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BANK FINANCE IN DEVELOPING SMALL AND MEDIUM ENTERPRISES: AN APPRAISAL OF RELEVANT DETERMINANTS IN RWANDA

By

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ABSTRACT

This study examines the perceived non-availability of adequate bank financing to Small and Medium Enterprises (SMEs) with reference to Rwanda. Evidence from both developed and developing countries show that SMEs are more constrained in their operations and growth than large enterprises and access to finance features importantly among the constraints, with their proprietors typically perceiving finance as their most pressing input constraints. The problem is more severe in less developed countries like Rwanda.

SMEs do not get adequate finance from financial systems despite their valuable contribution in the economic development of all nations across the globe. They are well recognized from their contribution to the socio-economic objectives of growth in employment generation, product output, export, and in their function as seed beds of entrepreneurship.

This study aims to investigate the causes of the problem and what could be done to mitigate the problem. The primary objective of the study is to determine how to improve the availability of bank financing to SMEs in Rwanda. The argument is that there are SMEs internal factors that cause unavailability of bank financing. Understanding the causes of this problem is important to determining how to improve availability of credit to SMEs.

For this purpose, the questionnaire was administered to 122 respondents from four commercial banks and 26 respondents from one development bank. All together 148 questionnaires were administered and 120 questionnaires returned. The response rate was 81%. Six major SMEs internal factors which included; business information, collateral, managerial competency, internal funds, networking and ethical practices were investigated to find out their impact on the availability of bank financing to SMEs.

Quantitative data were analysed using a Statistical Package for Social Sciences (SPSS) with statistical tools including descriptive statistics, frequency distributions and chi-square test. The Cronbach's alpha was used as a measure of reliability. While the data from the open-end question analysis involved classifying data, extracting themes, identifying patterns, tallying and quantifying responses and making generalization out of these patterns. This implies that the research methodology focused on the methods, tools and techniques used to assist in achieving the objectives of the study and answering the research questions that the research sought to address. To this end, the study sought the perceptions of bank staff on reasons why bank credit is not available to SMEs. The study focused on four research questions as outlined in chapter one and other relevant sections of the study.

The major finding of this study is that there is a significant positive relationship between six SMEs internal factors (lack of business information, lack of collateral, lack of managerial competency, lack of internal funds, lack of networking and unethical practices) and non-availability of banks finance in Rwanda.

On the basis of these findings, the study recommended that SMEs owners and staff should be trained in key strategic areas such as business management and financial management to effectively and efficiently manage their businesses and curb information asymmetry. The study also recommends that the government should introduce more practical guarantee facilities to enable banks access the funds as soon as the SME defaults. This will encourage bank to extend more credit to SMEs. Furthermore, the study suggests that the government should categorise SMEs as a priority sector and come up with a policy requiring banks to compulsorily ensure that a certain earmarked percentage of their overall lending is made to SMEs as a priority sector. Lastly, the study recommends that Rwanda Private Sector Federation should conduct trainings on ethical management to SMEs. Unethical behaviours such as deliberately not paying back loans should be heavily punished to limit occurrences of these behaviours among SMEs which may results in huge stock of non-performing loans.

DECLARATION

I, Emmanuel Thomas GATABAZI, hereby declare this thesis is my original work. It has never been published before or submitted to meet requirements for a degree award at this or any other University.

Signature.....Thomas Gatabazi..... Date: 13th April 2012

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DEDICATION

This study is dedicated to my late father Thomas Nyakabga, my mother Suzan, my lovely wife Chantal, and my wonderful son Andy.

KEY WORDS

Small and Medium Enterprises

Commercial banks

Bank Financing

Information asymmetry

Credit rationing

Adverse selection

Moral hazard

Collateral

Business information

Managerial competencies

Internal fund

Ethical Behaviour

Networking

ACRONYMS

BCR	*Banque Commerciale du Rwandal* Commercial Bank of Rwanda
BK	Bank of Kigali
BPR	*Banque Populaire du Rwanda* / Rwanda People's Bank
BRD	*Banque de Developpment du Rwanda* /Rwanda Development Bank
EDPRS	Economic Development and Poverty Reduction Strategy
GoR	Government of Rwanda
ICA	Investment Climate Assessment
NGOs	Non-Governmental Organizations
SMEs	Small and Medium Enterprises

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CHAPTER ONE

1 INTRODUCTION TO THE STUDY

1.1 Introduction

This chapter gives an overview of the research undertaken to investigate why Small and Medium Enterprises (hereafter SMEs) do not get adequate bank financing for their operations in Rwanda. The background section explores pertinent issues related to lack of bank financing to SMEs despite of the important role they play in the economic development. The literature review conducted by this research revealed that most studies on SMEs financing are predominantly from Asia, America and Europe. There is a limited literature from Africa on the subject matter and evidently there is scarcity of SMEs financing literature on Rwanda.

This research examines the relationship between the lack of bank financing and the SMEs internal factors. The argument of this research is that there are factors internal to SMEs that cause bank financing to be unavailable to SMEs in Rwanda. Understanding the causes of this problem is important to improving the availability of credit to SMEs. This chapter presents a broad overview of the study. The background of the study, the statement of the problem, the research questions, objectives, hypotheses, the research methodology, the purpose of the study, the significance of the study, the delineations of the study, the definitions of terms and the limitations of the study are outlined in this chapter. The chapter, in addition lays out the organisation of other chapters of the study.

1.2 Background of the Study

The financing of SMEs has attracted attention and it has been a subject of great interest by researchers and policy makers due to the significance of the SMEs in the private sectors of all economies around the world (Beck, Demirgüç-Kunt, and Peria, 2008).

SMEs are well recognized from their contribution to the socio-economic objectives of growth in generation of employment, output, export, and in their function as seed beds of the entrepreneurship. According to Maas and Herrington (2006), SMEs are anticipated 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.

Table 1-1: Contributions of SMEs

Country	Share of total establishments	Share of output	Share of employment
USA	98%	Not available	53%
Japan	99%	52%	72%
Taiwan	97%	81%	79%
India	95%	40%	45%
Singapore	97%	32%	58%
South Korea	90%	33%	51%
Indonesia	99%	36%	45%

Source: Tuteja, 2002

Table 1.1 above shows the economic contributions of SMEs across different economies. Small businesses today are being variously considered as the drivers of the economy or the engine for the growth of industry. SMEs sector has emerged as a main player in most economies. The performance of this sector therefore has a multiplier impact on growth of many economies.

In Rwanda, SMEs are one of the most important impetuses of the overall Rwanda private sector development which stimulates private ownership and entrepreneurship, employment growth and significantly contributes to increase of domestic production and exports. They account for as 60% of GDP, 97% of firms, and 70% of employment in Rwanda (ICA, 2009).

Hence, governments world all over focus on the development of the SME sector to promote economic growth. Despite a plethora of policies and programs to promote SMEs, their performance has not been pleasant. Most small business surveys conducted report that lack of access to credit represents a strong restriction on the expansion of SMEs, with the proprietors themselves typically perceiving finance as their most pressing input constraints.

Many governments, recognizing the importance of adequate financing to the development of SMEs, have taken steps to encourage lending institutions to provide credit to SMEs on more liberal terms. For example in India, as a part of the strategies of economic development, Small Scale Industries sector (the term SSIs is used far more often than SMEs in India) has been given a crucial role to play. In view of this, the Government of India recognized the need for a focused credit policy for SSIs and as a part of its policy of promotion of SSI sector in the county has set up a host of institutions to meet the financial requirements of small entrepreneurs. SSI sector has been included in the priority sector earmarked by the government. Credit to the SSI sector is ensured as part of the priority sector lending by banks. Banks are required to compulsorily ensure that defined percentage (40%) of their overall lending is made to priority sector as classified by government (Kamesam, 2003). The sector includes agriculture and SSIs. The inclusion of SSIs in this list makes them eligible for this earmarked credit. Despite these measures, SSIs promoters complain about non-availability, inadequate and delays in getting finance.

The subject of inadequate finance to SMEs is not new and numerous studies have discussed that SMEs are financially more constraint than large firms. Early in the 1930s, Senator Macmillan in his report to US Congress concerning SMEs' development pointed out that SMEs were distressed with finance gap despite the important role they play in the economic growth and employment creation (Zhao, Wu and Chen, 2006).

Cross-country evidence shows that SMEs are more constrained in their operation and growth than large enterprises and access to financial services features importantly among the constraints as per Ayyagari, Demirgüç-Kunt and Maksimovic (2006) cited by Beck (2007). According to Malhotra, et al. (2007), small firms obtain only 30 percent of their financing from external sources, whereas large firms meet up to 48 percent of their financing needs through external financing.

Data from the Investment Climate Assessment (2009) in Rwanda indicate that microenterprises finances only about 1% of working capital and 3% of long term investment with bank funds, which increases to 10-12% for small enterprises, 25 for medium and 33% for large enterprises. The proportion of bank finance to SMEs is very low, these types of firms are hardly able to get needed bank finance instead they rely on informal sources, such as finance from family, friends and money lenders.

Many entrepreneurs raise the start-up capital from their own or family savings, which is often inadequate, rather than approaching formal institutions or agencies for external finance. This situation implies a need to improve the overall business environment for SMEs business in order to improve investment and growth.

The situation in developed countries seems to be less severe compared to developing counties. A study by the Kauffman Foundation (2007) on the capital structure decisions of SMEs in the United States of America finds that contrary to widely held beliefs that SMEs rely heavily on funding from family and friends, external financing such as bank loans a common sources of funding for many SMEs during their early years of operation. This is also noted by Reitan and Waago (2002) citing (Waago et al, 1979) that banks in Norway and in European countries are still the dominant source of finance for SMEs in most European countries, whereby 60.5% of the need for capital was financed by private banks.

But, Beck (2007) finds that SMEs in developing countries, by contrast, report a widespread shortage of external finance. Therefore, access to bank for SMEs is very limited in developing countries like Rwanda.

In spite of the fact that SMEs are an engine of innovation and growth, that they help reduce poverty as they are more labor-intensive, very few SMEs get credit from banks. The question here is why? There is no known empirical research in Rwanda to the best knowledge of the researcher that has in-depth researched into why banks are funding SMEs in Rwanda. This is a call for this research as to why banks are not granting adequate credit to SMEs. Understanding the reasons why bank financing is not available to Rwandan SMEs will lead to recommendations that will improve its availability. This is the focus of the study.

1.3 Statement of the problem

Le and Nguyen (2009) argue that SMEs have been an engine of sustained economic expansion in both developed and emerging economies but one of the critical success factors for small firms is gaining sufficient access to external sources of finance. They add that SMEs in emerging economies find it harder to access external finance since such resources are severely constrained because capital markets, venture capital, and business angel investors are typically at nascent stages of development. As such, bank loans tend to be the only significant formal sources of external funding for SMEs in emerging economies. Therefore, a key challenge for many SMEs is to get access to bank financing efficiently since banks perceive lending to SMEs to be very risky.

A number of research papers find that SMEs are more financially constrained than large firms. For example, using data from 10,000 firms in 80 countries, Beck, Demirgüç-Kunt, Laeven, and Maksimovic (2006) show that the probability that a firm rates financing as a major obstacle is 39% for small firms, 38% for medium-size firms, and 29% for large firms. Furthermore, SMEs finance on average, 13% points less of investment with external finance compared to large firms. Importantly, lack of access to external finance is a key obstacle to firm growth, especially for SMEs.

Access to external finance is needed to ensure flexibility in resource allocation and to reduce the impact of cash flow problems of SMEs (Atieno, 2009). Therefore firms with access to funding are able to build up inventories to avoid stocking out during crises, while the availability of credit increases the growth potential of the surviving firms during periods of macroeconomic instability. Firms without access to bank funding are more vulnerable to external shocks (Nkurunziza, 2005).

A vast majority of SMEs depend on internal finance (contribution from the owners, family and friends). Internal finance is often inadequate for SMEs to survive and grow. Therefore, lack of access to external finance is a key constraint to economic growth particularly for SMEs since firms that make use of external funds exhibit growth rates far above what can be supported by internal finance (ICA, 2009)

External finance is needed to finance firm's working capital and investments in productive assets (property, plant and equipment). An examination of the situation of enterprise's financing indicates that in most countries around the world, smaller firms have more difficulties with access to finance. The (ICA, 2009), a report on Rwanda provides a comparison of SMEs and large firms. The findings show that SMEs have least favourable access to finance, while large firms have the most favourable. Among micro firms 47% report access to finance as one of the top 3 obstacles, it was 38% of the SMEs while only 22% of large firms do so. Therefore SMEs need to get capital from external sources.

Most of the entrepreneurship, finance and economics literature on SME financing show that it is often difficult and expensive for SMEs to access financing largely due to information asymmetry between financial institutions and firms (Le and Nguyen, 2009).

There are two primary sources of external finance; equity and debt. According to Blumberg and Letterie (2008), equity financing is hardly viable to SMEs, because the equity market for small firms is not well developed; most entrepreneurs lack the experience and expertise to obtain equity financing. Therefore SMEs rely on commercial banks to get external finance. Fatoki and Smith (2011) argue that despite the dependence of SMEs on bank credit, paradoxically access to bank credit is very limited for SMEs, especially in developing countries in this case like Rwanda. Banks hesitate to lend to SMEs due to information asymmetry which lead to credit rationing.

Credit rationing theory was developed by Stiglitz and Weiss (1981). Credit rationing occur if (i) among loan applicants who appear to be identical some receive credit and others do not, and the rejected applicants would not receive a loan even if they offered to pay a higher interest rate; or (ii) there are identifiable groups of individuals in the population who, with a given supply of credit, are unable to obtain credit at any interest rate. Therefore, the theory suggests that there are SMEs that could use external funds productively if they were available, but cannot obtain finance from the formal financial system.

Beck (2007) argues that the availability of finance to SMEs can be influenced by both borrower-specific (internal factors) and systemic factors (external factors). Zhao, Wu and Chen (2006) and Reitan and Waago (2002) point out that internal factors include collateral, internal funds, managerial competencies, quality of business information, firm size and networking and other variables largely controllable by a firm. A firm's internal environment represents factors that are largely controllable by the firm. These factors may influence the availability of finance to SMEs. The internal factors focused on by this study include; business information, collateral, managerial competency, internal funds, networking and owner ethical behaviour.

The impact of firm internal factors on the availability of bank financing to SMEs forms a central discussion of this research. Therefore, the research problem is that, the SMEs in Rwanda do not get adequate bank financing.

1.4 Research questions

The following research questions were generated to assist the attainment of the main objectives:

- Do SMEs get adequate bank financing in Rwanda?
- What are factors that determine the availability of bank financing to SMEs in Rwanda?
- What is relationship between SMEs internal factors and access to bank financing in Rwanda?

- What are possible recommendations toward improving the availability of bank financing to SMEs in Rwanda?

Providing answers to these research questions will assist in gaining a better understanding of how to improve the availability of bank finance to SMEs in Rwanda, and solving the problem of finance to SMEs is important to the overall Rwanda private sector development which significantly contributes to economic development of the country.

1.5 Research objectives

The objectives of the study are:

- To assess the availability of bank financing to SMEs compared to large industries in Rwanda.

- To examine the factors determining the availability of bank financing to SMEs in Rwanda.
- To investigate the relationship between SMEs internal factors and access to of bank financing in Rwanda.
- To suggest the likely measures to improve the availability of bank financing to SMEs in Rwanda.

1.6 Research hypotheses

1) Main hypothesis

The primary hypothesis for the study is:

- H_0: There is no significant relationship between the SMEs internal factors and availability of bank financing in Rwanda.
- H_1: There is significant positive relationship between the SMEs internal factors and availability of bank financing in Rwanda.

2) Secondary hypotheses

The primary hypothesis is established from the following six secondary hypotheses, based on business information, collateral, managerial competencies, internal fund, networking factors and ethical behaviour.

(i) Business Information

- H_{0a}: There is no significant relationship between the lack of business information and non-availability of bank finance to SMEs in Rwanda.
- H_{1a}: There is a significant positive relationship between the lack of business information and non-availability of bank finance to SMEs in Rwanda.

(ii) Collateral

- H_{0b}: There is no significant relationship between the lack of collateral and non-availability of bank finance to SMEs in Rwanda.
- H_{1b}: There is a significant positive relationship between the lack of collateral and non-availability of bank finance to SMEs in Rwanda.

(iii) Managerial Competencies

- H_{0c} There is no significant relationship between the lack of managerial competencies and non-availability of bank finance to SMEs in Rwanda.
- H_{1c} There is a significant positive relationship between the lack of managerial competencies and non-availability of bank finance to SMEs in Rwanda.

(iv) Internal Fund

- H_{0d}: There is no significant relationship between the lack of internal fund and non-availability of bank finance to SMEs in Rwanda.
- H_{1d}: There is a significant positive relationship between the lack of internal fund and non-availability of bank finance to SMEs in Rwanda.

(v) Networking

- H_{0e} There is no significant relationship between the lack of networking and non-availability of bank finance to SMEs in Rwanda.
- H_{1e} There is a significant positive relationship between the lack of networking and non-availability of debt to bank finance SMEs in Rwanda.

(vi) Ethical Behaviour

- H_{0f} There is no significant relationship between unethical behaviour and non-availability of bank finance to SMEs in Rwanda.
- H_{1f} There is a significant positive relationship between unethical behaviour and non-availability of debt to bank finance SMEs in Rwanda.

1.7 **Research methodology**

According to Welman, et al (2005) research, methodology refers to research methods and techniques considered in the study and it explains the logic behind in selecting them. Therefore, research methodology discusses methods, tools and techniques employed to gather, record, analyze and interpret information to achieve the objectives of the study and explaining rationale for using them.

Hofstee (2006) advises that the methodology is vital to the success of a study, because results can be accepted, rejected, checked or replicated or even understood in the context of how to get there. Consequently, clear methodology is so important so that findings and conclusions are believed and accepted. According to Korzybski (cited by Hofstee, 2006:107) "*If a map shows a different structure from the territory represented… then the map is worse than useless, as it misinforms and leads astray*".

Research designs fall under two broad categories, qualitative and quantitative research. The choice of research design centres on the nature of the research, the setting, the possible limitations and the underlying paradigm that informs the research project. The researcher should choose a design that will provide relevant information on the research questions and complete the job most efficiently.

Hair, et al. (2007) write that when hypotheses are developed, the researcher typically relies on a quantitative approach. Since the research involved testing of hypotheses, consequently the research adopted the quantitative approach to investigate why SMEs do not get adequate bank financing in Rwanda and to empirically test hypotheses regarding the bank financing determinants. The main feature of quantitative research is the heavy reliance on numbers and mathematical tools of data analysis to arrive at findings or conclusions.The study was approached from the perspective of a valid research design through definition of the study population and sample design, the incorporation of suitable measuring instrument and reliable techniques for data analysis.

The study concentrated on major commercial banks and one development bank in Rwanda. The major banks are Bank of Kigali (BK), Banque Populaire du Rwanda (BPR), Commercial Bank of Rwanda (BCR), Eco Bank, and Fina Bank. According to the Central Bank of Rwanda (NBR) data, five banks account for 82.7% of net loans and 78.7% of all assets in commercial banking in Rwanda.

The population of the study comprised headquarters of the four big commercial banks in the City of Kigali plus the only one Rwandan Development Bank (BRD); the four commercial banks were BK, BPR, BCR, and Fina Bank. The evaluation of credit applications takes place at the headquarters of the banks and this is the reason why the survey took place at the headquarters with the exception of BPR which has given autonomy to some branches to evaluate and grant loans. Eco Bank was later on dropped from the study because it decline to participate and the natural replacement was Fina Bank. Therefore, four major commercial banks and the only one Rwanda's Development Bank participated in the study.

Data gathering instrument that was found appropriate for this study was through a questionnaire. For this purpose, the questionnaire was administered to 122 respondents from commercial banks and 26 respondents that were from the development bank. All together 148 questionnaires were administered and 120 questionnaires returned. The response rate was 81%.

Quantitative data analysis was done using the Statistical Package for Social Sciences (SPSS) version 19 for windows. Statistical tools used included descriptive statistics, frequency distributions, nonparametric tests using chi-square method and scale reliability analysis with Cronibach's alpha. The qualitative data from the open-end question were analysed by classifying data, extracting themes, identifying patterns, tallying and quantifying responses and making generalization out of these patterns.

1.8 Purpose of the study

The primary purpose of this study is to assess the availability of bank financing to SMEs in Rwanda through an examination of the factors that determine the availability of bank financing. The second purpose of this study is to empirically investigate the relationship between SMEs internal factors and access to bank financing in Rwanda in order to address the lack of adequate bank credit. The ultimate aim of the study is to chart a way forward for banks to provide adequate funding to SMEs in Rwanda.

1.9 Significance of the study

This study should be significant to the Rwandan authorities, the SMEs owners, the banks and scholars as it produced data, information and strategies that can be vital in improving SMEs access to bank financing. The findings of the study will enlighten the key players in quest to support SMEs to get adequate financing for their operations. The study provides a picture of what is taking place within banks in terms of the factors that they consider most important determinants for SMEs to access bank loans and other credit facilities.

The study focused on internal factors to SMEs that hinder access to bank financing from the bankers' view in Rwanda with a view to improving the availability of financing. Given that there is limited literature on SMEs internal factors for accessing finance in Rwanda, the study aim to hopeful contribute to this broad body of literature and knowledge.

Furthermore, the study meant to contribute to the debate and understanding on what prevents SMEs from getting adequate external finance from banks. It was indeed felt that this could positively inform policy makers designing systems for economic development and creating favourable business environment for SMEs to grow and excel.

1.10 **Justification of the study**

The motivation for this study comes from the fact that access to bank finance is often ranked as one of most constraining feature of business environment by SMEs compared to large firms while they account for a larger share of enterprises and a larger share of overall employment in the private sector of most economies.

According to Beck, Demirgüç-Kunt, Laeven, and Maksimovic (2006), the probability that a small firm lists financing as a major obstacle (as opposed to moderate, minor or no obstacle) is 39% compared to 36% for medium-size firms and 32% for large firms and that while SMEs finance less than 10% percent of their investment needs with bank finance, large firms finance more than 20% with bank credit.

SMEs finance a significantly larger share of their new investment with internal resources than large firms. Beck (2007) observe that while 30% of large firms use bank finance to finance new investment, only 12% of SMEs do. SMES do not only report higher financing obstacles, they are also more adversely affected by these obstacles. SMEs' financing obstacles have almost twice the effect on their growth than large firms' financing obstacles do.

Most of the previous studies on bank financing to SMEs have largely been conducted in the context of developed economies (Le, Venkatesh and Nguyen, 2006) and it has been largely investigating this subject from the demand side perspective. This study is investigating constraints to SMEs access to bank financing in Rwanda from the banks point of view.

Another major weakness of previous empirical studies on SMEs and access to finance is the lack of comprehensiveness in studying SMEs internal factors responsible for availability of bank finance all together. Zhao, Wu, and Chen (2006) assert that there are much literature dealing with financing of SMEs, but many of them including recent entrepreneurial finance papers mainly focused on source of capital, capital structure and similar topics, few of them investigate SMEs' ability to borrow from bank.

This research is also motivated by the increasing importance of SMEs in economic development of developing countries, Rwanda alike and the continuing finance constrains that SMEs face to run their activities.

The development of the private sector which is largely dominated by SMEs has been identified as one of the strategies for industrialization, employment generation and poverty reduction in Rwanda. This objective has been outlined in Rwanda's major policy documents such as the Vision 2020 (Government of Rwanda, 2000) and the Economic Development and Poverty Reduction Strategy - EDPRS (Government of Rwanda, 2007).

Further, no known Rwandan study has empirically investigated the impact of SMEs internal factors on the availability of bank financing. The noted gaps in the literature on entrepreneurial finance stimulated this study.

1.11 Delimitations of the study

It is important to recognize the inherent limitations of the scope and the approach of the study. SMEs financing can be addressed from many different perspectives; this study only aimed to provide a bank financing from a supply-side perspective. It investigated the perception of the banks regarding the bank financing constraints. The demand –side was not investigated.

The present study did not investigate why SMEs do not get the required funding from other sources like government agencies, NGOs, informal sources of finance like professional money lenders and part-time money lenders (relatives, friends and neighbours).

In addition, the impact of external factors in the business environment such as economic environment, technology, legal and regulatory framework were not considered. Though this study makes a unique and significant contribution to the body of literature on entrepreneurial finance, it should be considered as only a part of a broader effort to crack the multi-dimensional problem of SME financing.

1.12 Definition of terms

a) SMEs definition:

The definition of the SMEs varies from one country to another and from one time to another in the same country depending largely upon the pattern or stage of development, size of the economy, and government policy and administration setup of that particular country. Most countries have adopted the benchmark of employment. Some define them in terms of assets, a few in terms of sales and yet others, in terms of shareholders' fund. In few countries, a hybrid definition is used such as employment as well as assets.

In the case of Rwanda, SMEs are defined as enterprises with full-time employees not exceeding 100 or annual sales turnover not exceeding Rwf 50 million or net investment not exceeding Rwf 75 million. These SMEs are further categorised into medium-sized companies, small enterprises and micro-enterprises (MINICOM, 2010).

Table 1-2: Categorisation of small, medium and large enterprises

Size of the Enterprises	**Net capital investments in Million FRW**	**Annual Turnover in Million FRW**	**Employment Number (full time)**
Micro Enterprises	Less than 0.5	Less than 0.3	Less than 3
Small Enterprises	0.5 to 15	0.3 to 12	3 to 30
Medium Enterprises	16 to 75	13 to 50	31 to 100

Source: MINICOM, 2010

b) Information asymmetry:

The term information asymmetry in credit markets is a situation whereby borrowers of funds have much more information about their investment projects than lenders of the funds do. Since lenders do not have enough information about the borrowers' projects and on their prospects, they fail to distinguish best projects from the bad ones for financing. The information asymmetry might arise ex-ante or ex-post. An-ex ante information asymmetry problem occurs when lenders cannot differentiate between borrowers with different credit risks before providing loans and leads to what is known as adverse selection.

c) Adverse selection

Adverse selection is a situation where lenders are not able to differentiate between risky from non-risky borrowers before the credit is granted, whereby a credit is granted to high risk borrower with less likelihood to pay back the loan while denying credit of less risky borrower who were going to pay back the loan without any problem.

d) Moral hazard

An ex-post information asymmetry problem occurs when borrowers divert funds borrowed and use it for a purpose different from what the funds were meant to finance. This leads to moral hazard problem. Moral hazard in credit markets means a situation whereby high risk borrower choose to invest the funds in a riskier project different from that initially agreed upon after the loan has been granted or do less effort to realize the proposed project. It can also happen if borrowers divert funds for personal use instead of financing the project whose credit was sought. Therefore, moral hazard problems arise when a borrower engages in activities that reduce the likelihood of a loan being repaid.

e) Credit rationing

Credit rationing in credit market is a situation whereby lenders give credit or loan to some credit applicants while others are left out with no credit granted at all or get less than what they applied for, the group whose credit applications are rejected are called credit constrained customers. Therefore, the two forms of credit rationing: (i) some loan applicants may receive a smaller loan than they applied for at the given interest rate, or (ii) they may not receive a loan at all, even if they offered to pay a higher interest rate.

1.13 Limitations of the study

This study encountered some challenges which are worth noting. Firstly, the questionnaire mostly contained Likert-type questions. The Likert-type nature of the responses tends to blanket perception and attitude which could be revealed by face-to-face interviews. However, the questionnaire had one section with open-ended question which provided opportunity to respondents to share their views on the subject matter.

Furthermore, one of the banks that was included earlier in the study, the Eco Bank became a very big disappointment. Mr Patrick Buki Kanuni, the manager of the SMEs department did not allow the researcher to meet and distribute the questionnaire to the respondents; he insisted that he will do it himself. This manager wasted a lot of precious time, resources, and energy of the researcher with numerous empty promises to come and collect completed questionnaires. After a considerable time, an action was taken to drop Eco bank from the study to mitigate this challenge, and picked the next large bank using the same criteria of deposits and size of loans which was Fina Bank.

