988) Kadushin (2004:29) states that social ties or networks also enhance trust between individuals. Social capital thus involves the mutual sense of reciprocity and trust which enables individuals to work together successfully and will restrict individuals from engaging in opportunistic behaviour. This allows individuals to internalise any positive externalities to their enterprises because of social pressures or mutual monitoring (Bandiera, Barankay and Rasul, 2008:726). The collective norms of trust, reciprocity and understanding in social ties allow social networks to serve as an essential tool for business performance (Lippert and Spagnolo, 2010:20). Furthermore, trust and commitment in social ties are essential in the formation and performance of business networks (Moeller, 2009:28).

According to (Hakansson and Ford, 2002:133) the role of formal business networks on business performance has also been researched by many authors with studies indicating that business networks do impact on business performance. Soh (2003:728) suggests that reciprocal relationships with direct partners will increase access to information because partners are more willing and able to share information. These business networks will enable an enterprise to gain more clients, shareholders, business associates, suppliers, and technical and market knowledge (Farinda, *et al.*, 2009:152). Therefore, the capacity of an enterprise to manage the balance between strong and open inter-enterprise network linkages is a key source of sustainable performance (Eisingerich and Bell, 2008:500).

However, Weerawardena and Mort (2006:22) argues that much of the existing literature on networking has only focused on the positive effects. In addition, Kenny (2009) posits that weak ties in networks are negatively associated with the performance of firms. Similarly, Chen and Liao (2008) disclose that when the social network of a firm's owner or manager becomes too high, the performance of the firm will decrease. Watson (2007)

also found that networking, beyond some level, starts having a negative impact on firm performance. This is because as the firm increases the level of networking, so too is the increase in administration and emotional costs which will start impacting negatively on the performance of the SME. Adler and Kwon (2002) (cited in Kenny, 2009:117) suggest that for small firms, over networking may be negative for the SME. This is because firms may become over embedded with existing network partners thus failing to identify potential business opportunities beyond the predefined networks.

Thus empirical literature on the impact of networking on the performance SMEs has produced mixed results on the impact of networking on performance of firms. In addition, no South African study has investigated the impact of networking on the performance of SMEs. Given the dearth of South African studies and the inconclusiveness of international studies, this study will investigate whether networking has a significant positive impact on the performance of SMEs in South Africa.

Having discussed the various constructs of networking, access to finance and performance, there is a link between the variables. The entrepreneurial characteristics of the SME owner and the firm characteristics of the SME are seen to have an impact on the networking of SMEs. In addition, networking also has a positive impact on access to debt finance by SMEs and the performance of SMEs. This is also represented in the conceptual model discussed in chapter 1.

#### **4.7 THE MEDIATING ROLE OF ACCESS TO DEBT FINANCE**

Weerawardena and Mort (2006:22) argue that much of the existing literature on networking has only focused on the positive effects yet networking may also negatively impact on performance. Empirical literature has investigated the mediating effect of social capital on firm performance. Whittall (2010:14) tests whether social capital mediates the effect of network structure on performance. Whittall (2010) provides evidence that the mediating effect of network social capital is significant in predicting network performance because social capital over structural holes increases access to

information and resources which leads to greater performance McDonald, Khanna and Westphal (2008:454) note that advice networks of a firm's manager or CEO mediates the effects of CEO incentive alignment and board monitoring on overall performance. This suggests that SMEs with high levels social capital should be able to access beneficial information from the networks which results in the identification of opportunities. In addition, firms with superior access to information may obtain opportunities on how to access finance and these firms will use debt to enhance their performance. Access to debt finance can, therefore, play the role of intermediate variable which can mediate the relationship between networking and the performance of SMEs. In addition, review of literature shows that no South African study has investigated whether access to finance mediates the relationship between networking and the performance of SMEs. Consequently, it is hypothesised that access to debt finance mediates the relationship between networking and the performance of SMEs.

However, mediation can be partial or full mediation Rucker, Preacher, Tormala and Petty (2011:360). Thus mediation can be direct or may only be partial where the mediator only partially influences the relationships between the variables.

#### **4.8 SUMMARY**

This chapter examined the concept of networking. The different definitions of networking were provided and from the discussion, it is evident that there are two distinct types of networks; business networks and social networks. Business networks can be between an enterprise and a competitor, supplier, credit institution or government. A social network, on the other hand, is the relationship between individuals. However, social networks have been identified as the most vital for SMEs as they influence the formation and participation in business networks. This is not to underscore the importance of business networks which are assumed to bring formality and legality to SMEs.

The basis of all networking theories is that an enterprise will benefit from engaging in business and social linkages with individuals or other enterprises. The phrase "no business is an island" is therefore maxim in networking theory. Every enterprise is

dependent on resources controlled in the external environment in order to compete. As Kenny (2009:124) suggests, the ability of enterprises to gain access to resources not under their control in a cost effective way through networking can influence their success.

The different approaches in the networking theory advocate that SMEs network in order to reduce transaction costs, gain information and resources or because of the social interaction that entails in everyday life. The transaction cost approach advocates that enterprises should form networks in order to reduce transaction costs. The resource dependency approach suggests that SMEs should form networks in order to gain access to resources controlled by other enterprises. Furthermore, the social capital approach suggests that enterprises are dominated by the social context of the relationships between individuals inside and outside the enterprise. Therefore, these social ties that link people provide the basis for the formation of business relationships as they influence business behaviour and decision making. However, central to these different theories is the fact that SMEs should form networks with their external environments.

Empirical literature is inconclusive as to whether networking actually enables access to debt finance and improves the performance of SMEs. In addition, literature is also inconclusive as to the factors that affect the networking of SMEs. Furthermore, there are no South African studies that have discussed the relationship between all these variables. Given the inconclusiveness of international empirical literature and the dearth of South African studies on (1) the factors affecting networking, (2) the impact of networking on access to debt finance by SMEs and (3) the impact of networking on performance of SMEs, this study will investigate these three variables. This study will also establish whether access to debt finance by SMEs mediates the relationship between networking and performance of SMEs. The next chapter will focus on the research methodology used to carry out the empirical study.



## CHAPTER 5

### RESEARCH METHODOLOGY

#### **5.1 INTRODUCTION**

The purpose of this chapter is to explain the research methodology to be followed in the empirical part of this study. Research methodology refers to the method by which data is gathered for a research project. *“It is the blueprint for the collection, measurement, and analysis of data in order to achieve the objectives of a research project”* (Cooper and Schindler, 2003:663). For a study to generate replicable and objective research results, it should follow the principles of scientific research which are defined as systematically and empirically based procedures (Cooper and Schindler, 2006:22). A properly planned research study will produce reliable results which are important in making informed decisions about future courses of action. This study will thus follow the business research process as detailed in Figure 5.1 in explaining the methodology used.

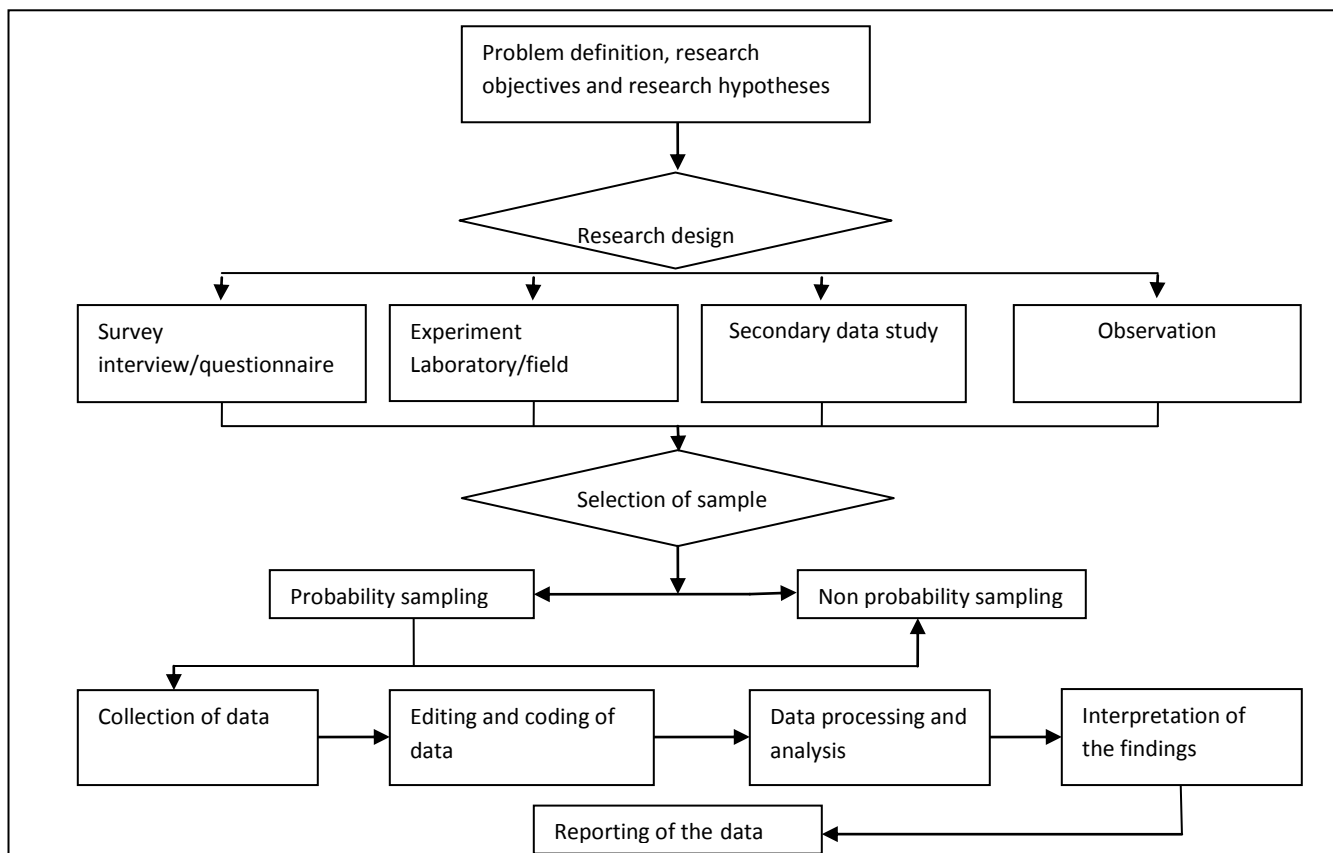
This chapter will detail the study unit, the population, and the sample of the research study. Additionally, the data collection method to be followed will be discussed. The rationale for choosing the data collection method will also be provided. The data analysis methods, which describes data handling, statistical tests and computer software programs to be used in analysing data, and the rationale for using those methods and tests, will be discussed. The reliability and validity of the data collected will also be discussed to establish the validity of the results as well as the limitations faced in the collection of data. Finally, the limitations of the research study will be highlighted in this chapter.

#### **5.2 BUSINESS RESEARCH PROCESS**

Business research process can be defined as a sequence of steps in the systematic collection and analysis of business data which describes how the research is designed and implemented. In addition, business research can be defined as the systematic and

objective process of planning, gathering, analyzing and reporting data which may be used to solve a specific problem or opportunity (Cant *et al.*, 2005:28). The next section will discuss the research process followed for this study. Figure 4.1 shows the seven steps of the business research process that will guide this study.

**Figure 5.1 Steps in the business research process**



Source: Adapted: Zikmund (2003:61).

## 5.2.1 Step 1: Problem Statement, Research Questions, research objectives and research hypotheses

### 5.2.1.1 Problem statement

The first step in research is to identify that there is a problem or gap which needs to be filled. Cant *et al.* (2005:40) define a problem as a prevailing situation that might be

affecting the society as a whole. Problems generally evolve from a combination of three well known sources which are existing theory, practical problem and observation. Proper problem identification is crucial for a researcher to come up with the most appropriate solutions.

According to Beck *et al.* (2004) SMEs, though vital to overcoming development challenges of high unemployment, high poverty and inequitable distribution of income, suffer from weak performance and a high failure rate. Against this background, the following research problems were derived:

- What is the relationship between the entrepreneurial characteristics and firm characteristics and networking by SMEs?
- What is the relationship between networking and performance of SMEs?
- What is the relationship between networking and access to debt finance by SMEs?
- Does access to debt finance mediate the relationship between networking and performance of SMEs?

#### **5.2.1.2 Research objectives**

Research objectives refer to the specific outcomes that are needed to solve a research problem or secure the advantages of an opportunity. It is important for researchers to state all the objectives of the research study to solve the specific problem or opportunity. Objectives explain the purpose of the research in measurable terms and define the standards of what the research should accomplish (Cooper and Schindler, 2003:45). This study pursued the following objectives:

- To investigate the relationship between entrepreneurial characteristics and firm characteristics and networking by SMEs.
- To investigate the relationship between networking and performance of SMEs.

- To investigate the relationship between networking and access to debt finance by SMEs.
- To investigate whether access to debt finance mediates the relationship between networking and performance of SMEs.

### **5.2.1.3 Research hypotheses**

A hypothesis refers to possible answers to the stated research questions. In specific terms, a hypothesis is defined as an unproven statement or proposition about a phenomenon that is of interest to the researcher. In addition, a hypothesis is also a proposition that can be empirically tested. Research hypotheses are derived from the research questions which are first translated into the null and the alternative hypotheses. The null hypothesis is denoted as  $H_0$  and is a statement that maintains that there are no differences between groups or no relationship between measured variables. The alternative hypothesis is denoted as  $H_1$  and maintains that there is a relationship between measured variables (Cooper and Schindler, 2003:119). In addition, research hypothesis guide the direction of the study and identifying the facts that are relevant and those that are not relevant. This suggests which form of research is likely to be appropriate for the research study. The hypotheses for this study were:

- $H_0$ : There is no significant relationship between the entrepreneurial characteristics of an SME owner and the firm characteristics of SMEs and networking of SMEs.
- $H_1$ : There is a significant positive relationship between the entrepreneurial characteristics of an SME owner and the firm characteristics of the SME and networking of SMEs.
- $H_0$ : There is no significant relationship between networking and performance of SMEs.
- $H_1$ : There is a significant positive relationship between networking and performance of SMEs.

H<sub>0</sub>: There is no significant relationship between networking and access to debt finance by SMEs.

H<sub>1</sub>: There is a significant positive relationship between networking and access to debt finance by SMEs.

H<sub>0</sub>: Access to debt finance does not mediate the relationship between networking and performance of SMEs

H<sub>1</sub>: Access to debt finance mediates the relationship between networking and performance of SMEs

### **5.2.2 Step 2: Research Design**

Research design is an overall plan for the methods to be used to collect and analyse the data of a research study (Hair, Wolfinbarger, Ortinau and Bush, 2008:32). Cooper and Schindler (2006:216) state that research design explains the logic behind the research methods, the research techniques as well as the research instruments or the research format. It is a detailed blueprint used to guide a research study towards its objectives. The research design involves coming up with the research approach that will help determine how the information would be obtained. The research design provides answers to questions such as: What techniques will be used to gather data? What sampling techniques will be used?

#### **5.2.2.1 Types of research design**

According to Cooper and Schindler (2003:181) the research design refers to the plans that promote the systematic management of data collection. The choice of the research design to be used in a study should depend on the nature of the research, the possible limitations and the underlying paradigm that informs the research project. Zikmund (2003:68) states that there are three basic types of research design, qualitative design, quantitative design and a hybrid between qualitative and quantitative research designs.

- **Qualitative research**

Saunders, Lewis and Thornhill (2003:18) state that qualitative research focuses on in-depth issues and is aimed at studying occurrences rather than drawing population-wide solutions. The ultimate aim of qualitative research is to offer a perspective of a situation and provide well-written research reports that reflect the researcher's ability to illustrate or describe the corresponding phenomenon (Chisnall, 2005:18). Because qualitative research involves the studying of occurrences and not on drawing population-wide conclusions, it is not appropriate and will not be used in this study.

- **Quantitative research**

Quantitative research generally involves the generation of statistical data from large-scale surveys using methods such as structured interviews and questionnaires in order to generalise the results to a wider setting (Tustin *et al.*, 2005:18). According to Cooper and Schindler (2003:563) the objective of the quantitative research approach is to develop and employ mathematical models, theories and/or hypotheses pertaining to a phenomenon. The research findings are then subjected to statistical manipulation to produce broadly representative data that can be extensively applied to the total population. Therefore, the requirements identified by Cooper and Schindler (2003) for a quantitative research approach to be followed include (1) the generation of models, theories and hypotheses, (2) the development of instruments and methods for measurement, (3) collection of empirical data, (4) modelling and analysis of data, and (5) evaluation of results.

The present study used the quantitative research design in gathering data from SMEs. The use of the quantitative research design is based on the properties of this design which allows for data analyses through statistics and hypotheses testing and also allows the generalisation of the results to a wider setting. In addition, the results obtained through quantitative research are objective and the design is more scientific as compared to qualitative research design (Ghauri and Gronhaug, 2005:109).

Saunders *et al.* (2003:18) state that there are three different types of research that can be used in quantitative research. The different types of research can be classified as exploratory research, descriptive research and explanatory research.

