EVALUATION OF FACTORS INFLUENCING SMALL AND MICRO ENTERPRISES' CREDIT WORTHINESS BY COMMERCIAL BANKS IN NAKURU TOWN, KENYA

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A Research Project Submitted to the School of Business and Economics in Partial Fulfillment of the Requirements for the Award of Degree of Master of Business Administration (Finance Option), of Kabarak University

KABARAK UNIVERSITY

OCTOBER, 2018

DECLARATION

This research project is my original work and to the best of my knowledge has not been presented for academic award in any other University or College

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RECOMMENDATION

To the institute of Postgraduate Studies:

The research project Evaluation of **"Factors Influencing Small and Micro Enterprises' Credit Worthiness by Commercial Banks in Nakuru Town, Kenya"** written by **Ombuna Getabu Joash** is presented to the Institute of Postgraduate Studies of Kabarak University. We have reviewed the research project and recommend it be accepted in partial fulfillment of the requirement for award of the degree of Master of Business Administration (Finance Option), of Kabarak University

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DEDICATION

I dedicate this project to my family, classmates and to Kabarak University library staffs. Thank you all for your support throughout my studies.

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ABSTRACT

Small and Micro Enterprises play a vital role in job creation and make significant contributions to economic growth in developed and developing economies alike. However, one on the main challenges of small and micro enterprise has been access to finances and capital. This study therefore sought to evaluate the factors influencing Small and Micro Enterprises credit worthiness by commercial Banks in Nakuru Town, Kenya. The specific objectives looked at: firm's ownership, firm's financial performance, credit information sharing and central bank regulations to determine how they affect credit worthiness of Small and Micro Enterprises from the perspective of commercial banks. The limitation of the study was that not all respondent respondents responded to the questionnaires positively with fear that information provided will expose them, besides the bankers are very busy with a lot of restricted information sharing. The study was guided by modern portfolio theory, theory of credit scoring and competitive pricing of default risk and pecking order theory. The study was conducted among commercial banks in Nakuru Town using the survey research design. The target population was 68 bank staff involved in Small and Micro Enterprise lending who comprised of 34 credit managers and 34 Small and Micro Enterprise loans/relations officers; a census design was used to select all the members of the target population for study. The study used questionnaire as a collection tool of primary data. To ensure the validity of instruments, they were subjected to a pilot test in selected Bank Branches in Naivasha Town. The pilot questionnaires were then analyzed using the Cronbach reliability coefficient to determine the extent of reliability. Data collected was coded and analyzed with the aid of computer programs. Quantitative data was analyzed using descriptive statistics which include frequencies and percentages. Chi square (x^2) analysis was also done to determine how individual factors affect creditworthiness; influence of the independent variables on the dependent variable was then computed using the multiple regression analysis. The findings of the study were: The ownership structure of SMEs had a negative effect on their creditworthiness in commercial banks however, the firm's financial performance had a positive and significant effect on the credit worthiness of SMEs in commercial banks in Nakuru Town On credit information sharing, 45.8% of the respondents cited that it was an important consideration in establishing credit worthiness of SMEs while 23.7% termed it very important, 15.3% termed it moderate and less important respectively. The rate of default of other credit facilities was cited as key by 33.9% and 49.2% who rated it very important and important respectively while the remaining 16.9% assigned default rate moderate importance. SMEs payment of taxes was not highly regarded as seen from the mixed opinion where 15.3% and 16.9% termed it as very important and important respectively. The study therefore recommended that commercial banks should develop a guideline for their SME clients outlining their criteria for determining ownership characteristic and their respective scores.

Key Words: Small and Micro Enterprises, Credit Worthiness, Commercial Banks, firm's ownership, financial performance, credit information, Central Bank regulations

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ABREVIATIONS AND ACRONYMS

CB	:	Credit Bureau
CBD	:	Central Business District
CBR	:	Central Bank Rate
CGSs	:	Credit Guarantee Schemes
CRB	:	Credit Reference Bureau
ECB	:	European Central Bank
FICO	:	Fair Isaac Corporation
FSD	:	Finance Sector Deepening
GDP	:	Gross Domestic Product
IACPM	:	International Association of Credit Portfolio Managers
IFC	:	International Finance Corporation
ILO	:	International Labor organization
MPC	:	Monetary Policy Committee
MPT	:	Modern portfolio theory
OECD	:	Organization for Economic Cooperation and Development
SACCOs	:	Savings and Credit Cooperative Societies
SMEs	:	Small and Micro Enterprises
SPSS	:	Statistical Package for Social Sciences

CHAPTER ONE

INTRODUCTION

1.1 Introduction

The study of Factors Influencing Small and Micro Enterprises' Credit Worthiness by Commercial Banks in Nakuru Town, Kenya seeks to look into and unlock the plight faced by Small and Micro Enterprises in regard to their ability to access loans in banks and other financial institutions, the study was conducted in Nakuru and focused in all banks in Nakuru Town.

1.2 Background of the Study

Small and Micro Enterprises (SMEs) play a significant role as the mainstay of economic development through employment creation, poverty reduction, ensuring balanced economic development and utilization of local resources. They also play a significant role in creating inputs to other sectors of the economy. They provide inputs to medium and large enterprises and as Ajose (2010) indicate SMEs act as the first point of contact for the business world. According to the World Bank (2015), globally formal SMEs contribute up to 45 percent of total employment and up to 33 percent of Gross Domestic Product (GDP) in emerging economies. In New Zealand, 97 per cent of enterprises in New Zealand are small businesses. In South Africa SMEs provide more than 55 per cent of total employment and 22 per cent of GDP while in Uganda SMEs employ close to 80% of the population (Nangoli, Turinawe, Kituyi, Kusemererwa &Jaaza, 2013). In Kenya 90% of all enterprises are SMEs providing employment to over 60% of the total employed population (Katua, 2014).

Although SMEs contribute significantly to the economies, there are faced with myriad of challenges that hinder their full potential. One of the critical challenges identified among SMEs is the availability of capital and the failure rated associated with access to capital. Due to their size, SMEs are more vulnerable to economic conditions, and many entrepreneurial firms end up going into bankruptcy due to undercapitalization. According to Shane (2008) a start-up company has about 50% chance of failing within four to six years of establishment. Besides, most business ventures do not even get started, while around 27% of entrepreneurs abandoning efforts within a year of

germination. Moreover, 10% of the new businesses ever secure the capital and resources needed to survive and expand in the market.

From the forgoing discussion, it is evident that financing of SMEs is a key impetus to their growth and development more so in developing economies. A report by (Organization for Economic Cooperation and Development Publishing (OECD), 2015) exploring alternative financing strategies for SMEs indicate that, an effective SME financial system is one that can supply financial resources to a broad range of SMEs in varying circumstances and channel financial wealth from different sources to business investments. There are various sources of finance available for SMEs for both start up and growth and from internal and external sources. These include owners' savings, family sources, equity finance, venture capital funds, business angels, bank credit, debt securitization and covered bonds and trade credit. Recently, crowd funding has grown rapidly since the middle of the 2000s.

Bank lending is the most common source of external finance for many SMEs and entrepreneurs, which are often heavily reliant on traditional debt to fulfill their start-up, cash flow and investment needs (OECD, 2015). In traditional debt finance, the extension of the credit is primarily based on the overall creditworthiness of the firm and the lender considers the expected future cash flow of the firm as the primary source of repayment. However, the techniques to assess and monitor the firm's creditworthiness vary significantly leading to the problem of information asymmetry between lender and borrower.

Different lending technologies combine different sources of information about the borrower, screening and underwriting procedures, structure of the loan contracts, monitoring strategies and mechanisms. Literature distinguishes two forms of lending as transaction lending, based primarily on 'hard' quantitative data, and relationship lending, largely based on 'soft' qualitative information (Berger and Udell, 2006). The first category entails financial statement lending, which depends on the availability of informative and audited financial statements on the side of the borrower and thus applies to informational transparent borrowers, and small business credit scoring, which, on the other hand, may be applied to informational opaque SMEs, as much of the information concerns the personal history of the owner, rather than the enterprise.

According to the World Bank (2014), bank lending is primarily based on the credit worthiness of the borrower and the borrowers' institution. In essence, Banks assess potential debtors, including SMEs, on the basis of two broad criteria sets: the financial capacity or ability of the debtor to repay the credit facility or loan; and, the willingness of the debtor to repay the credit/loan. The repayment capacity refers to whether the SME will be able to repay according to the terms and conditions of the credit/loan contract. As a result, repayment capacity is determined by taking into account the prospects of the SME's business, and often also the prospects for the broader market segment or niche in which the SME is participating. Repayment willingness, on the other hand, is inferred based on the SME's historical repayment patterns with regard to previous contractual financial obligations, including trade credit, loans and other forms of financing. The data are entered into a loan performance prediction model, which yields a score for the loan (Liberti and Mian, 2009).

The scoring method was first adopted in consumer lending, based on the large amounts of data readily available for banks on the performance of consumer credits and on the characteristics of borrowers. In the case of SME lending, however, the data needed to manage credits on a statistical basis may be available only to large banks, which are in fact the main adopters of credit scoring, or to smaller financial institutions that share or 'pool' data. There exist also credit reference agencies that provide credit scoring systems to banks which lack their own historical database. The credit scoring provided to banks by external agencies can cover both the business and the individuals in the business, based on their personal credit experience and rating (DeYoung, 2010).

In the case of relationship lending, information is gathered directly by the loan officer through contact over time with the enterprise, the entrepreneur and the local community, and by observing the SMEs' performance on all dimensions of its banking relationship, including loan contracts, deposits and other financial products. The loan officer may often remain the proprietor of the soft information, as this may not be easily observed and verified by others. This gives rise to agency problems, which may be better addressed by small banking organizations with few managerial layers and closer coordination between the management and loan officers (Berger & Udell, 2002).

Various models have been developed for assessing the credit score of customers seeking to access loans from banking institution. The CAMPARI model proposes that a customer be assessed based on the character, ability to pay, margin of profit, purpose of the loan, amount being requested, the terms of repayment and the insurance in case of default (Philip, 2003). The 7 Cs model of credit appraisal on the other hand proposes that use of character, capacity, collateral, contribution, conditions, control and common sense (MacDonald et al, 2006).

SMEs globally have identified access to credit as a major impediment to their growth. In India, Japan and Indonesia, Yoshino &Farhad (2015) shows that level of difficulty in raising money depends on firm size in which SMEs experienced difficulties compared to the large enterprises. Besides, models for credit rating for SMEs remain a challenge in Asian Countries. Although, various credit rating indexes such as Standard and Poor's (S&P) rate large enterprises. By looking at a large enterprise's credit rating, banks can decide to lend them up to a certain amount, when the issue is more complicated as there are no comparable ratings. In 2010, IFC conducted a study to estimate the number of micro, small, and medium enterprises (MSMEs) in the world, and to determine the degree of access to credit and use of deposit accounts for formal and informal MSMEs. The findings revealed that the gap in credit financing of formal microenterprises is $0.5–0.6 trillion, including high-income OECD countries. The total credit gap in developing economies is estimated to be $0.4–0.5 trillion (Stein, Goland, and Schiff, 2010).

In the United States, SMEs access to credit is greatly hampered by their credit worthiness. The 2008-09 financial crisis severely undermined SMEs' credit conditions, and credit remained tight since then. Some drivers of these trends include bank consolidation, which has reduced the number of banks focused on the small business segment, and increased regulatory scrutiny that has caused banks to tighten lending standards and secure more internal approvals. This, in turn, has reduced the share of creditworthy borrowers and increased banks' fixed costs per loan, making SME loans less attractive. Given that SMEs tend to have greater volatility in earnings and growth than do larger companies, they are seen as riskier investments, and thus subject to higher cost of capital (Firoozmand, Haxel, Jung &Suominen, 2015).