Lastly, the questionnaires were distributed to 148 respondents excluding Eco Bank and 28 did not return them. It is assumed that this resulted from pressure at the respondent's work as well as their attitude. Nonetheless, this could not affect the study since 81% response rate was above average to execute the study.

1.14 Organisation of chapters

The current chapter (chapter one) examined the introduction, the research problem, the research hypotheses and objectives. In addition, the chapter discussed the significance of the study, the research methodology, the definitions of terms and the limitations of the study. The remaining chapters are organized as follows:

Chapter 2: Literature review

This chapter provides a review of financial intermediation theoretical frameworks. In addition, it reviews the relevant empirical evidence regarding the relationship between the SMEs internal factors and availability of bank financing. An attempt is made to explore the impact of these factors on the availability of external finance to SMEs.

Chapter 3: Research Methodology

This chapter concentrates on the methodology used in conducting the empirical research. The chapter examines the research design, the type of research design adopted, the population, the sample design as well as the data collection and analysis methods.

Chapter 4: Data Presentation, Analysis and Interpretation

In this chapter, all the data collected were presented, analyzed and interpreted in order to give significance to the study. This is the central nervous system of the study. The findings, conclusions and recommendations are derived from the discussions in this study.

Chapter 5: Discussion of Data

This chapter discusses the research findings. The discussion gives a comparison of the findings the literature reviewed. The objective of this chapter is to bring the findings into the fold of the existing knowledge on SMEs external financing.

Chapter 6: Major Findings, Conclusions and Recommendations

The last chapter provides a summation of the findings in relation to the problem, the methods used to reach the findings and how they relate to the study objectives. Conclusions, recommendations and their implications for the policy makers and for further researches conclude the chapter.

1.15 **Conclusion**

This chapter has attempted to introduce the study conducted to investigate factors determining SMEs access to bank financing in Rwanda. The background of the study has been provided and the research problem defined. The four research questions as well as objectives that the study anticipates to achieve have been elaborated. Critical constraints and study boundaries were delineated.

In addition, the chapter examined the research objectives, the research hypotheses, and the significance of the research. Furthermore, the chapter highlighted the research methodology, the definitions of terms, the limitations of the study and the layout of the study.

The next chapter reviews the literature on the information asymmetry theoretical framework and examines the elevant empirical evidence regarding SMEs internal factors that can lead to non-availability of bank financing.

CHAPTER TWO

2 LITERATURE REVIEW

2.1 Introduction

The introduction chapter explained the research problem under study and mentioned the limited literature on SMEs bank financing in Africa and its inexistence in case of Rwanda. This chapter seeks to lay a foundation for the current study by setting it within a research context consisting of related research theories, studies carried out before and other analyses of related ideas.

The chapter reviews a wide range of literature related to the availability of bank credit to SMEs using the lenses of information asymmetry theoretical frameworks. The specific themes on SMEs internal factors determining the availability of bank financing and relationship between these factors and access to finance form the basis of the review. The review relies heavily on studies that have been carried out in America, Europe and Asia. As explained by Beck et al (2011), the majority of studies on bank financing to SMEs have focused on the USA or other developed countries such as Germany, Italy and Japan.

As discussed in chapter one, SMEs sector play an important role in the economic development of countries by addressing the challenges of job creation, sustainable economic growth and equitable distribution of income but very few get credit from banks. The question is why? Why is it that banks do not line up to provide to SMEs? The lending technologies of banks as financial institutions are reviewed as well.

The literature reviewed aimed at accessing, analysing and acknowledging what other researchers have done in the related problem area regarding SMEs access to bank financing. Leedy and Ormrod (2001) explain that a literature review means the theoretical perspective and previous research findings related to the problem at hand. This chapter precisely does that. The first part presents the theories of financial intermediation. The theories explain why financial institutions exist and what is their essential contribution to the economic development of the society. The second part of the chapter provides the empirical evidence of the issues pertinent to the availability of bank credit which is the central theme of this research; the theoretical framework of the thesis is heavily grounded on the internal factors to SMEs that determine their access to bank financing. The later part of the chapter is managed in respect of the following six factors hypothesised in chapter one as determinants of the availability of bank finance to SMEs:

- Business information,
- Collateral,
- Managerial competencies,
- Internal fund,
- Networking, and
- Ethical behaviour.

2.2 The financial intermediation theories

The theories of the economic role of financial intermediaries built on imperfect information emerged during the 1970s with the contributions of the 2001 Nobel Economics Prize laureates George Akerlof, Michael Spence, and Joseph Stiglitz for their analyses of markets with asymmetric information. They argued that financial intermediaries exist because they can reduce transaction and information costs that arise from an information asymmetry between borrowers and lenders.

There are two schools of thought in the literature that explain the existence and the role of financial intermediaries. The first strand is the traditional theory emphasizing financial intermediaries' provision of liquidity based on information asymmetries. The second strand is the contemporary theory focusing on financial intermediaries' ability to transform the risk characteristics of assets. In both cases, financial intermediation is claimed to reduce the cost of channeling funds between borrowers and lenders, leading to a more efficient allocation of resources.

Collin (1997) explains that financial intermediaries are financial institutions which transform the wealth of the credit suppliers (the depositors of funds), into assets for those demanding credit (the borrowers of funds). He distinguishes three main functions of intermediaries as follows: First, since supply and demand are seldom of the same quantity and quality, the intermediary has to sort the supply provided by the depositors to make it appropriate to the borrowers' demand. Since the good that the financial intermediaries are dealing with is wealth provided in exchange for promises, there is a seemingly endless supply of borrowers offering promises involving very high risks.

The second function of intermediaries is to select borrowers. Intermediaries must therefore allocate the credit to be given to the borrowers. Different lending technologies are used for evaluation of a credit application. The selection process involves assessing business information to determine the viability of the project, provision of the collateral or relationship lending which involves consideration of soft information regarding the borrower collected over a long time by the bank credit officers. The bank lending technologies will be discussed later in section 2.3

The third function is to monitor borrowers who have received credit. The intermediary controls the transaction by spending resources so as to obtain knowledge regarding the borrowers' project progress and to create adherence to the credit contract. Therefore, financial intermediaries, banks specifically, mobilize savings from economic surplus units and channel them to economic deficit units for investments.

2.2.1 Information asymmetry theory

Stiglitz and Weiss (1981) developed a theory of credit rationing. They argue that banks might not increase the interest rate they charged even in case of an excess demand for funds, if they do so it might reduce their expected rate of return because the probability of repayment default would increase. They present two reasons for the possible inverse relationship between the rate of interest charged and the expected return to the bank:

(1) higher interest rates reduce the proportion of low risk borrowers and (2) higher interest rates induce borrowers to take riskier projects. Their argument is summarized in the next paragraph.

According to them, the asymmetric information can impact on the availability of credit and they termed the phenomenon as credit rationing. In their formulation, credit rationing is said to occur (i) if among loan applicants who appear to be identical some get credit and others do not, and the rejected applicants would not get any loan even if they offered to pay a higher interest rate; or (ii) if there are identifiable groups of individuals in the population who, with a given supply of credit, are unable to obtain credit at any interest rate, even though with a larger supply of credit, they would be successful. The core of the argument is that suppliers of finance may choose (due to asymmetric information, adverse credit selection, moral hazard and monitoring problems) to offer an range of interest rates that would leave a significant number of potential borrowers without access to credit. The Stiglitz and Weiss' theory therefore suggests that there are significant numbers of SMEs that could use funds productively if they were available, but cannot obtain finance from the formal financial market. The above four concepts are clarified below.

Asymmetric information in credit markets is a situation whereby borrowers of funds know much more about their investment projects than lenders of the funds do. Because the lenders do not have enough information about the borrowers' projects and on their prospects, lenders fail to distinguish the best projects from the bad ones for financing.

The information asymmetry may arise ex-ante or ex-post. An ex ante information asymmetry problem occurs when lenders cannot differentiate between borrowers with different credit risks before providing loans, which leads to an adverse selection problem. The information asymmetry problem occurs ex post when borrowers, divert funds borrowed and use it for a purposed different from what the funds meant to finance. This leads to a moral hazard problem.

Adverse selection in the financial markets occur when lenders are not able to differentiate between risky from non-risky borrowers before the credit is granted, whereby a credit is granted to high risk borrower with less likelihood of paying back the loan and deny credit of less risky borrower who were going to pay back the loan without any problem.

Adverse selection problems are said to arise when an increase in interest rates leaves only a more risky pool of borrowers in the market for funds. Financial intermediaries are then more likely to be lending to high-risk borrowers, because those who are willing to pay high interest rates will, on average, be worse risky.

Moral hazard in credit markets means a situation whereby high risk borrower switch from a lower to a higher risk project after the loan has been granted or do less effort to realize the proposed project. It also happens if borrowers divert funds for personal use instead of financing the project whose credit was sought. Therefore, moral hazard problems arise when a borrower engages in activities that reduce the likelihood of a loan being repaid.

Adverse selection increases the likelihood that loans will be made to bad credit risks at the loan origination, while moral hazard lowers the probability that a loan will be repaid after the loan has been granted. As a result, lenders may decide in some circumstances that they would rather not make a loan, which result into credit rationing.

Therefore, since SMEs are information opaque, the presence of these problems explains the greater use of collateral lending to SMEs as a way of dealing with information asymmetries problems. Lenders' strategies for dealing with these problems also add significantly to the cost of dealing with this sector. For a large enterprise the evaluation of an application for finance may be limited to the assessment of an audited set of financial statements and supporting documentation provided by the applicant. For SMEs the assessment frequently has to go far beyond this, implying a substantially higher transaction cost.

The informational asymmetry studies focus on the bank and borrower relationship in particular. In bank lending, one can basically distinguish between a transactions-based lending and relationship lending. In the former, information which is relatively easily available at the time of loan origination is used. In the latter, data gathered over the course of the relationship with the borrower is used (Berger and Udell, 2002). The lending technologies will be discussed in the coming section of 2.3. Therefore, it can be concluded that the informational asymmetry theory explains the behaviour of financial intermediaries in a limited information market and in their relation to savers and investors.

2.2.2 Contemporary theory

The second stream of the financial intermediary theories is the contemporary theories, which focuses on financial intermediaries' ability to transform the risk characteristics of assets. The contemporary theories seem to be still undergoing a development process and they are not fully established yet. The proponents are still testing their experiments, the discussion below give some light of their views.

The opponents of the informational asymmetry theories are of the opinion that these theories of intermediation focus on functions of institutions that are no longer crucial in many developed financial systems. That they focus on products and services that are of decreasing importance to the intermediaries, and that they are unable to account for those activities which have become the central focus of many institutions. They agree that traditionally, transaction costs and asymmetric information have provided the foundation for understanding intermediaries but argue that there has been a significant reduction in transaction costs and asymmetric information in recent decades while the intermediation has increased. They suggest that the focus of intermediation theory based on asymmetric information has been too narrow hence different theories of intermediation are required that stress on risk trading, risk management and participation costs as the key reasons for the existence of modern intermediaries (Allen and Santomero, 2001).

In their critique of the theory of asymmetric information work, Allen and Santomero (1997) suggest that the emphasis on the role of intermediaries as reducing the frictions of transaction costs and asymmetric information is too strong; that while these factors may once have been central to the role of intermediaries, they are increasingly less relevant. They present, in its place a view of intermediaries that centers on two different roles that these firms currently play. The risk transfer facilitation and the risk management roles.

Scholtens and Van Wensveen (2000) agree with Allen and Santomero's views on financial intermediaries that centers on two roles but challenged their work that the analysis is incomplete. They question whether risk management is something that is undertaken only recently in the financial industry and that despite globalization, the information revolution and a much more prominent role of financial markets, financial intermediaries appear to survive. And therefore financial intermediaries are of increasing importance to the modern economy.

Risk management has not become important only in the recent past. In contrast, risk has been a root of financial intermediation and as its main reason for being. The origins of banking and insurance lie in their risk transforming and risk managing functions. The merchant bankers in the Italian renaissance already managed the financial risks of kings, popes and merchants. Insurers took over the risks of merchants sending their goods overseas. Therefore, dealing with risk is and always has been the bread and butter of financial intermediaries (Scholtens and Van Wensveen, 2000).

The two scholars ask that, if the traditional financial intermediation theory based on concept of informational asymmetries fails to provide a satisfactory understanding of the existence of financial intermediaries, when information asymmetries are not the driving force behind intermediation activity and their elimination is not the commercial motive for financial intermediaries, then which paradigm, as an alternative, could better express the essence of the intermediation process? In their opinion, the concept of value creation in the context of the value chain serves that purpose and it is risk and risk management that drives this value creation.

Although risk management is a prominent function of financial intermediation, but it is not the only factor that can be held responsible for the seemingly steady rise of the financial industry within the modern economy. The theory of financial intermediation needs to have an understanding of the dynamic process of financial innovation to adequately address the transformation of the financial sector that is currently taking place globally.

Scholtens and Van Wensveen (2000) comment that in order to place risk transfer as an entrepreneurial activity in its proper context, the theory of financial intermediation should move beyond its present borders. It should leave its paradigm of static perfect markets and assume a more dynamic concept in which new markets are developed for new products, where financial institutions do not act as agents who intermediate between savers and investors and thus alleviate market imperfections like asymmetric information and participation costs, but are independent market parties that create financial products and whose value added to their clients is the transformation of financial risk and liquidity.

Value-addition appears to be a major drive of the modern financial intermediary. Therefore, Scholtens and Van Wensveen (2000)advocate that value-addition should be the focus of intermediation theory. Though asymmetric information is relevant in understanding certain policies of the financial intermediary, customer orientation should be the way forward. Their business is selling financial services to customers and making a profit on it. Reducing costs and informational asymmetries may be part of the process, but not the focus rather it occurs as a by-effect.

The contemporary theories seem to put the financial intermediation into modern financial markets perspective as intermediaries that deal with options, futures, swaps and many others financial products. In less developed financial markets that largely exist in developing countries and especially the banking sector, asymmetric information theories seem to be order of the day. Therefore, in this study, literature related to bank credit to SMEs will be reviewed using the lenses of information asymmetries theories. The next section discusses the lending technologies employed by financial institutions to grant credit to borrowers.

2.3 Financial institutions lending technologies

Berger and Udell (2006) define a lending technology a combination of primary information source, screening and underwriting policies and procedures, loan contract structure, and monitoring strategies.

They argue that there is an oversimplification in the current framework in the way that lending technologies are often categorized into two types: transactions lending technology that is based primarily on "hard" quantitative data and relationship lending technology; which is based significantly on "soft" qualitative information. They remark that this categorization, transactions lending is generally viewed as being focused on informationally transparent borrowers, while relationship lending is seen as used for opaque borrowers.

In their view, this characterization is essentially faulty and they maintain that the transactions lending is not a single homogeneous lending technology. They find that there is number of distinct transactions technologies used by financial institutions, including financial statement lending, small business credit scoring, asset-based lending, factoring, fixed-asset lending, and leasing. While financial statement lending is focused on transparent borrowers, these other transactions technologies are all targeted to opaque borrowers. Recognition of this heterogeneity among transactions technologies and its impact on credit availability to opaque borrowers is often missing from much of the academic literature.

Therefore, lending technologies include several transaction lending technologies plus relationship lending. The following paragraphs give a detailed account of lending technologies at articulated by Berger and Udell (2006) in their paper titled "*A more complete conceptual framework for SME finance*".

They find financial institutions to be lending to borrowers using relationship lending and six types of transaction lending technologies, which include (i) financial statement lending, (ii) small business credit scoring, (iii) asset-based lending, (iv) factoring, (v) fixed-asset lending, and (vi) leasing. Whereas financial statement lending focuses on transparent borrowers, other transactions technologies target borrowers with information opacity especially the SMEs.

a) Financial statement lending

The financial statement lending is based on the strength of a borrower's financial statement and it depends on hard information. There are two requirements for this technology. First, the borrower must have informative financial statements like audited statements prepared by reputable accounting firms according to widely accepted accounting standards such as International Accounting Standards - IAS. Second, the borrower must have a strong financial condition as reflected in the financial ratios calculated from these statements. The loan contract that arises out of the analysis of these financial statements may reflect a variety of different contracting elements including collateral, personal guarantees. However, under financial statement lending, the lender will view the expected future cash flow of the borrowers as the primary source of repayment. Financial statement lending, unlike all of the other lending technologies, is reserved for relatively informational transparent firms (Berger and Udell, 2006).

b) Small business credit scoring

More so, Berger and Udell (2006) notice that small business credit scoring is a transactions lending technology based on hard information about the SME and its owner. The owner information is primarily personal consumer data obtained from consumer credit bureaus. This is combined with data on the SME collected by the financial institution and often from commercial credit bureaus. The data are entered into a loan performance prediction model, which yields a score, or summary statistic for the loan. This technology could be applied to very opaque SMEs, given that much of the information is based on the personal history of the owner, rather than the SME. The key motivation for using this technology may often be its low cost as external providers typically charge a modest fee for each score.

c) Asset-based lending

The third transactions lending technology is identified as asset-based lending. Under this technology, financial institutions address the opacity problem by focusing on a subset of the firm's assets, which are pledged as collateral, as the primary source of repayment. This technology provides SMEs with working capital financing secured primarily by accounts receivable and inventory.

Under asset-based lending the extension of credit is primarily based on the value of specific borrower assets rather than the overall creditworthiness of the borrower. The amount of credit extended is linked to the value of the collateral on a formula basis to a dynamically managed estimation of the liquidation value of the underlying assets that are used as collateral (i.e. the accounts receivable or inventory). Thus, asset-based lending is a transactions-based technology based on hard information generated nearly continuously about the value of the assets (Berger and Udell, 2006)

d) Factoring

The fourth transaction lending technology noted by Berger and Udell (2006) is factoring. This lending technology involves the purchase of accounts receivable by a "lender" known as a factor. Similar to asset-based lending, factoring focuses on the value of an underlying asset, rather than the overall value or risk of the business entity. Under factoring, a bank, also known as a factor, buys selected accounts receivable from its borrowing customers at a percentage of their face value. Factoring is somehow similar to asset-based lending, but the distinction is under factoring, the underlying asset is outright sold to the "lender."

Factoring is a transactions technology because the underwriting process is based on hard information about the value of a borrower's accounts receivable. It addresses the opacity problem by focusing primarily on the quality of the obligor, rather than the borrower. Small firms that have limited assets to offer as security on a term loan are increasingly using factoring. There are costs associated with factoring that the customer bears. Factoring costs to a small firm include commissions charged by a bank, interest levied on advances by a bank, and cost savings made by the firm.

e) Fixed-asset lending

The next point out transaction lending technology is fixed-asset lending technologies. It involves lending against assets that are long-lived and are not sold in the normal course of business e.g. equipment, motor vehicles, or real estate.

Like asset-based lending which is based on accounts receivable and inventory, the underlying assets in fixed-asset lending are pledged to the lender as collateral. However, unlike accounts receivable and inventory, the pledged assets are virtually always uniquely identified by a serial number or a deed. The long life and unique identification of fixed assets leads to very different underwriting processes, contract structures, and monitoring mechanisms (Berger and Udell, 2006).

With fixed- asset lending technology, the focus is on assessing the market value of the asset – for equipment and real estate, this is often in the form of a formal appraisal. The contract structure typically specifies an initial loan-to-value ratio which will be less than one. It also involves setting a loan amortization schedule with a final maturity less than the lifespan of the asset.

f) Leasing

The last transactions technology is leasing. It involves the purchase of fixed assets by a "lender" known as a lessor. Leasing enables a firm to obtain the use of certain fixed assets, for which it must make a series of contractual, periodic, tax-deductible payments. The lessee is the receiver of the assets under contract, and the lessor is the owner of the assets. Leasing is a very common method of bank financing for plant and equipment, motor vehicles, and real estate in many countries.

In a lease contractual arrangement in which the lessor of an asset (usually a bank) becomes the owner of an asset by paying the supplier the total cost of the asset. The lessee has complete use of the asset but does not own it, and does not need to find funds to purchase it. The most important principle of leasing is that the asset must be used for productive activity. The contract often contains an option whereby the lessee can purchase the assets at the end of the lease at a pre-specified price.

Berger and Udell (2006), comment that leasing is a transactions technology since the underwriting is substantially based on hard information about the value of the underlying asset, similar to asset-based lending, factoring, and fixed-asset lending. Like all these other technologies, leasing can be used to provide financing to opaque SMEs because the underwriting decision is primarily based on the value of the asset being leased.

g) Relationship lending

Under relationship lending, the lending technology is designed to address information problems that are not feasible or cost-effective. The primary information used by the financial institution is based on "soft" information gathered through contact over time with the SME, its owner and the local community to address the opacity problem. Its emphasis on soft information distinguishes it from all of the other technologies.

With relationship lending, the information is acquired mostly by the loan officer through direct contact with the borrower and through observing the SME's performance on sort of dimensions of its banking relationship. This soft information may also include an assessment of the future prospects of the SME gathered from past communications with SME's suppliers, customers, neighboring businesses or local community. The labour-intensive nature of relationship lending likely makes it quite costly. These costs may be passed on to the borrower in the form of higher fees and a higher interest rate (Berger and Udell, 2006).

It can therefore be concluded that, small business credit scoring may be feasible for SMEs in information rich environments and in very strong lending environments, asset-based lending and fixed-asset lending may be feasible for those borrowers with good quality accounts receivables, inventory or equipment. Factoring is feasible even in weak lending environments, but it depends on the existence of high quality receivables. Thus, for opaque SMEs, which are not feasible or cost-effective to small business credit scoring, asset-based lending or factoring; relationship lending may be the best alternative.

While this research endorses the brave contribution of these scholars in this matter, it however strongly holds that there is no point of separating asset-based lending and fixed-asset lending technologies, the study finds that it should be one lending technology called asset-based lending technology for both short-term assets based on accounts receivable and long-term financing based equipment.

2.4 Financial needs of SMEs

Atieno (2009) states that SMEs need access to external finance to ensure flexibility in resource allocation and to reduce the impact of cash flow problems, hence firms with access to funding are able to build up inventories to avoid stocking out during crises. The availability of credit increases the growth potential of firms to survive during periods of macroeconomic instability. Nkurunziza (2005) continues that firms without access to bank financing are more vulnerable to external shocks compared to firms with funding.

Of all the elements that go into a business, credit is perhaps the most crucial. Therefore, the best of plans can come to naught if adequate finance is not available at the right time. SMEs need funds to run business by financing fixed asset acquisition, working capital and product development. SMEs need credit support not only for running the enterprises and operational requirements but also for diversification, modernisation or upgrading of facilities and capacity as well as for expansion. The same view is also share by ICA (2009), a report on Rwanda which admits that external finance is needed by SMEs in Rwanda to finance firm's working capital and investments in productive assets (property, plant and equipment). The report revealed that an examination of the situation of enterprise's financing indicated that in most countries around the world, smaller firms have more difficulties with access to finance.

A vast majority of SMEs depend on internal finance (contribution from the owners, family and friends). Internal finance is often inadequate for SMEs to survive and grow. Therefore, lack of access to external finance is a key constraint to economic growth particularly for SMEs since firms that make use of external funds exhibit growth rates far above what can be supported by internal finance.

The (ICA, 2009), provides a comparison of SMEs and large firms. The findings show that SMEs have least favourable access to finance, while large firms have the most favourable. Among micro firms 47% report access to finance as one of the top 3 obstacles, while only 38% of SMEs and 22% of large firms do so. Therefore SMEs need to get adequate funding from external sources and be able to run business and contribute to the economic development of their respective jurisdictions.

Beck (2007) argues that SMEs are an engine of innovation and growth, and that they help reduce poverty as they are more labor-intensive, but they are constrained by institutional and market failures. He adds that small firms suffer more from financing and other constraints than large firms and that it is not size itself that justifies intervention, but rather the potential of small firms to grow into medium and large enterprises and to contribute to the economy and the fact that institutional and market failures create an uneven playing field between firms of different sizes. He concludes that the focus should therefore be both on reforms of the business environment that affect all enterprises and foster entrepreneurship; but importantly on policies that can help SMEs overcome financing constraints particular to their firm size and risk.

SMEs do not only report higher financing obstacles, they are also more adversely affected by these obstacles. SMEs' financing obstacles have almost twice the effect on their growth that large firms' financing obstacles do according to Beck, Demirgüç-Kunt and Maksimovic, (2005) as cited by Beck (2007). The difference between SMEs and large firms is at least as big or even bigger for some of the specific financing obstacles, such as collateral requirements, interest rate payments, the need for special connections and inability of banks official to correctly do justice when evaluating applications for finance of SMEs.

Many scholars consider that the problems of SMEs external financing are caused by the environment in which these firms operate, therefore these problems need to be tackled by digging into the SMEs operating environment and find the factors behind. For credit to flow to SMEs, the risk perception of lending to them must be reduced. The argument of this study is that there are certain factors to SMEs that can reduce the risk perception of lending to them. Identification of these factors will encourage lending to SMEs.

2.5 SMEs internal environment

This section of the chapter reviews studies that investigated firm's internal environment factors vis-à-vis access to finance.

According to Zhao, Wu and Chen (2006) there are many SMEs internal environment factors that affect their ability to borrow from bank. Based on data about SMEs financing in Chengdu city, in China they find that there are numerous SMEs internal factors that lead to difficulty in borrowing from the bank. These factors include collateral, firm size, internal funds, willingness to accept bank's clauses and networking.

They also find out that there are means to alleviate credit rationing problems cause by asymmetric information between borrowers and lenders. They argue that, on the standpoint of borrower, the key measure is to reduce degree of information asymmetry, specifically, conveying the intrinsic soundness of his project and distinguishing him from riskier borrower. Those elements signaling SMEs' quality and alleviating informational problem undoubtedly become important factors affecting borrower's ability to borrowing from bank.

These are factors in a firm's internal environment that are largely controllable by the firm. The collateral, internal funds, firm size, contractual clauses, relationship are factors to affect SMEs' ability to borrow from bank. Other variables in the internal environment of a firm include managerial competencies as measured by education, entrepreneurs' background or experience (also known as owners' characteristics), business information and networking, (Barbosa and Moraes, 2004). This research shall review these factors and empirically test them to establish whether they are responsible for availability of bank finance to SMEs.

2.5.1 Business Information

Padachi et al (2010) noted that several empirical studies have indicated that SMEs managers experience problems in raising capital for the development of their businesses and referred to it as financial gap. Despite SMEs dominant numbers and their importance in job creation, they traditionally have faced difficulty in obtaining formal credit or equity. Commercial banks and investors have been reluctant to service SMEs for a number of reasons including; (1) SMEs are regarded by creditors and investors as high- risk borrowers due to insufficient assets and low capitalisation, vulnerability to market fluctuations and high mortality rates; (2) Information asymmetry arising from SMEs' lack of accounting records, inadequate financial statements or business plans makes it difficult for creditors and investors to assess creditworthiness of potential SMEs proposals.

Therefore, generation and effective use of business information are essential to accessing external funds. SMEs face a lot of challenges in accessing external funding because they lack adequate business information to enable outside investors to assess their performance. This leads to information asymmetry which is the source of SMEs financing problems.

Kitindi, Magembe and Sethibe (2007) find business information more especially financial statements and most recent firms' annual report is required by banks in making loan decisions. They investigated the usefulness of annual report information to lender in Botswana with a view to establish whether users of business information derive any utility from information presented in annual reports. They discover that bank required a number of different documents to support applications for loans. The documents asked are: business plan, management accounts, audited and well as un-audited financial statements (cash flow statements were the mostly preferred), bank statements and entire annual report in that order. They conclude that lenders in Botswana, specifically banks prefer, demand and use business information for evaluation of loan applications.