- **Explanatory research**

Exploratory research refers to initial research conducted to clarify and define the nature of the research problem or opportunity by giving ideas or insights as to how the research problem can be addressed. The information required is only loosely defined at this stage. Exploratory research collects information in an unstructured, informal manner. The purpose of this type of research is to narrow the scope of the research topic and, consequently, define the problem or opportunity clearly. Exploratory research can be conducted by investigating previous studies on the subject and informally investigating the problem through secondary data (Gerber-Nel *et al.*, 2005:30).

Exploratory research was used in this study through secondary data analysis by reviewing peer-reviewed journal articles, books, and other sources of information related to the study at hand. The exploratory research was conducted in order to obtain background information as to what was done by other researchers in relation to the research problem. This enabled the identification of gaps in literature that necessitated this research study. In addition, exploratory research was also conducted to formulate the research problem as well as the research hypotheses. Exploratory research also enabled the researcher to develop the questionnaire items.

- **Descriptive research**

According to Cant *et al.* (2005:33) descriptive research design provides answers to questions as to the who, the what, the where, and the how of the phenomenon of interest. However, it is important, under descriptive research, that the researcher already has an understanding of the underlying relationships of the problem area. In addition, Tustin *et al.* (2005:18) suggest that even though the researcher may have a general understanding of the research problem, conclusive evidence that provides answers to

the research question should still be collected to determine a course of action. Descriptive research was used in this study to establish whether there is a relationship between networking and access to finance and performance of SMEs.

- **Causal research**

Using causal research, the researcher investigates whether one variable causes or determines the changes in the value of another variable (Tustin *et al.*, 2005:18). In other words, causal research seeks to establish whether the occurrence or change in variable (x) will increase, or decrease, the probability of the occurrence of variable (y). Causal research is used in experiments as well as in statistically testing hypotheses. Therefore, causal research was implemented in this study to test the hypothesis using logistic and linear regression.

### **5.2.3 Step 3: Selecting the primary data collection method**

The next step in the scientific research process focuses on the data collection method. This section will elaborate on the various methods of data gathering as well as the questionnaire design and the reasons for using the method.

#### **5.2.3.1 Basic primary data collection methods**

Primary data is data that is observed or collected directly from first-hand experience. In addition, primary data is data or information collected to solve the specific problem at hand and this provides one of the major reasons why primary data collection is essential. Such information can be collected verbally or in a written form. Gerber-Nel *et al.* (2005:88) identify three primary data collection methods namely observation, experiment and survey.



- **Observation**

According to Cooper and Schindler (2003:114) observation refers to the process through which data is obtained by observers about the behavioural pattern of people, objects or occurrences. Through observation, the observer (interviewer) can obtain data regarding the respondent's by viewing and recording their behaviour. Cant *et al.* (2005:97) suggest that although observation improves accuracy, it can also increase observer bias. However, for the purpose of this study, observation was not used because the research study required vital and factual information from the SMEs which cannot be obtained through observation.

- **Experiment**

An experimental study involves taking measures of the phenomena under study, manipulating the phenomena, and then re-measuring the phenomena using the same procedure to determine if manipulation has changed the phenomena. An experimental setting can be conducted in a laboratory or in the field (Cooper and Schindler, 2003:115). However, this study did not use the experiment approach as this would not enable the researcher to obtain the desired results.

- **Survey**

According to Cant *et al.* (2005:33) a survey refers to the gathering of data by conducting interviews on people. In addition, surveys can be used to identify the characteristics of the target population by measuring four related concepts, namely: the what, the where, the when and the how. Cooper and Schindler (2003:663) identify the following reasons why survey research is used in most research studies:

- i. Surveys are useful in describing the characteristics of a large population,
- ii. Surveys are relatively inexpensive, and

- iii. Surveys can be administered to different locations using mail, email or telephone enabling a large sample to be interviewed which increases the significance of the results.

For these reasons identified by Cooper and Schindler (2003) the present study used the survey research method to collect data from respondents. In conducting a survey, the interviewing process may be done by the researcher through face-to-face interviews with the respondents, telephone survey, mail surveys or self-administered surveys.

According to Gerber-Nel *et al.* (2005:94) a face-to-face interview is a two-way conversation which is initiated by the interviewer to obtain information from the respondent. Face-to-face interviews enable the interviewer to establish a personal relationship with the interviewee and thereby receive higher-quality responses. Ambiguity and problems in understanding of questions and responses can be cleared up immediately while the interviewer, through observation, can obtain both verbal and non-verbal responses to specific questions when using face-to-face interviews. However, Cant *et al.* (2005:97) note that face-to-face interviews are considerably expensive as professional interviewers are expensive and the chances of interviewer bias are high due to the face-to-face interaction. In addition, face-to-face interviews can be slow and time-consuming and may be regarded as invasion of privacy by the respondent. For these reasons, the face to face interview method was not used to collect data in this study.

On the other hand, telephone interviews take place when respondents are telephoned in order to gather primary data about a specific research problem. Telephone interviews are usually conducted when the interviewee is in a distant location and the telephone survey is the most convenient method to obtain data (Gerber-Nel *et al.*, (2005:94). According to Cant *et al.* (2005:94) telephone interviews are advantageous because they are generally inexpensive as compared to door to door (face-to-face) interviews and they allow interviewees in different geographical locations to be interviewed. In addition, the direct response to questions does not allow the respondent to manipulate responses as answers are provided immediately. However, in telephone interviews, respondents

may refuse to answer certain questions while the method is only limited to a certain portion of the sample who actually own telephones. Telephone interviews may also be viewed by the respondents as an invasion of privacy and may also lead to interviewer bias. For these reasons, the research study at hand did not utilise the telephone survey.

According to Cooper and Schindler (2003:430) a mail survey takes place when the researcher selects a sample of names and addresses and sends questionnaires to these respondents with the aim of collecting data. A mail survey is regarded as the cheapest data collection method, applies the least pressure on respondents, is easy to administer and increases the likelihood that respondents provide honest responses to questions. However, mail surveys usually generate a low response rate, have an increased probability that the responses obtained are not representative of the sample and population and are difficult for interviewer to control who fills out the questionnaire. For the reasons mentioned above, this research study did not use the mail survey to collect data from respondents.

Because of the limitations of the survey methods discussed above, this study used the self administered questionnaire to collect primary data from the respondents. A self-administered questionnaire is a research questionnaire personally delivered to the respondent by the interviewer but completed by the interviewee with no interviewer involvement (Cooper and Schindler, 2003:36). The self administered questionnaire was used for the following reasons:

- i. Self-administered questionnaires ensure anonymity and privacy of the respondents, thereby encouraging more honest responses,
- ii. Self-administered questionnaire have proved to have a higher response rate than other gathering techniques such as mail surveys, and
- iii. Self-administered questionnaires are less expensive than other data gathering methods such as personal interviews where the researcher must be present with respondents at all times.

### **5.2.3.2 Questionnaire design and content**

- **Questionnaire**

The primary research instrument used by the researcher was the questionnaire. A questionnaire can also be referred to as a document consisting of a set of questions and scales to gather primary data (Hair *et al.*, 2008:170). The researcher used questionnaires for the research study because:

- i. Questionnaires help to ensure that information from different respondents is comparable;
- ii. Questionnaires increase the speed and accuracy of recording responses;
- iii. Questionnaires facilitate data processing;
- iv. Questionnaires are economical in terms of time and money; and
- v. Questionnaires enable the respondents to remain anonymous and be honest in their response.

- **Survey questions**

Researchers have the duty to select appropriate questions as well as design the questionnaire format that will suit the data collection requirements. The researcher should decide on the appropriate question format (open-ended and closed-ended questions) the wording and instructions for responding to the questions and scales, and the type of data required (nominal, ordinal, interval, or ratio) (Gerber-Nel *et al.*, 2005:150).

## **i. Open-ended questions**

In responding to open-ended questions respondents use their own wording to respond to the questions as no prior responses or options are provided by the researcher. This implies that respondents are not influenced by pre-determined responses and have to be original in answering the questions. Open-ended questions are ideal when the researcher is conducting exploratory research and does not know the possible responses to questions or statements. However, Gerber-Nel *et al.* (2005:150) suggest that the use of open-ended questions should be limited for self-administered questionnaires because open-ended questions require more thinking and effort on the part of respondents. The researcher did not use any open-ended questions for this research study because it is difficult to categorise respondents' responses as they vary from one respondent to another. Furthermore, open-ended questions are difficult to code and analyse.

## **ii. Close-ended questions**

Close-ended are also referred to as structured questions and specify the permitted responses available to the respondents. For self-administered questionnaires, respondent cooperation is improved if the majority of the questions are structured. In conducting this study, the researcher used closed-ended questions. These questions were used because of the advantages pointed out by Cooper and Schindler (2003:520). Close-ended questions are, primarily, easier to code and analyse than open-ended questions. Every response can be assigned a number or value so that a statistical interpretation can be made. Closed-ended questions are also better suited for computer and statistical analysis. If open-ended questions are analysed quantitatively, the qualitative information is reduced to coding and answers tend to lose some of their initial meaning. In addition, closed-ended questions can be more specific, thus more likely to communicate similar meanings while open-ended questions allow respondents to use their own words making it difficult to compare the meanings of the responses. However, close-ended questions can be categorised as being Likert-scale questions, dichotomous

questions, multiple choice questions and ordinal questions. This study did not make use of multiple choice questions or ordinal questions.

- **Dichotomous questions**

Dichotomous questions only have two response alternatives such as yes or no or male and female (Gerber-Nel *et al.*, 2005:152). Dichotomous questions were used in the biographical part of the questionnaire. In addition, dichotomous questions were also used in measuring networking and access to debt finance.

- **Likert-scale questions**

According to Cooper and Schindler (2003:420) the Likert scale is a simple statement that allows the respondent to evaluate any kind of statement in a subjective or objective manner by expressing their level of agreement or disagreement with the statement. A three point Likert-scale question was used to measure the types of networks that enabled SMEs to gain information and resources with 1 meaning unimportant, 2 being important and 3 being very important. In addition, a five point Likert-scale was also used to measure the performance of SMEs with 1 meaning strongly disagree, 2 being disagree, 3 being neither disagree nor agree, 4 being agree and 5 being strongly agree. The researcher used Likert-scale questions because Likert scale questions eliminates the development of response bias amongst the respondents and also reduce interviewer bias. Likert scale questions also enable standard response items which are easy to code, analyse and compare amongst the respondents. In addition the Likert scale can be used to assess attitudes, beliefs, opinions and perception.

- **Items included in the questionnaire**

Section A of the questionnaire used in this study focused on the entrepreneurial characteristics of the business owner as well as the firm characteristics of the SME. Questions in section A were necessary to assess the entrepreneurial characteristics and the firm characteristics of SMEs. In addition, the questions included in section A enabled

the researcher to test whether the entrepreneurial characteristics and firm characteristics have an impact on the networking of the SME. Section B focused on the different types of networks that SMEs engage in and the benefit of each of these networks in information and resource acquisition. Section B was integral to the research study as it represents the major phenomena under measure. Section C focused on the access to debt by SMEs, specifically, access to bank loans and access to trade credit. Section D focused on the performance of SMEs. Section D was necessary in identifying how SMEs perform, whether strong or weak.

#### **5.2.3.3 Pre-testing (pilot study)**

According to Churchill (2002:250) pre-testing is the testing of the questionnaire on a small sample of respondents to identify and eliminate potential problems with the questionnaire. When conducting a pre-test, the survey questionnaire is given to a small, representative group of respondents who are asked to fill out the questionnaire and provide feedback to researchers. The essence of a pre-test is to have respondents pay attention to words, phrases, instructions, and question sequence. The questionnaire was pre-tested on twenty (20) respondents. Respondents were requested to pick out any irregularities that they found in the questions and also anything respondents found difficult to understand. Returned questionnaires were then checked for unanticipated problems with the question sequence and question structure. This was reflected by the number of incomplete questionnaires, skipped questions or circling the same answer for all questions within a group.

As pointed out by Churchill (2002:251) the researcher pre-tested the questionnaire because pre-testing:

- Permits a thorough check of the planned statistical and analytical procedures, giving the researcher a chance to evaluate the usefulness of planned statistical and analytical procedures for the data. The researcher may then be able to make needed alterations in the data collecting methods, and therefore, analyse data in the main study more efficiently,

- Saves a lot of time and money. The pre-testing almost always provides enough data for the researcher to decide whether to go ahead with the main study,
- Can reduce the number of unanticipated problems because the researcher has an opportunity to redesign parts of the study to overcome difficulties that the pilot study reveals, and;
- Enables the researcher to determine how much time respondents required in completing the survey, to revise instructions, and modify the questions.

#### **5.2.4 Step 4: Sample Design**

Saunders *et al.* (2003:18) suggest that in most research studies it is practically impossible to collect data from the entire population under study due to the possession of low budgets and time constraints for most researchers. Thus, most researchers use population samples which are usually a representative sub-set of the entire population. Cooper and Schindler (2003:179) define sampling as the process of selecting a representative part of population. In order to get a true representative sample of the population probability sampling is used.

##### **5.2.4.1 Population**

Hair *et al.* (2008:33) posit that a target population is a specified group of people or objects from which questions can be asked or observation made to obtain information from. The population encompasses all the units under study from which the researcher wishes to draw conclusions from. This study focused on all SMEs operating in the Buffalo City Municipality area in the Eastern Cape province of South Africa. The Buffalo City Municipality comprises the towns of King Williams Town, Bhisho and East London. The population of SMEs was obtained from the Yellow Pages Telephone Directory and 612 SMEs were identified.



#### **5.2.4.2 Sampling technique**

Hair *et al.* (2008:131) suggest that sampling methods are divided into two categories, namely probability and non-probability methods. In probability sampling each unit in the target population has a known non-zero chance of being selected for the sample. A non-probability sample is when the probability of selecting each unit is not known, that is, selection of sampling units based on intuitive judgement or knowledge of the researcher.

This study made use of the probability sampling technique. This is because, as suggested by Bryman and Bell (2003:101) it allows the researcher to make inferences from the collected information from a random sample to the population from which the sample was selected.

According to Cooper and Schindler (2003:192) there are four major types of probability sample, namely; systematic sampling, stratified sampling, cluster sampling and simple random sampling.

- **Systematic sampling**

Using the systematic sampling method, every  $n^{\text{th}}$  element in the population is sampled, beginning with a random start of element in the range of 1 to  $n$ . Systematic sampling selects an element of the population at a beginning with a random start and following the sampling fraction selects every  $n^{\text{th}}$  element. The main advantage of systematic sampling is that it is simple to design and it is also easy to determine sampling distribution of mean or proportion. The disadvantage is that periodicity within the population may skew the sample and results.

- **Stratified sampling**

Most populations can be segregated into several mutually exclusive sub-populations or strata and this process by which the sample is construed to include elements from each of the segments is called stratified random sampling. The main advantage of stratified

sampling is that it provides data to represent and analyse subgroups. However, stratified sampling has a main disadvantage that there is increased error because subgroups are selected at different rates. In addition, stratified sampling is time consuming.

- **Cluster sampling**

In cluster sampling, the population is divided into mutually exclusive and collectively exhaustive clusters or subgroups after which certain clusters are selected in the sample. The advantage of cluster sampling is that it is easy and cost effective. However, cluster sampling is often imprecise and results are difficult to compute and interpret.

- **Simple random sampling**

The simple random sampling method represents the purest form of probability sampling where each element has a known and equal chance of selection. This study used the simple random sampling method. Simple random sampling is simple to apply and data analysis is reasonably easy to conduct. In addition, simple random sampling has a sound mathematical basis. The sample was obtained from all the elements of the population.

#### **5.2.4.3 Sample size**

A sample should be a relatively true representation of the target population in terms of the respondents. Although there are no general rules, generally a sample size larger than 30 and less than 500 are appropriate for most research studies (Robert-Lombard, 2006:87). Hair *et al.* (2008:138) argued that in determining the sample size, the researcher must consider how precise the estimates should be and how much time and money are available to collect the required data. This is because data collection is generally one of the most expensive components of a research study. The sample size can be calculated using the RAOSOFT sample size calculator. The RAOSOFT sample size calculator gives a recommended minimum sample size for a particular target population. RAOSOFT takes into consideration four factors in determining the sample

size which include the margin of error, the confidence level, the population and the response distribution.

- **Margin of error**

The margin of error can also be referred to as the confidence interval. The margin of error measures the precision with which an estimate from a single sample approximates the population value. In business research, the margin of error should range from three percent (3%) to seven percent (7%). However, five percent (5%) is the most commonly accepted margin of error in business research.

- **Confidence level**

The confidence level is the estimated probability that a population estimate lies within a given margin of error. It is the amount of uncertainty that the researcher can tolerate. In business research, the confidence interval varies from ninety percent (90%) to one hundred percent (100%). However, ninety-five percent (95%) is the most commonly accepted confidence level in business research.

- **Population**

This refers to the total group of people or elements from which information is to be gathered when conducting primary research to solve the research problem (Cant et al., 2003:124). Therefore, the population in this study refers to all the SMEs operating Buffalo City Municipality.