In Sub-Saharan Africa, the challenge of access to credit due to creditworthiness among SMEs is bigger since 48 percent consider access to finance as their major constraint compared to 25 percent in South Asia. The same study revealed that While 24.3 percent of SMEs in South Asia has a credit line or loan in a financial institution, the same number for SMEs in Sub-Saharan Africa is 16.2 percent (Fjose, Grünfeld, Green, 2010). The International Finance Corporation (IFC), (2013) cites that banks in developing economies compared to those in developed economies tend to be less exposed to SMEs, and to charge them higher interest rates and fees (Beck *et al*., 2008). This has been largely due to three factors which include informational asymmetries related to SMEs that create risks. As a result, banks are mostly unable to gauge the creditworthiness of SMEs and thus ask for higher charges and collateral requirements secondly are the low revenue per client; and third, is the need for local presence, and thus for a large branch network, which may not necessarily be optimal from a cost perspective, especially in a developing country setting.

In Kenya, commercial banks play an important role in mobilizing financial resources for investment by extending credit to various businesses and investors. Lending represents the heart of the banking industry and loans are the dominant assets as they generate the largest share of operating income. Loans however expose the banks to the greatest level of risk. There are 44 licensed commercial banks in Kenya, one mortgage finance company and two credit reference bureaus. Of the 45 financial institutions, 32 are locally owned and 13 are foreign owned.

The credit reference bureau, Credit Reference Bureau Africa was the first of its kind to be registered in Kenya by the Central bank of Kenya aimed at enabling commercial banks to share information about borrowers to facilitate effectiveness in credit scoring. The Credit Reference Bureau –CRB is characterized by voluntary sharing of information among the lenders in regards to their credit consumers. This information shared may either be positive or negative in regards to the client. In the local banking industry, loan appraisal is done based on the: purpose of the loan, need genuineness, repayment capacity of the borrower, quantum of loan and security.

Loan appraisal plays important role in minimizing the level of loan loss, hence if those officers appointed for loan appraisal are incompetent then there would be high chances of lending money to non-deserving customers (Boldizzoni, 2008). According to

Finance Sector Deepening (FSD), (2008) one of the major reason why Kenyan lenders were reluctant to lend to SMEs was the lack cost-effective ways to quantify credit risk besides the financial structure of the SMEs as well as ownership and management capabilities.

1.3 Statement of the Problem

SMEs play a vital role in job creation and make significant contributions to economic growth in developed and developing economies alike. As a result, establishing a dynamic SME sector features prominently on the economic development agendas of practically all countries around the world. Like any type of business, SMEs need financing for two basic purposes: working capital financing and, capital expenditure financing. Within the financial institutions category, studies have shown that banks are the main source of external financing for SMEs and play a vital role in empowering small and micro enterprises especially the startups. However, despite the expansion of the banking sector, SMEs remain to be financially excluded from commercial Banks in Kenya. World Bank (2013) report shows that although retail banking has improved markedly in Kenya in the last decade, access to credit for SMEs was still limited. Although SMEs accounted for about 90% of all enterprises in the country only about 17.4% of total bank lending was advanced to SMEs in Kenya. Besides, Kenyan banks tend to provide more working capital than investment loans. The low level of lending to SMEs according to Mwenga (2014) is highly attributed to the lending terms and lack of creditworthiness among SMEs from the perspective of commercial banks. On the other hand, credit provision in Banks require due attention as credit risk management is one of the challenges faced by banks in SME Lending this is vital since it reduces the rate of none performing asset in the banks a fact that is currently destabilizing many financial institutions . The capping of interest rate charged by commercial banks at 4.0% above the Central Bank Rate (CBR) has also tightened the lending requirements, further complicating the situation by locking out of SMEs from credit as “high risk” borrowers. There is therefore need for a common ground and understanding between commercial banks and SMEs on the measures that constitute SME creditworthiness. It is on this ground that the study intended to evaluate factors influencing SMEs credit worthiness in commercial Banks in Nakuru Town, Kenya.

1.4 Purpose of the Study

The purpose of this study was to evaluate factors influencing SMEs credit worthiness by commercial Banks in Nakuru Town, Kenya.

1.5 Objectives of the study

The specific objectives of the study were:

i. To analyze the influence of firm's ownership on credit worthiness of SMEs by commercial banks in Nakuru Town, Kenya
ii. To analyze the influence firm's financial performance on credit worthiness of SMEs by commercial banks in Nakuru Town, Kenya
iii. To evaluate the influence of credit information sharing on credit-worthiness of SMEs by commercial banks in Nakuru Town, Kenya
iv. To assess the influence of Central Bank regulations on creditworthiness of SMEs by commercial banks in Nakuru Town, Kenya

1.6 Research Questions/Hypotheses

H_{01}: Firm ownership has no statistically significant influence on credit worthiness of SMEs in commercial banks in Nakuru Town, Kenya

H_{02}: Firm financial performance has no statistically significant influence on credit worthiness of SMEs in commercial banks in Nakuru Town, Kenya

H_{03}: Credit information sharing has no statistically significant influence on credit-worthiness of SMEs in commercial banks in Nakuru Town, Kenya

H_{04}: Central Bank regulations has no statistically significant influence on credit-worthiness of SMEs in commercial banks in Nakuru Town, Kenya

1.7 Justification for the Study

Credit Risk, that is, the likelihood of default by the borrower in repaying lent money, remains the most important risk to manage in commercial banks in Kenya to date. The predominance of credit risk is even reflected in the composition of economic capital, which banks are required to keep a side for protection against various risks. Besides, the SMEs markets continue to grow with over 90% of enterprises in Kenya falling under this category. However, the proportion of banks portfolio allocated to the SME segment remains low at 17.4%. SMEs on the other hand cite their main challenge being access

to capital and financial inclusion in formal finance institutions. Banks consider SMEs as high risk borrowers although they continue to grow their share in this market as evidenced by the establishment of SME loan products in commercial banks. Commercial banks also employ protection measures in determining credit-worthiness of small and medium enterprises in their loaning decisions. This study sought to evaluate banks assessment of ownership structure, SME financial performance; credit information sharing and adherence to Central Bank regulations influence their decisions on creditworthiness of SMEs in Nakuru Town. The findings would assist the managers of commercial banks in their decision making with regard to assessing the credit worthiness, loan application, appraisal and assessment to reduce on non-performing loans whilst increasing bank's profitability. It would give insights into the information sharing among stakeholders including lenders borrowers and competitors in the banking industry which will translate into reduced cost of capital.

In addition, the findings of this study would provide information which may be used to improve policy formulation and amendments on the credit reference bureaus and their operation with focus on identification of credit worthiness hence aid in development of policies necessary to enable a conducive environment for the banks and loan applicants to promote Kenya's economic growth and performance.

Largely, it would provide a basis for modified framework for credit risk evaluation from the one currently used by Credit Reference Bureaus (CRBs) for better information sharing which would minimize information symmetry, ease adverse selection and counter moral hazard brought about by bank competition. This would significantly reduce the nonperforming loans portfolio. Similarly, scholars who are interested in further research in this field would be able to investigate research gaps in the study not researched or under researched by the researcher in the course of providing the evidences supporting the research topic and research problems.

1.8 Scope of the Study

The scope of this study was to interrogate the current criteria used by the Kenyan banking sector to determine credit worthiness of SME borrowers. This was out carried by assessing firm ownership, firm financial performance characteristics, credit information sharing and regulations by central bank. The study focused on 34

commercial banks located in Nakuru town with a specific case study of Commercial Banks in Nakuru CBD. The study was conducted in period between August 2018 and November 2018.

1.9 Limitations and delimitations of the Study

The study encountered the following limitations during the period of data collection for the study: First, bank employees were often very busy during working hours hence making difficult to get them to fill the questionnaires. However, the problem was overcome by allowing them to carry the questionnaires home and fill them at their convenient time.

The study also encountered limitation on the information sought from the credit officers due to their loyalty to their respective banks. This could have been brought about by fear of the information being used to their detriment. Furthermore, banks were very strict on information disclosure. This was mitigated by assuring them of utmost confidentiality of the information provided and the intention of the study as purely educational and not for the purpose of the banks utilized in the study.

1.9 Assumption of the Study

The study was guided by the assumption that all respondents will cooperate and the response collected in Nakuru town Kenya will reflect the true picture of the whole Small and Micro Entrepreneurs in the entire country. Besides the study has assumed that all businesses have ownership, and rely on external sources of funds as a major source of working capital. On the other hand the credit information sharing and the regulator which is the Central Bank of Kenya play a major role in the entire banking industry.

1.10 Operational definition of terms

Firm's ownership – Refers to the shareholders who invest money in a firm by buying shares (Klein, 2016). In this study, it refers to the owners of Micro and Small Enterprises.

Financial performance - In broader sense, financial performance refers to the degree to which financial objectives being or has been accomplished (Metcalf & Titard, 2015)

Central Bank regulations – Refer to directives issued by the Central Bank on the operations of the financial institutions. In Kenya it refers to the directives by the Central Bank of Kenya (2015) on interest rate capping.

Creditworthiness - creditworthiness" can be defined as a presumed ability to meet agreed deadlines related to repaying the credit and the interest accrued without affecting the vitality of the borrower (Feschijan, 2008). In this study it's used to imply the creditworthiness of Small and Micro Enterprises.

Small and Micro Enterprises: Typically, in Kenya, micro-enterprises in Kenya are defined as enterprises with up to ten employees, while small enterprises are those that have 10 to 100 employees, and medium-sized enterprises as those with 100 to 250 employees (International Labour organization (ILO), 2015). SMEs referred to in this study are therefore enterprises with between 1 to 100 employees

Credit Information Sharing - is a process where credit providers (such as banks, microfinance institutions, Saccos) exchange information on their outstanding loans and advances through licensed Credit Reference Bureaus (CRBs) (World Bank, 2014). In Kenya, this is done by credit reference bureaus established under the Banking Act.

CHAPTER TWO

LITERTAURE REVIEW

2.1 Introduction

This chapter focuses on the literature review that has guided the study, the discussion outlines the theoretical literature review as well as the empirical literature review. In addition, the chapter presents the gaps in research and the guiding conceptual framework.

2.2 General Overview of Literature Related to the Main Concept

The two theories that will guide the study include: the Modern Portfolio Theory and the Theory of Credit Scoring and Competitive Pricing of Default Risk.

2.2.1 Modern Portfolio Theory

Modern portfolio theory (MPT) is a theory of finance that attempts to maximize portfolio expected return for a given amount of portfolio risk, or equivalently minimize risk for a given level of expected return, by carefully choosing the proportions of various assets. Essentially, MPT is a mathematical formulation of the concept of diversification in investing, with the aim of selecting a collection of investment assets that has lower overall risk than any other combination of assets with the same expected return. The basic foundation of the MPT was first published by Markowitz (1952) in a paper on portfolio. Markowitz portfolio theory provides a method to analyze how good a given portfolio is based on only the means and the variance of the returns of the assets contained in the portfolio. The theory states that an investor should choose a portfolio from the efficient set, depending on how risk averse he/she is. Today, then theory has been widely applied in credit portfolio management where instead of trying to “pick winners,” the focus of investors has become the construction of “efficient portfolios” that is portfolios of assets that simultaneously maximize expected returns and minimizes risk (Klein, 2016).

Often, a credit portfolio’s makeup is determined by the origination function, and it can contain both large and small borrowers. This “mixing” of obligors occurs most frequently at the boundary between two business lines. The advantage of looking at all

the credit risk of an obligor is especially important in limits monitoring and concentration/ correlation analysis.

In the context of SME Credit, commercial banks apply the modern portfolio theory in determining the loan portfolio to be allocated to borrowers in various categories based on their risk profile as well as return so as to maximize the overall banks profitability. As a result, the risk profile of the SME segment becomes a critical component in evaluating the creditworthiness of SMEs.