The preference to the cash flow statements suggest that banks are concerned with liquidity which translates into loan repayment. Income statements are also important indicating that bank are interested in the profitability and use the profits as an indicators of the borrower's future prospects and ability to service the loan. Sarapaivanich and Kotey (2006) find that SMEs are unable to access external finance because they lack the necessary information and knowledge of their businesses to approach finance providers or to be successful in accessing funds if they do. They investigated the effect of financial information quality on ability to access external funds and performance of SMEs in Thailand and establish that quality of financial information has significant positive effect on performance and on owner-managers' ability to access external capital. They find that due to information asymmetry banks may curtail the extent of lending or may raise the interest rate. If bank raise interest rates or curtail lending, firms will not be able to finance as many projects as it would have been. Investments made will be below the level that would have if there was no information asymmetry. They conclude that an entrepreneurs need to spend time to develop comprehensive business plans at early stage of projects to reduce risk perception and increase the likelihood of obtaining capital.

Kwok (2002) investigates bank loan officers' use of financial information and reports in making lending decisions and finds that financial information which also includes statement of cash flow indicates the capacity of a business to repay the credit. Financial information and business information are usually contained in the annual reports or business plan of the SMEs. The business plan is a written narrative that describes what a firm plans to accomplish and how it plans to accomplish it.

Pretorius and Shaw (2004) investigated the role of business plan in the evaluation of an application for finance of new business ventures by South African commercial banks. They note that a successful business plan is perceived as one of the most essential documents to be prepared by the entrepreneur or small venture owner when setting up a business. SMEs owners are encouraged to prepare a business plan for presentation to banks, financial institutions and venture capitalists to stand a chance of obtaining financial support and that a business plan is an essential document to be used in setting codes and business relationships between the parties.

Hence, it is hypothesized that there is a significant positive relationship between the lack of business information and non-availability of bank finance to SMEs.

2.5.2 Collateral

Collateral is an asset that is pledged by a borrower to a lender as security for the payment of debt. It is a second line of debt repayment; the lender can sale the collateral pledged against the debt to recover the amount if the project for which the loan was sought fails and the borrower is unable to pay back the loan.

Assets held as collateral can be the current assets of the firm or the fixed assets of the firm or firm owner. As contributed by Berger and Udell, (2006) in the discussion of financial institutions lending technology, current assets such as inventory or accounts receivable are the most desirable collateral for SMEs short-term loans for the working capital while fixed assets such as land and building are used to secure long-term loans to make capital investments.

Zhao, Wu and Chen (2006) define collateral as an asset of the borrower that is automatically transferred to the lender should the project revenues not be sufficient to repay the loan in full. As the collateral reduces the limited responsibility of the borrower in presence of unfavorable result, the borrower who provides collateral will be transmitting a signal concerning the quality of his project, declaring the probability of his project's success to be high. Specifically, collateral stands as a financing cost, which reduces the expected profit for bad quality borrowers if repossessed by bank and increases it for good quality borrowers.

Berger and Udell (2006) in their paper a more complete conceptual framework for SME financing said that the SMEs external financing problems arise due to their formational opaqueness. They discuss several lending technologies including asset-based lending, and fixed-asset lending technologies which involve lending to SMEs against the collateral and a way of mitigating SMEs access to finance challenges. They argue that taking collateral as security is attractive to bankers for two reasons: First, the willingness to offer collateral signals the confidence of an entrepreneur in both his abilities and also in the likely success of the project. Secondly, taking collateral can align the interests of the entrepreneur with that of the banker. It therefore, addresses both the adverse selection problem at loan origination and the moral hazard problem that might arise after the loan has been granted. They further maintain that collateral is a powerful tool that lets financial institution to offer credit to SMEs whose information opacity might otherwise result in credit rationing or the extension of credit only on relatively unfavourable terms.

Collateral can be divided into two types; inside and outside collateral. Inside collateral involves pledging assets owned by the firm. Outside collateral involves assets belonging to the firm owners. Outside collateral may help resolve adverse selection problems when the borrower has more information about the quality of the investment than the lender, and may help prevent credit rationing. Similarly pledging outside collateral may lessen moral hazard by reducing the incentives to switch to riskier projects or reduce effort to ensure projects success. The pledging of some of the firm's assets by the debt holder may ensure that firms invest in relatively safe projects (Olawale, 2010).

Berger and Udell (2006) remark that collateral is one of the most widely-used features of debt contracts in today credit market. In their work on titled why do borrowers pledge collateral, new empirical evidence on the role of asymmetric information, they observe that there is an impressive theoretical and empirical literature that motivates collateral as arising from information gaps between borrowers and lenders dating back at least from to the Stiglitz and Weiss (1981) model of credit rationing. They add that collateral reduce informational asymmetries problems when between lenders and borrowers in credit markets, which result into credit granting to asymmetric informational borrowers.

According to Steijvers and Voordeckers (2000), collateral may solve the credit rationing problems originating from the prevalence of informational asymmetries associated with the following parameters; quality of projects, the riskiness of borrowers, and problems related to the cost of monitoring or supervising borrowers' behaviour. They also note that the theoretical model of asymmetric information views collateral as a screening device which reduces the adverse selection problems. The willingness of the borrower to pledge collateral positively influences the quality of the credit request, as perceived by the bank since the borrower signals the real value and the belief in the quality of the project to the bank. Therefore, if collateral is pledged, lenders will feel more confident and will charge a lower interest rate compared if the uncertain project itself were the only guarantee.

Theories view collateral as an incentive device which reduces the moral hazard problem. Collateral can be seen as a means to prevent the high risk borrower switching from a lower to a higher risk project after the loan has been granted or do less effort to realize the proposed project. The risk of losing the collateral pledged would prevent any risk shifting behaviour by the entrepreneur after receiving the loan (Steijvers and Voordeckers, 2000).

Therefore, collateral reduce moral hazard problems by adding a potential cost to borrowers if they do not make effort or if they are tempted to engage in opportunistic behaviour once a credit has been granted by choosing to invest the funds in a riskier project than that initially agreed upon, at an interest rate that will not compensate the lender for the higher risk or if they divert funds towards private use.

Reitan and Waago (2002) analysed the criteria used by private banks officers in Norway when evaluating and validating funding proposals. They find that SMEs are more risk than large firms and bank respond to this risk by ensuring that, even in the event of failure, it obtains some return and this is ensured by obtaining collateral. Collateral may be in the form of either the personal resources of the entrepreneur, such as housing, or some identifiable assets of the business over which the bank asserts a prior claim over other creditors. In essence, collateral protects the bank in the event of default. For new ventures, providing collateral represents a major problem. Not all entrepreneurs have access to collateral and so some are excluded from the marketplace. In this sense a "gap" in the marketplace exists for those viable business ventures which lack access to security to insure against risk.

Zhao, Wu and Chen (2006) conclude that *"the more collateral SMEs can provide the more bank loan SMEs get and by the higher probability"*.

Consequently, it is hypothesised that there is a significant positive relationship between the lack of collateral and non-availability of bank finance to SMEs.

2.5.3 Managerial Competencies

Hellriegel, *et al,* (2010) define managerial competencies as a set of knowledge, skills, behaviours and attitudes that contribute to personal effectiveness. Studies by Shane and Stuart (2002) positively associate managerial competencies with the business firm performance. The higher the level of managerial competency exhibited by the owners of a firm, the greater the viability and its survival. This suggests that credit providers may be willing to extend facilities to SMEs whose owners exhibit a high level of managerial competencies.

Therefore, competencies are skills, abilities and characteristics associated with high performance. The organisation needs management competencies to transform itself, improve performance and grow. Lefebvre and Lefebvre (2001) report that innovative capabilities of the management team (e.g. ability to undertake research and development, knowledge intensity and unique know-how) are strongly associated with performance and firm growth.

Martin and Staines (1994) investigated the importance of management competence in small firm success. They observe that the failure rate of small firms in the United Kingdom is high with nearly half of new business start-ups disappearing within four years of existence. Lack of managerial experience, skills and personal qualities and factors such as adverse economic conditions, poorly thought out business plans and resource starvation are found as the main reasons why new firms fail. They report that the major distinguishing feature of high growth and low growth small firms is the education, training and experience of senior managers. The chief executives of high-growth small firms are more likely to take an active interest in their immediate market environment, place more emphasis on organizational structure and specialist management skills, recognize the importance of human resources management and the acquisition, development and retention of managerial talent.

Branch (2006) studies gaps in SMEs financing and finds that managerial competency is the key element in investment readiness. This is because managerial competencies are positively associated with firm performance across a variety of organizational and industry settings. The researcher note that contrary to the traditional description of the shortage of the supply of capital for SMEs, there is increasing evidence that suppliers of capital perceive a shortage of investment-ready opportunities from SMEs caused by lack of managerial competencies.

Management competencies have an impact on the ability of SMEs owners to access capital. Mason and Harrison (2001) examine early stage equity finance in the United

Kingdom and find that there is no shortage of available capital. Among the 74 British business angels surveyed, 81% indicated that their ability to invest was limited by the quality of the opportunities they see. The two primary deficiencies were: (a) unrealistic assumptions or information that is not credible and (b) the entrepreneur/management team lacked credibility.

Blumberg and Letterie (2008) investigated business starters who experienced credit rationing in The Netherlands and find that the earning capacity of a business starter in a subsequent job, i.e. the job after the eventual failure of the business, is a signal to the bank of whether the business starter can meet his credit obligations even if the business fails. The income that a business starter earned previously is an indicator, which signals the earning capacity after an eventual failure. Furthermore, highly educated business starters are more likely to have a high post-failure earning capacity than less educated people.

These results suggest that there is an association between managerial competencies, the firm performance and the ability to secure capital. Consequently, it is hypothesized that there is a significant positive relationship between the lack of managerial competencies and non-availability of bank financing to SMEs.

2.5.4 Internal Funds

Internal funds are monetary assets owned by the firm, in the context of the SMEs this could come either from the firm's net profit and therefore the retained earnings or from the owner's savings contributed as startup capital of the firm. Contributions from family and friends to the SME's owner to boost the business are also included in this category. Internal funds differ from external funds like debt and equity. The latter is an investment into the business by the funders with expectation of getting returns on funds invested in term of interest for debt or dividends and capital appreciation in case of the equity.

One reason why banks hesitate to lend funds to SMEs is lack of internal funds used as partial contribution to the total investment of the project of which funding is sought from the bank. Owners of SMEs are required to partly contribute to the overall funding which signals that they will make effort for the project to succeed. Barbosa and Moraes (2004) state that the more the business owner invests own money (internal funds); the less likely it is that he will take on very risky investments. This reduces moral hazard.

The extent to which a business founders commit own resources to the venture also informs the banks that they are investing in a serious business idea. Blumberg and Letterie, (2008) equally note that own investments are a credible commitment mitigating the principal agent conflict because the more own money business starters invest, the less likely it is that they take on very risky investments.

Furthermore, Blumberg and Letterie (2008), argue that banks are more likely to approve a credit request at reasonable terms, if the bank is convinced that the business is likely to succeed or if the bank is able to collect the debt, even if the proposed venture fails. Thus, small business can increase their possibilities to obtain the required funds by giving credible commitments and signals. Credible commitments guaranteeing the repayment of the debt even if the business fails are linked to collaterals, the business starter's private wealth as well as a firm's re-deployable internal funds reduce the bank's exposure to losing the debt. Collateral helps to reduce informational asymmetries while internal funds reduce moral hazard problems that arise between banks and entrepreneurs. Therefore, potential investors may be more likely to invest in a project if the entrepreneur is investing his own capital.

Zhao, Wu and Chen (2006), conclude that internal funds carry an opportunity cost to the entrepreneur, same as collateral, by tying his fortune to that of the project; the borrower is expressing his confidence in the project and voluntarily giving up his limited responsibility in the case of a negative result. Hence the availability of internal funds is a signal that trustworthy borrowers can resort to distinguish themselves. This suggests that internal funds affect the availability of bank finance and therefore, it is hypothesised that there is a significant positive relationship between the lack of internal funds and non-availability of bank financing to SMEs.

2.5.5 Networking

A network is a specific set of relations amongst various groups. Networks in the context of this study are personal relationships between an entrepreneur and the external actors which can be individuals or organizations. Entrepreneurs build up such network relationships in order to obtain necessary resources and to perform economic activities.

Coulthard and Loos (2007) define networking in SMEs context as an activity in which entrepreneurially oriented SME owners build and manage personal relationships with particular individuals in their surroundings. Entrepreneurial firms use networking to exploit opportunities. Networking is largely seen as a means of raising required capital, identifying market opportunities, obtaining personnel, identifying suppliers, identifying and developing technology.

Le and Nguyen (2009) examine the relative effect of different network ties in Vietnam in helping SMEs access bank loans; they argue that networks increase a firm's legitimacy, which in turn positively influences the firm's accessibility to external financing and that networks play an important role in spreading knowledge about a firm's existence and its practices. Networks also help firms to learn appropriate behavior and therefore obtain needed support from key stakeholders and the general public. In large part, networking substitutes for the lack of effective financial market institutions, and can be an effective way for SMEs to access external financing, including bank loans in emerging economies. Networking could be expected to provide to the banks information on legitimacy, which in turn should give the SMEs advantages in accessing bank loans. This suggests that networking is a measure of the character as well as the capacity of small entrepreneurs.

Shane and Cable (2002) affirm that networking can be used to reduce information asymmetry in the credit market between the lender and the borrower relationships. Social obligations between connected parties, and information transfer through social relationships, influence venture finance decisions. They argue that social ties interject expectations of trust and reciprocity into the economic exchange that, in turn, activate a cooperative logic of exchange. This logic promotes the transfer of private information and resources and motivates both parties to search for integrative rather than zero-sum outcomes. In this way, embedded ties both create new collaborative opportunities and induce the mutual rather than selfish distribution of rewards.

Le, Venkatesh and Nguyen (2006) examine factors that influence firms' accessibility to bank loan by SMEs in Vietnam, they observe that there are factors which assist companies to improve their legitimacy and in turn help them to access bank loans more easily. They examined the influence of networking, professional management practices and firm growth stage on SMEs access to bank financing. They define legitimacy as the extent to which key stakeholders, government officials and the general public know about and accept the organization and its practices. They found that networking with bank managers, other organization and friends positively influences SMEs accessibility to bank financing. However, they also found that networking with government officials was negatively influencing SMEs access to bank financing probably this helped SMEs to have more access to aid funds and government support programs.

There are other sources of external financing which are important to SMEs in emerging economies, where more formal and extensive financial markets are typically underdeveloped and where problems pertaining to information asymmetry and opportunism are often more pronounced; they include; - trade credit, loans from relatives and friends, and support from governments. These alternative sources of financing are often more accessible, convenient, and, sometimes, cheaper; government support programs provide loans with interest rates well below those offered by commercial banks. Networking, by helping SMEs access these sources, could reduce the need for bank loans. This suggests that networks provide contradictory forces to affect a firm's use of bank loans. On the one hand, a well-networked SME has legitimacy, information, and knowledge advantages, which promote the firm's access to bank loans. On the other hand, networks can reduce the need for bank loans by helping a firm access other sources of funding. Nevertheless, the literature shows a great associateion of networking and availability of bank financing.

Atieno (2009) finds that, while networking does provide advantages, firms with limited resources, such as SMEs, may also be discouraged from joining or establishing contact because of the associated costs. This limits the extent to which small businesses can influence the support mechanisms such as policies, legislations and infrastructure that affect their operations. Small firms, therefore, face a number of constraints that are institutional in nature, but their weak organizational ability and the minimal or non-existent linkages limit the extent to which they can address these issues.

Zhao, Wu and Chen (2006) conclude that *"the closer the SMEs' relationship with the bank is the more bank loan SMEs get and by the higher probability*". They assert that generally, a long-term relationship with a financial institution is expected to lower the cost of financing since it decreases the cost of monitoring, open the possibility for greater contract compliance and give the lender more control over potential moral hazards problems.

The empirical studies reviewed above suggest that networking between entrepreneurs, bankers, government officials, and friends and relatives may play an important role in helping both lending institutions and borrowers. Therefore, lack of networking could be one of the obstacles to the availability of finance to SMEs. Accordingly, this research hypothesized that there is a positive significant relationship between lack of networking and the non-availability of bank financing to SMEs.

2.5.6 Ethics

According to Vyakarnam et al. (1997), business misconduct and scandals of Enron and WorldCom and similar others which occurred virtually in every major economy played a critical role in increasing public, business and academic awareness of issues of business ethics. These issues include tension between ethics and profit, conflict between private gain and public good. In difficult economic times, managers may send the message to their subordinates that attaining objectives is what is important and the method used to get there do not matters.

The world have seen so many cases with false accounts, manipulation of information, questionable initial public offerings, corruption of public agents, personal enrichment of top executives and many of these cases have led to bankruptcy, personnel being dismissed and financial losses for the individual investors (Fassin, 2005).

All these malpractices in the business processes are due to unethical behavior by top-level managers and entrepreneurs and also assisted by professionals like accountants, bankers and lawyers.

Smit *et al.* (2007) define ethics as a set of values and rules that define right and wrong behaviour. They are code of moral principles and values that direct the behaviour of an individual or a group in terms of what is right or wrong. Ethics includes distinguishing between fact and belief; defining issues in moral terms and applying moral principles to situations. Ethics are observed at both individual and organisation levels. At individual level ethical questions arise when people face issues involving individual responsibility, such as being totally honest, accepting a bribe or using organizational resources for personal purposes such as time, telephone or stationery. At organisation level, ethics relates to the principles of conduct within organizations that guide decision making and behaviour. For example, an organisation requiring an employee or group of employees to overlook the unethical behaviour of a colleague whose actions benefits the organisation.

Furthermore, Mahmood (2008) defines business ethics as integrating values such as honesty, trust, transparency and fairness into its policies, practices and decision making in a company. Business ethics is therefore inherently linked with corporate governance.

The author identifies five advantages of adopting business ethics as follows:

- Investors use company ethics practices and values as primary considerations in their investing decision-making;
- Since customers are increasingly becoming aware of their rights, they value ethical practices. Hence, adopting ethics can help to build reputation of businesses, and build customer loyalty and increase in revenue;
- Ethical companies can attract talented workforce and employees as well as improved performance of existing employees increasing productivity;
- Compliance with regulations e.g. labour laws and environmental protection improves the company acceptability in the society and visibility;
- Finally ethics improves collaboration with other firms both domestically and internationally.

Business ethics in SMES

Vyakarnam et al. (1997) state that research in the area of ethics with reference to SMEs has been identifies as largely uncharted area. They argue that personal and business ethics in SMEs are closer in a situation where the owner is also a manager in a business.

Also Spence (1999) reports that the study of small business ethics has received little attention from ethics research mainly because efforts have been directed to discussion in the large firms.

Many ethics researchers have observed the same as the above scholars and probably this is largely caused by the fact that business ethics as a discipline emerged at a time when the large firm was seen as the main focus of business study; but now this is changing with SMEs becoming dominant in terms of numbers and contribution to socio-economic development in both developed and developing countries. SMEs are increasingly recognised as the engine of economic growth, employment, job creation, innovation and productivity. Failure to address ethics in SMEs is totally inappropriate and a fundamental flaw in current business ethics research. Spence (1999) argue that since there are many SMEs than large enterprises, the inattention of researchers on business ethics to small business is not only an oversight but also a mistake if they wish to make their work relevant to business owners and practitioners.

Mahmood (2008) find that, while the larger firms have already developed their reputation by adopting business ethics, SMEs especially in the developing countries lack awareness and understanding of the importance of business ethics and its advantages. And that some of the advantages may not be visible to SMEs in the short-term, for example they argue that reputation or brand image is not important for them, this means an absence of long-term vision and the focus on survival in short-term. SMEs are more vulnerable to shocks hence focus more on surviving in the short-term.

Vyakarnam et al. (1997) comment on several studies done in USA and find that SMEs face moral dilemmas including: faulty investment advice; favoritism in promotion; acquiescing in dangerous design flaws; misleading financial reporting and misleading advertising. They also state that small firms viewed the following with greater tolerance than large firms: padded expense accounts, tax evasion, insider trading, discriminating against women and copying computer software.

SMEs are facing many ethical challenges that if not handled carefully could seriously compromise their invaluable contributions to the long-term economic well-being of their communities. SMEs should become aware of the importance of good, trusting relationships with customers, employees, suppliers and the community. Ahmad (2009) note that "*if you take good care of your staff, they will in turn take good care of your business'; 'deal with suppliers and financial providers with honesty to obtain support'; 'if you're doing the right thing, they (customers) will come back to you and you keep them'; and 'if you treat somebody good and they know they got a good deal from you, they will tell ten people'.* It was identified in their study that the prevalence of ethical and socially responsible concerns enhances commitment, trust and satisfaction among employees, customers, suppliers, financial institutions as well as other stakeholders.

It is therefore perceived as necessary for SMEs to put business ethics at the center of their policies and decision making. There exists a need for SMEs to embrace ethics behaviour in their daily business activities. One key area where SMEs need trusting relationship is with the financial institutions for external funding.

According to Howorth and Moro (2006) ethics and trust play an important role in reducing asymmetric information problems such as moral hazard and adverse selection from a study of entrepreneurs and their bank managers conducted in north east Italy. They investigated the role of trust in bank lending and tested whether there is any association between variables which measure different elements of trust and the interest rate charged to SMEs.They comment that when banks use transaction lending technology to provide finance, the decision to lend is often based on the evaluation of from financial statements and/or the provision of collateral, and/or credit scoring.

The above three lending technologies are all grounded on hard facts and public information available, collected independently from the quality of the relationship. Relationship lending is different since it is based on information gathered beyond the relatively transparent data in official documents. Under relationship lending, information is gathered through a continuous process. Relationship lending therefore uses private information collected through contact over time with the firm, its owner, and its local community on a variety of dimensions. Private information is often soft data, which, by definition, is difficult to summarise in numeric score, and is influenced by the context in which it is collected. This indicates the central role of soft information in the lending process since the essence of successful lending is overcoming asymmetric information problems between the borrower and the lender that would otherwise create incentives for borrowers to default their loans. This implies that there are different sources of information that lead to the decision to lend. Where ethics is low, the general perception of riskiness is greater. In addition, contracts will be more stringent with tight terms and conditions, which includes tight monitoring and requirement of collateral.

The researchers find that higher levels of trust were positively associated with greater availability of finance, lower interest rates, and lower requirements for collateral. High levels of trust reduce costs associated with asymmetric information. From the bank's point of view trust mitigates adverse selection and moral hazard, reduces screening, and monitoring costs and this will lead to increased profits. For the entrepreneur, it would require less effort spent on providing information for bank monitoring purposes and lower requirements for collateral, which is often a sticking point in demand for finance.

From the five "Cs" of lending literature, although certainly the least quantifiable, "character" may well be the most important assessment that the lender can make about the prospective borrower. Regardless of the positive attributes of capacity, capital, collateral and credit history that the borrower may show, if he or she does not demonstrate integrity and trustworthiness, which are attributes of ethics, any credit proposal will be declined. Character is important because, among other things, it can reveal intent. If the lender senses that the borrower is somewhat untrustworthy toward fulfilling responsibilities with regard to the deal, and even toward the business, the lender will most certainly back away from the proposal. The lender must be made to believe that, in addition to the legal agreement, the borrower feels a certain moral obligation to repay the loan. The subjectivity of business lending cannot be overly stressed. Although there are concrete, quantifiable things which the lender looks for, in the end the decision whether or not to make the loan will quite often come down to subjective measurements, the comfort level that can be forged between the two sides. (www.finweb.com/loans/the-five-cs-of-lending.html accessed on 6th August 2011).

Accordingly, it is hypothesised that there is a significant positive relationship between the unethical behaviour and the non-availability of bank financing to SMEs.

2.6 Conclusion

This chapter has explored several literature sources on availability of external finance to SMEs. The nature of information asymmetry theories was discussed. The pertinent issue in this chapter has been to put into perceptive the availability of external finance to SMEs through the information asymmetry theories frameworks.

The chapter reviewed relevant empirical evidence regarding the relationship between the SMEs internal factors and availability of bank financing. SMEs internal factors reviewed include; business information, collateral, managerial competency, internal funds, networking and ethical practice. This was done through the lenses of asymmetric information frameworks to unveil their impact on the availability of external finance to SMEs which is the central thesis of this study.

The next chapter will focus on the research methodology used for the empirical study.

CHAPTER THREE

3 RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides a description of the research methodology, research design, sample design, and the data collection and analysis techniques adopted in the study. It attempts to justify the appropriateness of the methodologies selected and presenting their strengths and acknowledging their limitations. The chapter will conclude with ethics observed during the research process.

According to Welman et al (2006), research methodology deal with research methods and techniques considered in the study and explains the logic behind in selecting them. Research methodology therefore refers to methods, tools and techniques employed to gather, record, analyze and interpret information to address research questions in assisting to achieving the objective of the study and explaining rationale for using them. Research methodology is a research action plan, how it will be carried out and why it is the best way to do it. Research methodology and design influence the validity and reliability of findings; and faulty research findings may misinform the policy-making process.

3.2 **Research**

Sekaram (2003) defines research as an organised, systematic, data-based, critical, objective, scientific inquiry or investigation into a specific problem, undertaken with the purpose of finding answers or solutions to it. According to Leedy & Ormrod (2005), research is as a systematic process of collecting, analysing and interpreting data in order to increase the understanding of a phenomenon or concern of interest.

Welman et al (2005) asserts that research is a process involving obtaining scientific knowledge by means of various objective methods and procedures. The term objective implies that these methods and procedures do not rely on personal feelings or opinions and that scientific methods and techniques are used.

Research therefore is a systematic and objective process of gathering, recording, analysing and interpreting of information to achieve the intended objectives which the study or research wanted to attain.

Broadly, there are two types of research; applied and basic or fundamental or pure research. As per Sekaram (2003), applied research is the research done with the intension of applying the results of the findings to solve specific problems currently being experienced while pure research is the research done primarily to enhance the understanding of certain problems that commonly occur in a setting. The findings of pure research contribute to the building of knowledge in various fields and later be applied to solve problems. Therefore, the current study in quest of understanding reasons why SMEs do not get enough bank financing is a basic research.

Applied research is commonly used by business settings specifically aimed at solving currently experienced problem. While basic research is mainly carried out by university professors with the objective of generating knowledge and understanding of phenomena and problems that occur, the knowledge generated from such research is often applied later for solving real life problems.

3.3 The Research Process

Research is a process of orderly activities aimed at collecting and analysing data relevant to the problem and communicating the results of this analysis as a solution to the problem earlier identified. The research process usually starts with the formulation of a research problem, selecting from among various methods of research, research design, sample design, data collection, analysis and interpretation of data (Shajahan, 2004). Zikmund (1998) identifies seven stages that make a research process as follows: (1) defining the problem, (2) planning a research design, (3) planning a sample, (4) collecting the data, (5) analysing the data, (6) formulating the conclusion, and (7) preparing the report.

Cooper and Schindler (2011) explain that writers treat the research task as a sequential process involving several clearly defined steps and that no one claims that research requires completion of each step before going to the next rather recycling, circumventing, and skipping occur. They identify steps that make up a research process: clarifying the research question, proposing research, designing the research project (research design and sampling design), data collection and preparation, data analysis and interpretation and reporting of results. Summing up, the research process deals with a description of all steps of how research is designed and implemented.