- **Response distribution**

The response distribution answers the question, “*for each question in the questionnaire, what does the researcher expects the answer to be?*” If the answer is skewed one way or the other, the population is probably skewed too. 50% is usually used as the response distribution as it gives the largest sample size.

Using the RAOSOFT sample size calculator at 5% margin of error, 95% confidence level and a response distribution of 50%, the sample size for SMEs was 237.

### **5.2.5 Step 5: Gathering the Data**

This section focuses on the various methods that were used in the actual collection and cleaning of data. The data was gathered through the use of self-administered questionnaires which were distributed by the researcher with the aid of one field-worker. Questionnaires were distributed at the places of business of the SMEs. A similar method was used by Watson (2007) in a research on the performance of SMEs in Australia.

#### **5.2.5.1 Missing values**

The treatment of missing responses poses problems in business research particularly if the proportion of missing values is more than ten percent (10%). The researcher is often faced with a dilemma on how to treat missing values; that is whether to include or exclude responses from respondents with a large proportion of missing responses. The strategy to be adopted to solve missing values is influenced by factors such as the available sample size and the size of the important groups in the sample. Graham (2009:551) proposed three basic approaches to apply when dealing with missing values. Firstly, to leave the data as it is with the missing values, secondly to screen out all incomplete questionnaires and thirdly to fill in the incomplete questionnaires with average responses obtained from responses provided by other respondents. The approach to missing values is controlled by the Statistical Package for Social Sciences (SPSS). The SPSS will either use list-wise deletion or pair-wise deletion for treating missing values reducing the researcher's options to two.

- **List-wise deletion**

For list-wise deletion, SPSS will not include cases that have missing values on the variable(s) under analysis. If only one variable is been analysed, list-wise deletion simply

analyses the existing data. If multiple variables are being analysed, list-wise deletion removes cases (subjects) if there is a missing value on any of the variables. List-wise deletion is often viewed as an extreme option, which may result in small sample sizes. However, deleting large amounts of data is undesirable because data collection is costly and time consuming. In addition, list-wise deletion results in unnecessary loss of data as it removes all data from subjects who may have answered some of the questions, but not others (Graham, 2009:551).

- **Pair-wise deletion**

Using pair-wise deletion, SPSS will include all available data. Unlike in list-wise deletion which removes cases that have missing values on any of the variables under analysis, pair-wise deletion only removes the specific missing values from the analysis. In other words, all available data is included.

However, another option is to replace the missing values through imputation. . This could be done by mean substitution or regression substitution. Mean substitution replaces the missing value with the mean of the variable. Regression substitution uses regression analysis to replace the missing value. Regression analysis is designed to predict one variable based upon another variable, so it can be used to predict the missing value based upon the subject's answer to another variable. For the purpose of this research study, the pair-wise deletion method was used as there were only four (4) cases of missing values.

#### **5.2.6 Step 6: Data Analysis**

The objective of this section is to indicate how the data which was collected was analysed by the researcher. Data analysis usually involves the reduction of accumulated data to a manageable size, developing summaries, looking for patterns and applying statistical techniques. It also includes the interpretation of research findings in the light of the research questions, and determines if the results are consistent with the research hypotheses and theories. Data analysis is a process of gathering, modelling, and

transforming data with the goal of highlighting useful information, suggesting conclusions, and supporting decision making (Cooper and Schindler, 2003:87).

Responses obtained from questionnaires were analysed and evaluated using the Statistical Package for Social Sciences (SPSS). Statistical analyses included descriptive statistics, the T-test and logistic and linear regression analyses. The Cronbach's alpha was used to measure reliability. Validity was ensured through various consultations with a statistician and a panel of experts to evaluate the research instrument for conceptual clarity and by pre-testing the research instrument in a pilot study. The normality of the data was determined using the Kolmogorov-Sminov test.

#### **5.2.6.1 Measuring variables**

- **Networking**

According to Lechner *et al.* (2006:526) there is no concrete measure of networking. However, networking can be measured through a series of questions that were included in the questionnaire. Therefore, dichotomous questions (Yes or No) were utilised where respondents were asked to indicate the sources of networking they participate in. These sources were provided through a list of sources of potential networks which include trade associations, competitors, friends, family, associates to determine whether they actively participate in general, managerial or social networks. A similar approach has also been used in Premaratne (2002) Lechner *et al* (2006) and Watson (2011).

For the purposes of this study, general networks included membership in professional associations, attendance of trade fairs and business seminars, relationships with government agencies, use of accountants and external consultants. Managerial networks included relationships with suppliers, competitors and customers. Social networks included relationships with friends and family/relatives and membership in social clubs or associations.

- **Access to debt finance**

Following research conducted by Ngoc *et al.* (2009) Talavera (2010) this research study will measure access to finance through access to bank loans and access to trade credit. Therefore, questions such as “*Have you had access to bank loans?*” and “*Have you had access to trade credit?*” were used as measures of access to finance.

- **Performance**

According to Lechner *et al.* (2006:526) there are no commonly accepted performance measures for SMEs which creates a difficult decision in research in establishing SME performance measures. In addition, given the sensitivity surrounding profit figures most SME owners/managers are reluctant to provide their financial details (Watson, 2007:859). This creates a difficulty in research to obtain a direct measure of SME performance. However, following studies by Fatoki (2011) and Thrikawala (2011) performance can be measured indirectly using both financial and non-financial measures. Therefore, performance was measured through statements measured by a Likert scale measuring the satisfaction or dissatisfaction of SMEs on different financial and non-performance measures. Questions such as “You are satisfied with the level of sales growth of your firm?”; “You satisfied with the level of profitability in the last three years?” were used as measures of financial performance. On the other hand, questions such as “You are satisfied with the level of performance of your firm compared to your competitors?” and “You are satisfied with the overall performance of your firm?” were used as non-financial measures of performance.

#### **5.2.6.2 Descriptive statistics**

Descriptive statistics are used to describe the main features of a collection of data in quantitative terms. In addition, descriptive statistics provide simple summaries about the sample and the measures. Used in conjunction with simple graphics analysis, descriptive statistics form the basis of virtually every quantitative analysis of data. Descriptive Statistics are also used to present quantitative descriptions in a manageable

form. In a research study we may have a lot of measures. Descriptive statistics enables the researcher to simplify large amounts of data in a sensible way. Each descriptive statistic reduces a lot of data into a simpler summary (Gerber-Nel *et al.*, 2005:204).

In this study, the following descriptive statistics were used:

- **The distribution**

The distribution is a summary of the frequency of individual values or ranges of values for each variable. Tables and bar charts and pie charts were used.

- **Central tendency**

The central tendency of a distribution is an estimate of the "center" of a distribution of values. The mean and standard deviation were used. The mean or average is probably the most commonly used method of describing central tendency. The median is the score found at the exact middle of the set of values. The standard deviation is a more accurate and detailed estimate of dispersion. The standard deviation shows the relation that set of scores has to the mean of the sample.

#### **5.2.6.2 Bivariate data analysis**

Bivariate data analysis was used in this study through the use of the t-test and ANOVA in testing the differences in the results. According to Cooper and Schindler (2003:531) Bivariate data analysis is analysis and hypothesis testing when the investigation concerns simultaneous investigation of two variables. This may be done using tests of differences or measures of association between two variables at a time. Both logistic and linear regression tests were used to test the association.

- **Regression models**

Regression is a statistical analysis assessing the linear association between variables. In other words, it is used to find the relationship between two variables. This model



represents the dependent variable as a function of one independent variable subject to a random 'disturbance' or 'error', which is assumed to have a constant value of zero (Cottrell, 2003:1). Logistic regression models were used to analyse how the individual networks affect access to finance and performance of SMEs. This follows research conducted by Premaratne (2002) Ngoc *et al.* (2005) Lechner *et al.* (2006). However, in testing the relationship between overall networking of SMEs and the performance of SMEs, a linear regression model was used.

The hypotheses developed for this study were thus tested. Specifically, the regression models tested whether the performance (dependent variable) of SMEs is positively related to networking (independent or explanatory variable). Studies including Premaratne (2002) Ngoc *et al.* (2009) Watson (2011) have also used a linear regression analysis to analyse the dependency of access to finance and performance on networking.

Therefore, the dependence of the dependent variable (networking) on several explanatory variables (size of the SME, age of SME, industry the SME operates in, education of SME owner, age of SME owner and gender of SME owner) were tested. This approach is also used in Hoang and Antoncic (2003) [age and education], Stuart and Sorenson (2003) [industry and size] and Watson (2011) [gender].

The regression model can be shown below:

$$N = \beta_0 + \beta_1 \text{Age} + \beta_2 \text{Gender} + \beta_3 \text{Education} + \beta_4 \text{SME age} + \beta_5 \text{SME size} + \beta_6 \text{Industry} + \beta_7 \text{Legal} + \varepsilon_{r..1}.$$

Where **N** - Networking.

**$\beta_0$**  - Constant value.

**$B_1$**  - Age of owner

**$B_2$**  - Gender of owner

**$B_3$**  - Education of owner

**$B_4$**  - SME age

**$B_5$**  - SME size

**$B_6$**  - Industry

**$B_7$**  - Legal status of SME

**$\varepsilon_{r..1}$**  - Is the error or disturbance term

The second regression model tested whether there is a relationship between networking and access to debt finance by SMEs. This model can be shown below:

$$Af = \beta_0 + \beta_1 \text{Networking} + \varepsilon_r \dots \dots \dots 2.$$

Where: **Af** - Access to debt finance.

**$\beta_0$**  - Constant value

**$B_1$**  - Networking

**$\varepsilon_r$**  - Is the error or disturbance term.

The third regression model tested whether there is a relationship between networking and performance of SMEs. This model is shown below:

$$P = \beta_0 + \beta_1 \text{Networking} + \varepsilon_r \dots \dots \dots 3.$$

Where: ***P*** - SME performance

***$\beta_0$***  - Constant value

***$\beta_1$***  - Networking

***$\varepsilon_r$***  - Is the error or disturbance term.

### ➤ Components of the regression models

- **Dependent variables and Independent variables**

The dependent variable in the first regression equation was networking denoted by *N* while the independent variables were the entrepreneurial characteristics of the SME owner and the firm characteristics of the SME. The hypothesis under this regression model suggested that there was a significant positive relationship between entrepreneurial characteristics and firm characteristics and SME networking. In other words, it was assumed that the types of networking by SMEs were affected by the entrepreneurial characteristics and firm characteristics of the SME.

In the second regression model, access to debt finance denoted by *Af* was the dependent variable while networking was the independent variable. The hypothesis under this regression model suggested that there was a significant relationship between access to debt finance and networking of the SME. In the third regression model, performance denoted by *P* was the dependent variable while networking was the independent variable. The hypothesis under this regression model suggested that there was a significant positive relationship between networking and performance of SMEs. In other words, it was assumed that performance of SMEs was dependent on the networking of the SME.

### **5.2.6.3 Test of differences**

The test of differences can be tested using the t-test and ANOVA test.

- **T-test**

According to Coakes (2005:73) t-test is used to determine whether a significant difference exists between two sets of scores. In this study, the t-test was used to determine if relationship between the entrepreneurial characteristics of the SME owner and the firm characteristics of the SME and the networking of SMEs.

- **ANOVA test**

ANOVA test was used to test for significant differences in situations where the variables were more than two. Specifically, ANOVA was used to test whether access to debt finance fully, or partially, mediates the relationship between networking and performance.

#### **5.2.6.4 Statistical Package for Social Sciences (SPSS)**

SPSS was the statistical software used to analyse data in this study. SPSS is computer software used for statistical procedures in the social sciences field. SPSS is an integrated set of modules used for manipulating, analysing and presenting data. The SPSS package consists of a statistical number of written flexible computer programs which can vary on the maximum or minimum sample size used in research. SPSS has almost all statistical features available and is widely used by researchers to perform quantitative analysis (Coakes, 2005:5).

#### **5.2.6.5 Validity, reliability and errors**

The quality of the collected data needs to be checked according to the following criteria: validity, reliability and errors. To ensure the creditability of the findings and conclusions of this study, steps were taken to ensure both validity and reliability of the instrument and reduce the errors (Saunders *et al.*, 2003:18).

- **Validity**

According to Zikmund (2003:302) validity refers to whether a research instrument actually measures what it is supposed to measure given the context in which it is applied. The validity of a measure depends on how accurately it measures the phenomena it is supposed to measure. Cooper and Schindler (2006:289) summarise the different measures of validity which are shown in Table 5.2.

**Table 5.1: Types of validity**

<b>Type of validity</b>	<b>What is measured</b>	<b>Methods</b>
<b>Content</b>	Degree to which the content of the items adequately represent the universe of all relevant items under study	Judgmental or panel evaluation with content validity ratio
<b>Criterion</b>	Degree to which the predictor is adequate in capturing the relevant aspects of the criterion	Correlation
<b>Construct</b>	Identifies the underlying constructs being measured and determine how well the tests represents them	Judgmental; correlation of proposed tests with established one; Factor analysis

Source: Cooper and Schindler (2006:289).

To ensure validity of the study, the researcher used a panel of experts to evaluate the research instrument for conceptual clarity. The researcher also pre-tested the research instrument in a pilot study and sampling was carried out using probability sampling method to ensure external population validity. In addition, the sample size and a comprehensive review of literature was conducted for theoretical constructs and empirical conclusions.

## ➤ Reliability

Reliability is the likelihood that a research instrument will produce similar results each time the instrument is used. The reliability of an instrument is dependent on its ability to produce the same results when used repeatedly (Babbie and Monton, 2002:81). The Cronbach's alpha was used as the measure of reliability. The Cronbach's alpha is a test for a survey's internal consistency. It is also called the scale reliability test. The Cronbach's alpha is a measure of how well each individual item in a scale correlates with the remaining items. Cooper and Schindler (2003:417) note that a score of 0.7 is the acceptable reliability coefficient but lower thresholds are sometimes used in the literature. In addition, reliability was also ensured by pre-testing the research instrument in the pilot survey, discussing with researchers who have previous experiences in related studies and keeping open-ended questions to a minimum.

To further ensure reliability, the researcher reduced the number of research errors. According to Cooper and Schindler (2003:332) among the commonly cited errors are response errors and non-response error. Response errors occur when the respondent, intentionally or unintentionally, provides inaccurate answers to the questions asked. This can be caused by respondent's inability to fully comprehend the question due to fatigue, boredom, or misinterpretation of the question. On the other hand non-response errors occur when some elements or respondents of a sample are not contacted, and hence their responses totally excluded in the study. Research errors were reduced by using the self administered questionnaire, follow-up telephone calls to the respondents, eliminating sensitive questions from the research instrument and pre-testing the questionnaire.

### **5.2.7 Step 7: Reporting the Results**

According to Zikmund (2003:61) reporting the results is the end of the research process. It is at this stage of the research that the researcher reports the research findings, conclusions and makes recommendations (Gerber-Nel *et al.*, 2005:234).

### **5.3 ETHICAL CONSIDERATIONS**

According to Cant (2005:11) ethics refer to commonly accepted standards of right and wrong behaviour. The researcher ensured that ethical considerations were practiced. All the participants were voluntarily interviewed and their names were kept confidential. The responses provided were kept in confidentiality as the respondents were not asked to fill in their names or give any identification. The researcher also informed the respondents on how the information collected from them is going to be used. A cover letter to thank each respondent was also sent to each respondent.

### **5.4 SUMMARY**

This chapter provided a discussion of the research methodology applied to the present study. The steps in the business research process were discussed. This included a comprehensive discussion of the scope of the survey, the sampling method and the organisation of the survey. Furthermore, the data collection technique used for the research study was also discussed and the rationale for using the selected methods of data collection (the questionnaire) was also highlighted. In addition, data processing and the statistical packages used to analyse data were highlighted. Finally, the chapter examined the reliability and validity of the research instrument as well as the ethical considerations which were followed.

The following chapter presents the research results. The chapter focuses on the responses provided by the respondents to the questions in the questionnaire. Tables will be used in conjunction with pie charts and bar graphs to aid in the analysis of data. Finally, results obtained on each question in the questionnaire will be compared with empirical studies to confirm their consistency or inconsistency. Hypotheses will also be tested using regression analyses to determine the relationship between entrepreneurial characteristics and firm characteristics and networking, to determine the relationship between networking and access to debt finance by SMEs, and to determine the relationship between networking and performance of SMEs.

## **CHAPTER 6**

### **RESEARCH RESULTS**

#### **6.1 INTRODUCTION**

Chapter six presents issues of research methodology including the research design, the sampling method and the data collection and data analysis methods that were used for this study. The chapter also presents and interpretes the empirical findings of this research study. The hypotheses of this study were tested using statistical analysis and the results were presented. The hypotheses were accepted or rejected as a result of the statistical analysis. In the presentation of the results, the series of questions relating to a specific hypothesis will be stated. Each question was restated as in the research instrument and the justification of asking that particular question was highlighted and supported. The responses to each question were presented and analysed at the end of each series of questions pertaining to a specific hypothesis.

To assist in data analysis, tables, bar charts and pie charts were used. The presentation of the results followed the structure of the questionnaire. To statistically measure and interpret the relationship between the dependent and independent variables, regression equations were used. The testing of the hypothesis was done using Statistical Package for Social Sciences (SPSS) with the assistance of the personnel at the Statistics Department at the University of Fort Hare.