2.2.2 Theory of Credit Scoring and Competitive Pricing of Default Risk

This theory was proposed by Chatterjee & Corbae (2011). The theory is based on principles that in unsecured credit: borrowers have the legal option to default; defaulters are not exogenously excluded from future borrowing; there is free entry of lenders; and lenders cannot collude to punish defaulters. These principles were used to households typically face limited credit or credit at higher interest rates following default and why this changes over time. The theory states that credit scoring by the finance institution arise from the lender's optimal response to limited information about the agent's type and earnings realizations. The lender learns from an individual's borrowing and repayment behavior about his type and encapsulates his reputation for defaulting or not defaulting in a credit score. In the context of the current study on SME credit worthiness, the theory can be used to explain how information on the use of credit information sharing can be used alongside other credit utilizations to enrich the base on which financial institutions can determine the credit scores for SME customers. At the same time, the theory explains why credit access by SMEs can be expensive owing to the assumptions on the likelihood of default emanating from their high mortality rate.

2.2.3 Pecking Order Theory

The relationship between firm profitability and capital structure can be explained by the pecking order theory, which holds that firms prefer internal sources of finance to external sources. The order of the preference is from the one that is least sensitive and least risky to the one that is most sensitive and most risky that arise because of asymmetric information between corporate insiders and less well-informed market participants. By this token, profitable firms with access to retained profits can rely on them as opposed to depending on outside sources of debt. Murinde, (2004) observe that

retentions are the principal source of finance. This is mainly because they have less access to external funds, debt as well as equity, than do large enterprises. The theory's application to SMEs implies that external equity finance issues may be inappropriate since these firms may not be listed on the stock market or may not qualify to go through private placements.

2.3 Empirical Literature Review

This section presents the findings of empirical literature review evaluating studies that have been done on SME credit worthiness and the role played by firm ownership, financial performance, credit information sharing and central bank regulation on creditworthiness. Small business lending by financial intermediaries can be categorized into at least four main distinct lending approaches: financial statement lending, asset-based lending, credit scoring, and relationship lending. These approaches are deployed to address the types of problems that can lead to either credit rationing (Stiglitz & Weiss, 1981) or "over lending" (de Meza, 2002). The first three lending technologies are often referred to as transactions-based lending, under which the lending decisions are based on "hard" information that is relatively easily available at the time of loan origination and does not rely on the "soft" data gathered over the course of a relationship with the borrower.

2.3.1 Firm's Ownership on Credit Worthiness

According to Alberto & Peñaloza (2015) in their study to analyze the determinants of access to credit for SMEs in Latin America ownership presents an important characteristic that determines the creditworthiness of SMEs. Issues related to the constitution of the firm such as ownership concentration, type of management and internationalization of the company is critical. The degree of ownership concentration ensures financial institution lower cost of monitoring. An organization directed by qualified personnel is expected to have a more focused and reliable strategic plan.

A study by Asiedu, (2013) indicated that the internationalization of a company can improve the requirement of higher amounts of resources since many international trade transactions are complete on credit. The degree of consolidation and experience with the firm in the market also presents a sign of enterprise stability therefore increasing

the probability of stable cash flows based on customers experience with customers and the market structure (Gónzalez, 2007).

Brehanu & Fufa, (2008) using profit and legit regression, they conducted a study on the determinants of repayment performance among small-scale farmers in Ethiopia. In the study, they found that borrowers with larger farms, higher numbers of livestock and farms located in a rainfall area had a higher capacity to repay loans, since all those factors increased the farmers' productivity and income. The study also found that borrowers who had extra business income and were experienced in using agricultural technology had a good repayment performance.

According to Feldman, (1997) small business credit scoring is an adaptation to business lending of discriminant analysis and other statistical techniques long used in consumer lending. In addition to using information from the financial statements of the business, heavy weighting is also put on the financial condition and history of the principal owner, given that the creditworthiness of the firm and the owner are closely related for most small businesses. This also forms the basis for relationship lending.

Under relationship lending, the lender bases its decisions in substantial part on proprietary information about the firm and its owner through a variety of contacts over time. This information is obtained in part through the provision of loans (Berger & Udell, 1995) and deposits and other financial products (Degryse, 2000). Additional information may also be gathered through contact with other members of the local community, such as suppliers and customers, who may give specific information about the firm and owner or general information about the business environment in which they operate. Importantly, the information gathered over time has significant value beyond the firm's financial statements, collateral, and credit score, helping the relationship lender deal with informational opacity problems better than potential transactions lenders.

Gender presents an important aspect of ownership in SME segment owing to the differences in women owned and men owned ventures. The two genders have been found to have varying access to resources that a critical to facilitating access to debt finances. According to IFC, (2014) access to bank financing, on average, seems to be more restrictive forwomen relative to men. A range of studies show that women facing difficulties in accessing external sources of finance tend to fund their businesses using

personal money or rely on informal borrowing from family and friends due to the lack of creditworthiness to access the credit from state owned commercial banks which offer relatively lower interest rates. Among SMEs that do use external funding, half of women-owned businesses in the developing world use loans from private commercial banks, which may offer more flexible credit terms relative to other external sources. This proportion is lower than for men-owned businesses (IFC, 2013)

Several factors on both the supply and demand sides constrain women's access to finance relative to men-owned businesses. On the supply side, these include the typical features of women-owned SMEs. Women-owned SMEs in developing countries often have limited or no credit history, incomplete or missing financial statements, limited savings and lower and more uncertain profitability. These common factors make such enterprises less attractive for credit. Additionally, the fact that women-owned SMEs tend to be smaller may also affect their ability to obtain credit, as banks may incur higher administrative costs relative to loan sizes, reducing the incentive to lend.

Secondly is the lack of collateral to secure credit since borrowers often need to put down collateral to deal with information asymmetry. Women in developing countries frequently lack sufficient collateral owing to legal barriers such as restrictions on owning and inheriting property, sector-specific factors such as physical assets in services, or lack of savings. Much evidence suggests that gender differences in ownership of assets is one of the most influential factors affecting women's ability to access credit and one of the main reasons for rejection of loans (Magnoni, 2010).

A study conducted by Dalberg Global Development Advisors (2011) revealed that the limited information on female credit risk presented challenges which often result in banks disadvantaging women-owned SMEs in their lending decisions or refraining from engaging them at all. As little market data are available on default rates for SMEs, banks often use traditional credit scoring models that rely on credit history and collateral to assess creditworthiness. Women frequently have insufficient or no collateral, as well as incomplete business records, making it hard to demonstrate creditworthiness under such models. The study established further that the difficulty in establishing creditworthiness of SMEs was a key challenge in accessing credit, with more than 80% of banks identifying difficulties in this area.

According to Powers and Magnoni, (2010), the experience of lending to women in developing countries through microfinance and other more traditional methods suggests that women are reliable borrowers with strong repayment records. As such, means to assess the credit risk of women accurately at the individual level are needed to ensure that misconceptions do not unnecessarily impede access to loans for women-owned SMEs.

Kungu, (2011) conducted a study to evaluate the factors influencing SMEs access to finance in Westlands Division, Kenya. The study focused on the firm characteristics, financial characteristics of the firm and the entrepreneurs' characteristics. The findings revealed that in the SME sector, it was difficult to separate the owner manager from the business itself thus ownership was a key factor in SMEs, besides, the entrepreneur or the owner played a major role in the performance of the business. The study found that the business skills that the entrepreneur has influence his/her ability to access credit and to manage the same for the success of the business. It is because of previously acquired business skills that majority were able to keep substantial accounting records. The current study looks at the broader perspective of ownership which includes the type of ownership and the profile of the owners in addition to their personality characteristics.

Musamali & Tarus (2014) also conducted a study to assess whether firm profile influence financial access among small and micro enterprises in Kenya. The study analyzed firm profile by looking at the ownership structure as one of the variables. Ownership was classified as incorporated, sole proprietorship and partnership. The findings revealed that the ownership structure affected firms' access to capital. SMEs which were incorporated had more access to finance than their unincorporated counterparts.

The reason attributed to this was that incorporated firms had inherent characteristics such as perpetual existence unlike unincorporated counterparts which were likely to dissolve in the event of death or for whatever reason. Perpetuity therefore was an important ingredient to lenders because it promised the fulfillment of obligations in an event of uncertainty in the owners of the business. This shows that ownership played a significant role in determining the creditworthiness of SMEs however the study did not determine the extent to which ownership was important. The current study will seek to fill in this gap by determining the extent to which ownership was considered.

2.3.2 Firm's Financial Performance on Credit Worthiness

Static trade-off theory by focusing on cost and benefit analysis of debt predicts that there is optimal debt ratio which helps to maximize the value of a firm. Optimal point can be hit when the benefits of debt issuance countervails the increasing present value of costs related to more debt issuance (Myers, 2001). On the other hand, the pecking order theory proposed by Myers, (2016) predicts a negative relationship between profitability and debt on the basis that successful companies do not need to depend so much on external funding. This implies a possible relationship between the financial performance and creditworthiness of firms. Gaud, (2005) argues that profitable firms are more attractive to financial institutions as lending prospects. Besides, if past profitability is a good proxy for future profitability, profitable firms could borrow more, as the likelihood of paying back the loans is greater.

Loaning based on the previous firms financial performance according to Berger & Udell (2006) is transactions-based lending which comprises of financial statement lending, asset-based lending and credit scoring. It is generally associated with the use of "hard" information produced at the time of loan origination. This hard information is based on relatively objective criteria, such as financial ratios in the case of financial statement lending, collateral ratios in the case of asset-based lending, or Fair, Isaac (FICO) credit scores in the case of credit scoring. In transaction based lending therefore the financial performance of the SMEs is critical in determining its credit scoring.

Financial statement lending places most of its emphasis on evaluating information from the firm's financial statements. The decision to lend and the terms of the loan contract are principally based on the strength of the balance sheet and income statements. Financial statement lending is best suited for relatively transparent firms with certified audited financial statements. However, some small firms with long histories, relatively transparent businesses and strong audited financial statements also qualify for financial statement lending (Berger & Udell, 2006).

Under asset-based lending, credit decisions are principally based on the quality of the available collateral. Generally, the collateral constitutes accounts receivable and inventory, and requires that the bank intensively monitor the turnover of these assets. Asset-based lending is available to small firms of any size, but is expensive and requires that the firms have high-quality receivables and inventory available to pledge (Berger & Udell, 2006). The asset structure of a firm plays a significant role in determining its capital structure. The degree to which the firm's assets are tangible should result in the firm having greater liquidation value. Firms that invest heavily in tangible assets also have higher financial leverage since they borrow at lower interest rates if their debt is secured with such assets. By pledging the firm's assets as collateral, the costs associated with adverse selection and moral hazards are reduced.

A study by Hall, Hutchinson and Michaelas, (2004) among European SMEs revealed a positive relationship between asset structure and long-term debt, and a negative relationship between asset structure and short-term debt. Esperança, (2003) in her study found positive relationships between asset structure and both long-term and short-term debt. Booth, (2001) suggest that the relationship between tangible fixed assets and debt financing is related to the maturity structure of the debt. In such a situation, the level of tangible fixed assets may help firms to obtain more long-term debt, but the agency problems may become more severe with the more tangible fixed assets, because the information revealed about future profit is less in these firms. If this is the case, then it is likely to find a negative relationship between tangible fixed assets and debt ratio.

A study by Sayılgan, (2014) on Turkish firms revealed that profitability and growth opportunities in plant, property and equipment, growth opportunities in total assets, non-debt tax shields and tangibility were significant determinants for the capital structure decisions of Turkish firms. Capital structure determined the balance between equity and debt capital in which the debt capital was determined by the creditworthiness of the firm. The size and growth opportunity in total assets, have a positive association with the debt level. On the other hand, profitability, growth opportunities in plant, property and equipment, non- debt tax shields and tangibility are inversely related with the leverage ratio.