Figure 3-1: Steps of the research process and followed by the study

1. Research topic and research problem
Problem definition, research questions, research objectives and research hypotheses

↓

2. Research design
Quantitative and qualitative designs, exploratory, descriptive and casual studies

↓

3. Data collection process and instruments
Observation, experiment and surveys methods, and questionnaires

↓

4. Sample design
Sampling methods, population and sample

↓

5. Data Collection

↓

6. Data analysis and interpretation

↓

7. Report of the study

Source: Compiled by the Researcher

3.3.1 Research Topic and Research Problem

3.3.1.1 Problem statement

Welman et al (2005) states that a research problem denotes some difficulty that a researcher experiences in the context of either a theoretical or practical situation of which she or he wants to find a solution. Cooper and Schindler (2011) citing Albert Einstein say that the formulation of the research problem is far more often essential than its solution, which may be merely a matter of mathematical or experimental skill. To raise new questions, to regard old problems from a new angle requires creative imagination and marks real advance in science.

Formulation of a research problem to be examined is the first concrete step in the research process. It involves narrowing down our general interest in a research topic to focus on a problem small enough to be investigated. Defining a research problem is possibly the most important task because an incorrectly defined problem means the research is of no value whatsoever. A problem is any situation where a gap exists between the actual and the desired state. It does not necessarily mean that something is seriously wrong with a current situation that needs to be rectified immediately. A problem could simply indicate an interest in an issue where finding the right answer might help in improving an existing situation (Hair, et al 2007). Therefore, research problem should clearly be defined and formulated to ensure that the results obtained through research are relevant.

The motivation for this study comes from the fact that access to bank finance is often ranked as one of most constraining features of business environment by SMEs compared to large firms while they account for a larger share of enterprises and a larger share of overall employment in the private sector of most economies. Beck (2007) argues that the availability of finance to SMEs can be influenced by both borrower-specific, the factors that are internal to SMEs and systemic factors, which external are factors to SMEs. This research focuses only on internal factors; the external factors are outside the scope of this study. Zhao, Wu and Chen (2006) and Barbosa and Moraes (2004) observe that borrower-specific factors include collateral, internal funds, managerial competencies, quality of business information, firm size and networking and other variables largely controllable by a firm. A firm's internal environment represents factors that are largely controllable by the firm. These factors may influence the availability of finance to SMEs. Given these constraints, there is the possibility that lenders will not maximize their lending opportunities to SMEs. The internal factors are the focus of this study. The factors are: business information, collateral, managerial competency, internal funds, networking and ethical behaviour, and form a central discussion of the research. Therefore, the research problem is that the SMEs in Rwanda do not get adequate bank financing.

3.3.1.2 Research objectives

Zikmund and Babin (2010) observe that research objectives are the deliverables of the research project. The research objectives therefore explain the purpose of the research and what it intends to achieve.

The objectives of this research are:

- To assess the availability of bank financing to SMEs compared to large industries in Rwanda.
- To investigate the factors determining SMEs participation in bank financing in Rwanda.
- To investigate empirically the relationship between SMEs internal factors and their access to of bank financing in Rwanda.
- To make recommendations to improve the availability of bank financing to SMEs in Rwanda.

3.3.1.3 Research questions

Zikmund and Babin (2010) describe a research question as the researcher's translation of the research problem into a specific inquiry. Research questions are typically used to name as precisely as possible what the study will attempt to find out (Hofstee, 2006). Therefore, research questions are formal statements of the goal of a study, which state clearly what the study will investigate or attempt to prove.

The following are research questions of this study that were generated to assist the attainment of the research objectives:

- Do SMEs get adequate bank financing in Rwanda?
- What are factors that determine the availability of bank financing to SMEs in Rwanda?

- What is relationship between SMEs internal factors and access to of bank financing in Rwanda?
- What are possible recommendations toward improving the availability of bank financing to SMEs in Rwanda?

3.3.1.4 Research hypotheses

Welman, et al (2005) define a hypothesis as a statement or proposition that can be tested by reference to the empirical study. A hypothesis can also be defined as a logical guessed relationship between two or more variable expressed in the form of testable statement. It is a preliminary or tentative explanation or an assumption by the researcher of what the researcher considers the outcome of an investigation will be. It indicates the expectations of the researcher regarding certain variables.

According to Tredoux and Durrheim (2002), a hypothesis is a tentative statement of a relationship between two or more variables. In order to answer research questions, they must first be translated into two hypotheses know as null and alternative hypotheses. The null hypothesis is a statement that maintains that there are no differences between groups or between measured variables. It is usually indicated by the symbol H_o. The alternative hypothesis indicated by H_1 maintains that there is a difference between groups or between measured variables. The alternative hypothesis makes a supposition that is totally opposed to the null hypothesis. Alternative hypothesis can either be directional or non-directional depending on the nature of the research question. A directional alternative hypothesis specifies the direction of the relationship, it could be a positive or negative relationship while non-directional alternative hypothesis does not specify the direction of the relationship, it simply states that there is a relationship.

The following were the working hypotheses of the study:

a) Main Hypothesis

The primary hypothesis for the study is:

- H_0: There is no significant relationship between the SMEs internal factors and availability of bank financing in Rwanda.
- H_1: There is significant positive relationship between the SMEs internal factors and availability of bank financing in Rwanda.

b) Secondary Hypotheses

The primary hypothesis is established from the following six secondary hypotheses, based on business information, collateral, managerial competencies, internal fund, networking, and ethical behaviour factors.

(i) Lack of Business Information

- H_0: There is no significant relationship between the lack of business information and non-availability of bank financing to SMEs in Rwanda.
- H_1: There is a significant positive relationship between the lack of business information and non-availability of bank financing to SMEs in Rwanda.

(ii) Lack of Collateral

- H_0: There is no significant relationship between the lack of collateral and non-availability of bank financing to SMEs in Rwanda.
- H_1: There is a significant positive relationship between the lack of collateral and non-availability of bank financing to SMEs in Rwanda.

(iii) Lack of Managerial Competencies

- H_0 There is no significant relationship between the lack of managerial competencies and non-availability of bank financing to SMEs in Rwanda.
- H_1 There is a significant positive relationship between the lack of managerial competencies and non-availability of bank financing to SMEs in Rwanda.

(iv) Lack of Internal Funds

- H_0: There is no significant relationship between the lack of internal funds and non-availability of bank financing to SMEs in Rwanda.
- H_1: There is a significant positive relationship between the lack of internal funds and non-availability of bank financing to SMEs in Rwanda.

(v) Lack of Networking

- H_0 There is no significant relationship between the lack of networking and non-availability of bank financing to SMEs in Rwanda.
- H_1 There is a significant positive relationship between the lack of networking and non-availability of debt to bank financing SMEs in Rwanda.

(vi) Unethical Behaviour

- H_0 There is no significant relationship between unethical behaviour and non-availability of bank financing to SMEs in Rwanda.
- H_1 There is a significant positive relationship between unethical behaviour and non-availability of debt to bank financing SMEs in Rwanda.

3.3.2 Research design

Having identified the variables in the research problem and developed research hypotheses, the next step is to design the research in a such way that the required data can be gathered and analysed to arrive at a solution. This implies that the research design specifies methods and procedures for the collection, measurement and analysis of data. Cooper and Schindler (2011) write that the research design constitutes the blueprint for the collection, measurement, and analysing of data. Consequently, the research design is the plan, structure, and strategy of investigation conceived so as to obtain answers to research questions. It therefore includes an outline of what the researcher will do from writing the hypotheses and their operational implications to the final analysis of the data.

According to Zikmund (1986), research design is a master plan specifying the methods and procedures for collecting and analysing the needed information and that it provides a framework for the research action plan. Coldwell and Herbst (2004) sum up that a research design provides the glue that holds the research project together.

Research designs fall under two broad categories, which are qualitative and quantitative research approaches. Hair, et al. (2007) write that when hypotheses can be developed, the researcher typically relies on a quantitative approach but if the topic of interest is a new area and the theory is not well established then the researcher will most likely rely on a qualitative approach. The researcher should choose a design that will provide relevant information on the research questions and hypotheses and that which will complete the job most efficiently.

Denzin and Lincoln (cited by Welman, et al, 2005) summarise the difference between the quantitative and qualitative approaches as follows:

(i) The purpose of quantitative research is to evaluate objective data consisting of numbers while qualitative research deals with subjective data that are produced by the minds of respondents or interviewees (i.e. human being)

(ii) As a result of dealing with numbers, quantitative researchers use a process of analysis that is based on complex structured methods to confirm or disapprove hypotheses. Flexibility is limited to prevent any form of bias in presenting the results. On the other hand, qualitative research is unstructured, based on flexible and explorative methods because it enables the researcher to change the data progressively so that a deeper understanding of what is being investigated can be achieved.

(iii) The purpose of quantitative research is not to deal directly with everyday life rather with an abstraction of reality. They seek a nomothetic or ethic science study based on probabilities derived from the study of large numbers of randomly selected case. In contracts, qualitative researchers investigate only the constraints of day-to-day events and base their results on the daily events and behaviour of people.

(iv) Quantitative researchers try to understand the facts of research investigation from an outsider's perspective. Quantitative research keep to a detached, objective view of the facts as that it keeps the research process, hypothetically, free from bias. On the other hand qualitative researchers try to achieve an insider's view by talking to subjects or observing their behaviour in a subjective way; they believe that first-hand experience of the object under investigation produces the best data.

(v) Quantitative researchers try to keep the research process as stable as possible. They focus on the causal aspects of behavior and the collection of facts that won't change easily. In contracts, qualitative researchers work with the dynamic and changeable nature of reality.

(vi) Quantitative researchers control the investigation and structure of the research situation in order to identify and isolate variable. Specific measurement instruments are used to collect data. Their approach is therefore described as particularistic. In contracts, qualitative researchers make use of a holistic approach, they collect a wide array of data, for example documents, records, photos, observations, interviews and case studies.

The current research adopted the quantitative research approach to investigate why small and medium enterprises do not get adequate bank financing in Rwanda and to empirically test hypotheses regarding the bank financing determinants.

There are broadly three types of research studies that can be done in quantitative research or qualitative research or both, depending on the information required by the research problem. The three types of studies are exploratory, descriptive and casual.

3.3.2.1 Exploratory studies

Gerber-Nel et al. (2005) term exploratory research as an 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. Exploratory studies are less structured which permits the study to seek new insight and the information required is only loosely defined at this stage, as the process forward is still flexible and relatively unstructured. For example Zikmund (1986) explains that an exploratory research is typically conducted during the initial stage of the research process. They include preliminary activities undertaken to refine the problem into a researchable one.

Therefore, the purpose of the exploratory research is to progressively narrow the scope of the research topic and a transformation of the discovered problems into a defined ones incorporation research objectives. Investigating previous studies on the subject, talking with knowledgeable individuals, and informally investigating the situation through secondary data the researcher can sharpen the concepts. The exploratory studies were used to refine the research problems and research questions, to develop the hypotheses and also to develop and refine the questionnaire.

3.3.2.2 Descriptive studies

Sekaram (2003) argues that a descriptive study in carried out to ascertain and be able to describe the characteristics of the variables of interest in a situation. Descriptive research is used to describe the research problem in detail.

Zikmund (1986) discusses that the major purpose of descriptive research is of describing characteristics of the population and that is seeks to determine the answers to who, what, when, where and how question. Unlike exploratory research, descriptive studies are based on some previous understanding of the nature of the research problem.

Cooper and Schindler (2011) agree with this by stating that descriptive studies provide descriptions of phenomena or characteristics associated with a population, estimating proportions of a population with certain characteristics and discovery of associations among different variables. The researcher may have a general understanding of the research problem but conclusive evidence that provides answers to the question should still be collected to determine a course of action. Descriptive statistics such as mean, frequency distribution, and standard deviation were used during data analysis.

3.3.2.3 Causal studies

The central theme of this study is that there are factors that determine the availability of bank financing to SMEs. In this research undertaking, the causal-and-effect study will be used to test all of the research formulated hypotheses.

Zikmund (1986) explain that the main goal of causal research is to identify cause-and-effect relationship between variables. The study hypothesised that the business information, collateral, managerial competency, internal funds, networking and ethical behaviour cause the availability of bank financing to SMEs.

Causal research reveals a cause-and-effect relationship between dependent and independent variables. A dependent variable is a symbol or concept that is expected to be explained or caused by an independent variable. An independent variable is a symbol or concept over which the researcher has some control. It is hypothesised that the independent variable causes or influences the dependent variable. Researchers can also use causal research to test hypothesis.

3.3.3 Data collection process and instruments

Quantitative primary data can be collected in three distinctive ways, namely, through surveys, observation, experiments (Gerber-Nel et al. 2005). This study used the survey approach of data collection.

3.3.3.1 Observation and experiments

Zikmund and Babin (2010) describe observation as a systematic process of recording actual behaviour of people, objects, and events as they happen without questioning or communication with them. Primary data can be obtained by human beings or machines as observers. Researchers using this method of data collection can either witness and record information while watching events take place, or use tracking system such as checkout scanners.

In the experiment method, the researcher manipulates one variable, the independent variable and then measures its effect upon another variable the dependent variable, while all other variables that may confound the relationship are eliminated or controlled (Zikmund 1986). The experimental setting can be in a laboratory or in the field. In a laboratory, experiments are conducted in an artificial setting. Field research is done in the natural setting.

This study used the survey as the research method because other two methods of data collection; the observation and experiment were inapplicable for collecting data to investigate the research problems.

3.3.3.2 Surveys

Zikmund and Babin (2010) highlight that a survey is a primary data collection method based on communication with a representative sample of individuals. Surveys or more precise sample surveys because respondents' answers are presumed to be a sample of the way the larger target population would respond attempt to describe what is happening, what people believe, what they like or reasons for particular phenomenon.

a) Purposes, strengths and justification of using the surveys method

Many reasons have been given to justify the use of the surveys. Zikmund and Babin (2010) have argued that surveys provide a quick, inexpensive, efficient, and accurate means of assessing information about a population. Researchers apply a fairly straightforward statistical tool in analysing sample survey results. Surveys are useful in describing the characteristics of a large population. No other method of data collection can provide this general capability. Surveys can be administered from remote locations using mail, email or telephone. Consequently, very large samples are feasible, making the results statistically significant even when analysing many variables.

Cooper and Schindler (2011) indicate that the goal of surveys is to derive comparable data across subsets of the chosen samples so that similarities and differences can be found while survey findings and conclusions are projectable to large and diverse populations. By sampling different commercial banks, the results will be generalised to the Rwandan economy as reasons why SMEs do not get bank financing. The greatest strength of the surveys as a primary data collection method is its versatility; information of all types can be gathered by questioning others. More so information about past events is often available only through surveying or interviewing people who remember the events.

b) Shortcomings of surveys

The above advantages are only relevant when samples are not biased; questions are phrased and understood correctly. However, two types of survey errors do occur; they are random sampling errors and systematic errors.

Gerber-Nel et al (2005) reveal that the random sampling errors occur when the sample used in the research does not represent the population even though all the necessary steps may have been observed when drawing the sample due to chance fluctuations; sample may not represent the population. This error was eliminated by increasing the sample size.

Systematic errors can be divided into sample design errors and measurement errors.

Sample design errors:

Sample design errors or sampling frame errors are caused by an incomplete list of population elements from which units to be sampled are selected. For example when a telephone directory is used to draw a sample, certain elements or people in the population who do not have telephones or who moved into the area after the telephone directory was compiled are excluded.

Selection errors are other type of sampling errors which occur when incorrect sampling procedures are used or sampling procedures are neglected by researchers for example, a house drawn in the sample may be avoided because the owner has big dog. Another example is when the wrong respondent is interviewed. This type of error was avoided since all respondents were bank employees and the questionnaire was delivered at their offices.

Measurement errors:

Respondents can make errors when approached for answers, these are called measurement errors. These errors occur due to response bias, interviewer influences, administrative and instrumental errors, and nonresponse (Gerber-Nel et al. 2005:91).

The response errors are caused by respondents when they do not tell the truth intentionally or unintentionally. Participants can give false responses to sound intelligent, avoid embarrassment, speed up the process, and please the interviewer or to give answers they expect should be given. Anonymity of participants was observed by excluding respondents' identification from the questionnaires, hence minimizing the response bias errors.

Interviewer influences errors occur the interviewer emphasise certain aspects, alter the questions to influence respondent's answer, or when the interviewer tries to write too fast, ticks a wrong answer on the questionnaire. The questionnaire was left with respondents for completing without interviewer involvement. This eliminated these types of errors.

Administrative and instrumental errors occur as a result of improper administration of data. Data processing errors arise when a mistake is done in editing, coding or entering data into the computer. Research instruments like questionnaire may also be measured or interpreted incorrectly. All necessary care was taken to minimise measurement bias.

Cooper and Schindler (2011) note that when respondents fail to respond or refuse to respond they create a non-representative sample for study or for the particular question in the study. Nonresponse errors happen when results of participated respondents vary from what the results would have been if all respondents who were originally selected in the sample participated in the research. Response rate can be increased by educating people on benefits of the research or if respondents are more interested in the research topic. The researcher endeavoured to maximise the response rate by explaining to the respondents how SMEs could be a profitable sector if owners know the nitty-gritty of banks' requirements to access the financing as a result of this research. The response rate was impressive at the rate of 81%.

Cooper and Schindler (2011) identified three broad categories of surveys: surveys via personal interviews, telephone surveys, and self- administered surveys.

Personal interview surveys are a face-to-face communication conversation initiated by an interviewer to obtain information from respondents (participants). This implies that the researcher physically visit people selected to be part of the sample and interview them in person. Gerber-Nel et al. (2005) identify that the main disadvantages of the personal interviews are the high cost associate and the fact that is difficult to organise to cover vast areas. Personal interviews are always time consuming.

Gerber-Nel et al. (2005) also explain that telephone interviews take place when telephone calls are made to the respondents in order to collect primary data about a particular research problem. Telephone surveys can be human-administered, computer assisted or computer human-administered. With computer assisted telephone interviews (CATI), interviewers sit in front of a computer and read questions to the respondents over a telephone. The completely automated telephone surveys (CATS) take place when interactive voice responses are used. Here the interviewer records relevant questions, and the respondents answer by pushing numbers on their telephones to indicate their choices. The main disadvantage of the telephone interviews is that many people have caller identification or answering machines, if the caller (the interviewer) is unknown or unwelcome; the respondent ignores the call thus increasing the nonresponse. The other disadvantage is that respondents cannot see the questions and are dependent on the descriptions of the interviewer; some concept may therefore be explained or interpreted wrongly.

Due to limitations associated with the other methods of conducting surveys (personal interview and telephone surveys), data for this research study were collected through self-administered survey.

In the self-administered surveys, respondents are left on their own to complete questionnaires. There is neither computer nor interviewer present to assist them (Gerber-Nel et al. 2005). This study used the self-administered survey whereby the questionnaire were delivered by the researcher personally to the respondents (bank officials) and leave it with respondents for completing without interviewer involvement. The research used self-administered questionnaires for the following reasons:

- Self-administered questionnaire allows respondents time to think about question before answering hence provide sensible answers
- Self-administered questionnaire allows contact with otherwise inaccessible participants like companies' chief executive officers whose information is very valuable therefore provide reliable data.
- Self-administered questionnaire ensures anonymity and privacy of the respondents, thereby encouraging more candid and honest responses.

- Self-administered questionnaire has proved to have a higher response rate than other data gathering techniques such as mail surveys.
- Self-administered questionnaire is less expensive than other data gathering methods such as personal interviews where the researcher must be present with respondents at all times (Cooper & Schindler, 2010).

3.3.3.3 Questionnaire design and content

Gerber-Nel et al. (2005) note that a questionnaire is a set of questions used to obtain information from the respondents. Sekaram (2003) defines a questionnaire as a pre-formulated written set of questions whereby respondents are asked to record their answers and in most cases within a closely define alternatives. Questionnaires can be an efficient data collection instrument when the researcher knows exactly what is required and how to measure the variables of interest.

Zikmund (1986) observes that a research survey is a good as the questions it asks; questionnaire design is the one of the most critical stages in the survey research process. This is the primary tool for building answers to the research questions.

Questionnaires have three objectives: firstly, they should translate the required information into specific questions that respondents can answer. Secondly, the questionnaire must be designed in way that encourages respondents to become involved in the research. Thirdly, it should minimise response errors.

The study used a questionnaire as a data collection instrument. The instrument was developed in view of the four questions raised in chapter one of the study. The study mainly used closed-ended question with one section for open-ended question.

Closed –ended questions are structured, more easily analysed and promote objectivity. As pointed out by Gerber-Nel et al. (2005), close-ended (structured) questions specify the permitted responses and make information available to the respondents. For self-administered questionnaires, respondent cooperation is improved if the majority of the questions are structured. Close-ended response format questions offer a respondent a selection of possible responses, respondents usually respond by selecting one of the options. The greatest strength of the closed-ended questions are more specific, thus more likely to communicate similar meanings and avoid differences in interpretation. Another advantage of closed-ended questions is that they promote objectivity. This study realised the need to control the responses, which was achieved through heavily use of closed-ended questions.

Open-ended questions are unstructured and respondents use their own words to respond to certain questions or statements. No response options are given to respondents. This implies that the respondents are not influenced by a predetermined set of alternative responses. They are free to answer as they wish. Open-ended questions are ideal when the researcher is doing exploratory research and does not know the possible responses to questions or statements. The study greatly used closed-ended questions. The total number of open-ended questions was kept low, only one question was asked to give opportunity to respondents to express their recommendations on improving the availability of bank financing to SMEs in Rwanda.

Sequence of questions influences the reliable and valid data collection as well as the respondents' willingness to cooperate. According to Hair, et al. (2007) usually the first couple of opening questions establishes rapport with respondents by gaining their attention and stimulating their interest in the topic. The first questions are deliberately made easy to put the respondent at ease and to influence the willingness to co-operate and progressively moving to more complex questions. Questions were also arranged in a funnel sequence; in such a sequence general questions are asked before moving to more specific questions in order to obtain unbiased responses.

The questionnaire has the following 6 sections:

- Biographical information of the respondent
- Important factors when evaluating loan applications of the SMEs
- Reasons why bank credit is not available to SMEs
- Ranking of factors causing non-availability of bank credit to SMEs
- Percentage of bank financing that go to SMEs compared to Large Industries:
- Recommendations to improve bank financing to SMEs in Rwanda.

The advantages of using the questionnaire as a data collection instrument include:

- Questionnaires help to ensure that information from different respondents is comparable.

- Questionnaires increase the speed and accuracy of recording.
- Questionnaires facilitate data processing.
- Questionnaires are economical in terms of time and money.
- Questionnaires enable the respondents to remain anonymous and be honest in their response.

The limitation of using questionnaires is the fact that the instrument provides no room for the respondents to give much more relevant to information as there is on the subject under investigation, in this case, the SMEs bank financing.

3.3.4 Sample Design

In its simplest form sampling is a process undertaken by a researcher of identifying and selecting a group of individuals who participate in the supply of data.

Coldwell and Herbst (2004) define sampling as an act, process or technique of selecting a representative part of the population foe the purpose of determining parameters or characteristics of the whole population.

Sekaram (2003) concurs with that by describing sampling as a process of selecting a number of elements (a sample) from the population so that a study of the sample and understanding of its properties or characteristics would make it possible to generalise properties or characteristics to the population elements. The purpose of sampling is to make generalizations about the whole population using data observed from the sample.

There are many reasons for using a sample rather than collecting data from the entire population or making a census. Census is an account of all the elements of the population. A sample for this study will be drawn from employees of the commercial banks in Rwanda. The compelling reasons for sampling include (i) lower cost, (ii) greater accuracy of results, (iii) greater speed of data collection, and (iv) availability of population elements (Cooper and Schindler, 2011).

3.3.4.1 Study Population

The banking sector in Rwanda is composed of eight commercial banks, namely Bank of Kigali (BK), Banque Populaire du Rwanda (BPR), Banque Commerciale du Rwanda (BCR), Eco Bank, Fina Bank, Access Bank, Kenya Commercial Bank and Campagnie Generale de Banques (COGEBANQUE). Plus one development bank which is Rwanda Development Bank (BRD). BK and BCR are the oldest banks in the country, having establishes in early 1960s.

The commercial banking sector in Rwanda is highly concentrated with the five large banks dominating the retail-banking sector. The banks are BK, BPR, BCR, Eco Bank, and Fina Bank. According to the Central Bank of Rwanda data, five banks account for 82.7% of net loans and 78.7% of all assets in commercial banking in Rwanda.

The population of the study comprised headquarters of the four big commercial banks in the city of Kigali plus the only one Rwandan Development Bank (BRD); the four commercial banks were BK, BPR, BCR and Fina Bank. The evaluation of credit applications takes place at the bank headquarters and this is the reason why the survey took place at the headquarters with the exception of BPR which has given autonomy to some branches to evaluate and grant loans. Eco Bank was later on dropped from the study because it decline to participate and the natural replacement was Fina Bank. Therefore, four major commercial banks and the only Rwanda's development bank participated in the study.

3.3.4.2 Types of sampling design

Sekaram (2003) note that there are two major types of sampling design. These are probability and non-probability sampling.

In probability sampling, the elements of the population have known non-zero chance or probability of being selected as sample elements. With probability sampling, elements from the population are selected randomly and the probability of being selected is determined ahead of time by the researcher. The greatest strength of the probability sampling is that, it is unbiased and representative of the population.

In nonprobability sampling, the elements of the population do not have a known or predetermined non-zero chance of being included in the study. With nonprobability sampling, the inclusion or exclusion of elements in the sample is left to the discretion of the researcher, in other words not every element of the target population has a chance of being selected into the sample (Hair, et al., 2007). The major weakness of nonprobability sampling is that, it is biased and heavily rely on researcher's personal judgement or convenience and therefore, projecting the data beyond the sample technically, it is statistically inappropriate.

This limitation compelled the study to use probability sampling since it allows the researcher to make inferences from information about a sample to the population from which it was selected from. This implies that findings derived from a sample can be generalized to the population.

Probability sampling techniques

According to Cooper and Schindler (2011) there are four major types of probability sampling techniques. They include; simple random sampling, systematic sampling, stratified sampling and cluster sampling.

Simple random sampling is the sampling technique in which each and every member of the population has the same chance of being included in the sample. Simple random sample is the purest form of the probability sampling. This is the type of sampling that used in lotteries and other draws.

Systematic random sampling is a technique that involves randomly selecting the first element of the sample from the population and thereafter choosing every k^{th} from the population until the desired number of units in sample is obtained. The k^{th} element or skip interval is determined by dividing the sample size into the population size to obtain the skip pattern applied to the sampling frame.

Stratified random sampling is a sampling technique whereby the population is divided into subpopulations called strata. A sample is obtained by independently selecting an element from each stratum by using simple random sampling. With the ideal stratification, each stratum is homogeneous internally and heterogeneous with other strata. Cooper and Schindler (2011) note three advantages of a stratified random sample as follows: (i) increase a sample's statistical efficiency, (ii) provide adequate data for analysing various subpopulations or strata, and (iii) enable different research methods to be used in different strata.

Stratified random sampling can be divided into proportionate and disproportionate stratified sampling. In proportionate stratified sampling, the sample size drawn from the stratum is proportionate to the stratum share of the population while with disproportionate stratified sampling the sample size of each stratum is not allocated in proportion of its population share rather it is dictated by analytical consideration.

In Cluster sampling, the population is grouped into many subgroups called clusters based on their proximity to each other. Each cluster is supposed to be a tiny representative of the population. A sample is drawn by randomly selecting one cluster and using either all elements in the cluster, this known as one-stage cluster sampling or randomly selecting units from the clusters, a two-stage cluster sampling (Coldwell and Herbst, 2004). With cluster sampling the aim is to secure homogeneity between the subgroups while securing heterogeneity within subgroups.

This study used the stratified random sampling technique. Each bank formed a stratum. Every Bank had two to three departments responsible to analyse SMEs credit applications. Departments had different names from different banks, names included; credit analysis, retail or business banking, commercial banking, risk and compliance or risk analysis, leasing, and investment departments. All banks had a unit dedicated to solve SMEs related issues. A census method was used to select respondents from strata (banks) since the staff from these departments were not many and were manageable.