#### **6.2 NORMALITY OF THE DATA**

The normality of the population distribution is tested in order to determine whether the data was normally distributed using the Skewness and Kurtosis tests. The Skewness and Kurtosis tests look at the shape of the distribution and are used with interval and ratio data. These two tests are very useful when assessing the normality of the data. When doing the tests the data is exactly normal if the value for Skewness and the value for Kurtosis are zero. Positive values for skewness indicate a positive skew, while



negative values for skewness indicate a negative skew. Similarly, negative values for kurtosis indicate a distribution that is flatter (Glas and Pimental, 2008:909). Schafer (2000:45) states that if the ratio of skewness and kurtosis to their respective standard errors is above 1.96, the data are probably not normally distributed. In this study the ratios of skewness and kurtosis to their respective standard deviations are calculated and all values are below 1.96 indicating the normality of the data. A further test of normality used is the Kolmogorov- Smirnov test which also confirms the normality of the data since the significance level was greater than .05.

Section 6.3 discusses the response rate of the research.

### **6.3 RESPONSE RATE**

The response rate, which can also be known as the completion rate in survey research refers to the ratio of the number of people who answered the survey to the total number of the sample. Table 6.1 presents the information on the response rate.

**Table 6.1 Sample size and extent of non-response rate**

<b>Sample category</b>	<b>Number</b>	<b>Percentage (%)</b>
Initial sample	237	100
Unavailable	49	21
Discarded	27	11
<b>Total sample loss</b>	<b>76</b>	<b>32</b>
<b>Usable sample</b>	<b>161</b>	<b>68</b>

From Table 6.1, it can be noted that 49 respondents were unavailable for the survey and this left 188 respondents available. However, out of the 188 respondents that were left 27 did not respond or discarded the questionnaire. The researcher made some efforts to contact these respondents through several telephone calls; however, the respondents did not seem interested. Therefore, 161 respondents representing 68% percent of the

respondents were available for the survey. Section 6.4 will now examine the survey results.

## **6.4 SURVEY RESULTS ON A QUESTION TO QUESTION BASIS**

This section will present the results from the field work conducted, on a question to question basis.

### **6.4.1 Section A: Entrepreneurial and Firm characteristics**

This section of the questionnaire presents the entrepreneurial characteristics of the SME owners or managers.

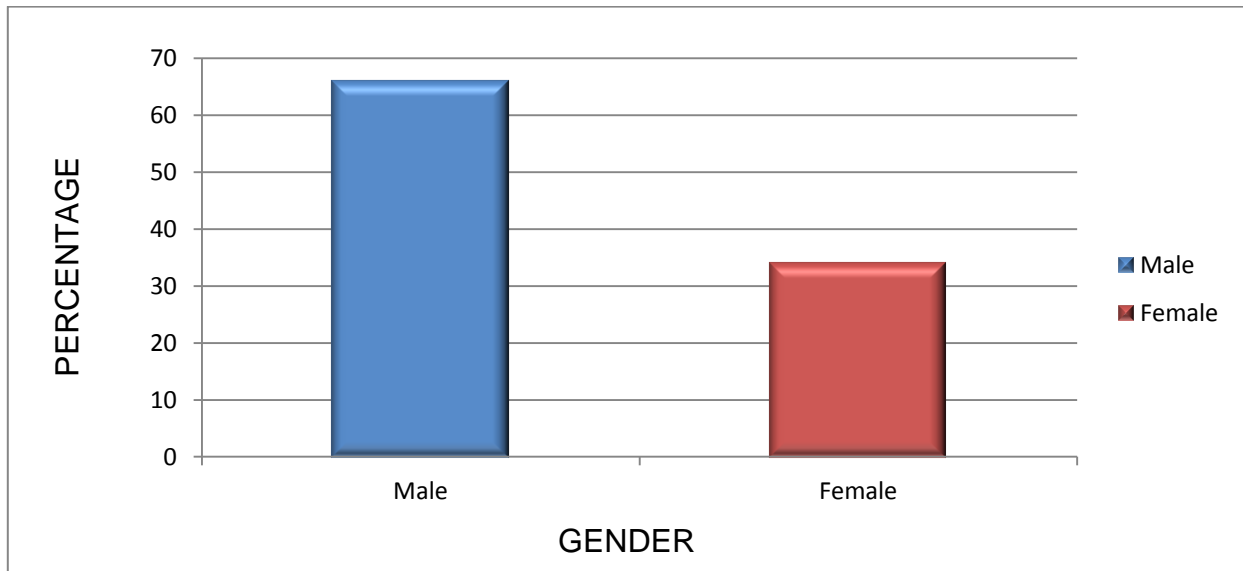
#### **6.4.1.1 Entrepreneurial characteristics**

This section of the questionnaire presented the entrepreneurial characteristics of the SME owners or managers. Results of questions such as the gender of the respondent, age of the respondent and the educational qualifications were discussed as part of the entrepreneurial characteristics. The responses to questions 1 to 3 are discussed below.

- **Question 1: Please indicate your gender**

This question relates to the gender of the respondent. The inclusion of this question was necessary to enable the researcher to obtain information as regards to whether the respondents were male and female. Furthermore, this question assisted in establishing whether there was any relationship between networking capability and gender of the SME owner/manager. Figure 6.1 shows the graphical representation of the gender of the respondents.

**Figure 6.1: Gender of respondents**



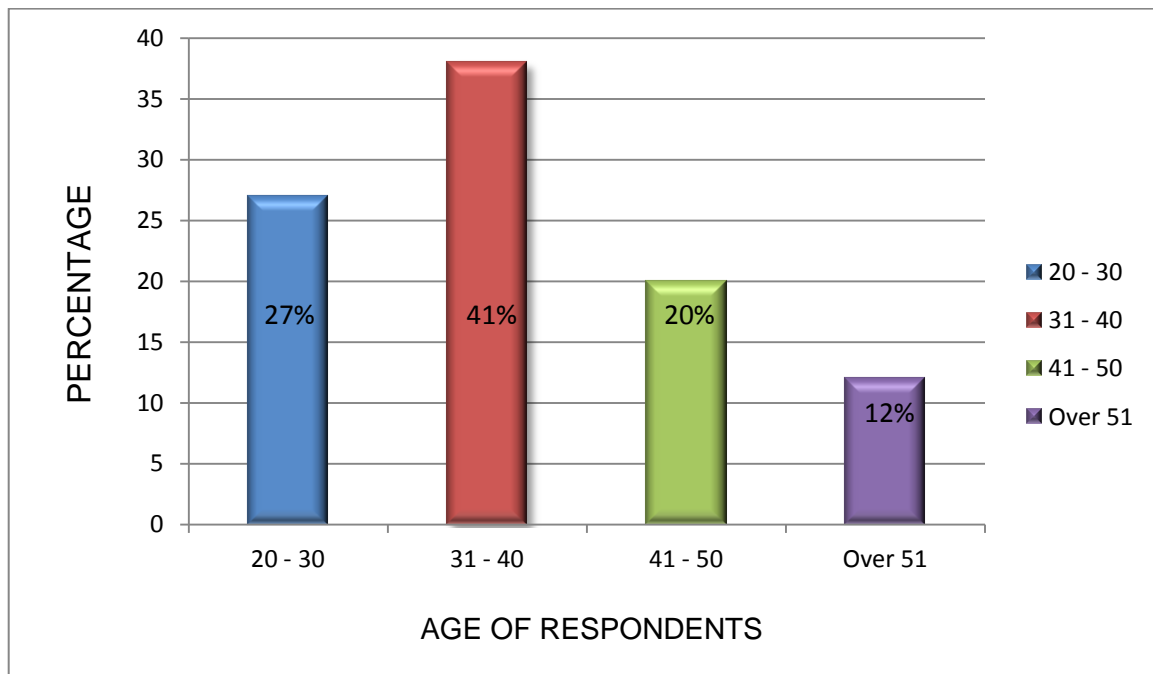
**Comment**

Of the respondents interviewed, 106 (66%) of the respondents were males while 55 (34%) were females. This result is consistent with literature on gender and small business ownership. Weber and Schaper (2003) also found that there are more male SME owners in Australia than female SME owners. The results indicated that approximately 67% of all SME owners are male while only 33% are female in Australia. Dzansi (2004) in a study on SMEs in South Africa also found that most SMEs (55%) in South Africa are owned by males while only 45% are owned by females. Similarly, Sha (2006) in a study of SMEs in South Africa also found that most SMEs were owned/managed by males (80%) while only 20% were owned/managed by females.

- **Question 2: Please indicate your age**

This question relates to the age of the respondent. By knowing the age of the respondent, the researcher will be able to establish whether the age of the SME owner is related to the ownership and performance of the SME. In addition, it will also assist in deducing whether age has an effect on the networking of the SME owner/manager. Figure 6.2 will provide a graphical illustration of the results.

**Figure 6.2: Age of respondents**



**Comment**

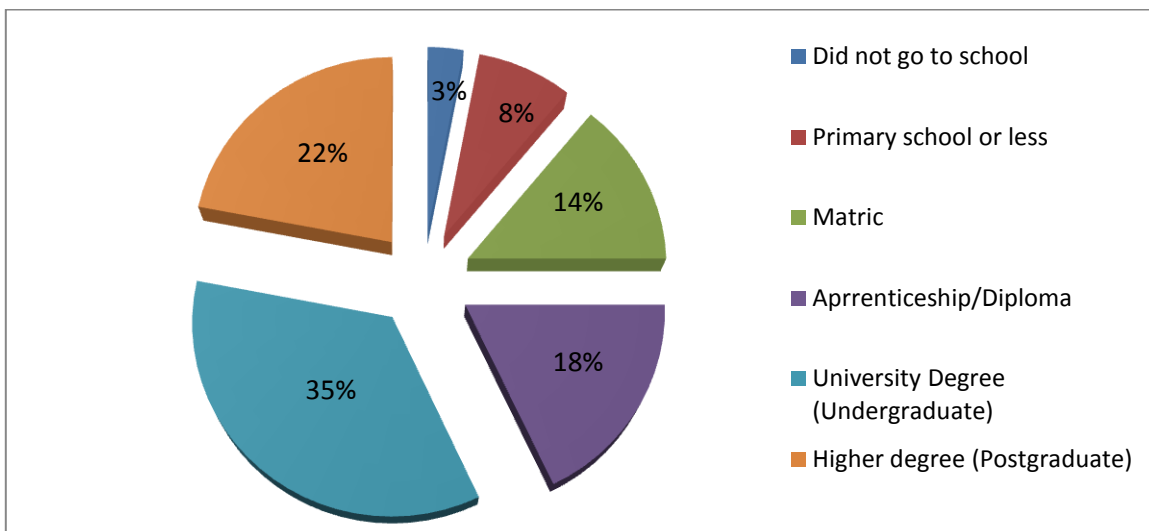
Of the 161 respondents who participated in the survey, 44 (27%) of the respondents were between the ages of 20 to 30 years. 66 (41%) of the respondents were between the age of 31 to 40, 32 (20%) were between the ages of 41 to 50 while the remaining 19 (12%) of the respondents were over the age of 51. From the data, majority of the SME owners/managers were aged between 31 to 40 years.

The results obtained in this study are consistent with studies conducted by Islam, Khan, Obaidullah and Alam (2011) who, in their study on the success of SMEs in Bangladesh, found that approximately 49% of SME owners are between the ages of 31 to 40 years. Kirtiansen, Furuholt and Wahid (2003) also found that individuals between the ages of 25 and 44 years were the most entrepreneurially active and, therefore, business owners. In a study of SMEs in South Africa, Rungani (2008) also found that most SME owners/managers in South Africa (47%) are between the ages of 31 - 45 years of age. Similarly, Fatoki (2011) also found that approximately 60% of all SME owners/managers are between the ages of 31 and 40 years of age.

- **Question 3: Please indicate your level of education.**

This particular question required respondents to state the maximum level of their education. The purpose of asking this question is to establish the level of education of small to medium enterprises in Buffalo City municipality. The question also assisted the researcher in regression analysis as the age of the respondents was one of the variables which were being tested in the regression analysis. Figure 6.3 shows the results of the responses provided.

**Figure 6.3: Level of education**



#### Comment

From the results it can be observed that 5 (3%) of the respondents did not attend school, 13 (8%) of the respondents had primary school education while 23 (14%) of the respondents had matric education. The number of respondents who had an apprenticeship/diploma is 29 (18%) 56 (35%) had graduated from university with an undergraduate degree while the remaining 35 (22%) respondents had postgraduate education.

The results obtained in this study are consistent with international research studies. Research conducted in Canada by Industry Canada (2009) for the 10 year period from 1997 to 2007 has indicated that Canadian business owners have higher education levels with only 11% having not completed high school. 68% of the Canadian SME owners had obtained a post-secondary diploma or university degree. It was found that as individuals become more educated, they are able to recognise and pursue business opportunities and start businesses. Dzansi (2004) in a study of SMEs in South Africa also found that most SME owners/managers (29%) have a post-matric diploma (diploma, degree or certificate). Similarly, Sha (2006) found that most SME owners/managers (40%) in South Africa have tertiary education.

The next set of questions (question 4 to 7) pertains to the firm characteristics of the SME. It was important to determine whether the firm characteristics specified in the questions affect the networking capabilities of the SME owner.

#### **6.4.1.1 Firm characteristics**

This section of the questionnaire pertained to the firm characteristics of the SME. Particularly, questions which include age of the SME, size of the SME, legal status of the SME and the industry the SME operates in.

- Question 4: How long has your business been in operation?

The researcher asked this question in order to obtain information with regard to the period the business has been in operation, which is the age of the business. This question also allowed the researcher to determine the sustainability of the SMEs in the Buffalo City Municipality. In addition, it will also assist the researcher when the regression analysis is run as the age of the business is one of the variables which is being tested. Table 6.2 provides the results on the age of the business.

**Table 6.2: Age of the business**

<b>Years of operation</b>	<b>Frequency</b>	<b>Percentage %</b>
1 - 4 years	68	42
5 - 9 years	43	27
10 - 14 years	29	18
15 years and above	21	13
Total	161	100

**Comments**

The results indicate that 43 (27%) of the SMEs have been in operation for between 5 and 9 years, 29 (18%) have been in operation for between 10 and 14 years while 21 (13%) were in operation for at least 15 years. The majority of the SMEs, 68 (42%) have been in operation for 1 to 4 years.

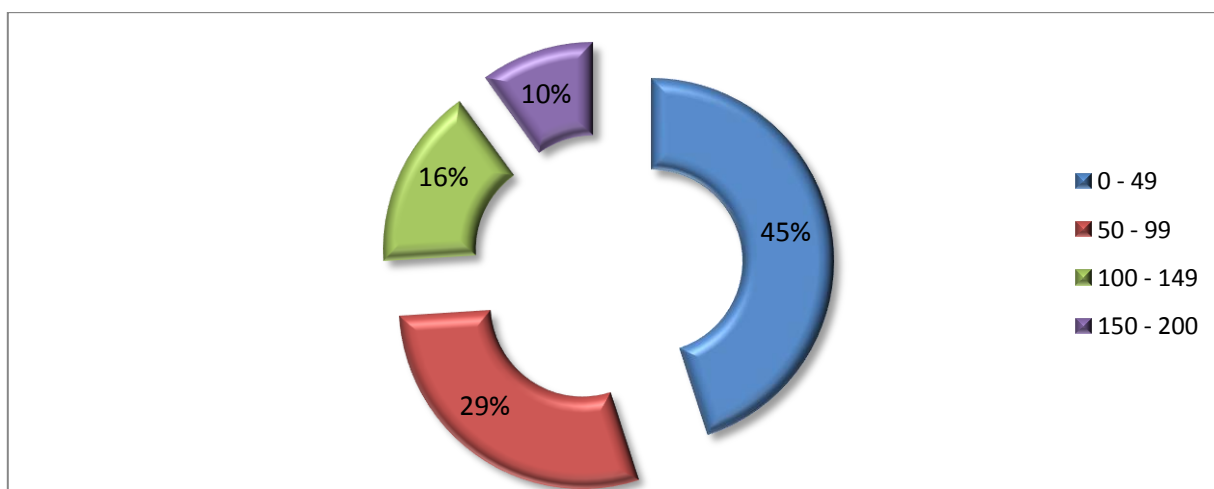
Consistent with the results obtained in this study, Stangler (2011) found that in the United States of America, most SMEs (approximately 28%) have been operating for between 1 to 5 years in 2009. The reason for this is the high failure rate of SMEs and the high rate at which new SMEs are formed. Barton and Gordon (2000) also conclude that because most SMEs face various challenges, they face weak performance, financial constraints and an inability to grow. With the high failure rate of SMEs, an SME established today will most likely not be around after 4 years. Rungani (2009) also found that in South Africa, most SMEs (70%) are between the ages of 0 - 5 years.

- Question 5: What is the size of your business?

The purpose of asking this question was to provide information about the size of the SME and classify businesses as either small or medium in terms of the SME definition provided by the National Small Business Act (2003). By knowing the size of the business the researcher will also be able to do the regression analysis since size of the business

is one of the variables which were being tested in the regression analysis. Figure 6.4 provides the information on the number of employees employed by the business.