Waari & Mwangi (2015) conducted a study to assess the factors influencing access to finance by Micro, Small and Medium Enterprises in Meru County, Kenya. The study

focused on information asymmetry with regard to the financial data exchange between the Banks and SMEs. The findings revealed that differences existed on the nature of financial information requested and availed to the financial institutions and information expected to and provided by the SMEs. This information asymmetry significantly contributed towards the amount of loan advanced by the financial institutions to the SMEs. The study was based on views from the MSE owner managers and did not take into consideration the opinion of the Bank. The current study will seek to determine the financial performance information used by Commercial Banks in determining the creditworthiness of SMEs in Nakuru Town from the Bankers perspective.

2.3.3 Credit Information Sharing on Credit-Worthiness

According to World Bank (2014) one important element behind the SME "credit gap" is the information asymmetries between external creditors and SMEs. Credit Information Sharing involves the exchange of credit information where credit providers such as banks, microfinance institutions, disclose information on their outstanding loans and advances through licensed Credit Reference Bureaus. The main rationale for sharing credit data is to reduce the information asymmetry faced by rival lenders, which penalizes good borrowers in the absence of a credible signal of their creditworthiness. In addition to the possibility of credit rationing caused by this 'adverse selection' problem, a 'moral hazard' problem can possibly also be at play.

The analytical work on which the use of information sharing mechanisms is based, stems from Pagano & Jappelli (1993) who developed a model of pure adverse selection in which information sharing arises among lenders with monopolistic power. Sharing information allows lenders to improve knowledge about new borrowers is expected to reduce the default rate and the interest rate.

Using country level data on 129 different jurisdictions for the period between 1978-2003 Djankov, (2008) found that both creditor protection and information sharing have a positive correlation with credit relative to GDP. Although both types of institutions have a complementary role in fostering private credit, they find that the effectiveness of each varies across countries, depending on the legal system's origin. While legal

protection of creditors is associated with common law traditions, credit bureaus and public credit registries are more effective in French law tradition countries.

Empirical evidence at firm level is scarcer but is necessary to assess the impact of information sharing on access to credit conditional on firm's characteristics. Galindo & Miller (2001) use cross sectional balance sheet data from mostly large listed firms to find that information sharing reduces credit constraints, particularly for small and young firms. Love and Mylenko, (2003) use the World Business Environment Survey data to test the impact of having or not having a credit bureau has on the perception of firms of facing credit constraints or on increasing the probability of a firm on relying on bank lending. They find that the existence of a private credit bureau is associated with a lower probability of a firm reporting if they are financially constraint and a higher one of relying on credit. This last result is stronger in small and medium sized firms.

Brown, (2007) uses cross sectional estimates and a panel of information on transition countries in Eastern Europe to assess the question about the role of information sharing in countries with weak corporate laws and creditor rights. They find that on aggregate information sharing is associated with more abundant and cheaper credit. At the firm level with cross sectional data, they find that information sharing and transparency are substitutes in improving credit access. According to Galindo & Micco (2010), credit markets have different ways in which a lender can overcome the problems derived from asymmetric information the most notable of them is the use of collateral. However, not all loans are easily backed up with collateral. The collateralization of loans is often problematic for firms of certain characteristics such as new firms, micro-entrepreneurs, and small and medium sized enterprises, which often lack significant fixed assets that could be presented as collateral.

Galindo & Micco (2010) conducted a survey across SME firms in 61 countries around the world to assess the information sharing and access to finance of SMEs. The study tested the importance of the development of information sharing mechanisms in explaining differences in access to credit for firms of different sizes using a firm level data across the world. The study used dependent variable techniques to test if the development of information sharing institutions, such as private credit bureaus or public credit registries, contributed to reducing the financing gap between large and small and medium sized enterprises. The study found out that that improving the coverage of

private credit registries has a statistically significant effect in reducing the gap between the share of investment financed with bank credit of large firms and small firms. This shows that information sharing enhanced the creditworthiness of small firms. Another powerful technology used to reduce information problems in small firm finance, has been the relationship lending. Under relationship lending, banks acquire information over time through contact with the firm, its owner, and its local community on a variety of dimensions and use this information in their decisions about the availability and terms of credit to the firm. Recent empirical evidence provides support for the importance of a bank relationship to small businesses in terms of both credit availability and credit terms such as loan interest rates and collateral requirements (Petersen & Rajan, 1994).

Despite the recent academic focus on relationship lending, there is remarkably absent in the literature a fully satisfying analysis of precisely how bank-borrower relationships work It is generally left unspecified whether the primary relationship is between the bank and the firm or between the loan officer and the firm's owner, who within the bank acquires and stores the relationship information, and how this information may be disseminated within the bank. Relationship information is often "soft" data, such as the information about character and reliability of the firm's owner, and may be difficult to quantify, verify, and communicate through the normal transmission channels of a banking organization. Relationship lending is associated with a fundamentally different lending process that other transactions-based lending technologies, such as financial statement lending, asset based lending, or credit scoring doesn't adopt

Cowan, (2006) conducted a study on the financial institution use of credit scoring for small business lending and discovered that relationship lending was still a dominant factor as relationships and loan purpose were considered more important than credit scoring regardless of whether a bank used credit scoring or not. On the other hand Nasieku & Ngugi (2016) conducted a study to evaluate credit information sharing and credit risk reduction in Kenya Commercial Banks and found out that that credit scores had enormous benefits to both lenders and borrowers. Borrowers were able to negotiate with lenders on better terms. This shows that Commercial bank of Kenya relied on credit reference bureaus to vet the credit worthiness of customers. However, the negative impact of the CRB to the SMEs was not adequately explored to determine whether it limited their access on the other hand based on their previous credit history.

The findings by Maina, (2016) assessing credit information sharing and level of loan default in deposit taking Savings and Credit Cooperative Societies (SACCOs) in Meru County, Kenya. Their study concluded that credit information sharing and level of loan default were indeed related. Credit information sharing, increased transparency among financial institutions, helped the SACCOs lend prudently, lowered the risk level to the SACCOs and acted as a borrowers discipline against defaulting and it also reduced the borrowing cost. The perspective was more on the individual borrowers therefore the current study seeks to understand the effects of information sharing from the perspective of the Bank in reference to the SME lending.

2.3.4 Central Bank Regulations on Credit Worthiness

SMEs tend to be more vulnerable and affected than larger corporations (OECD, 2012) and credit sources tend to dry up more rapidly for small firms than for large companies during economic downturns (ECB, 2013). As a result, government policy in loaning of SMEs plays a significant role in determining their access to credit and eligibility to access the credit facilities. According to Spratt (2013), there are two different ways that regulation could impact on growth and stability. The first is by influencing the day-to-day behavior of financial market actors so that financial regulation has direct effects, for example, on how much a bank chooses to lend to small and medium enterprises (SMEs). The second is by influencing how the financial system evolves structurally, thereby creating indirect effects.

In the United States, where loan growth has been higher than in the other large economies, bank lending conditions have been eased especially to heavy borrowers, while the small firms have tighter conditions. In Japan on the other hand, where bank lending has also increased, the financing conditions for small firms are favorable as compared to larger enterprises. In the euro area, the problem of obtaining bank loans is aggravated for some of the economic policies, some of the policies have given a great support in overcoming many financial constraints faced by SMEs.

Many countries use Credit Guarantee Schemes (CGSs) as a policy tool to address the SME financing gap while limiting the burden on public finances (OECD, 2013). Such schemes are therefore subject of a recent comprehensive OECD analysis that identifies structural and emerging challenges for the financial sustainability and the financial and

economic additionally of these schemes, in a rapidly changing economic and regulatory environment.

A number of European OECD countries also introduced credit mediation schemes that turned out to be rather successful and continued in many countries, evolving into longer-term initiatives to support SMEs which encounter difficulties in credit and insurance markets (OECD, 2013b). Small firms with fewer than 50 employees have been the main users of the programs, although the lack of awareness about the service often represents a key obstacle for a broader uptake by SMEs. According to Holton, McCann, Prendergast, & Purdue (2013) the government of Ireland has developed policy initiatives to enhanced access to credit by SMEs by enhancing the flow of bank credit to SMEs, and developing alternative non-bank funding sources to SMEs. This has had a significant impact on SMEs access to credit capital for investment and growth.

Lam & Shin (2012) conducted a study to assess the role of Financial Policies in Revitalizing SMEs in Japan. The found out that the global financial crisis had weakened the financial position across SMEs, particularly by lowering their credit worthiness. This was closely related to low availability of risk capital and the pervasiveness of credit support measures. The study however found out that to enhance the supply of risk-based capital, costly government support measures were a challenge and needed to be phased out and SME restructuring be accelerated. The study further recommended for the deepening of capital markets to enhance risk capital availability and address regulatory barriers to starting businesses through policy.

A study conducted by Adhiambo, (2013) sought assess the effect of changes in interest rates on the demand for credit and loan repayments by Small and Medium Enterprises in Kenya in Kenya. The study targeted the 43 banks in Kenya and various sectors under SMEs in Kenya namely; agriculture, manufacturing, building & construction, mining, energy & water, trade, tourism, hotel & restaurant, transport & communication, real estate and financial services. The findings revealed that SMEs demand for credit remained high despite the interest rates. However, the repayment ability of SMEs was directly affected by changes in interest rates. The Central Bank of Kenya fixed Commercial Banks lending rate at 4% above the CBR rate that is currently 10% which has been beneficial to SMEs. This based on the study by Adhiambo is expected to

revolutionize lending. Besides, the demand by the CBK to ensure information sharing through CRB too affects lending. However, this has not been well researched.

2.4 Summary of Research Gaps

Section 36 (4) of the Central Bank of Kenya Act 2010 stipulates that it is the responsibility of the Central Bank to determine the lowest rate of interest it charges on loans to banks. The level of the CBR is reviewed and announced by the Monetary Policy Committee (MPC) at least every two months and its movements, both in direction and magnitude, signals the monetary policy stance. According to the study, this in itself plays a significant role in determining the interest rates charged by commercial banks on loans. Besides, the Banking Act 2015 caps the interest rates charged by commercial banks to a 4 points above the CBR. The law which was enacted in August 2018 has seen commercial banks react differently however with caution that this would affect their lending to SMEs who are considered as high risk borrowers. However, no study has been done to determine how these policies have affected creditworthiness of SMEs in Commercial Banks. The study concludes that SMEs are also considered high risk borrowers owing to their financial and asset structure, however this has not been fully exhausted to determine its contribution to their creditworthiness. Besides, the central bank of Kenya has in the recent past introduced credit information sharing systems such as credit reference bureaus on which banks could share information about borrowers and reduce the risk of default, how this has affected SMEs creditworthiness in commercial banks still remains unknown.

2.5 Conceptual Framework

The study was guided by the following conceptual framework. The framework indicates the causal relationship between firms' ownership, financial performance, credit information sharing and the central bank regulations and SME creditworthiness.