3.3.5 Data Collection

This section describes the actual data collection. For this purpose, the questionnaire was administered to 122 respondents from commercial banks and 26 respondents from the development bank. All together 148 questionnaires were administered, and 120 questionnaires were returned. The response rate was 81%. The researcher collected data between September and November of 2011. The questionnaires were distributed to four big commercial banks and one development bank (BRD). The respondents were given three weeks to complete the questionnaires. Repeated calls were made to the respondents to ensure they completed the questionnaires. Links with Chief Executive Officers of the banks helped to ensure the completion of the questionnaires.

3.3.6 Data analysis

The quantitative data were analysed using the Statistical Package for Social Sciences (SPSS) version 19 for windows and statistical analysis included descriptive statistics, nonparametric tests using chi-square method and scale reliability analysis with Cronibach's alpha. The researcher took an inductive approach in the qualitative data analysis collected from the open-end question by identifying recurring concerns, or insights, which allowed to see certain concepts/themes emerge as salient. The recurring themes/concepts were labeled and then placed within categories. This involved classifying data, extracting themes, identifying patterns, tallying and quantifying responses and making generalization out of these patterns.

3.3.6.1 Chi - Square Test

The Chi-square test for the independence was used to test the research hypotheses. Chi-square test for independence measures the association between two variables, the procedure is that it tabulates a variable into categories and computes a chi-square statistic. It is a test based on frequencies. This test for independence compares the observed frequency and expected frequency in each category to test the relative differences between expected and observed frequencies (Doane and Seward, 2008)

Salkind (2008) state that chi-square test involves a comparison between observed and expected frequencies, that is whether the number of respondents is equally distributed across all variables or factor.

Formula 3-1: Chi-square test formula

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

Where:

χ^2 is the chi-square value
$\sum$ is the summation sign
O is the observed frequency
E is the expected frequency
<u>Source</u>: Adapted from Salkind (2008)

Basic steps in Chi-square hypothesis testing:

1. Null and alternative (research) hypotheses are stated.

The null hypothesis states that there is no difference in the frequency or the proportion of occurrences in each category.

H_0: p1 = p2 = p3 = p4 = p5

The null hypothesis states that the frequency of cases in each category are equal, for example in category 1 (strongly agree), category 2 (agree), category 3 (neutral), category 4 (disagree) and category 5 (strongly disagree). The p represents the percentage of occurrences in any one category.

The alternative hypothesis states that there is a difference in the frequency or the proportion of occurrences in each category.

H_1: p1 ≠ p2 ≠ p3 ≠ p4 ≠ p5

2. Specify the level of risk (or significance level) associated with null hypothesis, error rate (α) is sent at 0.05
3. Perform the statistical test.
4. Decide whether to reject H_0 or not. If the p value is less than or equal to the α-level, then reject H_0.

3.3.7 Reporting the results

This research study culminated into the thesis report. The results are reported in the last three chapters of the thesis. This includes what has been found and its implications. The report answers the research questions after testing the hypotheses formulated and eventually gives recommendations to tackle to the research problem.

3.4 Ethical Consideration

Researchers are guided by ethics in the practice. According to Cooper and Schindler (2011), ethics are norms or standards of behaviour that guide moral choices about one's behaviour in relationship with others. They state that the goal of ethics in research is to ensure that no one is harmed or suffers adverse consequences as a result of research activities.

The study was carried out in compliance with all regulations of the University of Fort Hare. The study observed ethical issues from the project outset throughout the research process including paying attention on the way in which the research is presented to participants. In this study, the researcher was issued with letter to selected Rwandan banks by the Dean of the Faculty of Management and Commerce requesting banks to grant the research permission to collect data from the respondents who were banks' staff. Copies of the letter are attached as appendices.

Respondents in any kind of research deserve right to confidentiality. The researcher ensured this by using a self-administered anonymous questionnaire; respondents did not indicate their personal details like names and addresses. Verbal consent was sought from all respondents before issuing the questionnaire after explaining the purpose of the study. The benefits of the study were also explained to key stakeholders. Confidentiality of all data and information will be observed and upheld.

3.5 Conclusion

This chapter has outlined different aspects of the research methodology adopted for this study. Various research approaches, methods and techniques were examined and their application to the study was explained. Research methodologies used heavily relied on quantitative research approach.

On the outset, basic steps in the research process were identified and discussed. The problem statement, the research hypotheses and the research objectives were articulated. The motivation for using quantitative research and the survey method was given. Data were collected using self-administered questionnaires. The advantage and limitation of the questionnaire were discussed. Data analysis using statistical techniques framework was given, which included; descriptive statistics, chi-square test and scale reliability analysis with Cronibach's alpha. The chapter ended by promising to observe research ethics. The next step in the research process deals with analysis of results of the study. This is dealt with in the next chapter which shall present the data collected, analyse and make interpretation thereof.

CHAPTER FOUR

4 DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

Chapter three presented aspects of the research methodology including the research design, the sampling method, data collection and data analysis methods that were used for this study. This chapter presents analyses and makes interpretation of data collected through the questionnaires completed by bank officials from 4 commercial banks and one development bank in Rwanda. The purpose of the chapter is to summarise, present and interpret that data that were collected to investigate why SMEs do not get adequate bank financing in Rwanda.

Data presentation and analysis were carried out in respect of the six sections of the questionnaire of which five sections relate to the four research questions raised in chapter one. One section is on respondents' demographic data. To easy reference, the research questions are matched with corresponding sections of the questionnaire in the table below.

Table 4-1: Matching of research questions with questionnaire sections

Research Questions	Questionnaire sections
1) Do Small and Medium Enterprises (SMEs) get adequate bank financing in Rwanda?	Section E: What is the percentage of total bank financing to Industries that go to SMEs.
2) What are factors that determine the availability of bank financing to SMEs in Rwanda?	Section B: Important factors when evaluating loan applications of the SMEs.
3) What is relationship between SMEs internal factors and access to of bank financing in Rwanda?	Section C: Reasons why bank credit is not easily accessible by SMEs. Section D: Ranking of factors for non-availability bank credit to SMEs.
4) What are possible recommendations toward improving the availability of bank financing to SMEs in Rwanda?	Section F: Recommendations to improve the availability of bank financing in Rwanda plus the remaining sections.

The questionnaire had 6 sections; the first section collected data regarding respondents' biographical information.

The results presented and the findings must be relevant to the objectives of the research. If both the data analysis and interpretation are not carried out properly, the success of the study cannot be assured, hence providing answers to these research questions will assist in gaining a better understanding of how to improve the availability of bank finance to SMEs in Rwanda.

4.2 Data presentations, Analysis and Interpretation

This chapter begins with the empirical findings. Due to the need of flow of related concepts and logic, this section on data presentation and empirical findings is structured into seven sub-sections and data will be presented as follows:

- 4.2.1 examines the response.
- 4.2.2 presents the findings of the demographic variables. Visual distributions of demographic variables will be presented in tables and figures.
- 4.2.3 presents the findings on the important factors considered when the credit applications of SMEs are evaluated by banks.
- 4.2.4 examines the proportion of total bank financing that go to SMEs.
- 4.2.5 examines the ranking of factors causing unavailability of credit.
- 4.2.6 presents the empirical findings of why credit is not granted to SMEs. This section is the main investigative part of the study. Data will be analysed using descriptive statistics, chi-square test and Cronibach's alpha.
- 4.2.7 summarises the opinions to improve bank financing to SMEs.

4.2.1 Response rate

One hundred forty eight questionnaires were administered and 120 were returned. The response rate was 81%. Out of the 120 returned questionnaires, 3 respondents responded to either two or three questions and they were eliminated from the research. The usable response was 117.

4.2.2 Demographics of respondents

The demographical data of the respondents is presented before the presentation and analysis of their responses.

The demographic variables for which data were collected and information obtained included gender, age, educational qualification, experience, post hold in the bank and department. The demographics are presented below. Visual distributions of the demographic variables are presented in tables and figures.

4.2.2.1 The age

Figure 4-1: The age of the respondents

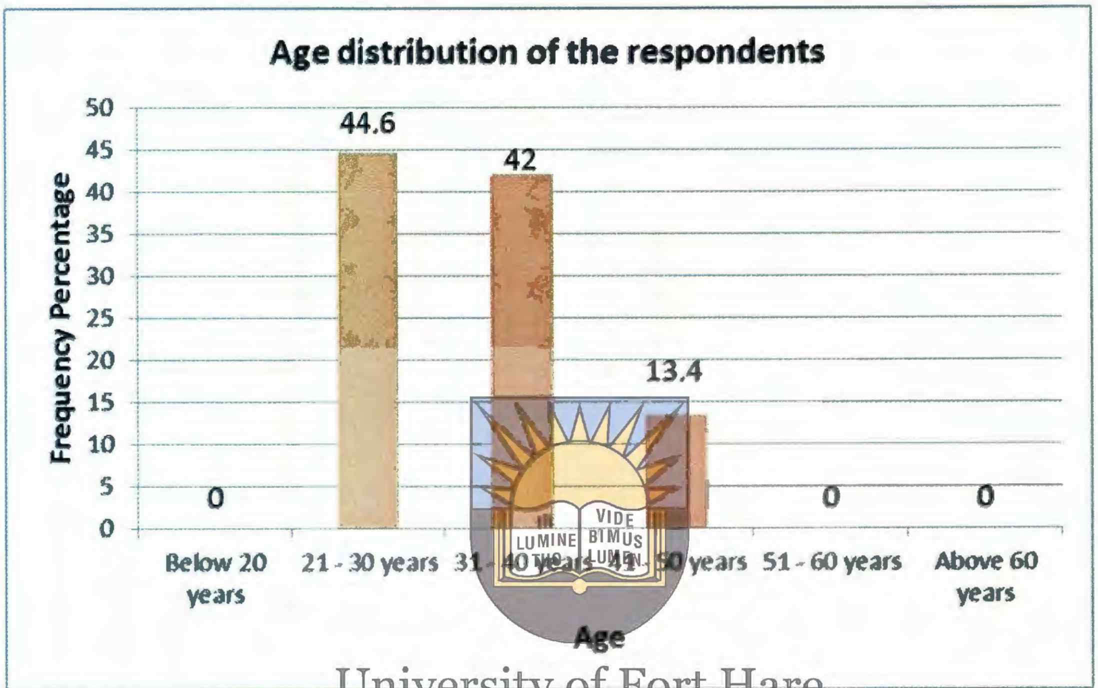

Figure 4.1 depicts the age of the respondents. The data show that most of the respondents were in the 21 to 30 age group followed by the 31 to 40 age group. The significance of this information is that the research is assured of valid and reliable information from the respondents. The advantage of having a large number of respondents from age range of 21 to 40 years (86.6% of respondents) is that their mind is still sharp to articulate issues and provide precise response to questions. The remaining respondents were in the 41 to 50 age group. Their contributions in the study helps to provide insights into what the relative young people perceive as SMEs financing problems. There were no respondents above 50 years of age, this indicate

that most of bank staff in Rwanda is made up of middle age and young people which might lead to higher productivity with a lot of youth energy behind it.

4.2.2.2 The gender

Figure 4-2: The gender of the respondents

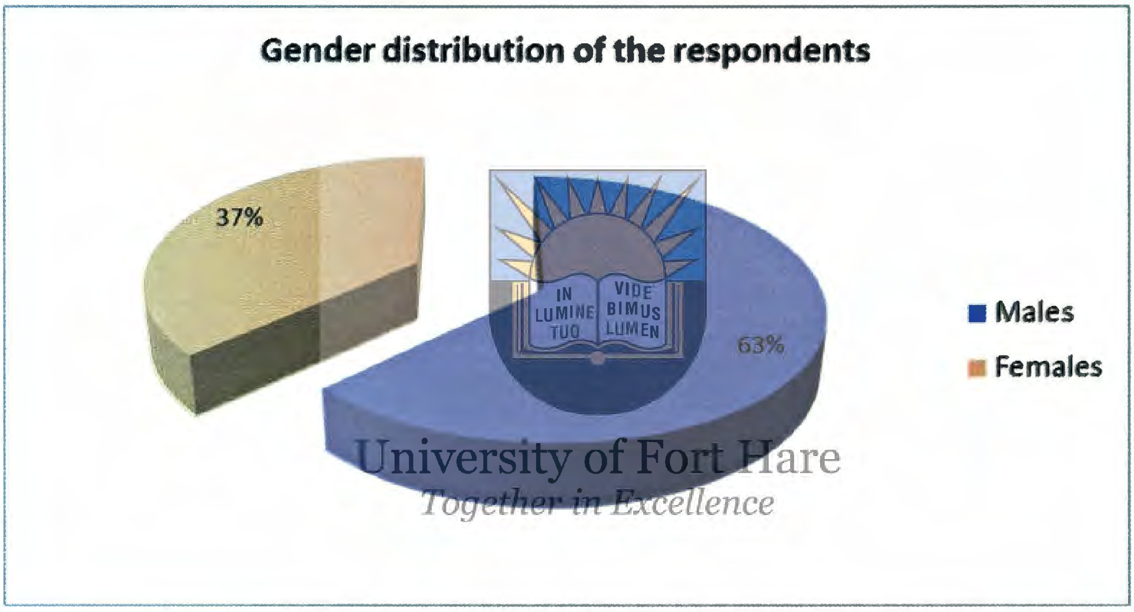

Figure 4.2 depicts the gender of the respondents. The results show that respondents were 63% male and 37% female). The males dominate the representation which indicates that the banks employ more men and female.

4.2.2.3 The educational qualifications

Figure 4-3: The educational qualifications of the respondents

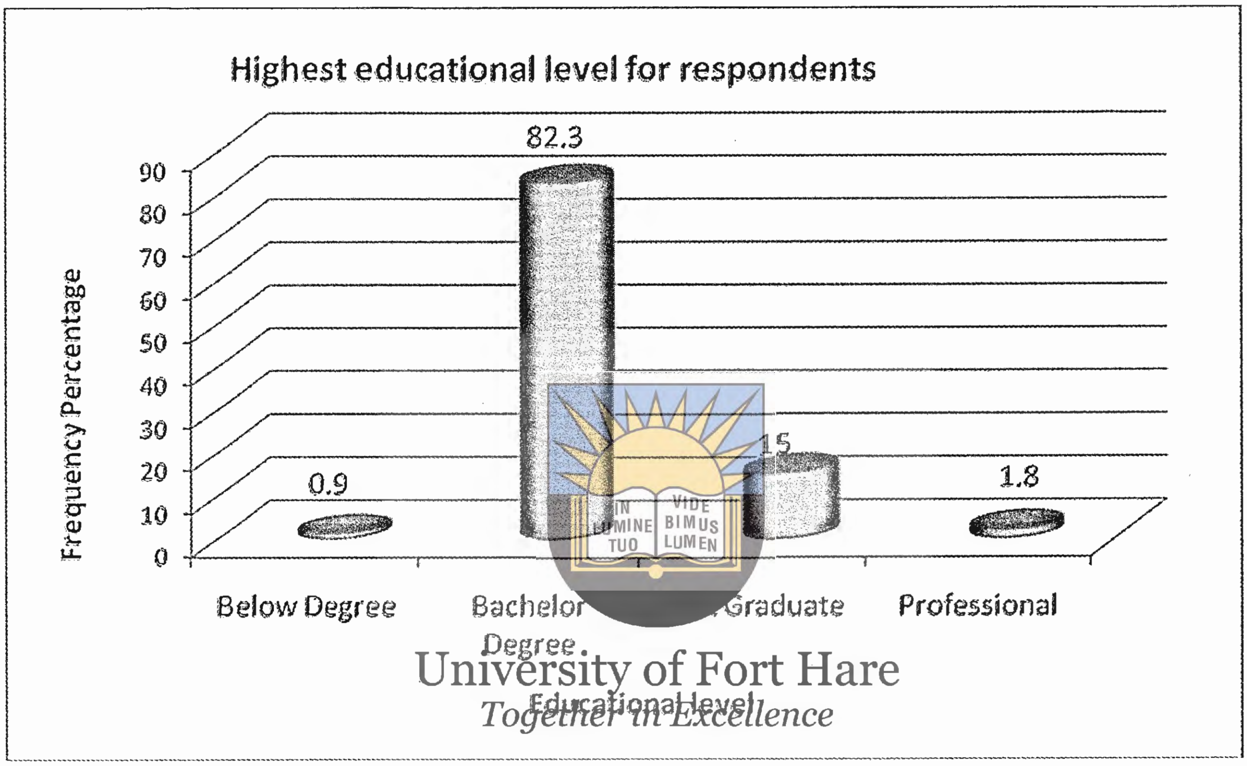

Figure 4.3 presents the educational qualifications of the respondents. The results indicated that the majority of respondents hold bachelors degree qualification above (91%) with 16.8% of the respondents having masters degree and other post graduate professional qualifications like chartered accountants on top of their Bachelors. Only less than one per cent (0.9%) of the respondents had an advanced level (A-Level) of secondary school qualification. This implies that the respondents were well educated and were able to give informed responses to the questions. The assumption is that the higher education achievement of an individual the more knowledgeable that person is, and in this case the issues pertaining to bank lending to SMEs as a bank employee.

4.2.2.4 The experience

Figure 4-4: The experience of the respondents

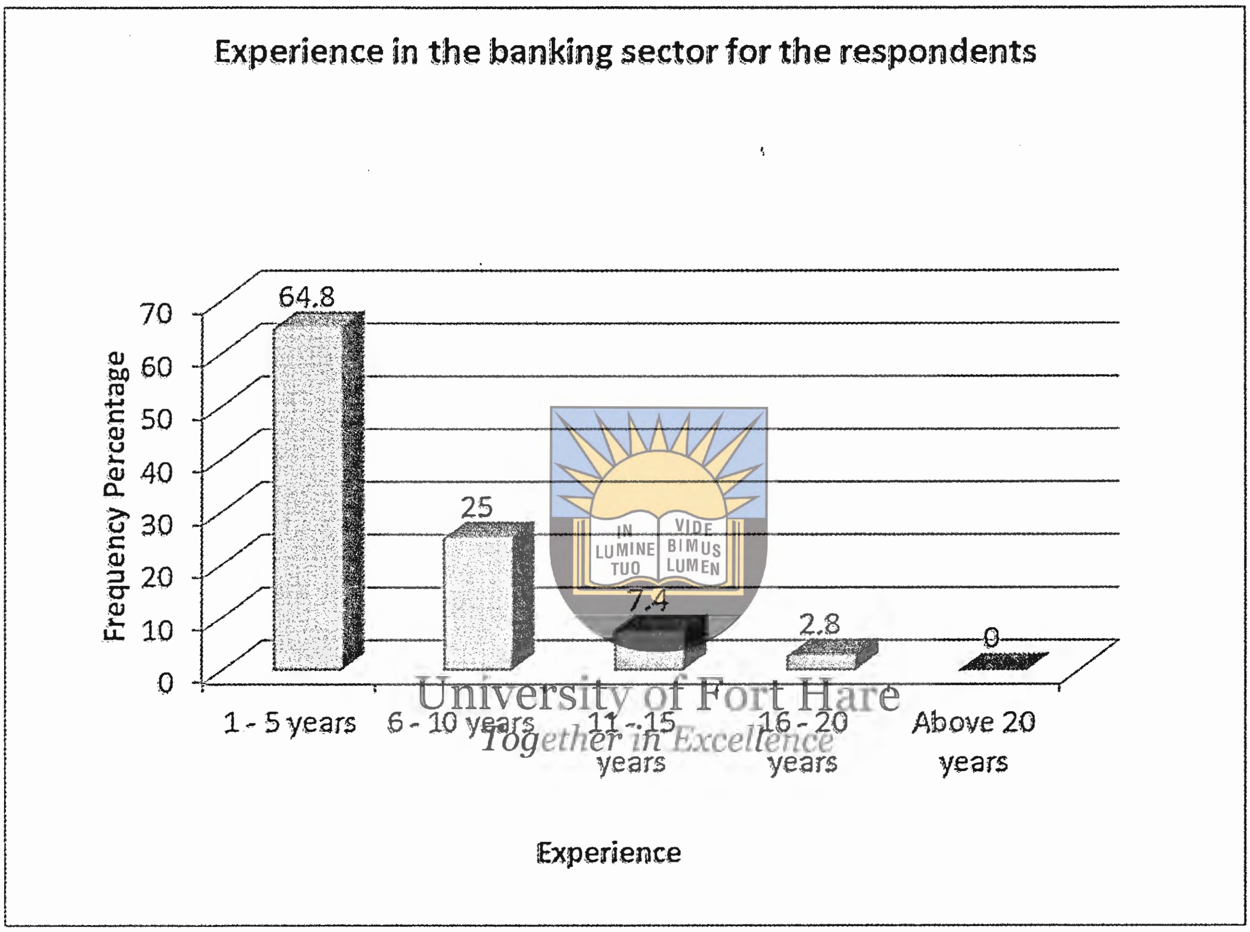

Figure 4.4 depicts the experience of the respondents. From the above table, it indicates that most of the respondents (64.8%) have between 1 to 5 years of working experience with banks. The remaining 35.5% have more than 6 years of working experience with banks. This implied that the latter group of respondents are well experienced in banking industry compared to the group with 5 years' experience and below, hence the group was able to give very informed responses to the questions. The group of 5 years' experience or less also is in a position to be a reliable source of information.

4.2.3 Propositional of total bank financing that go to SMEs

Table 4-2: Percentage of total banking that goes to SMEs compared to Large Industries

Bank financing to SMEs	Frequency	Percent	Cumulative Percent
Less than 10%	6	5.1	5.1
10% - 19%	22	18.8	23.9
20% - 29%	54	46.2	70.1
30% - 39%	12	10.3	80.3
40% - 49%	10	8.5	88.9
50%	9	7.7	96.6
Above 50%	4	3.4	100.0
Total	**117**	**100.0**	

This section presents the data analysis in respect of percentage of bank finance that SMEs receive compared to what goes to large industries. This question was asked to solicit responses from bank staff on their experience regarding amount of credit that go to the SMEs compared to what goes to the large industries. The review of the literature shows that large industries get larger proportion bank financing from credit market than SMEs while SMEs always out number large industries in other attributes including the number of units, production, employment etc.

The results indicated that 82 out 117 (70.1%) respondents confirmed that SMEs get less that 30% of total bank credit that to the industrial sector. If we include respondents who said that SMEs get between 30% and 39% of the total bank financing the respondents shoot up to 80.3% of total despondences.

The data presented above indicates that SMEs get a small portion of the total bank finances that go to the industrial sector and that a big portion of it goes to their large counterpart. In the absence of disaggregated figures of the bank financing to private sector from the central bank of Rwanda and other studies, it is assumed that the above data shows the trend bank credit to SMEs. The results could mean that SMEs do not get adequate bank financing compared to large industries in Rwanda.

4.2.4 Important factors when evaluating the credit applications of SMEs

The objective of this section is to assess the importance attached to SMEs internal factors when banks evaluate credit applications from SMEs. This is section B of the questionnaire. Six factors were identified as business information, collateral, managerial competencies, internal funds, networking and ethical behaviour. Respondents were asked to indicate the importance of the above factors when evaluating loan applications of the SMEs on 7-point scale (1 to 7). The scale was as follows: extremely important (7), very important (6), considerably important (5), moderately important (4), fairly important (3), less important (2), and not important all (1). This section forms the introduction to the main investigate part of the study. Data was analysed using descriptive statistics.

Mean scores of the important factors when evaluating the credit applications

Table 4.3 presents the mean scores of the importance attached to internal factors by banks when evaluation credit applications from SMEs. The table shows the relative importance of each internal factor in the credit evaluation process by banks.

Table 4-3: Mean scores of the internal factors

Variable	Mean
Availability of business information	6.27
Acceptable collateral	6.15
Managerial competency of the owner	5.56
SME Internal Funds	5.76
Networking with the bank	5.51
Ethical behaviour	6.09

The factors that banks consider most important when evaluating credit applications from SMEs are business information, collateral and ethical behaviour respectively (all are above 6 on a 7 point Likert scale). This is followed by SMEs internal funds, managerial competency and networking in the order of importance. All six factors have mean scores of more than 5, indicating that the respondents regard all these factors important. This suggests that all six SMEs internal factors are important to banks in credit evaluation.

The banks attach the highest level of importance to the availability and the quality of business information (6.27 on a 7-point Likert scale) in the credit evaluation process.

Lack of business information on the quality of the project gives rise to information asymmetry and adverse selection problems and leads to credit rationing.

Adequate business information enables investors to assess performance of the firm for credit extension reduces information asymmetry between the lenders and the borrowers. Information extracted from the business information like the financial statements and business plan indicates the firm profitability and ability for debt repayment. Banks use business information and companies' reports in evaluating credit applications and making lending decisions.

The next extreme important factor in the credit evaluation process is collateral (mean score of 6.15 out of 7). Collateral could be the physical assets (personal house and properties) of the SMEs owners, the physical assets of the firm (buildings, plant and machinery) and current assets (receivables or other materials like stock).

If collateral is pledged by a borrower to a lender may help reduce the problem of financing by assuring that the debt will be repaid. Taking collateral as security is attractive to banks since the willingness to offer collateral by the borrower signals the confidence in the success of the project. Collateral can also be seen as a means to prevent the high risk borrower from switching to higher risk projects after the loan has been granted since doing this could risk losing the collateral pledged. Collateral can therefore be seen as an instrument ensuring good behaviour on the part of borrowers, given the existence of a credible threat.

The next important factor in the credit evaluation process is ethical behaviour with a mean score of 6.09 out of 7. Ethics and trust play an important role in reducing agency problems such as moral hazard and adverse selection. Banks lend to borrowers who more trusted that they will honour their obligation when fall due. If the lender senses that the borrower is untrustworthy toward fulfilling responsibilities in debt repayment, despite of collateral and ability to pay, the lender is likely to avoid funding the business proposal.

From the above data, internal fund is the fourth important factor for credit evaluation with a mean score of 5.76. Internal funds can be the firm's net profit and the retained earnings or the owner's savings contributed to the firm. The extents to which a business owners commit own funds to the business firm is an indication that the business is promising and informing the banks that they can come in and invest in the good business idea. Also the more the business owner invests own money; the less likely that he will be taking high risky investment projects.

Managerial competency is also an important factor (5.56) after internal fund in the credit evaluation process. Managerial competencies can help to reduce information asymmetry before a loan is granted and potential moral hazard after the loan is granted. Managerial competencies are knowledge and skills that contribute to personal effectiveness. If the firm has quality staff and relevant capacity in managing the business, it will result into high productivity, firm performance and growth. Competencies are quite vital when it comes for preparing a bankable business plan. A well-articulated business plan is likely to be positively considered by the lenders of funds. It is important for SMEs to acquire relevant competencies and get their investment plans ready for funding. Lack of competencies result into poor performance and poorly thought out business plans result into underfunding and resources starvation. This suggests that managerial competency can reduce the credit risk of lending to SMEs.

The 6th important factor as per the data above is networking with a mean of 5.51 on a 7-point Likert scale. Networking can be used to reduce information asymmetry between lenders and borrowers. Networks help firms to be close to funders and earn support from key stakeholders including the banks and the general public. Banks rely on networking with SMEs to get soft information about their operations and their prospects which mitigate their informational opacity. Networks play a big role in relationship lending technology where a bank officer uses soft information collected over time to assess credit application instead of using hard information in form of financial statements which are hardly available in case of SMEs. Therefore, networking could result into spreading knowledge about the firm and increase its access to bank credit.

4.2.5 Ranking of internal factors by the respondents

The question on ranking is related to the previous one but asked in a different format to check the consistence of the respondents regarding the importance of the SMEs internal factors. The current question was asked from a different angle in the sense that it established what could be the effect in the absence of the above important factors for credit evaluation. The question sought respondents' views if the absence of these variables or factors resulted into bank credit not being easily accessible to SMEs.