**Figure 6.4 Number of employees**



#### Comment

Amongst the SMEs who were interviewed, 72 (45%) of the businesses had employees within the range of 0 - 50, 47 (29%) of the SMEs employed between 50 - 99 employees and 26 (16%) of the SMEs had employees in the range of 100 - 149. Only 16 (10%) of the SMEs had employees in the range of 150 - 200. The results showed that, in terms of the National Small Business Amendment Act (2003) approximately 72 (45%) of the SMEs were small while 89 (55%) were medium firms.

These results are consistent with the studies done by Barton and Gordon (2000) who found that most SMEs employ only a small number of employees because their businesses are still growing and they lack the financial resources to grow. Similarly, in South Africa, Rungani (2009) established that most SMEs (54%) are medium enterprises while only (46%) are small in accordance with the definition of SMEs provided by the National Small Business Amendment Act (2003).



- Question 6: What is the legal status of your business?

The importance of asking this question was to obtain information on the legal status of the SME. It allowed the researcher to understand whether the legal status of a business would have an effect on the SME's network structure. The results of this question are presented in table 6.3 below.

**Table 6.3: Legal status of SME**

Legal status	Frequency	Percentage %
Sole Proprietor	69	43
Partnership	40	25
Close Corporation	31	19
Company	21	13
Total	161	100

#### Comment

The results indicate that most SMEs (43%) are sole proprietor business enterprises. Partnership businesses constitute 25%, close corporation businesses account for 19% while only 13% are registered companies. The reason why there are more sole trader businesses among SMEs may be the low costs of registration, low legal requirements and low financial outlay requirements. With limited access to debt finance for SMEs (Fatoki and Odeyemi, 2010), sole trader businesses with their low capital requirements provide the optimal business for most individuals.

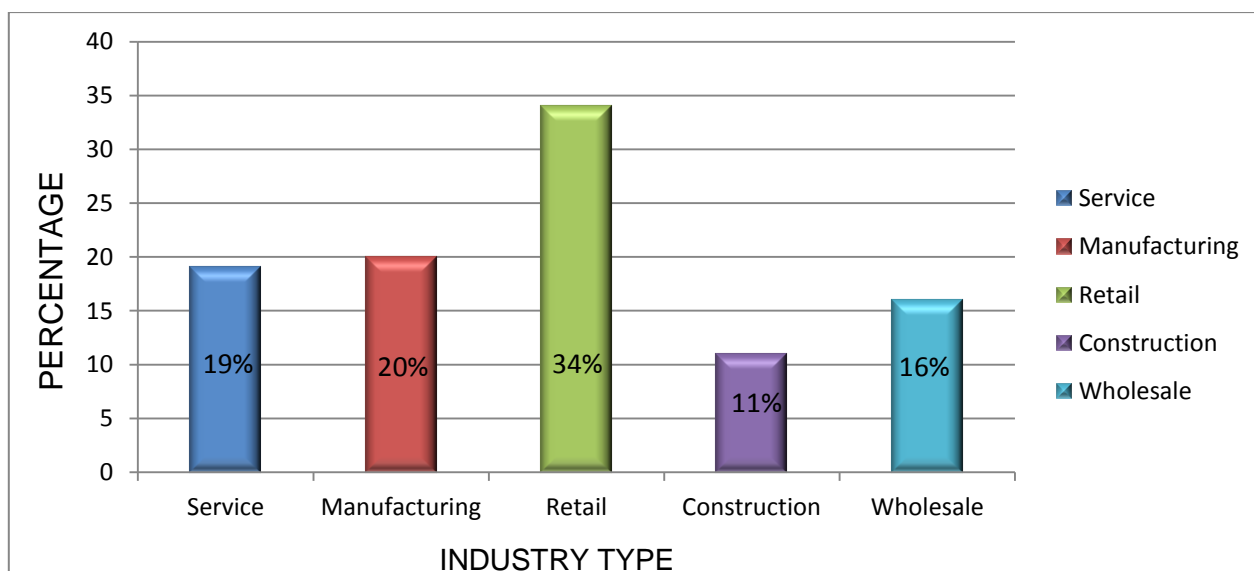
The results of this study are also consistent with international studies. Adegbite, Irefin, Abereijo, Aderemi, and Hassan (2006) also found that in Nigeria, approximately 58% of the SMEs are owned by sole proprietors, 29% are limited liability companies and only 3% are partnerships. The authors conclude that the process and high cost of registering and formalising a business has forced many small-scale industries to operate as sole proprietors rather than limited liability companies or partnerships. Similarly, Darroll *et al.*

(2004) establish that in South Africa, the red tape surrounding registration process and the high cost of complying with legislation deter small businesses from growing and registering as companies. Thus, many small businesses remain as sole trader businesses.

- Question 7: In what industry do you operate in?

Question 7 required the respondents to state in which industry their business as operated in. This question would enable the researcher to deduce whether the type of industry the SME operates in would have an impact on its networking capability. The results of this question are presented in Figure 6.5 below.

**Figure 6.5: Industry type**



#### Comment

The results indicate that 55 (34%) of all SMEs operate in the retail industry while only 18 (11%) of the SMEs are engaged in construction. 30 (19%) of the SMEs are involved in the service industry, 32 (20%) are engaged in the manufacturing industry while the remaining 26 (16%) are engaged in the wholesaling industry. A reason why most SMEs are engaged in retailing may be that most SMEs face difficulty in accessing finance and

credit. Industries such as construction and wholesale require significant cash outlays; therefore, most SMEs will engage in retail.

The results of this study are also similar to the results obtained by Fairlie and Robb (2008) who found that most SMEs are engaged in the retail trade industry while construction has got the least number of SMEs. Similarly, Dzansi (2004) found that in South Africa, approximately 73% of all SMEs operate in the retail sector. The author concludes that the reason why most SMEs operate in the retail trade is because it appears to be the easiest form of self-employment.

#### **6.4.2 Section B: Networking**

Section B focused on the networking of SMEs. Specifically, the questions under this section sought to establish the type of networks SMEs are engaged in from general, managerial and social networks. Furthermore, this section will assist in the regression analyses testing whether those SMEs that network will have more access to debt finance, acquire better information and resources and perform better than SMEs that do not network. Watson (2007) states that businesses with a superior access to finance, information and resources should perform better. Ferreira, Li, and Serra, (2008) suggest that those SMEs engaged in different networks will have access to superior information, resources, market access and finance than those that are not engaged in networking activities.

- Question 8

The purpose of questions 8a to 8c was to measure whether SMEs network and to establish the different types of networks SMEs that do network are engaged in. Respondents were asked to state the networks they are engaged in from general networks, managerial networks and social networks. The results of question 8a to 8c are shown in Table 6.4.

**Table 6.4: Summation of SME network participation**

Range of networks	Yes	No
<i>General networks</i>		
Professional associations	48%	52%
Trade fairs and business seminars	69%	31%
Government agencies	58%	42%
Accountant	45%	55%
External consultant	49%	51%
Average for general networks	54%	46%
<i>Managerial networks</i>		
Competitors	73%	27%
Suppliers	78%	22%
Customers	71%	29%
Average for managerial networks	74%	26%
<i>Social networks</i>		
Social associations/clubs	63%	37%
Friends	77%	23%
Family and relatives	81%	19%
Average for social networks	74%	26%
Average/overall networking	67%	33%

**Comment**

The results on whether SMEs make use of official networks are mixed. Most SMEs (52%) do not maintain relationships with professional associations with only 48% indicating that they belong to professional associations. In contrast, most SMEs (69%) indicate that they participate in trade fairs and business seminars while only 31% indicated that they do not participate in trade fairs and business seminars. Results on whether SMEs maintain relationships with government agencies showed that most SMEs (42%) do not maintain relationships with government agencies while 58%

establish relationships with these agencies. Similarly, only 45% of SMEs make use of accountants and 49% make use of external consultants.

These results are similar to the results obtained by Peng and Luo (2000) who found that a significant proportion of SMEs in China are members in various professional and industry associations. Ferreira *et al.* (2008) also found that most SMEs indicate that they do not belong to a professional association. In terms of maintaining relationships with government agencies, Ngoc and Nguyen (2009) establish that in Vietnam, only a few private SMEs look for, or are members of government agencies.

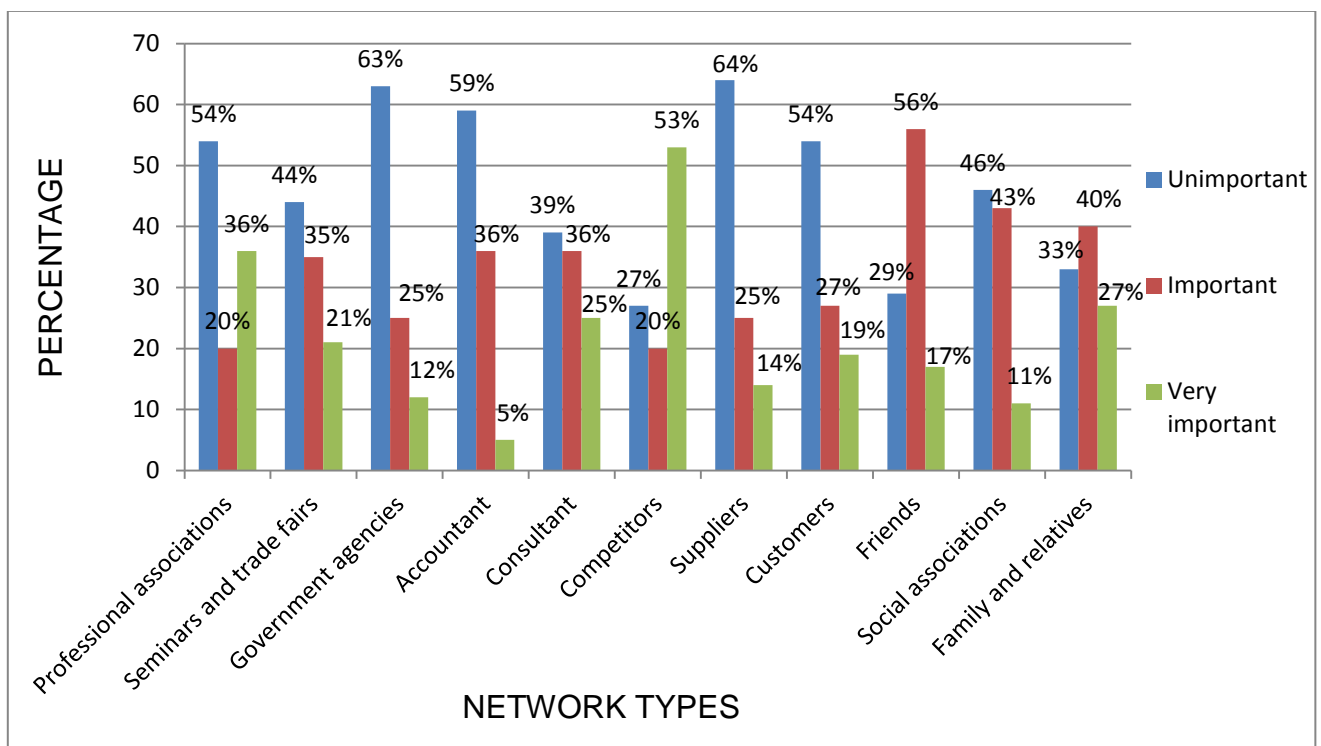
In terms of managerial networks, results indicate that most SMEs (73%, 78% and 71%) maintain relationships with competitors, suppliers and customers respectively. This indicates that, relatively, SMEs are more participative in managerial networks than official networks. This is in line with a research conducted by Ngoc and Nguyen (2009) who found that managerial networks are strong among SMEs. This is attributed to the fact that the more an SME's owner/manager builds a network with managers of other enterprises, the higher the chance the SME will attain legitimacy and business alliances. In addition, through networking, the SME learns appropriate business behaviour from other managers, suppliers and customers.

Similar to managerial networks, most SMEs participate actively in social networks. 63% of the respondents indicated that they belong to social clubs while 77% indicated that they maintain business relationships with friends and family respectively. This is supported by studies conducted by Robinson and Stubberud (2010) who found that most SMEs network more with their friends and families than with professional associations and banks. Anderson and Park (2007) also found that it is through social relations, social interaction and social networks that most SMEs obtain information and resources.

- Question 9: Indicate the importance of these sources for your business in attaining these resources.

The purpose of this question was to establish which networks are important for SMEs in gaining advice, business ideas and knowledge sharing; resource sharing and resource acquisition as well as access to finance. Respondents were asked to rate the level of importance of each network source in attaining information, resources and finance on a scale of 1 to 3 (where 1 = unimportant; 2 = important and 3 = very important). In addition, this question will also assist in establishing whether a business with superior access to resources will perform better than a business without access.

**Figure 6.6: Level of importance of networks in advice and information sharing**



#### Comment

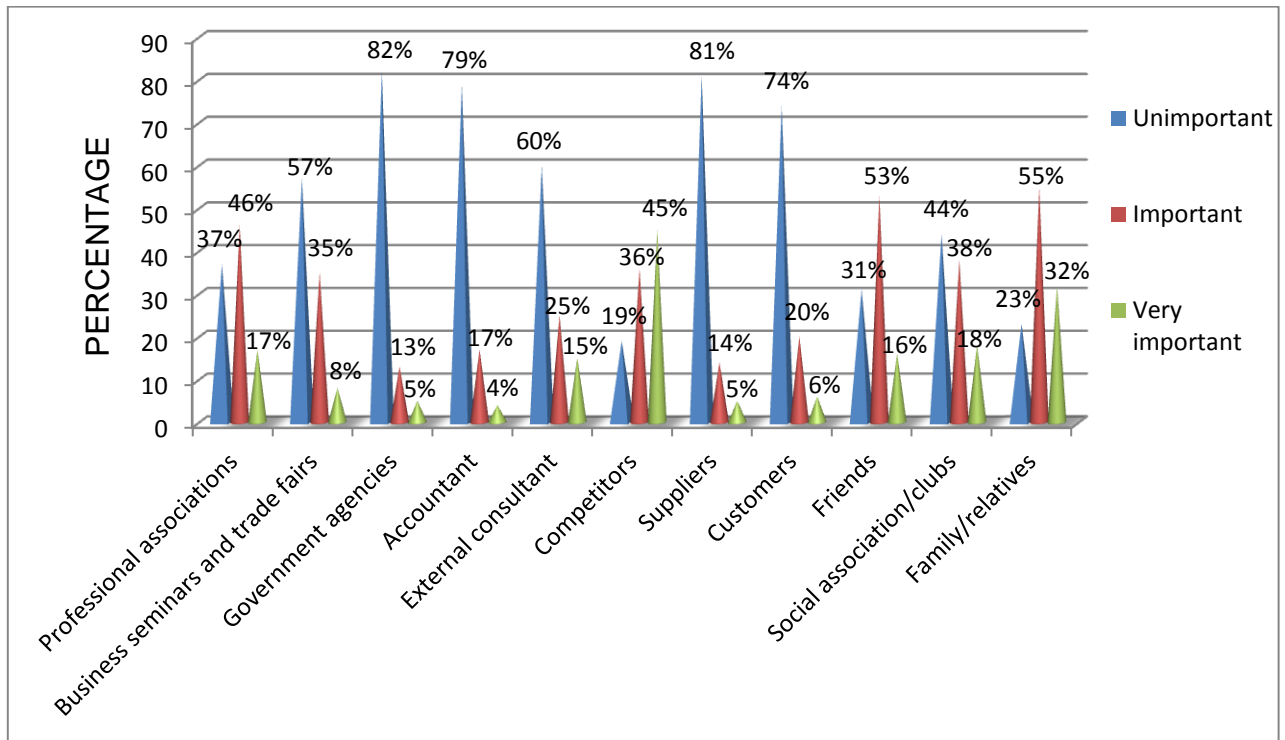
From the results it can be seen that though some networks are not as important as others in obtaining advice, business ideas and knowledge sharing, some general, managerial and social networks assist in information acquisition. General networks

including membership of professional associations (54%) relationships with government agencies (53%) accountants (59%) and external consultants (60%) are not important in information sharing. Similarly, for managerial networks, 64% and 54% of the respondents respectively state that relationships with suppliers and relationships with customers are not beneficial in advice sharing and information acquisition.

However, social networks of friends, social clubs and family are essential for SMEs with 85%, 54% and 67%, respectively, admitting that these social networks are either important or very important for information acquisition and advice sharing. Under general networks, 56% of the respondents state that participation in seminars and trade fairs is either important or very important in information acquisition and sharing. Similarly, networking with competitors is crucial with 20% and 53% of the respondents revealing that competitors are either important or very important in information sharing.

These results are consistent with the results found by Robinson and Stubberud (2009). The authors find that the sources of advice used by enterprises with ten or more employees include professional acquaintances, financial institutions and training programs. On the other hand, small enterprises receive advice from family, friends or professional consultants. However, the general observation is that the owners of businesses of all sizes indicate that professional acquaintances and family and friends are the top sources of advice. Watson (2007) observes that most SMEs in Australia did not access information/advice from business consultants (72%) and industry associations (60%).