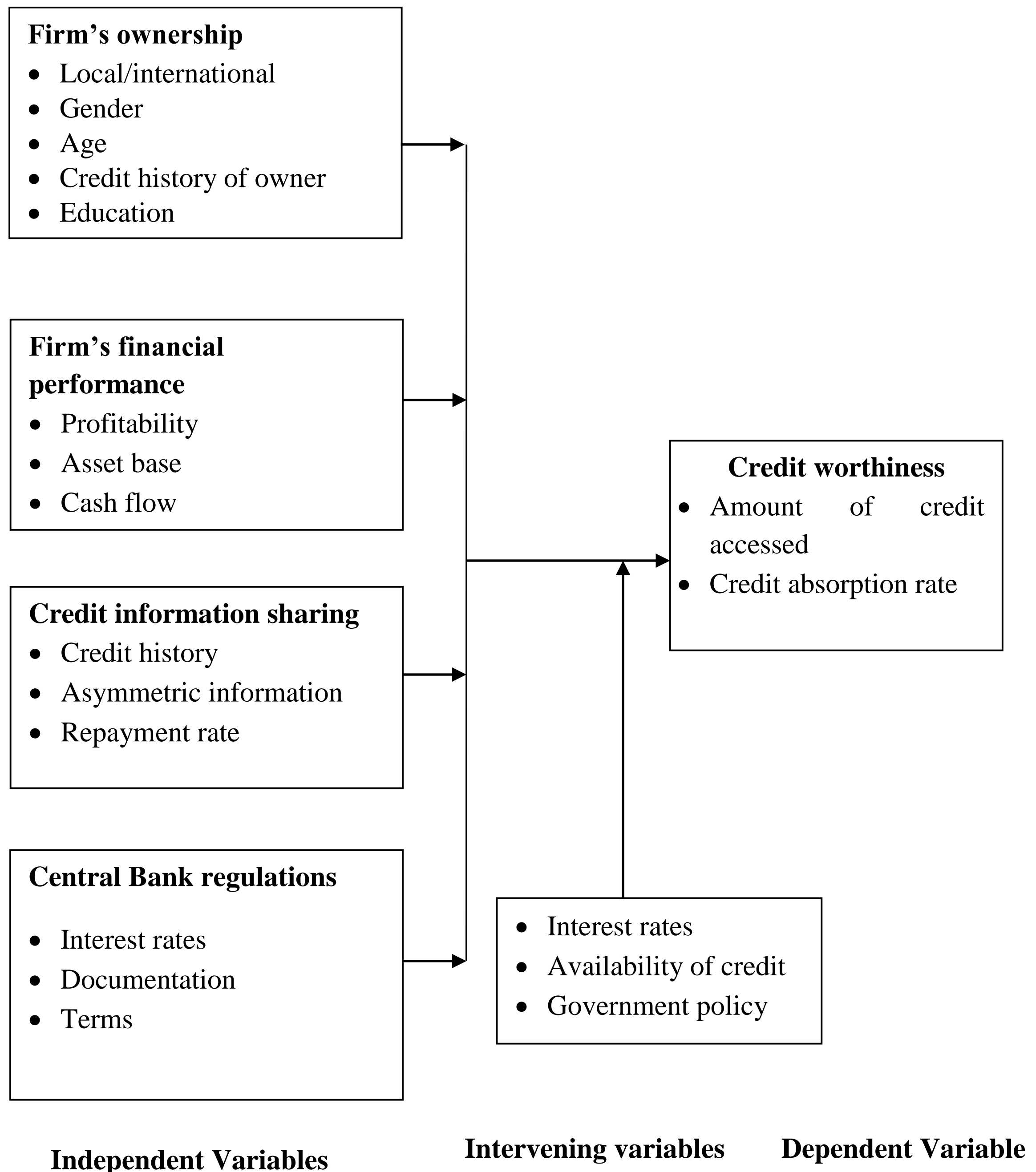

Figure 2.1: Conceptual Framework

Source: Own conceptualization (2018)

The study conceptualizes that the credit worthiness of SMEs which determines their access to credit is determined by a range of factors. First the study perceives that firms' ownership plays a significant role in determining creditworthiness in the context of SMEs. Previous studies have shown gender differences in access to credit between women and men owning to their access to assets that could be used as collateral. Similarly, youth owned enterprises have their share of challenges that hinder their creditworthiness. Thin difference between the owner and the enterprise since majority are owned by one individual. Therefore the study will assess ownership in form of gender, age, and constitution of enterprise and the past records of owner managers.

Secondly, the study analyzed the influence of financial performance of SMEs on their credit worthiness. The financial performance will be assessed by considering SME's cash flow, asset base as well as profitability. Credit information sharing will form the third parameter to be investigated where the credit history of the owner and the enterprise too will be assessed to determine the credit worthiness of the enterprise. Besides, the information asymmetry between the lender and the SME will also be assessed to determine, the level to which this is affected has not been well determined.

Finally, the study analyzed the central bank guidelines to determine how they affect SMEs access to credit. The study focused on the recent efforts by the central bank of Kenya to cap the banks' lending rate at 4 points above the central bank rate in Kenya, the requirements on documentation, terms and conditions set by the central bank to see how this contributes to limiting access to credit by SMEs.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides an insight of the research procedure that employed in carrying out the study. Fundamentally it describes the study design, location, population, sampling procedures, and instruments of data collection, validity, reliability, data collection and analysis procedures.

3.2 Research Design

The study adopted a survey research design where all commercial banks in Nakuru Town were considered for the study. Survey research design comprises of cross -sectional design in relation to which data are collected predominantly by questionnaire or by structured interview on more than one case and at a single point in time in order collect quantitative data in connection with two or more variables which are then examined to detect patterns of association (Bryman & Bell, 2011). The survey technique on the other hand allows a researcher to obtain information from a section of the population carefully selected to provide inferences on an entire population. This study fits within the framework of survey design in that it sought to evaluate factors influencing SMEs credit worthiness by commercial Banks in Nakuru Town, Kenya.

3.3 Location of the Study

The location for the study is Nakuru Town Kenya, the town comprises of a big number of Small and Micro Enterprises, with a representation of almost all banks in Kenya. The SME mix in nakuru cuts across all the sectors of business hence preferable in comparison to other towns

3.4 Population of the Study

The target population for the study comprised of credit officers SME sections (see Appendix II) as the credit managers. At the time of the study, there were at least one credit manager and one SME relations or credit officer in each commercial bank branches in Nakuru Town. The target population was therefore 68 staff comprising of 34 credit managers and 34 SME loans/relations officers. Due to the small size of the population, the study conducted a census of all 38 SME officers and 21 credit managers.

3.5 Data Collection Instruments

The study used questionnaire as the main tool for collection of primary data. The tool is more systematic and structured and it assists in obtaining information from respondents in a direct and open manner. A questionnaire may be structured, consisting of direct questions to obtain factual data, or indirect that is, semi structured, allowing more flexibility on the part of the interviewer in setting questions in an indirect manner, or probing for answers. On set of questionnaire will be designed and administered to both SME credit officers and credit managers. The questionnaire was based on five themes; firm ownership, financial performance, credit information sharing, central bank regulation and SME credit worthiness. The opinions were measured using a five point likert scale to establish the extent to which the independent variables were experienced and affect creditworthiness of SMEs.

3.6 Validity and Reliability of Instruments

Mugenda and Mugenda (2003) define validity as the accuracy and meaningfulness of inferences, which are based on the research results. Validity is the degree to which the measurement process measures the variables it claims to measure. Face validity method will be used to assess the validity of the research instruments. The choice of indicators was based on empirical evidence and theoretical guides; this improved on the construct validity of the study.

According to Mugenda and Mugenda (2003) reliability is the consistency of a measure of the degree to which a research instrument yields consistent results or data after repeated trials. To ensure the validity of instruments, they were subjected to a pilot study in selected Bank Branches in Naivasha Town. The pilot questionnaires were then analyzed using the Cronbach reliability coefficient to determine the extent of reliability. The instruments were analysed and yielded a Cronbach coefficient of 0.74. According to Orodho (2008), a Cronbach Alpha reliability coefficient of 0.7 and above is considered adequate for the instruments to be adopted for the study, thus the instrument was adopted.

3.7 Data Collection Procedure

In collecting the data, the researcher first sought a letter of introduction from Kabarak University which was presented to the National Commission for Science Technology and Innovation (NACOSTI) to obtain a research permit. The university introduction letter and research permit were presented to the Bank Branch Managers to obtain permission to conduct the survey. The selected respondents were then identified and the researcher created a rapport with them as well as explaining the purpose of the study and the expected data from them. Questionnaires were then administered on a drop and Pick Later basis. The researcher allowed respondents to fill in the questionnaires within duration of two weeks. Follow ups were then made through the credit managers to know the progress in responding to questionnaires and also to ensure higher response rates.

3.8 Data Analysis

Data collected was coded and analyzed with the aid of computer programs Statistical Package for Social Sciences (SPSS) and excel computer programs. Quantitative data was analyzed using descriptive statistics which include frequencies and percentages. Chi square (x^2) analysis was then done to determine how individual factors affected creditworthiness. Influence of independent variables on the dependent variable was then computed using the multiple regression analysis.

Regression analysis was based on the model below.

$y_i = \alpha + \beta_1 x_{i1} + \beta_2 x_{i2} + \beta_3 x_{i3} + \beta_4 x_{i4} + \varepsilon_1$ where y_i is the dependent variable (SME Creditworthiness), x_{ij} is the ith observation on the jth independent variable, and where the first independent variable takes the value 1 for all i(so β_1 is the regression intercept), and ε_1 is the error.

$y_i =$ SME credit worthiness

$x_{i1} =$ Firm's ownership

$x_{i2} =$ Firm's financial performance

$x_{i3} =$ Credit information sharing

$x_{i4} =$ Central Bank regulations

$\varepsilon_i =$ Standard error term

Presentation of data was done based on the study objectives where findings were presented in tables and charts. Discussion of findings then followed. The order of presentation was that first summary of responses was presented using descriptive statistics then followed by the inferential analysis of Chi –Square (x^2). Finally statistical modeling was done using the multiple regression analysis.

3.9 Ethical Issues

The study ensured that research ethics were observed in the entire research process by ensuring the following: The information given was solely used for the academic purpose of achieving the research objective. Any personal information meant for research purposes was kept strictly confidential. Respondents' rights to decline to fill the questionnaire were respected at any stage of the study. The researcher sought permission from the relevant authorities before embarking on the research exercise.

CHAPTER FOUR

DATA ANALAYSIS, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

The chapter presents the findings and results of the study their interpretations and discussion organized based on the study objectives.

4.2 General and Demographic Information

The study focused on four demographic information parameters about the respondents: their age, gender, current position in the bank and their years of experience in SME credit departments. The issued 68 questionnaires to respondents out of which 59 were successfully filled, returned and collected. As a result, the response rate achieved was 86.8%. This was a satisfactory return rate in the study since according to Baruch & Holtom (2008), the average level of response rate is 52.7 percent and with a standard deviation of 20.4 based on an analysis of 1607 social survey studies.

4.2.1 Age of Respondents

The age of respondents was determined by asking them to state their age which was on a continuous scale as shown in Table 4.1.

Table 4.1: Age of Respondents

	N	Minimum	Maximum	Mean	Std. Deviation
Age	59	22.00	56.00	37.5085	10.33136
Valid N (list wise)	59				

Analysis of the findings revealed in Table 4.1 shows that the banking sector had employed relatively young population in the credit departments since mean age was 38 years while the youngest credit officer was 22 years old. Results revealed that staffs under credit departments should be old enough in the organization to have experience on credit worthiness.

4.2.2 Gender of Respondents

The gender composition of SME relations officers and managers was as follows:

Table 4.2: Gender of Respondents

	Frequency	Percent
Male	41	69.5
Female	18	30.5
Total	59	100.0

The findings shows that majority of the SME credit Managers and relationship officers were male constituting 69.5% while female gender was 30.5%. This also shows that both genders were employed in this position in Commercial Banks in Nakuru Town since none of the genders exceeded the two thirds constitutional majority.

4.2.3 Position in the Bank

The study also sought to determine the positions held by the respondents in the banks as either SME Loan or relations officer or Credit manager

Table 4.3: Position in the Bank

	Frequency	Percent
SME Loan/Relations Officer	38	64.4
Credit manager	21	35.6
Total	**59**	**100.0**

According to the findings in Table 4.3 64.4% of the respondents in the study were SME Loan/Relations Officer while the remaining 35.6% were credit managers in their respective banks. This indicates that majority of those who provided information in this study were SME Loan or relations officers. In some instances credit managers delegated the duty to respond to the questionnaires to the SME loan officers hence the number of responses from credit managers were more than the number of Banks Targeted.