The respondents were requested to rank the factors with respect to why credit is not available to SMEs. Since there are six internal factors, the ranking is from 1st to 6th, with 1st being the most important factor and 6th being the least important factor. This is the section D of the questionnaire. Table 4.4 presents the results.

Table 4-4: Ranking of factors by banks

Factors	**Level of importance (Mean score)**	**Rank**
Lack of business information	2.78	1st
Lack of collateral	3.07	3rd
Lack of managerial competency	3.99	5th
Lack of Internal Funds	3.57	4th
Lack of relationship between the bank and the SME (Networking with the bank)	4.62	6th
Unethical behaviour of SME	2.98	2nd

The table above gives the mean score of respondents rankings of the factors causing non-availability of bank financing to SMEs in Rwanda. The factor with the lowest mean closer to 1 is ranked 1st and the factor with highest mean away from number 1 is ranked 6th. Other rankings fall in between according to their relative closeness to number one with their respective positions. Lack of business information is ranked first, followed by unethical behaviour in second position, lack of collateral is ranked third, lack of internal funds is fourth, lack of managerial competency fifth and networking is ranked sixth. The rankings by the respondents further confirm the results of the earlier questions on importance attached to factors by banks when evaluating credit applications from SMEs, this question was asked in another format to check the consistence of the respondents. The results are quite similar except for ethical behaviour and collateral which swapped positions of second and third in the two questions. The explanation of this could be that they both play almost similar roles to SMEs funding. If the SMEs owners are ethical enough they will be loyal in honouring their obligations when due which is another form of guarantee different from a physical guarantee (the collateral). The remaining factors retain their positions with managerial competency leading in the two separate questions.

4.2.6 Factors why credit is not available to SMEs

The study examined the importance attached to SMEs internal factors by banks in the evaluation of credit applications of SMEs in previous sections. The results suggest that these factors are important to banks for evaluation of credit applications.

The objective of this section is to determine the association of SMEs internal factors and the non - available of bank financing. This is the C part of the questionnaire. This section is the main investigative part of the study. Data for this section will be analysed using descriptive statistics, Chi-square test and Cronbach's alpha. Because of the huge volume of data in this section only the summary of the data analysis is presented.

There are 43 sub-factors on the main 6 identified variables or factors determining the availability of bank financing to SMEs. In this section respondents were asked to indicate their level of agreement or disagreement on the 43 statements about why bank financing is not easily accessible to SMEs, using a 7-ponit scale (1 to 7): The scale was as follows: 7=strongly agree, 6=considerably agree, 5=moderately agree, 4=neutral, 3=slightly disagree, 2=moderately disagree, 1=strongly disagree.

4.2.6.1 Sub-factors analysis

An analysis was performed to investigate the mean score of each sub-factor.

Table 4-5: Mean scores of 43 sub-factors

Factor	Sub-factor	Mean	Factor	Item	Mean
(1) Lack of business information	Lack of project feasibility study (technical and financial)	6.02	**(3) Lack of managerial competency.**	Lack of adequate technical capacities in the business field for which the finance is sought	5.56
	The Enterprise have no Business plan	5.86		Lack of experience relevant to the business by the owner	5.68
	The Enterprise have no market potential	5.79		The owner lacks demonstrated managerial ability	5.53
	Lack of Environmental Impact Assessment from REMA	3.68		The owner is not familiar with market/industry	5.53
	Lack of clearance of the Healthy and Safety issues of the relevant authority	3.67		The owner has no talent in business he/she wants to run	5.17
	The Enterprise is not financially viable	5.82		The owner has no education	4.51
	Lack of financial statements	5.26		The owner has no business skills	5.24
	Cash flow forecast does not show that credit can be repaid	5.79	**(4) Lack of Internal Funds**	Lack of minimum equity contribution by promoter/owner	6.11
	The business plan does not articulate the business opportunities	5.30		No enough net profit from financial statements	5.78
	The business plan does not cover all key	4.96		There is no retained earnings by the Enterprise	5.61

Factor	Sub-factor	Mean	Factor	Item	Mean
	issues compressively			(the owner uses the enterprise profit for personal use)	
	The Entrepreneur does not have all necessary business documentation	5.05	**(5) Lack of networking**	The Entrepreneur has never been our customer and no prior relationship between the bank and the him/her	4.37
	The entrepreneur does not have suitable business premises	4.44		There is a very short history of relationship between the bank and Entrepreneur	4.26
	The Enterprise does not have growth potential	5.66		The Entrepreneur does not have good reference on integrity	5.12
(2) Lack of collateral	No adequate immovable and movable tangible assets (e.g. buildings and land as collateral)	6.04		The Enterprise does not belong to a professional association (e.g. Rwanda Private Sector Federation and its chambers)	3.67
	No adequate current assets (e.g. receivables or other materials, stock as collateral)	5.55		No verifiable supply of inputs (e.g. raw materials) in place for the Entrepreneur when visited	4.41
	Lack of joint guarantee by spouses, shareholders, stakeholders etc.	4.89	**(6) Unethical behaviour**	The owner has bad credit records	6.37
	Lack of guarantee by Government	5.35		The owner has no moral solvency and integrity	6.01
	Lack of fire and accidents Insurance	4.74		The owner might divert funds and use it to other activities not related to the business	5.97
	Lack of share certificates of share-holding in another company	3.91		The owner might default on loan re-payment	5.96
	Lack of guarantee by International Finance Institutions (IFI guarantee)	4.15		The owner might be dishonest in keeping promises and commitments	5.74
				The owner paid his/her last loan with difficulties	5.60
				The owner might give false information and polished financial statements	5.97
				Demonstrated untrustworthiness toward fulfilling responsibilities	5.96

4.2.6.2 Scale mean and Cronbach's alphas of internal factors

This section presents scale mean of the six identified factors and the Cronbach's alpha which was used as the measure of reliability of the factors. The scale mean of a factor is an average of all sub-factors frequencies in that very factor.

Table 4-6: Scale mean and Cronbach's alpha of factors

Factors	Scale Mean	Cronbach's Alpha
Lack of business information	5.18	0.739
Lack of collateral	4.95	0.791
Lack of managerial competency	5.32	0.850
Lack of Internal Funds	5.83	0.725
Lack of relationship between the bank and the SME (Networking with the bank)	4.39	0.769
Unethical behaviour of SME owners	5.95	0.815

4.2.6.3 Chi - Square Test

The Chi-square test for the independence was conducted to test the research hypotheses developed in chapter one to determine statistically if there is any significant relationship between each of the six factors and non-availability of bank financing to SMEs in Rwanda. Error rate (α-level) was set at 0.05, with confident level of 95% as it is in most chi-square applications. In addition, the scale means of factors and Cronibach's alpha were also considered to complement the chi-squire test.

The chi-square test was run from SPSS version 19 for the 6 factors and the results of each factor is presented, analysed and interpreted in the proceeding sections.

(i) Lack of Business Information

Null and alternative hypotheses for the lack of business information factor are stated as:

H_0: There is no significant relationship between the lack of business information and non-availability of bank finance to SMEs in Rwanda.

H_1: There is a significant positive relationship between the lack of business information and non-availability of bank finance to SMEs in Rwanda.

Table 4-7: Results of the Chi-square test for Lack of Business information

Lack of Business Information

	Observed N	Expected N	Residual
2: Moderately Disagree	1	23.4	-22.4
4: Neutral	17	23.4	-6.4
5: Moderately Agree	60	23.4	36.6
6: Considerably Agree	33	23.4	9.6
7: Strongly Agree	6	23.4	-17.4
Total	117		

Test Statistics

	Lack of Business Information
Chi-Square	97.316[a]
df	4
Asymp. Sig.	.000

A Chi-square test was conducted for the above research hypothesis, the objective was to determine if the number of respondents in each of the several responses differ from the predicted values. Statistically it was to investigate whether the expected frequencies differ from observed frequencies significantly and decide whether to reject H_0 or not. If the p value is less than or equal to the 0.05, then we can reject H_0.

The results given above show a chi-square value of 97.316 with 4 degrees of freedom and a p-value of 0.000. Since the p-value is less than 0.05, it therefore means that there are differences in proportions of the responses thus, the null hypothesis is rejected and conclude that there is a significant relationship between the lack of business information and non-availability of bank finance to SMEs.

This is also supported by the scale means of lack of business information of 5.18 out of 7. The Cronbach's alpha for the factor yielded a value of 0.739 indicating the reliability of the factor. The results of the chi-square test indicate a statistically significant positive relationship between lack of business information and non-availability of bank finance to SMEs.

The null hypothesis that there is no significant relationship between the lack of business information and non-availability of bank finance to SMEs in Rwanda is rejected and conclude that there is a significant positive relationship between the lack of business information and non-availability of bank finance to SMEs in Rwanda.

The results suggest that the availability of reliable business information will positively impact on the availability of bank financing to SMEs in Rwanda. The results are consistent with the asymmetric information theories that asymmetric or incomplete information restricts access to external funds.

(ii) Lack of collateral

Null and alternative hypotheses for the lack of collateral factor are stated as:

H_0: There is no significant relationship between the lack of collateral and non-availability of bank finance to SMEs in Rwanda.

H_1: There is a significant positive relationship between the lack of collateral and non-availability of bank finance to SMEs in Rwanda.

Table 4-8: Results of the Chi-square test for lack of collateral

Lack of Collateral

	Observed N	Expected N	Residual
2: Moderately Disagree	4	19.5	-15.5
3: Slightly Disagree	11	19.5	-8.5
4: Neutral	24	19.5	4.5
5: Moderately Agree	38	19.5	18.5
6: Considerably Agree	23	19.5	3.5
7: Strongly Agree	17	19.5	-2.5
Total	117		

Test Statistics

	Lack of Collateral
Chi-Square	35.564[a]
df	5
Asymp. Sig.	.000

A Chi-square test for the lack of collateral hypothesis was performed to statistically investigate whether the expected frequencies differ from observed frequencies significantly and decide whether to reject H_0 or not. If the p value is less than or equal to the 0.05, then H_0 is rejected.

The above results show a chi-square value of 35.564 with 5 degrees of freedom and a p-value of 0.000. Since the p-value is less than 0.05, it therefore means that there are differences in proportions of the responses thus, the null hypothesis is rejected and conclude that there is a significant relationship between the lack of collateral and non-availability of bank finance to SMEs.

This is also supported by the scale means of lack of collateral of 4.95 above the mid-point of 4. The Cronbach's alpha for the factor yielded a value of 0.791 indicating the reliability of the factor. The results of the chi-square test indicate a statistically significant positive relationship between lack of collateral and non-availability of bank finance to SMEs.

The null hypothesis that there is no significant relationship between the lack of collateral and non-availability of bank finance to SMEs in Rwanda is rejected and conclude that there is a significant positive relationship between the lack of collateral and non-availability of bank finance to SMEs in Rwanda.

The results suggest that the availability of collateral will positively impact on the availability of bank financing to SMEs in Rwanda.

(iii) Lack of managerial competencies

Null and alternative hypotheses for the lack of managerial competencies factor are stated as:

H_0: There is no significant relationship between the lack of managerial competencies and non-availability of bank finance to SMEs in Rwanda.

H_1: There is a significant positive relationship between the lack of managerial competencies and non-availability of bank finance to SMEs in Rwanda.

Table 4-9: Results of the Chi-square test for lack of managerial competencies

Lack of Managerial Competencies

	Observed N	Expected N	Residual
1: Strongly Disagree	1	16.7	-15.7
2: Moderately Disagree	2	16.7	-14.7
3: Slightly Disagree	5	16.7	-11.7
4: Neutral	12	16.7	-4.7
5: Moderately Agree	46	16.7	29.3
6: Considerably Agree	34	16.7	17.3
7: Strongly Agree	17	16.7	.3
Total	117		

Test Statistics

	Lack of Managerial competencies
Chi-Square	106.462[a]
df	6
Asymp. Sig.	.000

A Chi-square test for the lack of managerial competencieswas performed to statistically investigate whether the expected frequencies differ from observed frequencies significantly and decide whether to reject H_0 or not. If the p value is less than or equal to the 0.05, then H_0 is rejected.

The above results show a chi-square value of 106.462 with 6 degrees of freedom and a p-value of 0.000. Since the p-value is less than 0.05, it therefore means that there are differences in proportions of the responses thus, the null hypothesis is rejected and conclude that there is a significant relationship between the lack of managerial competencies and non-availability of bank finance to SMEs.

This is also supported by the scale means of lack of managerial competencies of 5.32 out of 7. The Cronbach's alpha for the factor yielded a value of 0.850 indicating the reliability of the factor. The results of the chi-square test indicate a statistically significant positive relationship between lack of managerial competencies and non-availability of bank finance to SMEs.

The null hypothesis that there is no significant relationship between the lack of managerial competencies and non-availability of bank finance to SMEs in Rwanda is rejected and conclude that there is a significant positive relationship between the lack of managerial competencies and non-availability of bank finance to SMEs in Rwanda.

The results suggest that the managerial competency of the owners of SMEs will positively impact on the availability of bank financing.

(iv) Lack of Internal funds

Null and alternative hypotheses for the lack of internal funds factor are stated as:

H_0: There is no significant relationship between the lack of internal funds and non-availability of bank finance to SMEs in Rwanda.

H_1: There is a significant positive relationship between the lack of internal funds and non-availability of bank finance to SMEs in Rwanda.

Table 4-10: Results of the Chi-square test for lack of internal funds

Lack of Internal funds

	Observed N	Expected N	Residual
3: Slightly Disagree	1	23.4	-22.4
4: Neutral	6	23.4	-17.4
5: Moderately Agree	38	23.4	14.6
6: Considerably Agree	42	23.4	18.6
7: Strongly Agree	30	23.4	6.6
Total	117		

Test Statistics

	Lack of Internal funds
Chi-Square	60.137[a]
df	4
Asymp. Sig.	.000

A Chi-square test for the lack of internal funds was performed to statistically investigate whether the expected frequencies differ from observed frequencies significantly and decide whether to reject H_0 or not. If the p value is less than or equal to the 0.05, then H_0 is rejected.

The above results show a chi-square value of 60.137 with 4 degrees of freedom and a p-value of 0.000. Since the p-value is less than 0.05, it therefore means that there are differences in proportions of the responses thus, the null hypothesis is rejected and conclude that there is a significant relationship between the lack of internal funds and non-availability of bank finance to SMEs.

This is also supported by the scale means of lack of internal funds of 5.83 out of 7. The Cronbach's alpha for the factor yielded a value of 0.725 indicating the reliability of the factor. The results of the chi-square test indicate a statistically significant positive relationship between lack of internal funds and non-availability of bank finance to SMEs.

The null hypothesis that there is no significant relationship between the lack of internal funds and non-availability of bank finance to SMEs in Rwanda is rejected and conclude that there is a significant positive relationship between the lack of internal fund and non-availability of bank finance to SMEs in Rwanda.

The results suggest that the availability of SMEs internal funds will positively impact on the availability of bank financing to SMEs in Rwanda.

(v) Lack of Networking

Null and alternative hypotheses for the lack of networking factor are stated as:

H_0: There is no significant relationship between the lack of networking and non-availability of bank finance to SMEs in Rwanda.

H_1: There is a significant positive relationship between the lack of networking and non-availability of bank finance to SMEs in Rwanda.

Table 4-11: Presents the results of the Chi-square test for lack of networking

Lack of Networking

	Observed N	Expected N	Residual
1: Strongly Disagree	4	16.7	-12.7
2: Moderately Disagree	10	16.7	-6.7
3: Slightly Disagree	[illegible]	[illegible]	[illegible]
4: Neutral	[illegible]	[illegible]	[illegible]
5: Moderately Agree	[illegible]	16.7	11.[illegible]
6: Considerably Agree	22	16.7	5.3
7: Strongly Agree	9	16.7	-7.7
Total	117		

Test Statistics

	Lack of Networking
Chi-Square	28.684[a]
df	6
Asymp. Sig.	.000

A Chi-square test for the lack of networking was performed to statistically investigate whether the expected frequencies differ from observed frequencies significantly and decide whether to reject H_0 or not. If the p value is less than or equal to the 0.05, then H_0 is rejected.

The above results show a chi-square value of 28.682 with 6 degrees of freedom and a p-value of 0.000. Since the p-value is less than 0.05, it therefore means that there are differences in proportions of the responses thus, the null hypothesis is rejected and conclude that there is a significant relationship between the lack of networking and non-availability of bank finance to SMEs.

This is also supported by the scale means of lack of networking of 4.39 which is above the mid-point of 4. The Cronbach's alpha for the factor yielded a value of 0.769 indicating the reliability of the factor. The results of the chi-square test indicate a statistically significant positive relationship between lack of networking and non-availability of bank finance to SMEs.

The null hypothesis that there is no significant relationship between the lack of networking and non-availability of bank finance to SMEs in Rwanda is rejected and conclude that there is a significant positive relationship between the lack of networking and non-availability of debt to bank finance SMEs in Rwanda.

The results suggest that networking by the owners of SMEs will positively impact on the availability of bank financing to SMEs in Rwanda.

(vi) Unethical behaviour

Null and alternative hypotheses for unethical behaviour factor are stated as:

H_0: There is no significant relationship between unethical behaviour and non-availability of bank finance to SMEs in Rwanda.

H_1: There is a significant positive relationship between unethical behaviour and non-availability of bank finance to SMEs in Rwanda.

Table 4-12: Presents the results of the Chi-square test for unethical behaviour

Unethical behaviour

	Observed N	Expected N	Residual
3: Slightly Disagree	1	23.4	-22.4
4: Neutral	2	23.4	-21.4
5: Moderately Agree	20	23.4	-3.4
6: Considerably Agree	63	23.4	39.6
7: Strongly Agree	31	23.4	7.6
Total	117		

Test Statistics

	Unethical behaviour
Chi-Square	110.991[a]
df	4
Asymp. Sig.	.000

A Chi-square test for unethical behaviour was performed to statistically investigate whether the expected frequencies differ from observed frequencies significantly and decide whether to reject H_0 or not. If the p value is less than or equal to the 0.05, then H_0 is rejected.

The above results show a chi-square value of 110.991 with 4 degrees of freedom and a p-value of 0.000. Since the p-value is less than 0.05, it therefore means that there are differences in proportions of the responses thus, the null hypothesis is rejected and conclude that there is a significant relationship between unethical behaviourand non-availability of bank finance. The results of the chi-square test indicate a statistically significant positive relationship between unethical behaviour and non-availability of bank finance to SME in Rwanda.

This is also supported by the means score of 5.95 out of 7, portraying the role of the unethical behaviourin the bank evaluation of credit applications. The Cronbach's alpha for the factor yielded a value of 0.815 indicating the reliability of the factor.

The null hypothesis that there is no significant relationship between unethical behaviour and non-availability of bank finance to SMEs in Rwanda is rejected and conclude that there is a significant positive relationship between unethical behaviour and non-availability of debt to bank finance SMEs in Rwanda.

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The results suggest that ethical practice by SMEs and owners will positively impact on the availability of bank financing.

4.2.7 Recommendations to improve the availability of bank financing to SMEs

This was section F of the questionnaire which sought to get opinions from the respondents of what could be the possible recommendations for improving the availability of bank financing to SMEs in Rwanda. This was the last section of the questionnaire with an open-ended question and it gathered data related to the fourth which was the last research question of the study as mentioned in the previous chapters. The research question was as follows:

What are possible recommendations toward improving the availability of bank financing to SMEs in Rwanda?

The respondents volunteered different opinions regarding feasible recommendations to improve the availability of bank financing to SMEs in Rwanda. The questionnaire's question read as "*what can you recommend to improve the availability of bank financing to SMEs in Rwanda*?"

Since this was an open –ended question with no response options given to respondents, a few respondents (19 out 117) did not respond to this question as compared to close-ended questions with information available to the respondents to choose from. Almost all close-ended questions had 100% response rate.

The data collected from respondents were analysed by identifying recurring concerns and insights, which allowed seeing certain patterns emerging. The recurring concepts were labeled and then placed within categories or themes. The responses were grouped into the following seven themes: capacity building, increase of government guarantee facilities, SMEs focus as a priority sector, relationship baking and monitoring, advisory services, reducing banks bureaucracy, and increasing bank branches.

a) Capacity building programs

Twenty eight out of 98 respondents believe that training and capacity building will increase funding to SMEs. In their opinion, SMEs have not been able to get finance in the recent years due to limited capacity of SMEs management and staff to understand the bank requirements for financing and be able to provide them. They indicated that the SMEs management and staff need to undergo training programs on number of issues ranging from business plan write-up, business management and financial management as well as training young people (students) on how to become future entrepreneurs who will eventually start own businesses once they complete their studies.

The following are some of comments from a sample of respondents:

Respondents 55 stated that, "*SMEs should get intensified training on how to prepare business plans and on how to manage businesses. There is lack of managerial skills in SMEs which hinder them to get the required loan*".

While respondents 94 had this to say: "*there should be programs to develop entrepreneurial skills from the school level to be transmitted to young people; to develop culture of taking risks, working hard and have ambitions to start businesses. The Government should guide and orient the young people in the country to develop entrepreneurial activities including how to acquire financing*".

The interpretation of the above views is that training and capacity building to SMEs owners and staff is a paramount important factor so as to improve the availability of bank financing to SMEs in Rwanda. Most of respondents indicated that SMEs lack capacity to write bankable business plans which will normally contain all relevant information on SMEs for credit evaluation. When this is not properly done chances are that the SME credit application will be rejected.

Furthermore, bank staff also need training to serve the SMEs sector better. Respondent 64 said, '*the banks should focus on continuous learning by training their staff on assisting and informing SMEs on their respective lending policies*". This indicate that banks are not geared to financing entrepreneurs due to the fact that they developed in an economy dominated by large firms and thus do not have the skills set for assessing start-ups and small enterprises Angela Motsa and Associates (2004) as cited by Fatoki and Smith, (2011).

This study found that training and capacity building of SMEs owners and staff is needed to access funding. It is a fact that lack of knowledge on how to prepare credit application documents hinders SMEs from getting funding from the banks. Therefore, key actors in supporting the SMEs sector lead by the government should intensify training programs geared to capacity build SMEs in terms of business plan writing skills, business management skills. The government is urged to develop entrepreneurship courses at school level to inculcate the young into entrepreneurs who will be able to access bank financing in future. Banks are also advised to take keen interest in serving the SMEs sector by equipping their staff with skills on building long-term relationship with SMEs.

b) **Increase of government guarantee facilities**

On this theme, 26 out of 98 respondents noted that there is a need for the government to increase the guarantee facilities in order to improve the availability of bank financing to SMEs in Rwanda.

Respondent 96 point out that, "*Government should introduce more guarantee facilities that cover risk significantly. (Currently BDF-Business Development Fund covers up to 50% of the risk); this is still very insignificant to SMEs; they need at least cover up to 80% of risk".*

Respondent 75 mentioned that "*more guarantee facilities should be made available to reduce the SMEs start-up failure rate caused by lack of financing which it still high and this can be mitigated through additional guarantees".*

Respondent 116 encouraged the Government to "*put more practical guarantee facilities. Currently guarantee funds are only accessible by banks when the client has defaulted for a period of 12 months hence banks reserve themselves to taking more SMEs loan applications*".

Respondent 70 had this comment; "*the state should guarantee its citizens who are establishing businesses because entrepreneurs lack collateral while they have brilliant ideas and business plans*".

The interpretation of the above data suggests that although there are different Government guarantee funds managed by BDF under Rwanda development bank, they are still insufficient which requires the GoR to increase the guarantee to cover a higher portion of risk and to be practical and be accessed once the SMEs default. The limited guarantee funds could means that some SMEs do not get access to the guarantee and since they do not cover up a big portion of the risk then the SMEs do not get adequate bank financing. Therefore the GoR needs to take note of this and increase SMEs guarantee fund push its development agenda forward as articulated in EDPRS (2007).

c) SMEs focus as a priority sector

The respondents proposed a variety of advocacy for the SMEs sector to be considered as a priority sector in Rwanda and be given a special attention. 17 out of 98 respondents recommended that there is a need for the government policy to recognise the importance of SMEs sector and consequently a call for of adequate financing to the development of the sector. The government should take steps to encourage lending institutions to provide credit to SMEs on more liberal terms. Respondent 89 said that "*The Government of Rwanda should push the banks to increase their financing to SMEs by setting a minimum portfolio that go to SMEs.*"

Below is a consolidated list of possible recommendations from 17 respondents regarding identifying SMEs as a priority sector:

- Banks should increase proportion of the amount of credit loaned to SMEs.
- Government should put up clear policies for SMEs to access bank funding and to improve their creditworthiness.
- Banks should focus on SMEs especially in the agricultural sector which is the key sector in Rwanda.
- The banks and other lending institutions should create more loan products tailor-made for SMEs at favourable terms and interest rates.
- The banks should come with deliberate policy to support SMEs, currently tend to work more with corporate borrowers since they find SMEs risky hence they prefer less risky customers.
- The SMEs should be identified as a priority sector for long term financing as banks do not find reasons why they should risk with lending to SMEs when they could make good money elsewhere less risky.
- The banks should understand that the SMEs sector is important to the development of any country hence they should make deliberate effort to finance their projects.

The interpretation of the data above could be that if the government puts up a policy requiring banks to compulsorily ensure that a certain defined percentage of their overall lending is made to priority SMEs sector as classified by government then this will improve the availability of bank financing to SMEs in Rwanda.

Therefore, prioritising SMEs sector could be a GoR strategy for economic development since SMEs are well recognized from their contribution to the socio-economic objectives of growth in generation of employment, output, import substitution, exports, and in their function of incubating entrepreneurship.

In view of this, the Government need for a focused credit policy for SMEs as part of its policy to promote the SMEs sector in the country and ensure that they get the earmarked credit from banks.

d) Relationship banking and monitoring

Another theme which featured was the relationship banking and monitoring. 10 out of 98 respondents recommended that bank could do more of relationship lending than transaction lending. Respondent 63 pointed out that "*Banks policies should change to reduce collateral requirements and strengthen monitoring of the clients businesses*".

Other respondents had the following views:

Respondent 31 indicated that "*Banks should have adequate knowledge and information on the clients through screening and monitoring them i.e. in terms of loan history*".

Respondent 36 recommended that "*banks should put up proper structure for SMEs where they can be properly monitored and followed up*".

While respondent 46 was of the view that *"Banks should establish relationship with SMEs, encourage them and make a closely follow up on the projects financed and make sure loans provided are paid"*.

The interpretation of the above data could be that there is a need for bank to strengthen their relationship banking with SMEs, which usually are information opaque in order to improve their access to bank credit in Rwanda. Although, transaction lending is and shall remain to play a big part in Rwanda credit market, the relationship lending will increase the availability of bank financing to SMEs.

e) Advisory services

Eight out of 98 respondents proposed a variety of advances towards advisory services that SMEs should get to enable them get adequate bank financing in Rwanda.

Respondent 05 recommend for the "*SMEs to approach the experts to help them prepare business proposals because most SMEs have good ideas but they lack capacity in putting up a bankable proposals*".

Respondent 35 proposed that, "*SMEs in Rwanda should get professional advice on how to prepare a business plan and how to run their businesses more effectively and efficiently*".

Respondent 81 suggested that, *"The Government should set up specialised advisory service unit proving services on business plan writing, request for funding etc."*.

The interpretation of the above data could be that there is a general lack of expertise with SMEs when it comes to preparing business plans. These views concur with a call for intensive training programs mentioned earlier in this section. Lack of knowledge and limited capacity in SMEs seem to be rampant. Therefore SMEs are advised to outsource capacity where is lacking mainly for the preparation of bankable business plans to able to access bank financing.

As per BDF investment guide booklet "unlocking your business potential", the GoR through the Rwanda development bank has recently in 2010 established the BDF, which manages Government guarantee funds to different sectors of the economy including SMEs. BDF also provides investment advisory services to SMEs including business plan preparation.