**Figure 6.7: Level of importance of networks in resource sharing and acquisition**



#### Comment

Similar to the results obtained for information, these results indicate that some networks are more important while some are unimportant in resource sharing and acquisition. 57% of the SMEs view business seminars and trade fairs as unimportant in resource acquisition. Similarly, 82%, 79%, 81% and 74% of the respondents indicate that government agencies, accountants, suppliers and customers, respectively, are not important in SME's acquisition and sharing of resources. However, generally 63%, 81%, 69%, 56% and 87% of the SMEs viewed professional associations, competitors, friends, social clubs and family as either important or very important in resource acquisition. Social networks are the most significant in resource acquisition for SMEs.

The results of this study are in line with a research conducted by Hite and Hesterly (2001) who observe that small enterprises are more dependent on the personal and cohesive social relationships of the entrepreneur or manager for resource acquisition.



Soh (2003) also establish that SMEs are dependent on linkages with other enterprises in the market. Therefore, an enterprise with more efficient access to other enterprises in the market acquires competitive information about other enterprises and the market earlier and gains a greater window of opportunities.

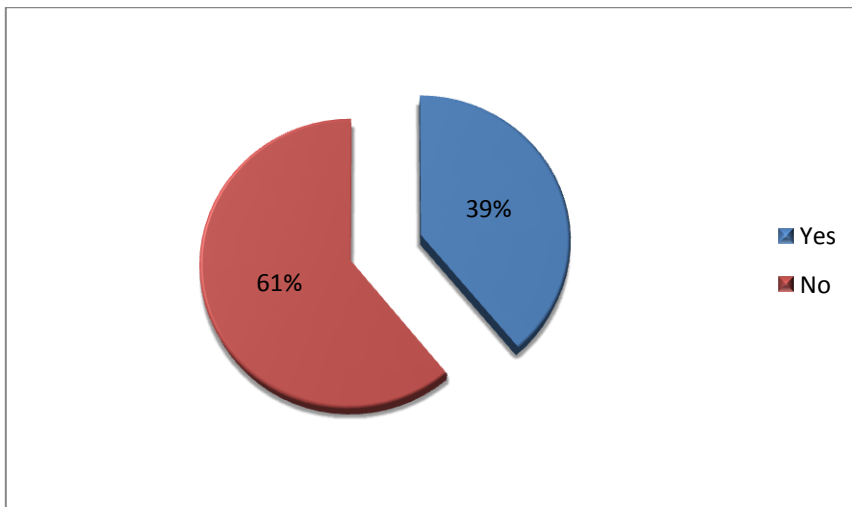
#### **6.4.3 Section C: Access to finance**

The purpose of section C was to obtain information as to whether SMEs have access to debt finance, in the form of bank loans, or access to trade credit. The information obtained from this section will assist the researcher in analysing whether there is a relationship between networking and access to finance and trade credit.

- **Question 10: Do you have access to bank loans?**

This question will provide information on the number of SMEs that have had access to finance. Furthermore, it will assist in the regression model on analysing whether networking affects a business' access to bank loans.

**Figure 6.8: Access to bank loans**



## Comment

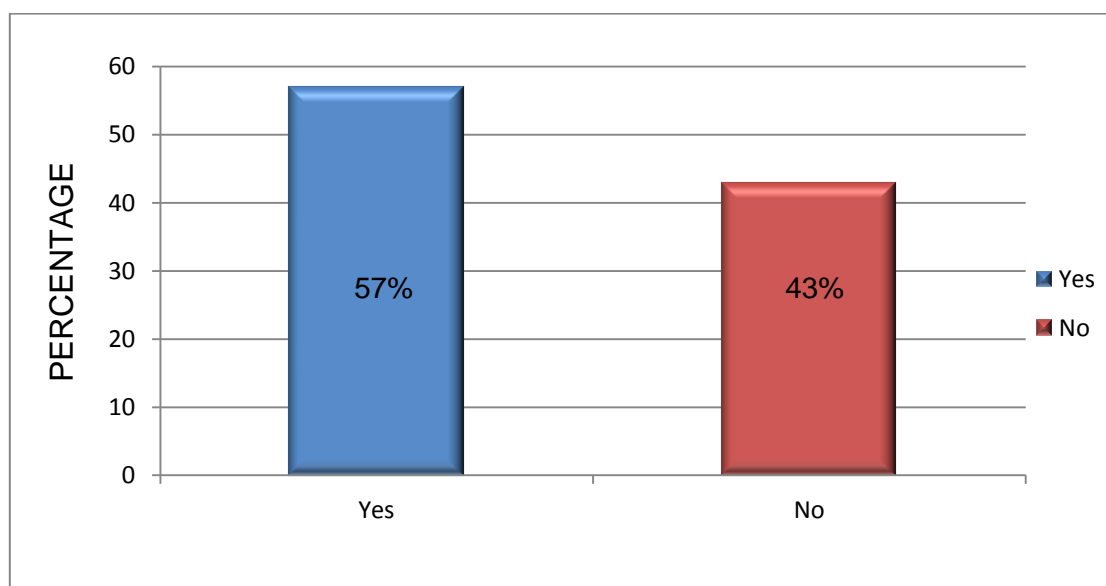
From the results it can be deduced that only 39% of the SMEs have obtained access to finance while 61% of all SMEs have never accessed finance. Lack of collateral, information asymmetries between banks and SMEs as well as high risk of failure are all causes of lack of bank loans for SMEs.

Similarly, Fatoki and Odeyemi (2010) found that in South Africa only 27% of SMEs had access to bank loans while 73% did not have access to finance despite applying for a bank loan. This high rate of failure to obtain bank loans is attributed to lack of collateral and weak managerial competencies of the SME owner/manager. Similarly, the World Bank (2010) also found that in China, only 20% of all SMEs have had access to overdraft, a line of credit or bank loan. SMEs with their weak collateral, high failure rate and the information asymmetries that exist between banks and the SMEs are risky borrowers (Ebben and Johnson, 2006:5). Banks, therefore, in the absence of explicit guarantees, are not willing to lend money to SMEs and thus the high rate of small enterprises that do not have access to bank loans.

- **Question 11: Do you have access to trade credit?**

This question was asked to establish whether SMEs have access to trade credit. The result of this question is presented with the aid of a graph as shown in Figure 6.9.

**Figure 6.9: Access to trade credit**



#### Comment

The results indicate that most SMEs (57%) have access to trade credit while 43% indicated that they did not have access to trade credit. A reason why trade credit is high for SMEs can be because of the reciprocal relationships that exist between an SME and its long-term suppliers and customers.

These results are consistent with studies conducted by McMillan and Woodruff (2002) who found that most SMEs have access to trade credit in Vietnam. Trade credit is critically important for SMEs in emerging economies, where more formal and extensive financial markets are typically underdeveloped. The authors conclude that trade credit is more accessible, convenient, and, sometimes, cheaper for SMEs. Enterprises will, therefore, get more trade credit from their suppliers when they have long-term business relationships with suppliers or have frequent interactions with suppliers.

#### **6.3.4 Section D: Performance**

The purpose of this question is to analyse the performance of SMEs. Different performance measures which include both financial and non-financial were used as

measures of performance. More specifically, sales growth, profitability, satisfaction with performance compared to competitors and the overall performance of the SME over the last three years (2008 - 2011) represented composite measures of performance. The results of this question are presented in Table 6.5.

**Table 6.5: Performance of SMEs**

Performance	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Sales growth	9%	20%	11%	29%	31%
Profitability	11%	26%	5%	28%	30%
Performance compared to competitors	16%	24%	18%	29%	13%
Overall performance	22%	21%	5%	25%	27%

The average/aggregated mean for networking is represented in table 6.6 below.

**Table 6.6: Overall performance of SMEs**

Variable	Mean	Standard deviation
Performance	3.27	1.27

#### Comment

The mean result of SME performance shows that SMEs are SME owners are satisfied with the performance of their businesses.

These results are supported by Watson (2007) and Fischer and Reuber (2003) who suggest that an SME's level of performance will also be determined by the owner's level of networking. SMEs with weak networking will, most likely, also have weak performance.

## **6.5 INTERPRETATION OF REGRESSION ANALYSIS RESULTS AND HYPOTHESES TESTING**

A hypotheses test refers to the determination of whether the hypothesis is rejected or is accepted. This section will discuss the testing of each individual hypothesis.

### **6.5.1 Regression analysis**

When running a regression, the main objective is to discover whether the coefficients of the independent variables are really different from 0 (so the independent variables are having a genuine effect on your dependent variable). In other words, regression seeks to establish whether any apparent differences from 0 are just due to random chance. The null hypothesis always shows that each independent variable is having absolutely no effect (has a coefficient of 0) and will be looking for a reason to reject this theory. Several regression models were carried out to test the relationship between the variables.

### **6.5.2. Hypotheses Testing**

Hypothesis testing refers to the determination of whether the hypothesis is accepted or rejected. This section will test the primary and secondary hypotheses of this study.

#### **6.5.2.1 Effect of entrepreneurial and firm characteristics on networking**

This section tests the third secondary hypothesis (null hypothesis) of the study. The secondary hypothesis is restated below:

- Secondary hypothesis 3 (null hypothesis): Entrepreneurial (gender, age of owner and education of the owner) and business (age of SME, industry, legal status of SME, size of SME) characteristics do not affect the networking of the SME.

It should be noted that the effect of these entrepreneurial and firm characteristics are analysed for all network types to establish which characteristics, specifically, affect which types of SME networks. However, the results portrayed in Table 6.7 below are the results of the effect of these characteristics on the overall networking of an SME not on each individual network. The results of the effect of these characteristics on each network type are presented in Addendum 3 (*please refer to page 215*).

**Table 6.7: Significance of the model on the relationship between entrepreneurial and firm characteristics and SME networking**

Source	DF	Sum of squares	Mean square	F-value	Pr > F
Model	7	2.04639	0.29234	11.81	<.0001
Error	154	2.42589	0.02475		
Corrected total	161	4.47229			

Statistically significant at 95%.

This study used a 95% confidence level to determine the significance of the tests. This means that for the tests to be accepted, the p-value has to be less than 0.05. The analysis of variance test was used to test the significance of the model. The p-value (Pr>F) for this model is <.0001 which is less than 0.05 indicating that the model is statistically significant. The results of the regression model will now be shown below.

**Table 6.8: Regression results: relationship between entrepreneurial and firm characteristics and overall networking**

Variable	Parameter estimate	Standard error	t-value	Pr > [t]
intercept	1.81971	0.08972	20.28	.0001
<b>Entrepreneurial characteristics</b>				
Gender	-0.03823	-0.03464	-1.10	0.0027
Age	-0.01759	0.02282	0.77	0.4428
Education	-0.03670	0.01117	-3.29	0.0014
<b>Firm characteristics</b>				
Age of SME	-0.03565	0.01201	-3.45	0.0123
Size of SME	-0.01483	0.02184	0.68	0.0498
Legal status	-0.07837	0.01748	-4.48	0.0001
Industry	0.00192	0.01264	0.15	0.8799

Statistically significant at 95%.

#### Comment

The results of the first regression model show that in terms of the overall networking capability of SMEs, the entrepreneurial characteristics that are statistically significant are education ( $p=0.0014$ ) and gender ( $p=0.0027$ ). In terms of firm characteristics, the age ( $p=0.0123$ ) size (0.0498) and the legal status ( $p<.0001$ ) of SMEs have an impact on the networking of the SME. These results are slightly similar for individual networking of SMEs. For general network participation, gender of owner ( $p=0.0027$ ) education of owner ( $p=0.0135$ ) age of SME (0.0248) size of SME ( $p=0.0007$ ) and legal status ( $p=0.0296$ ) are significant. Furthermore, in terms of participation in managerial networks, only education ( $p=0.021$ ) and legal status ( $p=0.0002$ ) have p-values less than 0.05 and are statistically significant. Education ( $p=0.0016$ ) and legal status ( $p<.0001$ ) are also statistically significant for social network usage by SMEs. (*Please refer to ADDENDUM 3, page 215 for full tables on entrepreneurial and firm characteristics on individual networks*).

Because the questions on networking (dependent variable) were dichotomous questions, the parameter estimates of those variables which were significant were also negative. This indicates that as the level of the significant entrepreneurial and firm characteristics are increased by one unit, the expected ordered log-odds of networking being in a higher category decreases (i.e: going from 0 [YES] to 1 [NO]). Essentially, this implies that as gender, education of the SME owner, age of SME, size of SME and legal status of the SME increases, the log-odds of networking being in a higher category (NO) decrease. Thus the significant entrepreneurial and firm characteristics have a significant positive relationship with networking of the SMEs. Therefore, the null hypothesis which states that education, age of the owner and legal status of the SME does not have an impact on the networking of the SME is rejected. In addition, most of the entrepreneurial and firm characteristics are statistically significant and have a positive relationship with participation in general, managerial or social networks. However, there is no association between gender and industry type and participation in general, managerial or social networks.

The results of this study are also consistent with literature. Brush *et al* (2004) found that female entrepreneurs have access to different business and investment networks than male entrepreneurs. The authors suggest that gender thus impacts on the networking of firms.

Similarly, Huang *et al.* (2003) establish a positive association between an enterprise's age and its networking activities. The authors suggest that enterprise's that have been in existence for longer may be less time and financially constrained than 'newer/younger' enterprises and are more engaged in networking activities for information exchange and resource sharing. Dowling and Helm (2006) also found that an enterprise's age is positively related to the types of networks the enterprise will be engaged in. The authors argue that the age of the business is used as a moderator and younger enterprises benefit from cooperation with other enterprises, whereas older enterprises are more successful when they network with research institutions.



On the other hand, Wincent (2005) tested the impact of SME size on the networking of SMEs. Wincent (2005) found a positive association between SME size and networking with larger enterprises exhibiting higher networking width and higher networking depth compared to smaller enterprises. Callaghan and Lenihan (2008) also establish that the size of a business has an impact on the networking of the business enterprise. The authors find that large enterprises network more than medium enterprises and in turn, medium enterprises will network more than small enterprises. In addition, the authors found that the types of networks enterprises are engaged in also differ with the age of the enterprise. The reason could be that networking is expensive (especially at start-up stage) and larger enterprises have more resources at their disposal than smaller enterprises.

In addition, Callaghan and Lenihan (2008) also test the impact of industry type on the networking type of enterprises. The authors found that the type of industry has no effect on the networking of enterprises or the types of networks the enterprises will be involved in. This suggests that the acquisition of information and resources through different networks is not industry specific.

#### **6.5.2.2 Effect of networking on access to finance and trade credit**

This section will provide the results of the test on the second secondary hypothesis (null hypothesis) which can be restated as follows:

- There is no significant relationship between networking and access bank loans by SMEs.

The purpose of this hypothesis is to find out whether networking improves access to bank loans and trade credit by SMEs. In order to test this hypothesis, regression models were essential. The regression model to test this hypothesis suggests that access to bank loans by SMEs is dependent on the SME's use of networks. For individual networks, the relationship between networking and access to bank loans was tested by logistic regression.

**Table 6.9: Logistic regression - Relationship between individual networks and access to bank loans**

Variable	DF	Parameter estimate	Standard error	Wald chi-square	Pr > Chi-square
General network	1	-2.690	0.7494	12.8918	0.0003
Managerial network	1	0.3997	0.6672	0.3588	0.5492
Social network	1	0.3838	1.069	13.8883	0.6985

The result of the logistic regression model indicates that only general networks are significantly related to access to bank loans by SMEs. Managerial networks and social networks are not statistically significant in access to bank loans by SMEs. This is in line with networking theory which suggests that general networks bring legitimacy to an SME and act as guarantors for SMEs to banks. The negative parameter estimate for the significant networks indicates that for a one unit increase in networking, the expected ordered log-odds of access to bank loans being in a higher category decreases (i.e: going from 0 [YES] to 1 [NO]). This suggests that as networking increases, so too does access to bank loans by SMEs.

To test the overall impact of networking on access to bank loans by SMEs, the linear regression was used to measure if there was any direct relationship between networking and access to bank loans by SMEs. This model was tested to establish its significance.

**Table 6.10: Significance of model on relationship between overall networking and access to bank loan**

<b>Model</b>	<b>Sum of Squares</b>	<b>DF</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	2.884	1	2.884	12.076	.001
Residual	23.606	160	.227		
Total	26.491	1611			

The model was tested to establish whether it fits and is statistically significant. The model is statistically significant as the p-value is .001 which is less than 0.05. Having established that the model is statistically significant, the results of the regression model are now shown in Table 6.11.

**Table 6.11: Regression results - relationship between overall networking and access to bank loans**

<b>Model</b>	<b>Beta</b>	<b>t</b>	<b>Sig.</b>
constant		1.421	.158
networking	.330	3.565	.001

The results of the linear regression model indicate that there is a positive relationship between networking and access to bank loans by SMEs. This means that for a one unit increase in networking, there would be a .330 increase in access to bank loans by SMEs. There is thus a positive relationship between networking and access to bank loans. The null hypothesis which suggests that there is no significant positive relationship between networking and access to bank loans by SMEs is thus rejected and the alternative hypothesis accepted.