4.2.4 Duration in SME Lending in the Bank

The study was also interested to determine period of time the respondents had worked in the SME lending department in order to ensure reliability of information provided. The findings were as follows.

Table 4. 4: Duration in SME Lending in the Bank

	N	Minimum	Maximum	Mean	Std. Deviation
Duration in SME Credit	59	1.00	16.00	4.69	3.33
Valid N (list wise)	59				

From the findings in Table 4.4, it was established that on average the respondents had been working in SME credit for a period of 4.69 years which is 4 years and 8 months. Nevertheless some of the officers had worked in SME credit for 16 years while the new ones were up to only one year in the sector. This shows that majority of the respondents in the study had been working in the SME credit division for a period large enough to respond to the issues sought for in this study.

4.3 Firm Ownership

In the first objective, the study sought to determine how ownership of SMEs affected their creditworthiness in the face of banks for them to access loans. Therefore the credit officers were first asked to indicate whether they consider the ownership of SMEs in determining the credit worthiness of the enterprises.

Table 4.5: Consideration of Ownership in SME Credit

	Frequency	Percent
Yes	44	74.6
No	15	25.4
Total	**59**	**100.0**

The findings on Table 4.5 showed that to ownership of business was of key interest to the banks in SME credit since 74.6% agreed that they considered it. Furthermore SME loan officers were asked to highlight the owner details they were interested in giving SME Loans in Table 4.6.

Table 4.6: Ownership Details of Interest in SME Credit

	Very Important	Important	Moderate	Less Important	Not Important at all	X^2	P
a) Gender of the owner of business	17 (28.8%)	15 (25.4%)	18 (30.5%)	7 (11.9%)	2 (3.4%)	63.89	0.003
b) Age of the owner/manager	4 (6.8%)	10 (16.9%)	17 (28.8%)	17 (28.8%)	11 (18.6%)	68.29	0.001
c) Previous credit history of the owner	25 (42.4%)	27 (45.8%)	7 (11.9%)	0 (0.0%)	0 (0.0%)	43.50	0.001
d) The nature of business registration	10 (16.9%)	13 (22.9%)	20 (33.9%)	10 (16.9%)	6 (10.2%)	56.18	0.017
e) Business ownership (sole proprietorship, partnership or limited company)	12 (20.3%)	23 (39.0%)	15 (25.4%)	9 (15.3%)	0 (0.0%)	65.50	0.000
f) Education background of the owner	16 (27.1%)	25 (42.4%)	10 (16.9%)	5 (8.5%)	3 (5.1%)	58.91	0.009
g) The experience of owners of SMEs in business	16 (27.1%)	20 (33.9%)	10 (16.9%)	10 (16.9%)	3 (5.1%)	80.86	0.000
h) Number of shareholders	10 (16.9%)	25 (42.4%)	14 (23.7%)	10 (16.9%)	0 (0.0%)	69.76	0.000
i) Nature of ownership (International or local firms)	15 (25.4%)	26 (44.1%)	18 (30.5%)	0 (0.0%)	0 (0.0%)	46.57	0.001

According to the findings in table 4.6, gender of business owners was considered in determining the creditworthiness of SMEs in Commercial Banks in Nakuru Town where 28.8% of the credit officers and managers termed it very important, 25.4%

important, while 30.5% moderate. The remaining 11.9% termed it less important while 3.4% not important at all. It was however not clear on which gender was more creditworthy than the other. However, studies on women access to credit such as Waita (2012) have cited lack of collateral among women as one of the biggest challenges that prevent them from growing their business. Thuku (2017) also realized that majority of banks prefer women to men when issuing credit

The age of SME owners was to some extent considered though to a less extent since only 16.6% considered it important, and 6.8% very important. The remaining 28.8% found age of owners less important or moderately important respectively. The credit history of SME owners was given a lot of emphasis in evaluating the creditworthiness of SMEs, 42.4% of credit team termed credit history as very important and 45.8% important while the remaining 11.9% attached moderate level of importance. The nature of business registration was considered very important according to 16.9% while 22.9% and 33.9% considered registration very important and important respectively.

The nature of business ownership as either sole proprietorship, partnership or limited company was also a factors informing banks on the credit worthiness of SMEs as cited by over half of the respondents: 20.3% termed nature of registration very important, 39.0% important and 25.4% moderate. Education background of the owner was also considered as key determinant of SME credit worthiness according to 42.4% and 27.1% who termed it as important and very important respectively. This however contradicts Thuku (2017) study on SMEs in agriculture sector in Nyeri County which found that the level of education / training does not influence access to finance.

Banks in Nakuru Town also considered SMEs experience in business to gauge their level of creditworthiness. According to 33.9% and 27.1% respectively, experience was important and very important respectively. The number of shareholders was also considered in determining SME creditworthiness in Banks; 42.4% of the credit officers and their managers felt that consideration for shareholding was important while 16.9% important and 23.7% moderate. Finally, whether ownership was local or international was important (44.1%) and very important (25.4%) while 30.5% thought it had moderate importance in determining SME creditworthiness. Considering the relationship between the ownership attributes under investigation it was observed that

all of them found a statistically significant association with the SME credit worthiness which implies that ownership played a significant role.

4.4 Financial Performance of SMEs

The study further sought opinion on the importance attached to financial performance of SMEs in assessing their level of creditworthiness. In was established that all the commercial banks (100%) participating in the study considered financial performance of SME Critical when advancing loans. The study therefore further sought to determine the specific attributes on financial performance that were critical to SME credit worthiness; the findings were shown on Table 4.7.

Table 4.7: How important are the following financial parameters

	Very Important	**Important**	**Moderate**	**Less Important**	**Not Important at all**	X^2	P
a. Total assets	11 (18.6%)	28 (47.5%)	20 (33.9%)	0 (0.0%)	0 (0.0%)	43.26	0.001
b. Asset structure	22 (37.3%)	30 (50.8%)	7 (11.9%)	0 (0.0%)	0 (0.0%)	34.13	0.012
c. Cash flows	34 (57.6%)	23 (39.0%)	2 (3.4%)	0 (0.0%)	0 (0.0%)	71.20	0.000
d. Profitability	20 (33.9%)	26 (44.1%)	9 (15.3%)	4 (6.8%)	0 (0.0%)	44.35	0.019
e. Projected future profits	27 (45.8%)	16 (27.1%)	12 (20.3%)	4 (6.8%)	0 (0.0%)	27.90	0.064
f. Tax liability	0 (0.0%)	12 (20.3%)	20 (33.9%)	23 (39.0%)	4 (6.8%)	49.71	0.005
g. Capital structure	6 (10.2%)	22 (37.3%)	26 (44.1%)	5 (8.5%)	0 (0.0%)	38.90	0.065
h. Debt level	18 (30.5%)	30 (50.8%)	11 (18.6%)	0 (0.0%)	0 (0.0%)	68.74	0.000
i. Size of the business	12 (20.3%)	23 (39.0%)	11 (18.6%)	6 (10.2%)	7 (11.9%)	76.77	0.000

The total assets were highly considered as an indicator of financial performance of SMEs since 18.6% of the respondents considered it very important, 47.5% and 33.9% important and moderate respectively. Asset structure was very important according to 37.3%, 50.8% considered it important while 11.9% moderate. Thus, the asset structure of the SMEs was a key determinant of their creditworthiness in the face of Commercial Banks. Cash flow was also highly considered since 57.6% termed it very important, 39.0% important and 3.4% moderate. SME profitability was also considered very important according to 33.9% of SMEs and important according to 44.1%. The other 15.3% considered profitability to have moderate importance while 6.8% gave it less importance. This finding collaborates with that of Thuku (2017) who found that adequate book keeping records and audited financial statements made it easy for SMEs to access credit. It would be difficult to establish the cash flow position, asset structure and even profitability of SMEs without proper records of daily transactions and the summary of accounts.

Banks also considered the projected future performance of the SMEs in determining the level of creditworthiness, this was very important according to 45.8%, important according to 27.1% and moderate according to 20.3%. This shows that the future plans of SMEs were key for banks in determining whether to finance or not finance SMEs. SME tax liability was given less importance since only 20.3% considered it important and 33.9% moderately important. On the other hand, 39.0% of the credit staff were of the opinion that tax liabilities were less important whereas 6.8% found it not important at all in determining the level of creditworthiness of SMEs.

The capital structure was according to 10.2% of the credit team very important. The other 37.3% and 44.1% viewed capital structure important and moderate respectively in telling their creditworthiness. The prevailing debt level of an SME was key in determining its credit worthiness, 50.8% found it important and 30.5% very important, the remaining 18.6% termed it important. Finally the size of business was also evaluated and it was established that 39.0% of credit officers and managers thought it was an important aspect of determining SME credit worthiness, 20.3% found it important, and 18.6% important. The other 10.2% though that size of business was less important and 11.9% not important at all in determining the credit worthiness of SMEs.

4.5 Credit Information Sharing

The third objective for the study sought to determine how credit information sharing practices by commercial banks in Nakuru affected the credit worthiness of SMEs. To assess this, credit officers and managers of commercial banks were asked to identify the SME credit information that was of interest in determining the SME creditworthiness.

Table 4.8: Credit Information of interest

	Very Important	Important	Moderate	Less Important	Not Important at all	X^2	P
a. Outstanding loans	24 (40.7%)	29 (49.2%)	2 (3.4%)	4 (6.8%)	0 (0.0%)	112.63	0.000
b. Loan repayments patterns	30 (50.8%)	29 (49.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	14.45	0.079
c. Payments of statutory fees	3 (5.1%)	11 (18.6%)	14 (23.7%)	20 (33.9%)	11 (18.6%)	85.60	0.000
d. Payment of bills	0 (0.0%)	7 (11.9%)	16 (27.1%)	19 (32.2%)	17 (28.8%)	62.72	0.000
e. Default	20 (33.9%)	29 (49.2%)	10 (16.9%)	0 (0.0%)	0 (0.0%)	43.98	0.001
f. Payment of personal bills	9 (15.3%)	17 (28.8%)	15 (25.4%)	14 (23.7%)	4 (6.8%)	85.85	0.000
g. Payment of taxes	9 (15.3%)	10 (16.9%)	16 (27.1%)	13 (22.0%)	11 (18.6%)	87.69	0.000

According to the findings in Table 4.8, customers' outstanding loans for customers were considered as very important in telling the creditworthiness of SMEs according to 40.7% of the respondents, 49.2% rated it as important. The remaining 3.4% cited that its importance was moderate and 6.8% less important. The loan repayment patters was

very key in determining SME creditworthiness and its importance was highly rated by the credit team: 50.8% rated it very important and 49.2% important.

Customers' patterns of payment of statutory fees was not highly regarded in determining the creditworthiness of SMEs. A few credit officers and mangers (5.1%) cited that it was very important to them while 18.6% cited that it was important and 23.7% cited moderate importance. The remaining 33.9% termed it less important while 18.6% not important at all. This shows that although payment of statutory fees such as licenses is an indicator of one honoring their obligations it was rarely applied in Banks to assess SME creditworthiness. Similarly, payment of bills was not considered in determining SME creditworthiness since majority of credit officers 32.2% and 28.8%termed it less important or not important at all respectively. Those of contrary opinion were 27.1% who rated it moderate and 11.9% important.

The rate of default of other credit facilities was cited as key by 33.9% and 49.2% who rated it very important and important respectively while the remaining 16.9% assigned default rate moderate importance. This shows that default of other credit facilities was very key in determining whether SME customers were credit worth or not which is consisted with findings on credit history. SMEs payment of taxes was not highly regarded as seen from the mixed opinion where 15.3% and 16.9% termed it as very important and important respectively. The remaining 27.1% rated payment of taxes moderate in importance, 22.0% less important and 18.6% not important at all.