The interpretation of respondent 81 opinion is that the respondent is either not aware of the existence of BDF or the response could also show that the BDF is not addressing the real needs of the SMEs.

Therefore, SMEs are recommended to seek professional advisory services from either the BDF or other experts to help them to prepare business plans and all documentation required for credit application in a very professional manner to improve accessing the required bank financing.

f) Reducing banks bureaucracy

5 out of 96 respondents recommended that banks should reduce their bureaucracy to enable more SMEs access financing. The following are some of statements by made respondents:

Respondent 21 stressed that, "*Banks should reduce bureaucracy and make their procedures more user-friendly to follow in order to improve services provided to customers and make it faster*".

Respondent 25 pointed out that, "*Banks should reduce bureaucracy and put up regulations supporting SMEs to get loans needed*".

Respondent 99 commended that, "*Banks must decentralize the loan applications evaluation from the headquarters to the branches. The branches should do a lot of awareness to SMEs on what is required for them to be funded*".

The interpretation of the data above could be that the banks are bureaucratic and have cumbersome procedures hard to follow by SMEs. Since SMEs are always characterised by lack of capacity and knowledge about banks procedures, which hinders them from getting required financing, the procedures should be made much simpler. Respond 99 made an interesting recommendation that banks need to decentralise loan applications evaluation from the headquarters to the branches. This was also noted by the researcher during discussion with some bank managers. All loan applications are sent to the banks' headquarters in Kigali for evaluation and subsequent decisions to grant a loan or reject the application with the exception of BPR. Only BPR gave autonomy to some branches to evaluate applications and grant loans to customers.

The interpretation of this point has two effects, firstly, if banks decentralise loan applications evaluation and granting decisions, chances are that SMEs might access more funding since branches might have more personalised information on SMEs located in the bank branch area. Also branches could better monitor and follow on the financed SMEs projects since they are close to the clients. The second positive effect is that decision on loan application outcome could be made much faster and be timely granted since justice delayed is justice denied. When financing is granted on time, it might result into a positive impact on SMEs productivity and subsequently improve on loan repayment. Therefore, cutting bank bureaucracy might improve the availability of bank financing to SMEs in Rwanda.

g) Increasing bank branches

Lastly, 4 respondents recommended that banks need to increase a network of branches to improve the availability of financing to SMEs.

Respondent 21 said that, *"Banks should increase the number of branches to reach the far clients outside town to minimum time wasting to go to the far located branches".*

Respondent 100 mentioned that, *"Banks should create more branches and sub-branches to make them reach as many SMEs as possible".*

Similar to the above to recommendations, respondent 19 recommended that, *"Banks should open new network of branches to reach all entrepreneurs across the country to allow people get access to bank finance as many as possible".*

The above data indicates that there is need for banks to open up more branches and reach more clients in remote area far from town and cities. This is probably because SMEs in remote area are the worse affected by lack of bank financing since they could be the most information opaque with little facilities for capacity building. This observation points to the importance of increasing services to the clients as a result of increase bank branches. Since more branches could increase a number of clients getting services including SMEs clients.

Increasing branches probably won't be sufficient as such if credit granting decisions are still done at the bank headquarters. Therefore opening more branches should be coupled with decentralisation of credit granting processing at the branches. Thus, opening a new network of branches to reach many SMEs across the whole country combined with decentralising evaluation of loan applications and loan granting decisions at the brancheslevel might improve the availability of financing to SMEs and make more business to the banks in Rwanda.

4.3 Conclusion

This chapter presented, analysed and interpreted data that was collected from the field through the use of the questionnaires. Questionnaires were administered to 122 respondents from four commercial banks and 26 respondents from one development bank, with a response rate of 81%. The demographic variables were presented, analysed and interpreted with the help of figures and tables. In addition, the chapter examined the importance attached to SMEs internal factors during the credit evaluation process. Furthermore, the chapter presented, analysed and made interpretation of data regarding the relationship between internal factors and non-availability of bank finance to SMEs. The results indicated that there is a positive significant relationship between lack of all six SMEs internal factors and non-availability of bank financing.

Finally, chapter presented data on recommendations made by respondents to improve bank financing to SMEs in Rwanda. The next chapter will examine the discussion of the major findings that emerged from this chapter in relationship to the existing literature on SMEs access to external finance.

CHAPTER FIVE

5 DISCUSSION OF DATA

5.1 Introduction

The purpose of this chapter is to critically discuss the findings of the previous chapter in relation to the literature reviewed for this study. The overall objective is therefore to bring the findings into the context of the existing knowledge with regard to the availability of bank financing to SMEs in Rwanda. The availability of credit to SMEs is of paramount important for their survival and productivity. This chapter discusses the data with respect to four research questions that were generated in chapter one. The discussion is mainly centered on these research questions. To easy reference, the research questions to which each section refers is stated at the beginning of the section.

The research questions are repeated below for the reader's convenience:

- Do SMEs get adequate bank financing in Rwanda?
- What are factors that determine the availability of bank financing to SMEs in Rwanda?
- What is relationship between SMEs internal factors and access to of bank financing in Rwanda?
- What are possible recommendations toward improving the availability of bank financing to SMEs in Rwanda?

5.2 Do SMEs get adequate bank financing in Rwanda?

This section discussed findings in respect of percentage of bank finance that SMEs receive compared to what goes to large industries.

The generality of the respondents (70.1%) proclaimed that SMEs get less that 30% of total bank financing that go to the industrial sector in Rwanda. It was found that SMEs get a small portion of the total bank financing and the bigger portion goes to their large industries counterpart. Since there are no disaggregated figures of the bank financing to private sector from any official documents in Rwanda, it can be assumed that the above data shows the trend bank credit to SMEs. This shows that SMEs get a smaller proportional of bank financing compared to large industries in Rwanda. This is in consistence of previous work by [illegible] et al. (2011) which indicates that small firms obtain only 30 percent of their financing from external sources, whereas large firms meet up to 48 percent of their financing needs through external financing.

The review of the literature showed that large industries get larger proportion bank financing from credit market than SMEs while SMEs out number large industries in many respect including; total number of units, total production and employment.

The finding was also supported by ICA, Rwanda (2009), which compared SMEs access to finance with and large firms. The ICA findings show that SMEs are least favourable access to finance compared to large firms, the latter are most favourable. The report indicated that microenterprises finances only about 1% of working capital and 3% of long term investment with bank funds, which increases to 10-12% for small enterprises, 25 for medium and 33% for large enterprises. The proportion of bank finance to SMEs which includes micro enterprises in Rwanda, it is evidently from this report that it is very low.

Global discussion finds the same phenomenon, furthermore, Beck, Demirgüç-Kunt and Maksimovic (2005) affirms the above findings that SMEs finance on average, 13% points less of investment with external finance compared to large firms, therefore there is a general lack of access to external finance by SMEs than the large firms.

5.3 What are factors that determine the availability of bank financing to SMEs in Rwanda?

The objective of this section is to present the findings and discussion of the SMEs internal factors that banks consider important for evaluating credit applications. Six factors were identified as business information, collateral, managerial competencies, internal funds, networking and ethical behaviour. This question was asked to find out the importance attached to the above factors when banks evaluate credit applications from SMEs.

The study found that the most important factors when banks evaluate SMEs credit applications are business information, collateral and ethical behaviour respectively, followed by internal funds, managerial competency and networking in the order of importance.

The availability and quality of business information attracts the highest level of importance in the credit evaluation process out of the six factors. Lack of business information on the quality of the project gives rise to information asymmetry.

The usefulness of business information to access bank credit concurs well with the work by Kitindi, Magembe and Sethibe (2007) done in Botswana. They found the same when they investigated the usefulness business to lenders. They noted that business information, more especially financial statements and most recent company annual report is required by banks in making loan decisions. They discovered that bank required a number of different documents to support credit applications. The documents asked ranged from business plan, management accounts, financial statements, and entire annual report in this order. They concluded that lenders, specifically banks prefer, demand and use business information for evaluation of loan applications.

According to Sarapaivanich and Kotey (2006), the quality of business information has significant positive effect on SMEs' ability to access external capital. They studied the effect of financial information quality on SMEs ability to access external funds in Thailand and found that quality of financial information has significant positive effect on SMEs' ability to access bank finance. They find that due to information asymmetry banks may curtail the extent of lending to SMEs and they conclude that an entrepreneurs need to spend time to develop a good business plans at early stage of projects to increase the likelihood of obtaining capital.

This study established that collateral comes second to business information as the next important factor in the evaluation of SMEs credit applications. Banks in Rwanda find collateral as an important factor for making a decision to grant bank credit to SMEs. The literature reviewed attached a lot of importance to collateral as a security pledged against bank credit to SMEs. According to Steijvers and Voordeckers (2000), collateral help to resolve the credit rationing problems originating from the existence of informational asymmetries during the evaluation of projects. The willingness of the borrower to pledge collateral positively influences the quality of the credit request, as perceived by the bank since the borrower signals the real value and the belief in the quality of the project to the bank. Therefore, if collateral is pledged lenders will feel more confident that there is a second line of credit repayment if the project fails.

Berger and Udell (2006) found that banks are always highly interested in asking collateral as security before extending financing to their customers. They noted that collateral is attractive to bankers for two reasons: one, the willingness to offer collateral signals the confidence of borrower in both his ability and also in the likely success of the project. Two, taking collateral can align the interests of the borrower with that of the banker, the borrower cannot divert the funds to more risk project fearing of losing the collateral pledged. Hence, collateral addresses the adverse selection problem at loan origination and moral hazard problem after the loan has been granted.

The third important factor in the credit evaluation process was found to be ethical behaviour. The importance of the ethical behaviour was also established by Howorth and Moro (2006) from a study of entrepreneurs and their bank managers conducted in Italy. They noted that ethics and trust play an important role in reducing asymmetric information problems such as moral hazard and adverse selection. They found that higher levels of trust were positively associated with greater availability of finance and lower requirements for collateral. Therefore, high levels of ethical behavior reduce costs associated with asymmetric information.

Internal fund was found as the next important factor after ethical behaviour in the credit application evaluation process. Banks require owners of SMEs to partly contribute to the funding to indicate that they will make effort for the project to succeed. Blumberg and Letterie (2008) stated that banks are more likely to approve a credit request at reasonable terms, if the bank is convinced that the business is likely to succeed. If entrepreneurs invest their own money, it is an indication that they believe in the success of the project and that they will make every effort for the success of the project whose credit is sought. Therefore, banks may be more likely to invest in a project if the borrower is investing his own capital.

The study found managerial competency as the next important factor after internal fund in the credit evaluation process. According to Shane and Stuart (2002), managerial competency is positively associated with the firm performance. The higher the managerial competency level showed by the owners of a firm, the greater the possibility its performance and survival. This indicates that banks could be willing to extend facilities to SMEs whose owners show a high level of managerial competencies. Managerial competency can reduce the credit risk of lending to SMEs.

The last important factor for credit application evaluation is networking. The study found networking to be another important factor considered by banks during evaluation of SMEs credit applications in Rwanda. Networking with key stakeholders including the banks help SMEs to spread knowledge about their existence and performance and obtained needed support such as external financing. Shane and Cable (2002) find that networking can be used to reduce information asymmetry in lenders and borrowers. In addition, networks increase a firm's legitimacy, which in turn positively influences the firm's accessibility to external financing. Ngoc et al. (2009) found that networks play an important role in spreading knowledge about a firm's existence and its practices. They noted that networking substitutes for the lack of effective market institutions in emerging markets and can be an effective way for SMEs to access external financing, including bank loans.

5.4 What is relationship between SMEs internal factors and access to bank financing in Rwanda?

This section presents the findings and discussion of reasons why credit is not available from banks to SMEs. This was the main investigative part of the study.

The six factors were investigated to determine their impact on non-availability of bank financing to SMEs. Six hypotheses were developed. Chi-square was used to determine the significance of the relationships. The findings were as follows:

5.4.1 Lack of Business Information

The study found the scale means of lack of business information to be 5.18 out of 7. The Cronbach's alpha for the factor yielded a value of 0.739 indicating the reliability of the factor. The significance of the relationships was tested through the chi-square, which resulted into $\chi^2 = 97.316$; with a $\rho = 0.000$.

The results indicated that there is a significant positive relationship between lack of business information and non-availability of bank finance to SMEs in Rwanda. Therefore, the null hypothesis that there is no significant relationship between the lack of business information and non-availability of bank finance to SMEs in Rwanda was rejected in favour of the alternative hypothesis.

The study confirms that availability of reliable business information will positively influence the availability of bank financing to SMEs in Rwanda. Several researchers found the same from the literature reviewed. Padachi et al (2010) found that commercial banks and investors have been reluctant to service SMEs due to information asymmetry arising from SMEs' lack of accounting records, inadequate financial statements or business plans, which makes it difficult for banks and other investors to assess creditworthiness of potential SMEs proposals. According Blumberg and Leerier (2008), business information are quite important for bank decision to grant financing, they noted that if the SMEs provide detailed and reliable business information, especially by writing a business plan, banks are more willing to grant a loan.

Pretorius and Shaw (2004) found that a good business plan is taken as one of the most essential documents for accessing external funds. They encouraged SMEs to prepare a business plan for presentation to banks, financial institutions and venture capitalists to stand a chance of obtaining financial support.

The findings of this study concur very well with Kitindi, Magembe and Sethibe (2007) findings in Botswana. They found that business information more especially financial statements and most recent firms' annual report are required by banks in making loan decisions and concluded that lenders, specifically banks prefer, demand and use business information for evaluation of loan applications. The study concludes that the availability of reliable business information will positively influence the availability of bank financing to SMEs in Rwanda.

5.4.2 Lack of collateral

The study established that the scale means of lack of collateral was 4.95. And that the Cronbach's alpha for the factor had a value of 0.791 which indicated the reliability of the factor. The significance of the relationships of the factor was also tested through the chi-square, which resulted into χ^2=35.564; with a ρ = 0.000.

The study confirms that there is a significant positive relationship between lack of collateral and non-availability of bank finance to SMEs in Rwanda. Hence, the null hypothesis that there is no significant relationship between the lack of collateral and non-availability of bank finance to SMEs in Rwanda was rejected in favour of the alternate hypothesis.

The results suggest that the availability of collateral will positively influence the availability of bank financing to SMEs in Rwanda. Blumberg and Letterie (2008)found that collateral helps to reduce informational asymmetries and moral hazard problems that arise between banks and SMEs. According to Steijvers and Voordeckers(2000), collateral is seen by banks as a means to prevent the high risk borrower switching from a lower to a higher risk project after the loan has been granted or do less effort to make the proposed project successful. The risk of losing the collateral pledged by the borrower would prevent any risk shifting behaviour after receiving the loan.

Reitan and Waago (2002) found collateral to be one of the criteria by private banks officers in Norway when evaluating and validation funding proposals. They noted that SMEs are more risk that large firms and bank respond to this risk by ensuring that, even in the event of failure, it obtains some return and this is ensured by obtaining collateral. Collateral protects the bank in the event of default, since it can be repossessed by the bank in case of unfortunate default. Therefore, the study concludes that the availability of collateral will positively influence the availability of bank financing to SMEs in Rwanda

5.4.3 Lack of managerial competencies

The scale means of lack of managerial competencieswas found to be 5.32. The Cronbach's alpha for the factor produced a value of 0.850 showing the reliability of the factor. The significance of the relationships tested with the chi-square, resulted into

χ^2 =106.462; with a ρ = 0.000.

The results indicated that there is a significant positive relationship between lack of managerial competencies and non-availability of bank finance to SMEs in Rwanda. Thus, the null hypothesis that there is no significant relationship between the lack of managerial competencies and non-availability of bank finance to SMEs in Rwanda was rejected in favour of the alternate hypothesis.

The results confirm that the managerial competency of the owners of SMEs will positively impact on the availability of bank financing to SMEs in Rwanda. Branch (2006) found SMEs managerial competency is the key element in investment readiness. This is because managerial competencies are positively associated with firm performance across a variety of organizational and industry settings. This indicates that credit providers may be willing to extend facilities to SMEs if the owners demonstrate high level of managerial competencies.

Blumberg and Letterie (2008) found that even in the case of the failure of the business, the earning capacity of the business starter in a subsequent job is a signal to the bank whether the business starter can meet his credit obligations. Highly educated business starters are more likely to have post-failure earning capacity than less educated people. Therefore, education with experience increases the chances of getting external financing from banks. Consequently, the study concludes that the managerial competency of the owners of SMEs will positively impact on the availability of bank financing to SMEs in Rwanda.

5.4.4 Lack of Internal funds

The study found that the scale means of lack of internal funds was 5.83. The cronbach's alpha for the factor had a value of 0.725 demonstrating the reliability of the factor. The significance of the relationships was tested by the chi-square test for association, which resulted into χ^2 =60.137; with ρ = 0.000.

The results shown that there is a significant positive relationship between lack of internal funds and non-availability of bank finance to SMEs in Rwanda, accordingly, the null hypothesis that there is no significant relationship between the lack of internal funds and non-availability of bank finance to SMEs in Rwanda was rejected in favour of the alternate hypothesis.

These results confirm that the availability of internal funds will positively impact on the availability of bank finance to SMEs in Rwanda. When a business founders commit own resources to the venture, it informs the banks that they are financing a serious business idea. Blumberg and Letterie, (2008) found that own investments are a credible commitment mitigating the principal agent conflict because the more own money business starters invest, the less likely it is that they take on very risky investments. The researchers also found that banks are more likely to approve a credit request, if the bank is convinced that the business is likely to succeed or if the bank is able to collect the debt even if the proposed venture fails. Therefore, potential investors may invest in a project if the entrepreneur is investing his own capital in the business.

Barbosa and Moraes (2004) found the more own money is invested by the business starter, the less likely it is that he will take on very risky investments. This reduces moral hazard and encourages banks to extend credit to borrowers. The study concludes that the availability of internal funds will positively impact on the availability of bank finance to SMEs in Rwanda.

5.4.5 Lack of Networking

The study results showed that the scale means of lack of networking was 4.39. The Cronbach's alpha for the factor had a value of 0.769 indicating the reliability of the factor. The significance of the relationships was tested by the chi-square test for association, which resulted into χ^2 =28.682; ρ = 0.000.

The results indicated that there is a significant positive relationship between lack ofnetworking and non-availability of bank finance to SMEs in Rwanda. Thus, the null hypothesis that there is no significant relationship between the lack of networking and non-availability of bank finance to SMEs in Rwanda was rejected in favour of the alternate hypothesis.

The study results confirm that networking by the owners of SMEs will positively impact on the availability of bank finance to SMEs in Rwanda. Shane and Cable (2002) argue that networking can be used to reduce asymmetric information in the credit market between the lender and the borrower relationships. Social obligations between connected parties and information transfer through social relationships influence business finance decisions.

Le, Venkatesh and Nguyen (2006) found that networking assist companies to improve their legitimacy and in turn help them to access bank loans more easily. They found that networking with bank managers positively influencing SMEs accessibility to bank financing. However, they also found that networking with government officials was negatively influencing SMEs access to bank financing since this helped SMEs to have more access to aid funds from government. Therefore, the study concludes that networking with banks will positively impact on the availability of bank financing to SMEs in Rwanda.

5.4.6 Unethical behaviour

The study established that scale means of unethical behaviour was 5.95 out of 7. The Cronbach's alpha for the factor produced a value of 0.815 indicating the reliability of this factor. The significance of the relationships was tested by the chi-square test for association, which resulted into χ^2=110.991; with a ρ = 0.000.

The results show that there is a significant positive relationship between unethical behaviour and non-availability of bank finance to SMEs in Rwanda. Hence, the null hypothesis that there is no significant relationship between unethical behaviour and non-availability of bank finance to SMEs in Rwanda was rejected in favour of the alternate hypothesis.

The results of the study confirm that positive ethical behaviour SMEs will positively impact on the availability of bank finance to SMEs in Rwanda.

Howorth and Moro (2006) found ethical behaviour and trust to be important in small firm finance. Trust mitigates adverse selection and moral hazard, reduces screening and monitoring costs. They found that where ethics is low, the general perception of riskiness is greater. Hence, credit contracts will be more stringent with tight terms and conditions. This includes tight monitoring and requirement of collateral. The researchers found that higher levels of trust were positively associated with greater availability of finance, lower interest rates, and lower requirements for collateral. High levels of trust reduced costs associated with asymmetric information. They concluded that, the banks find trust mitigating adverse selection and moral hazard, reduces screening, and monitoring costs.

From the Five “Cs” of lending, ethical behavior is a critical factor in the credit market, regardless of capacity to pay, capital and collateral that the borrower may possess, bank will decline any credit proposal if the borrower does not demonstrate integrity and trustworthiness, which are attributes of ethics. The character of the borrower which is an aspect of the ethical behavior is important because, among other things, it can reveal intent. If the lender senses that the borrower is rather untrustworthy toward fulfilling his responsibilities with regard to the credit repayment, the lender will stay away from the proposal (www.finweb.com/loans/the-five-cs-of-lending.html accessed on 6th August 2011).

Therefore, the study concludes that ethical behaviour of the owners of SMEs will positively impact on the availability of bank financing to SMEs in Rwanda.

5.5 What are possible recommendations toward improving the availability of bank financing to SMEs in Rwanda?

The majority of the respondents declared the view that there a dire need of capacity building programs to SMEs management and staff on number of issues ranging from business plan write-up, business management to financial management. The study found that the government guarantee facilities need to be increased to enable many more SMEs access to credit. The study holds that SMEs capacity building programs are important in order to overcome their information opacity and be able to provide quality information on their business operations. This concurs well with information asymmetry theories which observe that SMEs borrowers have more and better information regarding their businesses prospects than that of lenders. The banks through the respondents, request SMEs to acquire knowledge to prepare better presented business plans and make use of accountant to compile the financial statements to bridge the information divide between SMEs and banks. This should increase the likelihood of access to bank credit. This is supported by Branch (2006) that for SMEs to get access to bank financing, managerial competency is the key element in investment readiness.

This study recommends that SMEs owners and staff should get proper training to acquire knowledge on business plan write-up, business management and financial management skills. Therefore, key actors in supporting the SMEs sector lead by the government should intensify training programs on the skills mentioned. The government should also develop entrepreneurship courses at school level to inculcate the young into entrepreneurial passion. Banks should train staff to take keen interest in serving the SMEs sector on building long-term relationship and organise short training to SMEs on bank requirements to access credit.

The study recognizes that there is a need to increase the government guarantees facilities in order to improve the availability of bank financing to SMEs in Rwanda. The study can conclude that for the SMEs to get more access to bank credit the government should increase more guarantee facilities that cover risk above the current threshold of

50%. It is recommended that the government puts more practical guarantee facilities for the banks to access the funds once the SME defaults to encourage bank to extend credit to SMEs.

Nevertheless, the banks should be willing to extend credit to SMEs who lack collateral through the Government guarantee funds managed by BDF under Rwanda development bank. The existing guarantees should protect banks against defaulting borrowers and it should motivate banks to increase SMEs financing. The study recommends that banks should recognise the importance of the SMEs sector in the economic development of the economy and improve credit facilities to SMEs to grow and become large enterprises.

The study established that the SMEs sector needs to be taken as a priority sector in Rwanda and be given a special attention by recognising its contribution to the socio-economic objectives of growth in generation of employment, output, import substitution, exports, and in their function of incubating entrepreneurship.

Therefore, the study recommends that the government of Rwanda need to intervene and come up with a policy requiring banks to compulsorily ensure that a certain earmarked percentage of their overall lending is made to SMEs as a priority sector to improve the availability of bank financing. This was also found in Kamesam (2003) work that the government of India recognized the need for a focused credit policy for SSIs and as a part of its policy to promote the SSI sector in the county, the government set up a host of institutions to meet the financial requirements of small entrepreneurs. SSI sector was included in the priority sector earmarked by the government. Credit to the SSI sector is ensured as part of the priority sector lending by banks. Banks are required to compulsorily ensure that defined percentage (40%) of their overall lending is made to priority sector as classified by government.

Furthermore, it was found that banks could use more of the relationship banking and monitoring lending technologies than transaction lending for SMEs credit application assessment to increase lending to small business with informational opacity problems. Banks must strengthen their relationship banking with SMEs to overcome information asymmetries problems. This should be done by gathering "soft" information through contact over time with the SMEs, owners and the local communities to address the opacity problem. This is in agreement with Berger and Udell (2006) that the relationship lending technology is designed to address information problems that are feasible to SMEs.

Therefore, the study recommends that banks should use the relationship lending to lend to informational opaque borrowers in order to improve the availability of bank financing in Rwanda.

The study also found that SMEs could make use of advisory services to temporarily bridge the capacity gap to prepare business information required by the banks for funding. In addition, it was noted that there is a general lack of expertise with SMEs when it comes to preparation of business plans. Lack of business skills and limited capacity in SMEs seem to be rampant. This is reinforced by Berger and Udell (2006) who observed that reluctance of banks to provide credit to SMEs can diminish with increasing the credibility of their credit applications. Credibility can be increased by providing more detailed and more reliable information; for example a business plan prepared by professionals and especially if the financial plan of the venture is designed with the support of an accountant or if an accountant approves of it. If SMEs do all this, banks may be more willing to grant credit.

This study recommends that SMEs should seek professional advisory services from experts to help them to prepare business plans and all documentation required for credit application to improve accessing the required bank financing.

The study revealed that most commercial banks evaluate and process credit applications from their headquarters in Kigali. Banks need to decentralise loan applications evaluation from the headquarters to the branches and able to make use the relationship lending technology. Decentralizing will be much faster and save time. The study also found that banks need to open up more branches and reaching more clients in remote area far from town centres

The study recommends that banks should open up more branches to reach clients in remote areas and decentralise credit granting decisions to branches to improve credit access to more SMEs across all corners of the country.

5.6 Conclusion

This chapter has discussed the data that was presented, analysed and interpreted in chapter four of the study. In this chapter, major findings that emerged from the previous chapter were analysed and interpreted in relation of the literature reviewed. The discussion was centred on the four research questions raised in earlier chapters. Generally, the study perspective that SMEs do not get adequate bank credit was confirmed through the use of the lenses of information asymmetry theoretical frameworks. The chapter established that there are variables to SMEs internal environment that determine the availability of bank credit in Rwanda.

The next chapter provides a summary of the whole study. The major findings and conclusions that were drawn from the study are presented. The chapter will also provide the recommendations that could be adopted by policy makers, banks and SMEs owners in an effort to course the bank financing to be available to SMEs in Rwanda.

CHAPTER SIX

6 FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This is the last and concluding chapter of the thesis. The chapter presents a summary of major finding of the study followed by summary of conclusions of the study. This study investigated the SMEs internal factors that constrain access to bank credit under the title, **Bank Finance in developing SMEs: An appraisal of relevant determinants in Rwanda.** This chapter is divided into four subsections as follows: summary of findings, conclusions, recommendations, and suggestions for further research.

A comprehensive list of findings of the study that sought to investigate the availability of bank financing to SMEs in Rwanda is given first. Based on the major findings and conclusions of the study, a list of recommendations is provided that could be adopted by policy makers and planners in their attempt to improve the availability of bank financing to SMEs. The chapter ends by highlighting some grey areas that require further research on the availability of bank credit to SMEs.

6.2 Summary of the Findings

The study, which sought to investigate the SMEs internal factors that constrain the availability of bank financing in Rwanda, came up with findings guided by the four research questions. In essence, these research questions helped in structuring the main question pertaining to the research problem.

As regards whether the SMEs get adequate bank financing in Rwanda:

The data revealed that SMEs in Rwanda do not get adequate bank financing. Generally the data showed that, SMEs get less that 30% of total bank financing to the industrial sector in Rwanda. The study revealed that SMEs get a small portion of the total bank financing and bigger portion of it goes to large industries.