The results of this study are similar to the results obtained by Ngoc *et al.* (2009) who observe that networking is positively related to access to bank loans. However, the authors also concede that only certain types of networks improve a SME's access to bank loans. The results obtained by Ngoc (2009) indicate that an SME's participation in official networks with government officials and in social organisations are positively related to having a bank loan. On the other hand, they found no relationship between networking with friends and family and access to bank loans.

Similarly, Talavera *et al.* (2010) find that in China an SME's membership in business associations is positively related with access to loans from commercial banks in the country. The authors also find that an SME's membership in the Communist Party of China (CPC) also impacts on an SME's access to loans from state-owned banks. Talavera *et al.* (2010:13) suggest that participating in networks with government and membership in business association assists SMEs with loan applications by providing legitimacy to banks and reducing inefficiencies associated with informational asymmetry.

Pandula (2011) also found that SMEs membership in business associations or chamber of commerce is positively related to access to bank loans. The study reveals that membership in these organisations assist banks in determining the credit worthiness of the member SMEs and access to bank loans for these SMEs is improved.

Owolabi and Pal (2011) also found similar results to this study. The authors suggest that an SME's participation in business networks is positively associated with the SME's access to bank loans. Scalera and Zazzaro (2009) also suggest that networking, in general, is positively related to SME's access to finance as they serve to bridge the gap caused by information asymmetry between entrepreneurs and investors. The networks provide legality and legitimacy of the SME to any potential investor thereby increasing the access to finance of the SME.

- There is no relationship between networking and access to trade credit by SMEs.

The regression model used to test this hypothesis suggests that access to trade credit by SMEs is dependent on the SME's use of networks. For individual networks, the relationship between networking and access to trade credit was tested by logistic regression.

**Table 6.12: Logistic regression - Relationship between individual networking and access to trade credit**

Variable	DF	Parameter estimate	Standard error	Wald chi-square	Pr > Chi-square
General network	1	-3.6653	0.8384	19.1117	.0001
Managerial network	1	-2.0396	0.7378	7.6416	0.0057
Social network	1	-2.8783	0.9846	8.546	0.0035

The result of the logistic regression indicates that general networks, managerial networks and social networks are significantly related to access to trade credit by SMEs. As suggested by trade credit theorists such as Cunat (2000) firms tend to build relationships with customers, suppliers and related firms. This increases the access to trade credit by SMEs. The negative parameter estimate for the significant networks indicates that for a one unit increase in networking, the expected ordered log-odds of access to bank loans being in a higher category decreases (i.e: going from 0 [YES] to 1 [NO]). This suggests that as networking increases, so too does access to bank loans by SMEs.

To test the overall impact of networking on access to trade credit by SMEs, the linear regression was used to measure if there was any direct relationship between networking and access to trade credit by SMEs. This model was tested to establish its significance.

**Table 6.13: Significance of model on the relationship between overall networking and access to trade credit**

<b>Model</b>	<b>Sum of Squares</b>	<b>DF</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	6.838	1	6.838	37.041	.000
Residual	19.2	160	.185		
Total	26.038	161			

The model was tested whether the model fits and is significant. The model is statistically significant as the p-value is .000 which is less than 0.05. Having established that the model is statistically significant, the results of the regression model are now shown in table 6.14 below.

**Table 6.14: Regression results - relationship between overall networking and access to trade credit**

<b>Model</b>	<b>Beta</b>	<b>t</b>	<b>Sig.</b>
constant		-7.41	.461
networking	.512	6.086	.000

The results of the linear regression model indicate that there is a positive relationship between networking and access to bank loans by SMEs. This means that for a one unit increase in networking, there would be a .512 increase in access to trade credit by SMEs. There is thus a positive relationship between networking and trade credit. The null hypothesis which suggests that there is no significant positive relationship between networking and access to trade credit by SMEs is thus rejected and the alternative hypothesis accepted.

These results are also supported by McMillan and Woodruff (2002) who found a significant association between networking and SME's access to trade credit. The authors suggest that, generally, an SME's networking will facilitate the SME's access to trade credit and enterprises with strong relationships with suppliers and other businesses will gain better access to trade credit.

Similarly, Friedman, Johnson and Mitton (2003) posit that belonging in a network increases an enterprise's access to trade credit. Friedman *et al.* (2003) observe that members in networks have a direct interest to support their partners either by lending fresh financial resources or by granting trade credit. Aaronson, Bostic, Huck and Townsend (2004) investigate the role of ethnic connections in trade credit. Aaronson *et al.* (2004) found that in the case of Hispanic-owned businesses, belonging to the network results in larger trade credit than non-member enterprises. Therefore, participation in different types of networks (managerial and social) with members of other enterprises increases an SME's access to trade credit from other members of the network (Ngoc *et al.*, 2009:872).

#### **6.5.2.3 Effect of networking on performance**

This section tests the first primary hypothesis (null hypothesis) of the study which states that there is a negative relationship between networking and performance of SMEs. This was tested using a regression model.

This regression model suggests that access to trade credit by SMEs is dependent on the SME's use of networks. For individual networks, the relationship between networking and performance of SMEs was tested by logistic regression.

**Table 6.15: Logistic regression - relationship between individual networks and performance**

Variable	DF	Parameter estimate	Standard error	Wald chi-square	Pr > Chi-square
General network	1	2.8829	0.6491	19.7266	.0001
Managerial network	1	1.3479	0.6077	4.9195	0.0266
Social network	1	2.2969	0.9846	15.1317	0.0035

The results of the logistic regression indicate that there is a significant positive relationship between general networks, managerial networks and social networks and performance of SMEs. This is indicated by the significant p-values of these networking variables. In addition, the parameter estimates of the networking variables are also positive indicating that as the level of networking increases by one unit, the level of performance will also increase. In other words, for a one unit increase in networking, the expected log-odds of performance being in a higher level increase (ie- as one moves to the next response category of performance; from strongly disagree to disagree to neutral and so on).

To test the overall impact of networking on access to trade credit by SMEs, the linear regression was used to measure if there was any direct relationship between networking and performance of SMEs. This model was tested to establish its significance.



**Table 6.16: Significance of model on the relationship between overall networking and performance of SMEs**

Model	Sum of Squares	DF	Mean Square	F	Sig.
Regression	41.346	1	41.346	33.414	.000
Residual	128.687	160	1.237		
Total	170.034	161			

The model was tested to establish whether the model fits and is statistically significant. The model is statistically significant as the p-value is .000 which is less than 0.05. Having established that the model is statistically significant, the results of the regression model are now shown in Table 6.17.

**Table 6.17: Regression results - relationship between overall networking performance of SMEs**

Model	Beta	t	Sig.
constant		10.352	.000
networking	.493	5.781	.000

The result of the linear regression model shows that networking is positively related with performance. In addition, the parameter estimate is also positive indicating that as the level of networking increases by one unit, the performance of SMEs will also increase by .493. There is thus a positive relationship between networking and performance. The null hypothesis which suggests that there is no significant positive relationship between networking and performance of SMEs is thus rejected and the alternative hypothesis accepted.

Similar to the results of this study, Watson (2007) found that there is a positive relationship between networking and survival, and to a lesser extent, profitability. The author also finds that an SME's different networks are positively related to growth of the business. Watson (2007:854) argues that networking is positively related to performance because different networks provide different resources and information to the SME. Therefore, an SME which is able to gain access to, and utilise, superior information and resources through networking will, most likely, be successful.

Berry, Sweeting and Goto (2006) also found that the degree of use, and range of external advice and information from external accountants, consultants and other network contacts are positively associated with the growth rate of the SME. The findings of this study indicate that as an SME gains and utilises more information and advice from their networks, the performance and growth of those SMEs will increase.

Wren and Storey (2002) also establish that SMEs in Denmark that utilise external business counsellors provided by the North Jutland Entrepreneurial Network (NiN) to access advice and information have higher performance than those SMEs who did not. This result indicates that information acquisition, sharing and use from NiN leads to better performance of the SMEs. This adds substance to the proposition that networks provide better access to information and resources for SMEs and this in turn enhances performance.

Similarly, Sawyer *et al.* (2003) note that as the networking of small enterprises increases, so too does their level of growth and performance in terms of profitability. In other words, as an SME or SME owner increasingly engages in different networks (network intensity) the performance of the SME will also increase. Therefore, the authors suggest a positive relationship between networking and performance of SMEs.

Soh (2003) by using a longitudinal analysis, found that an enterprise improves its new product performance as it increases the number of repeated partners and its centrality position relative to others in a technology collaboration network. Therefore, network linkages with many enterprises will result in greater performance as an enterprise gains

more efficient access to competitive information and resources in the market (Soh, 2003:728).

The results of a study conducted by Bosma, van Praag, Thurik and Wit (2002) also confirm that participation in certain networks (membership in business associations) by SMEs is positively related to performance. Similarly, Peng and Luo (2000) establish that personal ties between an SME owner and top managers of other enterprises and ties with government officials are both significantly correlated with the overall enterprise performance.

#### **6.5.2.4 The mediating role of access to finance**

Baron and Kenny (1986) proposed a four step approach in which several regression analyses are conducted and significance of the coefficients is examined at each step.

- **Step 1:** Shows that the initial variable is correlated with the outcome. Use Y as the criterion variable in a regression equation and X as a predictor (estimate and test path *c* in the above figure). This step establishes that there is an effect that may be mediated.
- **Step 2:** Show that the initial variable is correlated with the mediator. Use M as the criterion variable in the regression equation and X as a predictor (estimate and test path *a*). This step essentially involves treating the mediator as if it were an outcome variable.
- **Step 3:** Show that the mediator affects the outcome variable. Use Y as the criterion variable in a regression equation and X and M as predictors (estimate and test path *b*). It is not sufficient just to correlate the mediator with the outcome; the mediator and the outcome may be correlated because they are both caused by the initial variable X. Thus, the initial variable must be controlled in establishing the effect of the mediator on the outcome.

- **Step 4:** To establish that M completely mediates the X-Y relationship, the effect of X on Y controlling for M (path  $c'$ ) should be zero (see discussion below on significance testing). The effects in both Steps 3 and 4 are estimated in the same equation.

If all four of these steps are met, then the data are consistent with the hypothesis that variable M completely mediates the X-Y relationship, and if the first three steps are met but the Step 4 is not, then *partial* mediation is indicated. In testing the hypothesis that access to finance mediates the relationship between networking and performance, the first three steps were met as all of them were significant. However, step 4 indicated that the effect of X on Y when M is controlled is not equal to zero. This therefore indicates partial mediation. However, meeting these steps does not, however, conclusively establish that mediation has occurred because there are other (perhaps less plausible) models that are consistent with the data. In addition, there are potential problems with Barron and Kenny's (1986) approach. One problem is that a test of significance of the indirect pathway is never tested - that X affects Y through the indirect pathway. A second problem is that the Barron and Kenny (1986) approach tends to miss some true mediation effects (Type II errors) MacKinnon *et al.*, 2007).

Due to the above constraints it is very difficult to conclude that there is partial mediation. As a result there is need to test for the significance of the partial mediation observed which is done by calculating the indirect effect and tests it for significance.

- **Testing the statistical significance of the indirect effect**

The Sobel test performs a statistical test to see if the indirect path from X to Y is statistically significantly different from zero. This is the same idea as the test providing support for partial mediation. The Sobel test tells whether a mediator variable significantly carries the influence of an independent variable to a dependent variable. In other words, it tests whether the indirect effect of the independent variable on the dependent variable through the mediator variable is significant.

Mediation analysis uses the estimates and standard errors from the following regression equations (MacKinnon, 1994):

$Y = c X + e_1$                       The independent variable (X) causes the outcome variable (Y)

$M = a X + e_2$                       The independent variable (X) causes the mediator variable (M)

$Y = c' X + bM + e_3$                 The mediator (M) causes the outcome variable (Y) when controlling for the independent variable (X). This must be true.

If the effect of X on Y is zero when the mediator is included ( $c' = 0$ ) there is evidence of mediation (Judd and Kenny, 1981a, 1981b). This would be full mediation. After computations, the Sobel test statistic value is - 4.0118. In this study a 95% Confidence level was used and the critical value for the normal distribution used was -1.96 since this is a two tailed test. Since the modulus of the Sobel test statistic value is greater than the modulus of the critical value, therefore, the null hypothesis which suggests that access to finance does not mediate the relationship between networking and performance. It is concluded that the indirect effect of the independent variable (X) on the dependent variable (Y) through the mediator variable is significant.

## **6.6 SUMMARY**

The purpose of this chapter is to present the results of this study on a question to question basis. Looking at the results it was observed that men own or manage the majority of the SMEs more than women. In addition it was observed that most of the SME owners/managers are between the ages of 31 - 40 while in terms of education it is also observed that most SME owners/managers have some form of education. However, the results for firm characteristics indicated that most SMEs have been in operation for at most 4 years and operate in the retail sector.

Furthermore, the results indicated that all SMEs are engaged in some form of networking from general, managerial and social networks. However, what differentiates SMEs is the range of network they are engaged. The different types of networks that SMEs participate in also benefit SMEs differently, from information acquisition and

sharing to resource sharing and attainment. Social networks, however, prove to be the most significant type of networks SMEs are engaged in. Because individuals are in constant interaction with other people in their everyday lives, they gain information and links which are beneficial for their enterprises.

The results of this study are also in line with social network theories. Granovetter's (1973) theory suggests that individuals will gain access to information and resources through their interaction with other individuals. The ties between individuals who are known to each other (strong ties) will allow SME owners to gain access to other individuals (weak ties) who may have been unknown to them but who prove to be beneficial to them. This also supports Burt's (1992) theory, which states that an SME owner/manager who has both strong and weak ties will thus have access to superior information from the redundant (weak) ties that are not directly connected to them. Therefore, the network range of the SME is also important and an SME with many links and connections will have access to superior resources and information.

The hypotheses of this study were tested using regression models. The first regression model tested whether there is a relationship between entrepreneurial and firm characteristics and networking. The results indicate that most of these characteristics have an impact on the individual networking of SMEs. However, only industry type has no link with any network participation by SMEs. Specifically, gender and education are the entrepreneurial characteristics of the SME owner/manager that significantly impact the networking of the SME. On the other hand, the age of the SME, the size of the SME and the legal status of the business are the firm characteristics that have an impact on the networking of the SME. The null hypothesis which states that there is no relationship between entrepreneurial and firm characteristics of the SME and networking of SMEs was rejected.

The second regression model tested the secondary hypothesis which stated that networking does not have an impact on access to bank loans and trade credit. The results indicate that only general networks and social networks have an impact on an SME's access to bank loans while all network types (general, managerial and social) are

positively related to access to trade credit. In terms of the overall networking of the SME, the results indicate that there is a positive association between networking and access to bank loans as well as access to trade credit. The null hypothesis which states that networking does not have an impact on access to bank loans and trade credit was thus also rejected.

The third regression model tested whether there was a relationship between networking and performance of SMEs. In terms of individual networks, there is a positive relationship between general, managerial and social networks and performance. For the overall networking of the SME, the results of this model indicated that networking is positively related to the performance of SMEs. Therefore, the null hypothesis which stated that there is no relationship between networking and performance was rejected.

The last section of this chapter tested whether access to finance mediates the relationship between networking and performance of SMEs. The results indicated that access to debt finance partially mediates the relationship between networking and performance. Chapter seven which follows will now discuss the conclusions and recommendations based on the findings of this study

## **CHAPTER SEVEN**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **7.1 INTRODUCTION**

This chapter is made up of three sections. The first section will provide an overview of conclusions to the hypotheses tests and why the propositions were rejected or accepted on the basis of the statistical techniques executed in the previous chapter. The second section will discuss the study recommendations while the third section will discuss the areas for further research.

#### **7.2 CONCLUSIONS**

This section will discuss the conclusions of the hypotheses as a result of the regression analyses conducted on the hypotheses. The sequence will follow from the chronological order from the detailed from chapter one.

##### **7.2.1 There is no relationship between Entrepreneurial Characteristics (gender, age and education) of SME owner/manager and Firm Characteristics (age, legal status, industry and size) of the SME and Networking.**

The information used to test hypothesis came from questions in section A and section B of the research instrument. The results of the regression analysis used to test this hypothesis indicated that there is a positive relationship between some entrepreneurial and firm characteristics and networking. Therefore, the null hypothesis is rejected. However, gender and education of the SME owner/manager as well as age, size and legal status of the SME were significant in the overall networking of the SMEs. Similarly, some of these factors were significant in the individual network types of the SME while some had no effect on certain networks.



Consistent with the results of this study, Callaghan and Lenihan (2008) found a positive impact of gender, SME size, age of SME as well as the education of the SME owner to be significantly associated with networking. Similarly, other researchers like Wincent (2005) Huang et al (2003) and Watson (2007) also found some association between certain entrepreneurial and firm characteristics on networking.

### **7.2.2 Networking has a Negative Impact on Access to Debt Finance**

Questions in section B and section C in the research instrument gave the responses that were used to test the first secondary hypothesis of the study. Using the logistic regression analyses, it was found that networking (generally) is positively associated with SME's access to bank loans and trade credit. Therefore, the null hypothesis which suggested that networking is negatively associated with access to debt finance was rejected. However, in terms of the individual network types, only general networks and social networks are found to be positively associated with access to bank loans. These results indicate that SMEs have easier access to trade credit from suppliers as compared to access to bank loans.