Further, the study asked the respondents to indicate whether they considered the use of relationship banking as a strategy for gathering customer information as shown in Figure 4.1.

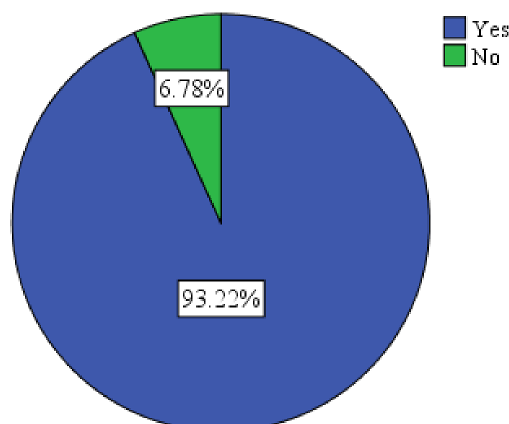

Figure 4. 1: Use of relationship banking

The findings in Figure 4.1 shows that 93.22% of the credit officers and managers in commercial banks in Nakuru revealed that their banks used relationship banking strategy in an effort to gather customer information, only 6.78% did not. Further, the credit team was asked to rate the effectiveness of the use of credit reference bureaus in information sharing and relationship banking to determine which one provides more accurate information on the credit worthiness of SMEs. The results were shown in Figure 4.2.

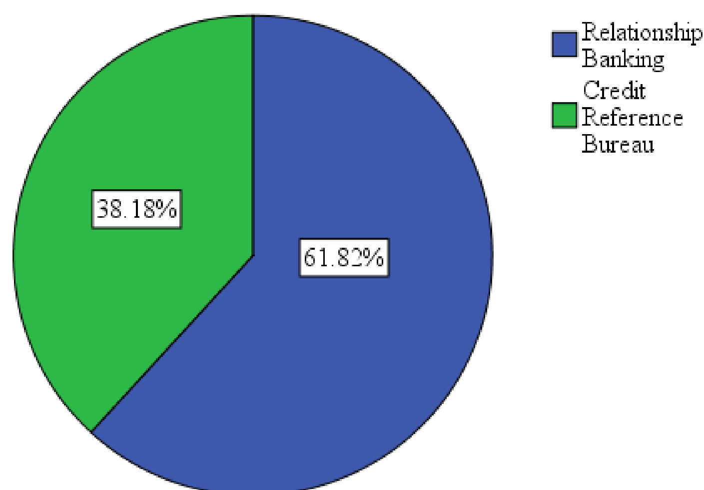

Figure 4.2: Effectiveness of credit reference bureau and relationship banking

Majority of the respondents (61.8%) cited that relationship banking provided better quality information as opposed to the credit reference bureaus (38.18%). This could be attributed to the concept that credit reference bureaus worked based on statistical data provided by banks on repayment patterns whereas customer relationship management was based on the knowledge of the customer and the circumstances surrounding the repayment patterns.

4.6 Central Bank Regulations

The study also sought information regarding the clarity of the central bank regulations and guidelines on SME banking.

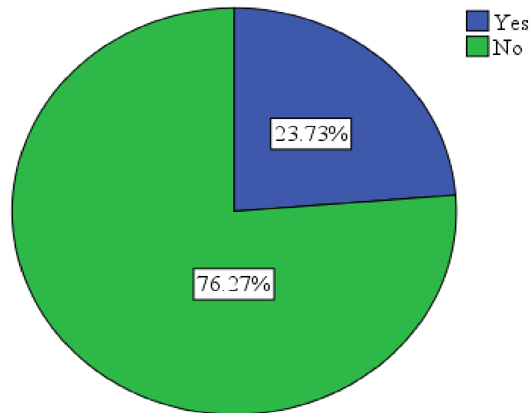

Figure 4.3: Clarity of Central Bank Guidelines on SME Banking

The findings in Figure 4.3 shows that, 76.27% found the guidelines to be unclear as opposed to the 23.83% who were of the view that the guidelines were clear. Further they were asked to provide opinion as to whether CBK guidelines on SME Banking work in favor of SMEs enhanced access to credit or not?

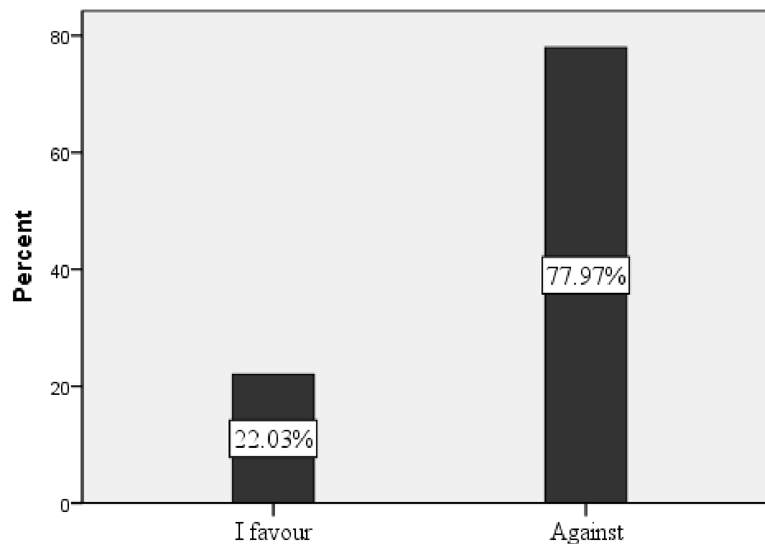

Figure 4.4: How SME Banking Guidelines Work

The responses showed that majority of the SME credit officers and managers (77.97%) were of the opinion that CBK regulations worked against the objective of enhancing SME access to credit as opposed to 22.03% who thought that the regulations would favour SME access to credit.

Table 4.9: Importance Attached to Central Bank Regulations in Assessing SME Creditworthiness

	Very Important	Important	Moderate	Less Important	Not Important at all	X^2	P
a. Interest rates	12 (20.3%)	34 (57.6%)	13 (22.0%)	0 (0.0%)	0 (0.0%)	56.65	0.000
b. Documentation	22 (37.3%)	20 (33.9%)	15 (25.4%)	2 (3.4%)	0 (0.0%)	49.36	0.005
c. Lending period	17 (28.8%)	26 (44.1%)	16 (27.1%)	0 (0.0%)	0 (0.0%)	38.30	0.004
d. Credit information	14 (23.7%)	27 (45.8%)	9 (15.3%)	9 (15.3%)	0 (0.0%)	66.40	0.201
e. Credit risk	22 (37.3%)	30 (50.8%)	7 (11.9%)	0 (0.0%)	0 (0.0%)	33.77	0.000
f. Security	9 (15.3%)	22 (37.3%)	23 (39.0%)	5 (8.5%)	0 (0.0%)	47.43	0.009

According to the findings in Table 4.9, 57.6% and 20.3% of credit officers and managers termed interest rates set through government regulations important and very important in determining the creditworthiness of SMEs while 22.0% found interest rates to have moderate impact. This implies that the interest rate caps have changed the risk perception of banks towards SMEs and hence credit worthiness and credit allocated to them therefore making it difficult for SMEs to access credit.

Documentation was cited as very important by 37.3% and important by 33.9% while 25.4% viewed it to have moderate importance. This shows that the requirements by the central bank on documentation have been taken seriously by the banking sector in lending to SMEs. On the contrary, SMEs have been found to have poor recording keeping practices, this shows that CBK requirements of documentation could have had a negative impact on creditworthiness of SMEs by reducing the numbers that have access.

The lending period has also been a consideration in lending to SMEs since 44.1% of respondents termed it as important while 28.8% considered it very important and 27.1% moderate. This shows that commercial banks take into consideration the duration of loans. On the contrary, the SMEs by their very nature are characterized by high mortality rate which could make it difficult for them to access credit.

On credit information sharing, 45.8% of the respondents cited that it was an important consideration in establishing credit worthiness of SMEs while 23.7% termed it very important, 15.3% termed it moderate and less important respectively. This also indicates that majority attached some importance on credit information in determining creditworthiness of SME customers in line with the CBK guidelines.

Credit risk was also highly considered when lending to SMEs as highlighted by 50.8% who termed it important and a further 37.3% who termed it very important, the remaining 11.9% considered it moderately important. None of the credit tem members in commercial banks attached less or no importance on credit risk. This shows the banks were highly interested with the portfolio at risk for SMEs in serving the market. Finally on security, 37.3% indicated that their banks considered security important while 39.0% moderate and 15.3% very important. Thus security on loan though an important aspect was not highly regarded in determining SME creditworthiness.

4.7 SME Creditworthiness

In assessing the bank view on SME creditworthiness, the study asked respondents to identify the portfolio allocated to SMEs in their banks as a percentage of loans issued as shown on the findings in Table 4.10.

Table 4. 10: SME Credit portfolio

	N	Minimum	Maximum	Mean	Std. Deviation
Current Loan Portfolio	59	12.00	27.00	21.59	3.83
Valid N (list wise)	59				

From the findings in Table 4.10, it can be deduced that on average, commercial banks allocated 21.59% of their loan portfolio to SMEs. The bank with highest loan portfolio

allocated to SMEs had 27% while the least portfolio was 12.0%. This means that commercial banks allocate less than one quarter of their loan portfolio to SMEs despite that SMEs contribute the highest portion of the GDP and also have the highest employment level. The FSD (2015) survey showed that the total SME lending portfolio in December 2013 was estimated to be 23.4 per cent of the banks' total loan portfolio. This implies a decline in the loan portfolio allocated to SMEs. This shows that either commercial banks limit the proportion allocated to SMEs based on their view on credit risk or the SMEs are not creditworthy in the face of Commercial Banks.

The study further sought to determine the type of loans sought and advanced to SMEs by commercial banks categorized as either working capital loans, asset financing or Loans for personal use.

Table 4.11: Types of Loans Commonly Sought

	Frequency	**Percent**
Working Capital	18	30.5
Asset financing	24	40.7
Personal Loans	17	28.8
Total	**59**	**100.0**

As shown in Table 4.1, the highest sought type of loan by SMEs was asset financing by 40.7%, followed by working capital financing sought by 30.5%, while the least sought was personal loans by 28.8%. This shows that majority of the loans sought by SMEs were either asset financing or working capital as opposed to personal loans. However, the finding could not establish whether loans were utilized for the purpose they were intended for or they were diverted for other uses.

In further probing the SME credit worthiness, the study also asked respondents to rate the loans issues in terms of number of new applications, number of successful applications, rejected applications and credit absorption rate.

Table 4. 12: SME Credit Worthiness

	Very High	High	Average	Low	Very Low	X^2	P
a. Number of new loan applications	12 (20.3%)	23 (39.0%)	22 (37.3%)	2 (3.4%)	0 (0.0%)	85.60	0.000
b. Number of loan application successfully accepted and approved	1 (1.7%)	6 (10.2%)	27 (45.8%)	17 (28.8%)	8 (13.6%)	65.60	0.004
c. Number of loan applications rejected	5 (8.5%)	17 (28.8%)	25 (42.4%)	12 (20.3%)	0 (0.0%)	53.60	0.034
d. Credit absorption rate	7 (11.9%)	10 (16.9%)	29 (49.2%)	13 (22.0%)	0 (0.0%)	77.60	0.01

According to the findings 20.3% termed the number of new applications very high, 39.0% high and 37.3% average. A small proportion of 3.4% found loans application for SMEs in their bank to be low. On the number of loan applications successfully approved and accepted, 45.8% rated them average, 39.0% high while 28.8% found them low. Furthermore, 13.6% cited that approved loans were very low and 1.7% very high. The number of applications rejected were average according to 42.4%, high (28.8%) and low according to 20.3%. The credit absorption rate of SMEs was then rated average by a larger proportion of Credit officers and Managers (49.2%) while 22.0% found it low, 16.9% high and 11.9% very high. These findings shows that although a high proportion of SMEs sought loans from commercial banks, the proportion that was approved was less owing to the banks perception on the SME creditworthiness.