Regarding the factors that determine the availability of bank financing to SMEs in Rwanda, the following were the findings:

The data from the study revealed that the most important factors when banks evaluate SMEs credit applications are as follows: the most important factor is the business information, collateral is the next important factor, followed by ethical behaviour. Further, the data showed that internal funds, managerial competency and networking were the next three important factors, respectively in the order of importance.

With regards to the relationship between SMEs internal factors and access to bank financing in Rwanda, which was the main investigating part of the central research problem, all six null hypotheses on SMEs internal factors were rejected in favour of alternative hypotheses. The six factors were; lack of business information, lack of collateral, lack of managerial competencies, lack of internal funds, lack of networking and unethical behaviour.

(i) Lack of Business Information

The data from the study revealed that the availability of reliable business information has positive impact on the availability of bank financing to SMEs in Rwanda. The null hypothesis that there is no significant relationship between the lack of business information and non-availability of bank finance to SMEs in Rwanda was rejected. As a result, the alternative hypothesis that there is a significant positive relationship between the lack of business information and non-availability of bank finance to SMEs in Rwanda was accepted.

(ii) Lack of collateral

According to this study, collateral did positively impact the availability of bank financing on SMEs in Rwanda, therefore the null hypothesis that there is no significant relationship between the lack of collateral and non-availability of bank finance to SMEs in Rwanda was rejected. Conversely, the alternative hypothesis that there is a significant positive relationship between the lack of collateral and non-availability of bank finance to SMEs in Rwanda was accepted.

(iii) Lack of managerial competencies

Further, the data showed that managerial competency of the owners of SMEs and staff did positively impact on the availability of bank financing, hence the null hypothesis that there is significant relationship between the lack of managerial competencies and non-availability of bank finance to SMEs in Rwanda was rejected. In view of this, the alternative hypothesis that there is a significant positive relationship between the lack of managerial competencies and non-availability of bank finance to SMEs in Rwanda was accepted.

(iv) Lack of Internal funds

Another finding is that availability of internal funds did positively impacts the availability of bank financing to SMEs in Rwanda, consequently, the null hypothesis that there is no significant relationship between the lack of internal funds and non-availability of bank finance to SMEs in Rwanda was rejected. In this regard, the alternative hypothesis that there is a significant positive relationship between the lack of internal fund and non-availability of bank finance to SMEs in Rwanda was accepted.

(v) Lack of Networking

Data also revealed that networking by the owners of SMEs with the banks did positively impact on the availability of debt from banks; hence the null hypothesis that there is no significant relationship between the lack of networking and non-availability of bank finance to SMEs in Rwanda was rejected. In light of this, the alternative hypothesis that there is a significant positive relationship between the lack of networking and non-availability of debt to bank finance SMEs in Rwanda was accepted.

(vi) Unethical behaviour

Another important finding was that ethical behaviour did positively impact the availability of bank financing. The null hypothesis that there is no significant relationship between unethical behaviour and non-availability of bank finance to SMEs in Rwanda was rejected. Consequently, the alternative hypothesis that there is a significant positive relationship between unethical behaviour and non-availability of debt to bank finance SMEs in Rwanda was accepted.

The following findings are from respondents suggestions to improve the availability of bank finance:

- The study found that that there is a need to train SMEs management and staff on different subjects including business plan write-up, business management and financial management to enable them prepare relevant business information needed by banks to increase SMEs access to credit.

- The study also found that the current government guarantee facility of 50% risk coverage is not adequate hence there is a need for more guarantee facilities that cover risk above the current facility of 50%.

- The study recognized a need to consider SMEs a priority sector in Rwanda and be accorded a special attention for its contribution to the socio-economic development of the economy. And a need for a government policy for banks to lend to SMEs a certain earmarked percentage of their overall lending.

- It was found that banks could use more of relationship lending technology to reach more SMEs with informational opacity problems.

- The study also found that SMEs could use advisory services to temporarily bridge the capacity gap to prepare business information required by the banks for funding.

- The study revealed that evaluation of credit applications is done from headquarters of most commercial banks. Banks were urged to decentralise the loan applications evaluation from the headquarters to the branches. Decentralization was believed to be faster and time saving.

- The study found that more bank branches are needed to reach more customers in remote area far from town centres, therefore banks need to open up more new branches.

6.3 Conclusions of the Study

In view of the findings, this study concludes that there are factors internal to SMEs that have an impact on the availability of bank financing to SMEs in Rwanda. These factors are: lack of business information, lack of collateral, lack of internal funds, lack of managerial competencies, lack of networking, and unethical behaviour.

Since all six null hypotheses for SMEs internal factors were rejected in favour of the six alternative hypotheses. This study concludes the following:

- There is a significant positive relationship between the lack of business information and non-availability of bank finance to SMEs in Rwanda.
- There is a significant positive relationship between the lack of collateral and non-availability of bank finance to SMEs in Rwanda.
- There is a significant positive relationship between the lack of managerial competencies and non-availability of bank finance to SMEs in Rwanda.
- There is a significant positive relationship between the lack of internal fund and non-availability of bank finance to SMEs in Rwanda.
- There is a significant positive relationship between the lack of networking and non-availability of debt to bank finance SMEs in Rwanda.
- There is a significant positive relationship between unethical behaviour and non-availability of debt to bank finance SMEs in Rwanda.

The study also concludes that since the six secondary null hypotheses were rejected in favour of the six alternative secondary hypotheses; therefore, the primary null hypothesis for the study that there is no significant relationship between the SMEs internal factors and availability of bank financing in Rwanda is rejected and it is concluded that there is significant positive relationship between the SMEs internal factors and availability of bank financing in Rwanda.

6.4 Recommendations

In light of the major findings listed above, the study recommends the following:

- This study recommends that SMEs owners and staff should get proper training in key strategic areas to effectively and efficiently manage their businesses and curb information asymmetry which characterise these firms. Key areas for training include; (i) Business plan write-up to get their investment ideas ready for funding and (ii) Business management and financial management skills to properly manage businesses and be able to provide business information professionally once a need arises and for proper reporting periodically. Therefore, key actors in supporting the SMEs sector lead by the GoR should intensify training programs on the areas mentioned.

- The government through the Ministry of Education should develop entrepreneurship syllabus at school level to nurture young people into entrepreneurial passion. Banks should train their staff to take keen interest in serving the SMEs on building long-term relationship and institutional capacity in developing interpersonal networks that can help them gather information about SMEs. Banks should organise short training to SMEs to create awareness of their funding requirements.

- The study recommends that the government should introduce more practical guarantee facilities for the banks' access funds as soon as the SME defaults to encourage banks to extend credit to SMEs.

- The government through the Ministry of Commerce and Industry should categorise the SMEs as a priority sector and put up a policy requiring banks to compulsorily ensure that a certain earmarked percentage of their overall lending is made to SMEs as a priority sector.

- Banks in Rwanda should embark on relationship lending to ensure flow of credit to informational opaque SMEs, open up more branches to reach clients in remote areas and decentralise credit granting decisions to branches to make timely decisions and save clients time.

- SMEs owners should ensure that they maintain good relationships with banks to improve networking and they need to attend seminars and trade fairs and become members of relevant trade associations.

- Lastly, the Rwanda Private Sector Federation should conduct trainings grounded in sound ethical management. Unethical behaviours such as deliberately not paying back loans should be harshly punished to limit occurrences of these behaviours among SMEs which may results in huge stock of non-performing loans.

6.5 Suggestions for Further Research

The issue of SMEs finance is a multi-dimensional and multi-facetted subject that calls for a robust information gathering process which could not be achieved by a single investigation. Therefore, the following areas of further research are recommended:

This study investigated the perception of the banks regarding SMEs constraints to access bank funding, which is from a supply-side perspective. Similar studies can be done to investigate the perception of the entrepreneurs as a demand–side perspective.

Further studies could also investigate obstacles for SMEs to access funding from other sources of external finance like government agencies and non-governmental organisations (NGOs).

Since SMEs do not get adequate bank financing, a research could be carried out to find the extent to which they resort to informal of financing like family, friends and professional money lenders.

Lastly, a similar study like this could be duplicated in a different economy of East African region like Uganda or Burundi with similar economic environment to Rwanda and test if these factors bear similar results.

6.6 Conclusion

This final chapter provided a summation of the entire study. It highlighted the important matters which came out of this study regarding SMEs internal factors that constrain access to bank credit. The study concluded that there is a significant positive relationship between six SMEs internal factors (lack of business information, lack of collateral, lack of managerial competency, lack of internal funds, lack of networking and unethical practices) and non-availability of banks financing in Rwanda.

As has been demonstrated by the study, the problem of SMEs financing is a challenge to many economies especially in the developing countries. It is a serious matter that requires an urgent attention by all those [illegible]d. It is hoped that it will be given the utmost consideration that it deserves for the development and socio-economic transformation of Rwanda.

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APPENDICES

Appendix 1: Questionnaire

University of Fort Hare
Together in Excellence

QUESTIONNAIRE

Dear Respondent,

My name is **GATABAZI Emmanuel T[illegible]** the Vice Rector Administration and Finance of KIST, pursuing a Doctor of Philosophy (PhD) Degree from the University of Fort Hare - Faculty of Management and Commerce in South Africa. My PhD thesis is entitled "**Bank Finance in developing SMEs: An appraisal of relevant determinants in Rwanda.**" The study focuses on SMEs factors that constrain the access to bank financing.

The data received in this study will be used for scholarly purposes only. Your responses will be treated as strictly confidential and will not be disclosed to anyone else. Please feel free to express your opinion and note that no answer is regarded as wrong. Your co-operation is highly appreciated and is a determinant factor for the success of my work. It will take you less than 30 minutes to concentrate and fill this questionnaire.

Feel free to contact me any time on 0788302784 for any queries regarding this questionnaire or the study. I will be happy to give all necessary clarifications. You may also email me at vraf@kist.ac.rw. If you wish to get a copy of the findings of this research I will be delighted to share it with you.

Instructions:

- Indicate your answer by marking a tick (√) in the box provided.

Section A: Biographical information of respondent

1) Gender

Male	
Female	

2) Age

Below 20 years	21-30 years	31-40 years	41-50 years	51-60 years	Above 60 years

3) Your highest academic level of Educational

Below Degree (Humanité or Baccalauréat)	
Bachelor Degree (Licence)	
Post Graduate e.g. Masters	
Professional Qualification e.g. Chartered Accountant	
Others (Specify)____	

4) Experience in the banking sector (years)

1-5	6-10	11-15	16-20	Above 20

5) What is your post in the bank:

....

6) Which department do you belong to:

....

Section B: Important factors when evaluating loan applications of the SMEs

Please indicate the importance of the following factors when evaluating loan applications of the SMEs on 7-point scale (1 to 7):

1	2	3	4	5	6	7
Not important all	**Less important**	**Fairly Important**	**Moderately Important**	**Considerably Important**	**Very Important**	**Extremely Important**

S/N	Loan application evaluation factors	Importance of the Factor						
		1	2	3	4	5	6	7
1	Availability of business information							
2	Acceptable collateral							
3	Managerial competency of the owner							
4	SME Internal Funds							
5	Relationship between the bank and the SME (Networking with the bank)							
6	Ethical behaviour of the owner							

Section C: Reasons why bank credit is not easily accessible by SMEs

Please indicate your level of agreement or disagreement with the following statements about why bank financing is not easily accessible to SMEs, using a 7-ponit scale (1 to 7):

1	2	3	4	5	6	7
Strongly Disagree	**Considerably Disagree**	**Slightly Disagree**	**Neutral**	**Moderately Agree**	**Considerably Agree**	**Strongly Agree**

Reasons why bank credit is not easily accessible to SMEs		Level of agreement or disagreement						
		1	2	3	4	5	6	7
1	**Business Information**							
i	Lack of project feasibility study (technical and financial)							
ii	The Enterprise have no Business plan							
iii	The Enterprise have no market potential							
iv	Lack of Environmental Impact Assessment from REMA							
v	Lack of clearance of the Healthy and Safety issues of the relevant authority							

Reasons why bank credit is not easily accessible to SMEs		Level of agreement or disagreement						
		1	2	3	4	5	6	7
vi	The Enterprise is not financially viable							
vii	Lack of financial statements							
viii	Cash flow forecast does not show that credit can be repaid							
ix	The business plan does not articulate the business opportunities							
x	The business plan does not cover all key issues compressively							
xi	The Entrepreneur does not have all necessary business documentation							
xii	The entrepreneur does not have suitable business premises							
xiii	The Enterprise does not have growth potential							
2	**Collateral**							
i	No adequate immovable and movable tangible assets (e.g. buildings and land as collateral)							
ii	No adequate current assets (e.g. receivables or other materials, stock as collateral)							
iii	Lack of joint guarantee by spouses, shareholders, stakeholders etc							
iv	Lack of guarantee by Government							
v	Lack of fire and accidents Insurance							
vi	Lack of share certificates of share-holding in another company							
vii	Lack of guarantee by International Finance Institutions (IFI guarantee)							
3	**Managerial Competency of the SME owner**							
i	Lack of adequate technical capacities in the business field for which the finance is sought							
ii	Lack of experience relevant to the business by the owner							
iii	The owner lacks demonstrated managerial ability							
iv	The owner is not familiar with market/industry							
v	The owner has no talent in business he/she wants to run							
v	The owner has no education							
vi	The owner has no business skills							
4	**SME Internal Funds**							
i	Lack of minimum equity contribution by owner							
ii	No enough net profit from financial statements							
iii	There is no retained earnings by the Enterprise							

Reasons why bank credit is not easily accessible to SMEs		Level of agreement or disagreement						
		1	2	3	4	5	6	7
5	**Relationship between the bank and SME owner (Networking with the bank)**							
i	The Entrepreneur has never been our customer and no prior relationship between the bank and the him/her							
ii	There is a very short history of relationship between the bank and Entrepreneur							
iii	The Entrepreneur does not have good reference on integrity							
iv	The Enterprise does not belong to a professional association (e.g. Rwanda Private Sector Federation and its chambers)							
v	No verifiable supply of inputs (e.g. raw materials) in place for the Entrepreneur when visited							
6	**Ethical Behaviour of owner**							
i	The owner has bad credit records							
ii	The owner has no moral solvency and integrity							
iii	The owner might divert funds and use it to other activities not related to the business							
iv	The owner might default on loan re-payment							
v	The owner might be dishonest in keeping promises and commitments							
vi	The owner paid his/her last loan with difficulties							
vii	The owner might give false information and polished financial statements							
viii	Demonstrated untrustworthiness toward fulfilling responsibilities							

Section D: Please rank the following factors as to why bank credit is not easily accessible to SMEs (with 1st being the most important and 6th being the least important):

S/N	Factors	Level of importance
1	Lack of business information	
2	Lack of collateral	
3	Lack of managerial competency	
4	Lack of Internal Funds	
5	Lack of relationship between the bank and the SME (Networking with the bank)	
6	Unethical behaviour of SME owners	

Section E: What is the percentage of total bank financing to Industries that go to SMEs compared to Large Industries:

S/N	SMEs	Large Industries	Tick (√) only one
1	Less than 10%	More than 90%	
2	10% - 19%	81% - 90%	
3	20% - 29%	71% - 80%	
4	30% - 39%	61% - 70%	
5	40% - 49%	51% - 60%	
6	50%	50%	
7	Above 50%	Below 50%	

Section F: Recommendations to improve the availability of bank financing to SMEs in Rwanda.

What can you recommend to improve the availability of bank financing to SMEs in Rwanda?

....

....

....

....

Other comments you may wish to make in respect of this research:

....

....

....

....

Thank you very much for your co-operation and participation!!

Appendix 2: Letter from the University of Fort Hare to Bank of Kigali

Faculty of Management & Commerce
Executive Dean's Office

Tel: 040-6022533/2184/Fax: 040 6022514|
Mobile: 0724613827/0795165999/
| Email:vmbalo@ufh.ac.za/rthakhathi@ufh.ac.za|
iFax: 0866276539

University of Fort Hare
Together in Excellence

24th August 2011

The Managing Director
Bank of Kigali (BK)
Kigali

Dear Sir,

This is to certify that **Mr. Emmanuel Thomas Gatabazi** with registration number 201012854 is a student studying a Doctor of Philosophy (PhD) in the Faculty of Management and Commerce, University of Fort Hare.

His PhD thesis is entitled "**Bank finance in developing SMEs: An appraisal of relevant determinants in Rwanda**". The study focuses on factors that constrain the availability of bank financing to SMEs. In order to successfully complete his research project, he needs to carryout field research from banks in Rwanda.

This office will be grateful if you could allow him to collect data in your bank through questionnaires. We would also be grateful if you could provide him with the bank documents like annual reports, strategic plan and other bank policy documents. The data and information that Mr. Gatabazi shall collect will be used strictly for scholarly purposes only and remain confidential.

Your co-operation is highly appreciated by the Faculty of Management and Commerce as well as by University of Fort Hare.

Sincerely yours,

Professor R Thakhathi
Dean
Faculty of Management and Commerce

Appendix 3: Letter from the University of Fort Hare to Banque Populaire

Faculty of Management & Commerce
Executive Dean's Office

Tel: 040-6022533/2184/Fax: 040 6022514|
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| Email:vmbalo@ufh.ac.za/rthakhathi@ufh.ac.za|
iFax: 0866276539

University of Fort Hare
Together in Excellence

24th August 2011

The Managing Director
Banque Populaire du Rwanda (BPR)
Kigali

Dear Sir,

This is to certify that **Mr. Emmanuel Thomas Gatabazi** with registration number 201012854 is a student studying a Doctor of Philosophy (PhD) in the Faculty of Management and Commerce, University of Fort Hare.

His PhD thesis is entitled **"Bank Finance in developing SMEs: An appraisal of relevant determinants in Rwanda"**. The study focuses on factors that constrain the availability of bank financing to SMEs. In order to successfully complete his research project, he needs to carryout field research from banks in Rwanda.

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Your co-operation is highly appreciated by the Faculty of Management and Commerce as well as by University of Fort Hare.

Sincerely yours,

Professor R Thakhathi
Dean
Faculty of Management and Commerce

Appendix 4: Letter from the University of Fort Hare to Banque Commerciale

Faculty of Management & Commerce
Executive Dean's Office

Tel: 040-6022533/2184/Fax: 040 6022514|
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iFax: 0866276539

University of Fort Hare
Together in Excellence

24th August 2011

The Managing Director
Banque Commericiale du Rwanda (BCR)
Kigali

Dear Sir,

This is to certify that **Mr. Emmanuel Thomas Gatabazi** with registration number 201012854 is a student studying a Doctor of Philosophy (PhD) in the Faculty of Management and Commerce, University of Fort Hare.

His PhD thesis is entitled **"Bank Finance in developing SMEs: An appraisal of relevant determinants in Rwanda"**. The study focuses on factors that constrain the availability of bank financing to SMEs. In order to successfully complete his research project, he needs to carryout field research from banks in Rwanda.

This office will be grateful if you could allow him to collect data in your bank through questionnaires. We would also be grateful if you could provide him with the bank documents like annual reports, strategic plan and other bank policy documents. The data and information that Mr. Gatabazi shall collect will be used strictly for scholarly purposes only and remain confidential.

Your co-operation is highly appreciated by the Faculty of Management and Commerce as well as by University of Fort Hare.

Sincerely yours,

Professor R Thakhathi
Dean
Faculty of Management and Commerce

Appendix 5: Letter from the University of Fort Hare to Eco Bank Rwanda

Faculty of Management & Commerce
Executive Dean's Office

Tel: 040-6022533/2184/Fax: 040 6022514|
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iFax: 0866276539

University of Fort Hare
Together in Excellence

24th August 2011

The Managing Director
Eco bank, Rwanda
Kigali

Dear Sir,

This is to certify that **Mr. Emmanuel Thomas Gatabazi** with registration number 201012854 is a student studying a Doctor of Philosophy (PhD) in the Faculty of Management and Commerce, University of Fort Hare.

His PhD thesis is entitled "**Bank Finance in developing SMEs: An appraisal of relevant determinants in Rwanda**". The study focuses on factors that constrain the availability of bank financing to SMEs. In order to successfully complete his research project, he needs to carryout field research from banks in Rwanda.

This office will be grateful if you could allow him to collect data in your bank through questionnaires. We would also be grateful if you could provide him with the bank documents like annual reports, strategic plan and other bank policy documents. The data and information that Mr. Gatabazi shall collect will be used strictly for scholarly purposes only and remain confidential.

Your co-operation is highly appreciated by the Faculty of Management and Commerce as well as by University of Fort Hare.

Sincerely yours,

Professor R Thakhathi
Dean
Faculty of Management and Commerce

Appendix 6: Letter from the University of Fort Hare to Fina Bank

Faculty of Management & Commerce
Executive Dean's Office

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University of Fort Hare
Together in Excellence

5th October 2011

The Managing Director
Fina Bank
Kigali

Dear Sir,

This is to certify that **Mr. Emmanuel Thomas Gatabazi** with registration number 201012854 is a student studying a Doctor of Philosophy (PhD) in the Faculty of Management and Commerce, University of Fort Hare.

His PhD thesis is entitled **"Bank Finance in developing SMEs: An appraisal of relevant determinants in Rwanda"**. The study focuses on factors that constrain the availability of bank financing to SMEs. In order to successfully complete his research project, he needs to carryout field research from banks in Rwanda.

This office will be grateful if you could allow him to collect data in your bank through questionnaires. We would also be grateful if you could provide him with the bank documents like annual reports, strategic plan and other bank policy documents. The data and information that Mr. Gatabazi shall collect will be used strictly for scholarly purposes only and remain confidential.

Your co-operation is highly appreciated by the Faculty of Management and Commerce as well as by University of Fort Hare.

Sincerely yours,

Professor R Thakhathi
Dean
Faculty of Management and Commerce

Appendix 7: Letter from the University of Fort Hare to Rwanda Development Bank

Faculty of Management & Commerce
Executive Dean's Office

Tel: 040-6022533/2184/Fax: 040 6022514|
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iFax: 0866276539

University of Fort Hare
Together in Excellence

24th August 2011

The Managing Director
Rwanda Development Bank
Kigali

Dear Sir,

This is to certify that **Mr. Emmanuel Thomas Gatabazi** with registration number 201012854 is a student studying a Doctor of Philosophy (PhD) in the Faculty of Management and Commerce, University of Fort Hare.

His PhD thesis is entitled **"Bank Finance in developing SMEs: An appraisal of relevant determinants in Rwanda"**. The study focuses on factors that constrain the availability of bank financing to SMEs. In order to successfully complete his research project, he needs to carryout field research from banks in Rwanda.

This office will be grateful if you could allow him to collect data in your bank through questionnaires. We would also be grateful if you could provide him with the bank documents like annual reports, strategic plan and other bank policy documents. The data and information that Mr. Gatabazi shall collect will be used strictly for scholarly purposes only and remain confidential.

Your co-operation is highly appreciated by the Faculty of Management and Commerce as well as by University of Fort Hare.

Sincerely yours,

Professor R Thakhathi
Dean
Faculty of Management and Commerce

Appendix 8: Frequency distribution on reasons why bank credit is not easily accessible by SMEs

Factors		Sub- Factors	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree	Total	Mean Score
1. Business Information	i	Lack of project feasibility study (technical and financial)				6	30	37	44	117	6.02
	ii	The Enterprise have no Business plan	1			5	39	34	38	117	5.86
	iii	The Enterprise have no market potential	1		2	6	35	39	34	117	5.79
	iv	Lack of Environmental Impact Assessment from REMA	24	13	13	26	17	12	11	116	3.68
	v	Lack of clearance of the Healthy and Safety issues of the relevant authority	19	15	25	21	12	10	14	116	3.67
	vi	The Enterprise is not financially viable			3	11	29	35	39	117	5.82
	vii	Lack of financial statements	5	5	6	10	32	31	28	117	5.26
	viii	Cash flow forecast does not show that credit can be repaid	1	3	4	4	31	30	44	117	5.79
	ix	The business plan does not articulate the business opportunities	2	4	6	10	43	25	26	116	5.30
	x	The business plan does not cover all key issues compressively	5	5	11	20	28	24	24	117	4.96
	xi	The Entrepreneur does not have all necessary business documentation	4	10	12	10	28	20	33	117	5.05

Factors		Sub- Factors	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree	Total	Mean Score
	xii	The entrepreneur does not have suitable business premises	9	14	13	20	22	19	20	117	4.44
	xiii	The Enterprise does not have growth potential		2		11	39	36	29	117	5.66
2. Collateral	i	No adequate immovable and movable tangible assets (e.g. buildings and land as collateral)			1	4	33	30	49	117	6.04
	ii	No adequate current assets (e.g. receivables or other materials, stock as collateral)	5	2		9	35	33	33	117	5.55
	iii	Lack of joint guarantee by spouses, shareholders, stakeholders etc	10	5	6	18	30	24	24	117	4.89
	iv	Lack of guarantee by Government	12	1	1	13	23	27	40	117	5.35
	v	Lack of fire and accidents Insurance	21	4	3	11	26	21	31	117	4.74
	vi	Lack of share certificates of share-holding in another company	32	11	6	17	12	16	23	117	3.91
	vii	Lack of guarantee by International Finance Institutions (IFI guarantee)	32	9	5	14	11	10	35	116	4.15
3. Managerial Competency	i	Lack of adequate technical capacities in the business field for which the finance is sought	1	4	4	11	29	36	32	117	5.56
	ii	Lack of experience relevant to		2	4	10	33	32	36	117	5.68

Factors		Sub- Factors	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree	Total	Mean Score
		the business by the owner									
	iii	The owner lacks demonstrated managerial ability	2	3	3	11	37	26	35	117	5.53
	iv	The owner is not familiar with market/industry	3	1	6	9	31	36	31	117	5.53
	v	The owner has no talent in business he/she wants to run	8	4	5	16	25	26	32	116	5.17
	v	The owner has no education	14	14	7	14	19	29	20	117	4.51
	vi	The owner has no business skills	3	9	8	11	26	26	34	117	5.24
4. SME Internal Funds	i	Lack of minimum equity contribution by promoter/owner				4	29	34	50	117	6.11
	ii	No enough net profit from financial statements			3	4	40	38	31	116	5.78
	iii	There is no retained earnings by the Enterprise (the owner uses the enterprise profit for personal use)		2	4	9	43	24	35	117	5.61
5. Relationship between the bank and SME owner (Networking with the bank)	i	The Entrepreneur has never been our customer and no prior relationship between the bank and the him/her	24	11	7	8	20	17	30	117	4.37
	ii	There is a very short history of relationship between the bank and Entrepreneur	16	14	18	5	25	17	22	117	4.26
	iii	The Entrepreneur does not have good reference on integrity	6	5	12	10	28	25	31	117	5.12

Factors		Sub- Factors	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree	Total	Mean Score
	iv	The Enterprise does not belong to a professional association (e.g. Rwanda Private Sector Federation and its chambers)	29	16	9	17	17	15	14	117	3.67
	v	No verifiable supply of inputs (e.g. raw materials) in place for the Entrepreneur when visited	7	11	18	19	29	16	16	116	4.41
6. Ethical Behaviour of owner	i	The owner has bad credit records		1	1	4	13	27	71	117	6.37
	ii	The owner has no moral solvency and integrity	1	1	2	5	27	27	53	116	6.01
	iii	The owner might divert funds and use it to other activities not related to the business			1	11	24	35	46	117	5.97
	iv	The owner might default on loan re-payment		1	2	4	30	37	43	117	5.96
	v	The owner might be dishonest in keeping promises and commitments			4	10	30	41	32	117	5.74
	vi	The owner paid his/her last loan with difficulties	1	2	5	9	31	39	30	117	5.60
	vii	The owner might give false information and polished financial statements	1		2	8	19	44	43	117	5.97
	viii	Demonstrated untrustworthiness toward fulfilling responsibilities		1		11	25	34	46	117	5.96