This result is consistent with most studies on the impact of networking on access to debt finance by SMEs in developing countries. Atieno (2009) found a positive association between different network participation and access to bank loans and trade credit. Furthermore, the author also found that SMEs have easier access to trade credit from suppliers than access to bank loans from banks.

Similarly, Ngoc et al (2009) found a positive association between networking and access to bank loans. Consistent with the results of this study and Atieno (2009) Ngoc et al (2009) established that SMEs are considered risky investments by banks and thus have limited finance. However, through collaborations and network participation, SMEs gain legitimacy from their networks improving their image to banks and financial institutions. This in turn improves their access to bank loans and trade credit.

### **7.2.3 There is a Negative Relationship between Networking and SME Performance**

The third hypothesis investigated whether there is a significant positive relationship between networking and performance of SMEs in South Africa. In order to perform the regression analyses composite measures of networking and performance drawn from literature were used. This hypothesis was tested with the aid of questions from section B and section D of the questionnaire. Using logistic and linear regression analyses, it was found that participation in networking has a positive effect on all the measures of SME performance used in this study. The null hypothesis which suggested that there is a negative relationship between networking and performance was therefore rejected.

These results are consistent with studies by Thrikawala (2011) who found a positive relationship between small business networking and performance. Furthermore, the author suggests that because of the strong impact of network relationships for the success of SMEs, policy makers should organise network activities for SMEs, apart from their traditional supporting approaches.

Watson (2006) also found a positive association between networking and SME survival and performance measured through return on equity. The author suggests that network range (the number of networks an SME is engaged) is positively associated with growth while SME intensity (the frequency these networks are utilised) is positively related to SME survival.

Furthermore, the results of this study are consistent with both theories of networking and performance. Networking theory suggests that SMEs will gain access to superior information and resources while also reducing transaction costs. On the other hand performance theory suggests that an enterprise able to overcome the various constraints that are inherent in every system will perform better. The emotional intelligence theory suggests that an enterprise that has an owner/manager who has superior emotional intelligence, through learning, will be more successful. Therefore, participating in networks will enable an enterprise to gain superior information and resources to overcome the constraints that arise in business operations. In addition,

network participation will allow the SME owner to learn from others within the network and gain superior information and knowledge that improves the emotional intelligence of the owner and, ultimately, performance of the SME.

#### **7.2.4 Access to finance does not mediate the relationship between networking and performance of SMEs**

The responses used to test this regression model came from question in section B, C and D. To test this hypothesis, several regression models were tested using the steps suggested by Baron and Kenny (1986). Using this approach, it was established that access to debt finance partially mediates the relationship between networking and performance of SMEs. The null hypothesis which suggested that access to finance does not mediate the relationship between networking and performance was therefore rejected.

### **7.3 RECOMMENDATIONS**

This section focuses on the recommendations to the SME sector as to how they can improve their business performance. Apart from the SME sector, some recommendations are directed at the government and its different ministries to assist it in its efforts to improve the development of the economy as a whole. In addition, some of the recommendations will be directed at the banking sector as they play a major role when SMEs seek access to debt finance.

#### **7.3.1 Small to Medium Enterprises**

SMEs face problems in accessing debt finance. This is reflected in the theories of capital structure such as the Stiglitz and Weiss (1981) credit rationing theory which suggests that because SMEs are high risk projects, they suffer from adverse selection from financial institutions. In addition, the results of this study indicate that SMEs have limited access to bank loans. However, networking theory suggests that an SME with superior access to information and resources through general networks and shares contacts with

other firms and individuals through social networking will have better access to finance and will also perform better. This is also reflected in the results of this study as the regression analyses proved a significant positive relationship between networking and access to debt finance. In addition, networking theory (Resource Dependency Theory) also suggests that SMEs that engage in networking gain legitimacy, information, resources and mutually beneficial associations. These benefits will translate into superior performance for SMEs. This is also reflected in the results as the regression test on the relationship between networking and performance is positive. In light of this, SMEs should:

- **Network**

SMEs are encouraged to network to share ideas, information and knowledge as well as resources. This is because networking opens channels and enables SME owners to interact and develop relationships with influential people who may positively impact on their enterprises. In addition, SME owners get to learn from other individuals in the network and thus improve the performance of their enterprises. Networking thus provides avenues which not only enable an SME to access superior information but also to gain resources, reduce transaction costs, interact with other individuals and improve their performance. Furthermore, networking improves the legitimacy of the SME and increases the likelihood of obtaining debt finance from banks. In addition, networking enables SMEs to engage in collective bargaining with suppliers and enjoy large discounts of bulk purchasing from suppliers and increases the access of trade credit by SMEs.

- **Form joint partnerships and ventures**

Most of the problems faced by SMEs are due to their small size, individually and that is a reason attributed to why most SMEs remain as sole trader businesses. Therefore, in addition to networking, SMEs may also form joint partnerships to increase their capital base, skills and other resources. This would enable them to access wider markets and

compete with larger more established enterprises. In that way they can hopefully grow, develop and increase the economic development of the country.

- **Comply with registration requirements under the National Small Business Act (2003)**

The results of this research study indicated that the legal status of SMEs affects networking of SMEs. Furthermore, literature also suggests that legality of SMEs is essential in the evaluation of loan applications by financial institutions. Therefore, if SMEs register with the Department of Trade and Industry under the National Small Business Act (2003) they gain legitimacy which will influence their networking and, may also influence their access to finance. This may also improve the long term performance of SMEs.

- **Employ educated managers**

The results of this study indicated that education of the SME owner is positively related with networking. Having an educated manager will allow an SME to obtain access to value networks through the influential contacts of the manager (through social networks) which may present favourable opportunities for the SMEs. Furthermore, an educated SME manager may be able to evaluate the value of a particular network thus reduce the transaction costs of being over embedded in valueless networks as suggested by Watson (2007). This allows SMEs to direct their resources only on valuable networks and activities.

### **7.3.2 Government**

Because SMEs have been identified as the most significant contributor to employment, economic growth and poverty alleviation, it is essential to point out what government may do to improve the performance and sustainability of SMEs.

- **Improve awareness of government support services**

The theories of capital structure suggest that SMEs are reliant on debt finance because equity finance is expensive. In addition, most SMEs are not registered under the Johannesburg Stock Exchange (JSE) and thus cannot issue shares to raise capital. However, it was also mentioned that SMEs do not have adequate access to debt finance. Thus another alternate form of finance is required by SMEs. Government has many funding and support agencies (Khula, SEDA, Ntsika) to support SMEs. However, most of the SME owners are still unaware of these organisations and even those that are known are still underutilised. This indicates the need for these institutions to advertise themselves more and organise workshops to inform small business owners and potential entrepreneurs of their existence the services they offer. Information should be available in high traffic areas such as post offices; shopping areas; and the internet; to increase the awareness of, and use of, small business support institutions. There should be specific workshops targeted at educating SME owners about support institutions that are available, how to access them and what they can benefit from contacting them.

- **Support growth of micro finance industry**

South African government should support the growth of the micro-finance industry so as to improve access to finance by small business owners. This is after the realisation that bank loans and trade credit are the two prevalent sources of SME finance in the country. Therefore, given the risky nature of most SMEs and the high failure rate of these enterprises, government may assist banks and ensure they are not the sole supplier of financial services.

### **7.3.3 Banking sector**

Literature review in this study identified access to bank loans and trade credit as the primary sources of debt finance in South Africa. However, the results of this study confirm that only 39% of SMEs have had access to bank loans. This raises issues for

the banking sector. Therefore, the following recommendations may be made to the banking sector:

- **Decreasing collateral requirements**

The weak capitilisation of SMEs implies that most SMEs lack the financial resources or capital equipment to use a s collateral to serve as security for financial loans. Therefore, it is recommended that banks may reduce the collateral requirements so as to encourage SMEs to apply for bank loans.

- **Business mentoring and coaching**

Banks should assist small business owners in identifying well-established people in business that can mentor them and guide them through the process of developing their businesses. The mentors can also help them in establishing broader business networks that can help them in their line of business.

## **7.4 AREAS FOR FURTHER RESEARCH**

Although this study shed some light into networking on SMEs in South Africa, there are still gaps that may be filled by other studies. Building on this study, other studies may focus on expanding the definition of networking as used in this study. In addition, future studies may encompass other determinants of networking including product type, entrepreneurial orientation as well as previous working experience on the networking of SMEs.

## **7.5 SUMMARY**

This chapter discussed the conclusions, recommendations and areas of further study. The results reject the primary null hypothesis which suggests that networking does not have an impact on SME performance. In addition, the secondary null hypothesis which suggests that networking does not have an impact on access to debt finance is also

rejected. Similarly, the third null hypothesis which suggests that entrepreneurial and business characteristics do not affect networking of SMEs is also rejected. However, there exists some support for this null hypothesis as some factors were negatively associated with networking.

In order to improve performance, SMEs are encouraged to network their enterprises and build upon their social networks to gain access to resources, information, contacts and finance. This will improve the performance of the SMEs. Government is also encouraged to provide business training for SME owners as they usually lack management skills that will grow their enterprises. Furthermore, government should improve the loan market and ensure banks are not the sole provider of finance.



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## **ADDENDUM 1**

### **Questionnaire**

#### **DEAR RESPONDENT**

I am a Master of Commerce student at the University of Fort Hare. I am conducting a study on the impact of networking on the performance of SMEs in the Buffalo City Municipality. It will be highly appreciated if you would participate in answering the questions as thoroughly as possible. All the information will be treated with the **STRICTEST CONFIDENTIALITY** and will only be

used for academic purposes. Please feel free to contact the researcher or the supervisor in cases of any queries.

Researcher: Mr. T.L Machirori; Cell number: 082 408 5077, Email: [tltmachirori@gmail.com](mailto:tltmachirori@gmail.com)

Supervisor: Dr. O.O Fatoki; Phone number 040 602 2248; Email: [ofatoki@ufh.ac.za](mailto:ofatoki@ufh.ac.za)

## **Section A: General Information**

### **Entrepreneurial Characteristics** (please tick appropriate).

1. Please indicate your gender.

Male	
Female	

2. Please indicate your age.

20 - 30		31 - 40		41 - 50		Over 51	
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3. Please indicate your level of education.

1.	Did not go to school	
2.	Primary school or less (<O/L).	
3.	Matric	
4.	Apprenticeship/Diploma	
5.	University Degree (First)	
6.	Higher degree (Post-graduate)	

### **Business characteristics** (please tick appropriate).

4. How long has your business been operational?

1 - 4 years		5 - 9 years		10-14 years		15 years and above	
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5. What is the size of your business (number of persons currently employed including yourself)?



1 - 49		50 - 99		100 -149		150 - 200	
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6. What is the legal status of your business?

Sole proprietor		Partnership		Close Corporation		Company	
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7. In what industry is your business enterprise operating in?

Service		Manufacturing		Retail		Construction		Wholesale	
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**Section B. Networking (Networking will be measured by the following four factors)**

**8a. General** (please tick appropriate)

(i) Are you a member of any kind of professional association such as chamber of commerce?

Yes	
No	

(ii) Have you attended any trade fairs and business seminars?

Yes	
No	

(iii) Do you maintain relationships with government agencies?

Yes	
No	

(vi) Do you use an accountant to prepare your financial statements?

Yes	
No	

(v) Do you maintain any relationships with external consultants?

Yes	
No	

**8b. Managerial networks** (please tick appropriate).

- (i) Do you maintain any business relationships with your competitors (similar businesses)?

Yes	
No	

- (ii) Do you maintain any business relationships with your suppliers?

Yes	
No	

- (v) Do you maintain any business relationships with your customers?

Yes	
No	

### 8c. Social networks

- (i) Do you belong to any social associations or clubs?

Yes	
No	

- (ii) Do you maintain any business relationships with your friends?

Yes	
No	

- (iii) Do you maintain any business relationships with your family and relatives?

Yes	
No	

9. Considering the sources you have identified in question 8, please indicate the importance of each of these sources for your business in attaining the following: (where 1 = unimportant; 2 = important; 3 = very important).

9a. <u>General networks</u>	Advice, business ideas and knowledge sharing	Resource sharing and resource dependency
Membership in professional associations		
Trade fairs and business seminars		
Government agencies		
	211	

Accountant

External consultant

9b. Managerial networks

Competitors or similar businesses		
Suppliers		
Customers		

9c. Social networks

Friends		
Family and relatives		
Social associations or clubs		

**Section C: Access to finance**

10. Do you have access to bank loans?

Yes	
No	

11. Have you had access to trade credit?

Yes	
No	

**Section D. Information about business performance**

11. Indicate your level of agreement or disagreement with the following questions on the performance of your business

(i) You are satisfied with the sales growth of your business in the last three years?

Strongly disagree		Disagree		Neutral		Agree		Strongly agree	
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(ii) You are satisfied with the profitability growth of your business in the last three years?

Strongly disagree	Disagree		Neutral		Agree		Strongly agree	
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(iii) You are satisfied with the performance of your firm compared to the performance of your competitors?

Strongly disagree	Disagree		Neutral		Agree		Strongly agree	
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(iv) You are satisfied with the overall performance of your firm?

Strongly disagree	Disagree		Neutral		Agree		Strongly agree	
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**\\Thank you for your participation\\**

## **ADDENDUM 2**

### **Schedules of SMEs in South Africa**

Sector/Industrial Classification	Size of Class	Total full time employees	Annual turnover
Agriculture	Medium	100	R5m
	Small	50	R3m
Mining and Quarrying	Medium	200	R39m
	Small	50	R10m

Manufacturing	Medium	200	R51m
	Small	50	R13m
Electricity, gas and water	Medium	200	R51m
	Small	50	R13m
Construction	Medium	200	R26m
	Small	50	R6m
Retail and Motor Trade and Repair Services	Medium	200	R39m
	Small	50	R19m
Wholesale Commercial Agents and allied Services	Medium	200	R64m
	Small	50	R32m
Catering, Accommodation and Other Trade	Medium	200	R3m
	Small	50	R1m
Transport Storage and Communications	Medium	200	R26m
	Small	50	R13m
Finance and Business Services	Medium	200	R26m
	Small	50	R13m
Community social and Personal Services	Medium	200	R13m
	Small	50	R6m

Source: Amended Small Business Act 102 of (1996).

## **ADDENDUM 3**

### **REGRESSION RESULTS EXTRACTS**

**Relationship between entrepreneurial and firm characteristics and individual networks**

**Regression section: Dependent variable - General networks**

Variable	Parameter estimate	Standard error	t-value	Pr > [t]
intercept	1.955	0.12497	15.64	<.0001
<b>Entrepreneurial characteristics</b>				
Gender	-0.00816	0.04825	-0.17	0.0027
Age	-0.00987	0.03179	-0.31	0.7569
Education	-0.03915	0.01555	-2.52	0.0135
<b>Business characteristics</b>				
Age of SME	-0.04207	0.03623	-1.16	0.0248
Size of SME	-0.10622	0.03042	-3.49	0.0007
Legal status	-0.05377	0.02435	-2.21	0.0296
Industry	0.003662	0.01761	2.08	0.04024

#### Analysis of variance section

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	4.70764	0.67252	14.00	<.0001
Error	154	4.70641	0.04802		
Corrected total	161	9.41405			

#### Regression section: Dependent variable - Managerial networks

Variable	Parameter estimate	Standard error	t-value	Pr > [t]
intercept	1.69446	0.12497	11.17	<.0001
<b>Entrepreneurial characteristics</b>				
Gender	-0.08572	0.05855	-1.46	0.1464
Age	-0.04409	0.03858	-1.14	0.2558

Education	-0.04428	0.01888	-2.35	0.0210
<b>Business characteristics</b>				
Age of SME	0.06205	0.04397	1.41	0.0264
Size of SME	0.03143	0.03692	0.85	0.3967
Legal status	-0.11371	0.02955	-3.85	0.0002
Industry	-0.00060481	0.02137	-0.03	0.9775

### Analysis of variance section

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	2.18133	0.31162	4.41	0.0003
Error	154	6.93083	0.07072		
Corrected total	161	9.11216			

### Regression section: Dependent variable - Social networks

Variable	Parameter estimate	Standard error	t-value	Pr > [t]
intercept	1.74695	0.11659	14.98	<.0001
<b>Entrepreneurial characteristics</b>				
Gender	-0.04457	0.04502	-0.99	0.3246
Age	-0.01205	0.02966	-0.41	0.6854

Education	-0.03046	0.01451	-2.10	0.0384
<b>Business characteristics</b>				
Age of SME	-0.01809	0.03380	-0.54	0.5937
Size of SME	0.05343	0.02838	1.88	0.0628
Legal status	-0.08529	0.02272	-3.75	0.0003
Industry	-0.03153	0.01643	-1.92	0.0579

### Analysis of variance section

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	1.20254	0.17179	4.11	0.0005
Error	154	4.09647	0.04180		
Corrected total	161	5.29900			