4.8 Regression Analysis

The general purpose of multiple regression is to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable. It is used to make predictions on criterion variable based on changes in the predictor variables. In this study average scores all the four factors affecting SME creditworthiness were subjected to multiple regression analysis against the SME Loan applications accepted and approved. The results of regression analysis are presented on Table 4.13.

Table 4.13: Model results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.663[a]	.439	.398	.70892

a. Predictors: (Constant), CBK guidelines, Financial performance, ownership , Credit information sharing

The coefficient of determination (R^2) explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (creditworthiness) that is explained by all the independent variables (ownership, financial performance, credit information sharing and Central Bank Guidelines). The adjusted R-squared shows the explanatory power of regression model which implies the model has an explanatory power of 39.8%. The regression model summary on in Table 4.13shows an R^2= 0.439 which implied that the factors under investigation accounted for 43.9% of the variations in creditworthiness of SMEs in the face of commercial banks measured by the proportion of loans approved.

Table 4. 14: ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.268	4	5.317	10.580	.000[a]
	Residual	27.138	54	.503		
	Total	48.407	58			

a. Predictors: (Constant), CBK guidelines, Financial performance, ownership, Credit information sharing

b. Dependent Variable: Number of loan application successfully accepted and approved

ANOVA tests on Table 4.14, were used to test the model significance in explaining the relationship. The results ($F_{(4,36)} = 10.58$, $\rho < 0.05$) shows that the model significantly

explains the relationships under investigation. Regression coefficients and the results as shown on the Table 4.15.

Table 4. 15: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients			Co linearity Statistics
		B	Std. Error	Beta	t	Sig.	VIF
1	(Constant)	3.084	1.719		1.794	.078	
	ownership	-.526	.195	-.286	-2.702	.009	1.076
	Financial performance	1.588	.321	.547	4.953	.000	1.173
	Credit information sharing	-1.521	.287	-.603	-5.291	.000	1.251
	CBK guidelines	.116	.228	.054	.511	.612	1.058

a. Dependent Variable: Number of loan application successfully accepted and approved

The regression coefficients in Table 4.15 shows that $\beta = -0.526$, $p < 0.05$ meaning that holding all other factors constant at zero a unit increment in the consideration of ownership structure of SMEs would result to reduction of 0.526 times in the proportion of SME loans approved. This implies that the ownership structure of SMEs had a negative impact on their creditworthiness. This finding corroborates that of Arosa et al. (2010) in a study of SMEs in Spain which suggest that family ownership is related to higher firm performance depending on the role the family plays in the firm. Furthermore, Obasan, Shobayo, & Amaghionyeodiwe (2016) study in Nigeria revealed that in general, ownership structure has a significant effect on Small and medium enterprises in Nigeria. Specifically, insider ownership structure has a statistical significant effect on the performance of small and medium enterprise in Nigeria; also foreign ownership structure has a statistical significant effect on performance of small and medium enterprises in Nigeria. This implies that the type of ownership whether one man business, partnership or limited liability company will affect the performance level of the business. This could also be associated with credit worthiness of the business since it is a measure of access to credit capital which is essential for performance and growth of businesses.

Regarding the financial; performance of SMEs the regression results revealed that $\beta = 1.588$, $p < 0.05$ which implies that holding all other factors constant at zero, a unit increment in the financial performance of SMEs would result in 1.588 increment of the proportion of loans of SMEs considered. This infers that the financial performance of SMEs alone had a positive and significant impact on their creditworthiness. This agrees with the findings by Onyiego, Namusonge & Waiganjo (2017) in Mombasa County that SMEs do not receive the same as requested since they lack collateral or security demanded by the banks. Axelsson and Lundin (2016) in their study in Sweden found that financial performance of SMEs in Sweden affects their usage of trade credit. Performance measures Gross Margin, Profit Margin and Return on Assets indicate a statistical significant relationship with the usage of Trade Credit. Return on Equity and Long-term Debt-to-Equity on the other hand contradictory indicate a statistically significant positive relationship with the usage of Trade Credit. Although Axelsson and Lundin focused on credit usage, this study focused on access to the credit based on creditworthiness of the businesses. The current results confirm that more profitable SMEs tend to be more creditworthy in the face of commercial banks.

Regarding the credit information sharing the results shows that $\beta = 1.521$, $p < 0.05$ meaning that a unit increase in enhancing credit information sharing led to decrease in the number of SME loan applications approved by 1.521 times. This shows that credit information sharing which had a negative impact on SME creditworthiness in the banking sector. This finding contradicts that of Arturo and Alejandro (2010) that the development of information sharing mechanisms reduces significantly the financing gap between small and large firms. They found a strong correlation between developments of credit information sharing with access to credit markets, particularly for small firms.

Finally, the regression results on CBK guidelines of creditworthiness of the study sought yielded a $\beta = 0.116$, $p > 0.05$ meaning that the CBK guidelines which were evaluated in terms of interest rates, documentation, lending period, credit information, credit risk and security collectively have a significant effect on the number of SME loans approved. This collaborates with the findings by Kiseu (2017) that interest rate capping did not significantly influence how the banks issued credit to their customers. Kiseu further acknowledged that although the empirical studies did indicate that

commercial banks issuance loans was influenced by interest rate control in other economies around the globe this was also the case in Kenya according to the findings.

The VIF in all the variables were above 1 and below 10, meaning that there were no correlation between the independent variables thus no possibility of multicolinearity between the independent factors under investigation. Thus the relationship between the factors affecting creditworthiness of SMEs in Commercial banks in Nakuru Town can be expressed using the model:

SME creditworthiness = 3.084 - 0.526 (ownership structure) + 1.588 (Financial performance) - 1.521 (Credit information sharing) + 0.116 (CBK guidelines).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMEDATIONS

5.1 Introduction

The chapter presents a summary of the findings for the study, conclusions and recommendations. Recommendations for further research are also suggested.

5.2 Summary

The summary of findings consolidates and presents in brief the main findings of the study. The summaries are organized based on the research objectives. The first objective of the study was to analyze the influence of firm's ownership on credit worthiness of SMEs by commercial banks in Nakuru Town. The findings revealed that various ownership characteristics were considered by commercial banks when assessing the creditworthiness of SMEs and giving out loans to them. These include: gender of the owner of business, previous credit history of the owner, business ownership whether its sole proprietorship, partnership or limited company, education background of the owner, the experience of owners of SMEs in business, number of shareholders in the business and the nature of ownership whether its International or local firm. Other factors that were not given a lot of emphasis included the age of business owners and the nature of business registration. Overall, the study established that the ownership structure of SMEs had a negative impact on their creditworthiness. Holding all other factors constant at zero a unit increment in the consideration of ownership structure of SMEs would result to reduction of 0.526 times in the proportion of SME loans approved.

The second objective sought to analyze the influence firm's financial performance on credit worthiness of SMEs by commercial banks in Nakuru Town. The survey findings revealed that various financial factors were considered by commercial banks in determining the creditworthiness of their SME clients. These included: profitability, projected future profits, cash flows, asset structure, total assets, capital structure, debt level as well as size of the business. Overall, SME financial performance enhanced their creditworthiness in commercial banks positively.

The third objective of the study was to evaluate the influence of credit information sharing on credit-worthiness of SMEs by commercial banks in Nakuru Town. The study findings revealed how credit information sharing affected the creditworthiness of SMEs in commercial banks. Information sharing on outstanding loans with other financial institutions, loan repayments patterns and default rates were highly regarded in determining SME creditworthiness. However payment of statutory fees and taxes were not highly considered. It was also revealed that most commercial banks embraced the concept of relationship banking in an effort to gather customer information. Relationship banking provided richer information about customers credit worthiness compared to use of information bureaus. Overall, the credit information sharing practice was found to have a negative impact on the creditworthiness of SMEs.

The study's fourth objective was to assess the influence of Central Bank regulations on creditworthiness of SMEs by commercial banks in Nakuru Town. From the findings, it was established that commercial banks were guided by central bank regulations in determining the creditworthiness of SMEs. Mainly, the CBK regulation on interest rates, credit risk, credit information sharing, as well as documentation. The CBK guidelines on credit period and security were also followed though not very strict. Overall however, the study did not establish a statistically significant impact of CBK guidelines on creditworthiness of SMEs.

5.3 Conclusions

Based on the foregoing research findings, the study concluded that:

The ownership structure of SMEs had a negative effect on their creditworthiness in commercial banks owing to the extent to which ownership was highly regarded in appraising them. The negative impact also shows that the ownership structure of SMEs was correctly done or formalized through the correct registrations. The background characteristics of the owner managers such as education gender and experience in business also played a significant role in determining their creditworthiness.

The study further concluded that firm's financial performance had a positive and significant effect on the credit worthiness of SMEs in commercial banks in Nakuru Town. The financial characteristics that highly contributed to the creditworthiness include their cash flows, profitability and asset structure.

Commercial banks highly relied on credit information sharing with other financial institutions to determine the SME creditworthiness. However, relationship baking provided richer information about the customer as opposed to information bureaus. Although credit information sharing was meant to enhance SME access to credit by reducing reliance on collateral, the practice locked out more SMEs from accessing loans from commercial banks in Nakuru Town based on their credit facilities obtained in other institutions and their previous loan repayment patterns which influenced their score.

The Central Bank regulations were introduced to enhance SME access to credit, and minimize exploitation from high interest rates by commercial banks. However these guidelines have not yet translated to enhancing SME access to credit by enhancing their creditworthiness in the mainstream commercial banks in Nakuru.

5.4 Recommendations

In light of the above conclusions, the study recommends that:

Based on the negative impact of the ownership structure of SMEs on their creditworthiness, commercial banks should develop a guideline for their SME clients outlining their criteria for determining ownership characteristic and their respective scores. This will enable SMEs to develop themselves on these parameters to enhance their ability to access credit in commercial banks.

According to the commercial banks, the financial performance of SMEs contributed significantly in determining their creditworthiness. Therefore the study recommends that commercial banks should develop a criteria with the financial parameters of interest in assessing their creditworthiness and the nature of documentation that would capture and communicate their financial performance correctly.

Commercial banks should develop a training programme for SMEs on credit management to enable them understand how credit information sharing works and the management of credit owed to other institutions. This will enable SMEs to maintain a healthy credit position and enhance their credit scores by doing things in the right way. Commercial banks should also focus more on relationship banking model as it provides better quality information on customers creditworthiness compared to use of information bureaus.

The Central Bank regulations have not been able to enhance the creditworthiness of SMEs in commercial banks in Nakuru Town yet they were developed to facilitate them in accessing credit. The government through the central Bank of Kenya should therefore relook at the gaps emanating from the implementation of guidelines preventing the achievement of their objectives.

5.5 Recommendation for Further Research

Following the findings of the study, there is need for further research to assess the impact of CBK guidelines of 2016 on SME access to credit and the factors contributing to the success CBK guidelines of 2016 in enhancing credit development for the SME sector. This should be done in other Counties within Kenya to try and found out if the same results will be received.

It is recommended that the CBK guidelines on credit period and security should always be followed during analysis of credit worthiness of SME's. The ownership structure of SMEs should always be correctly done or formalized through the correct registrations.

Information sharing on outstanding loans with other financial institutions, loan repayments patterns and default rates should always be highly regarded in determining SME creditworthiness.

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APPENDICES

Appendix I: Introduction Letter

Joash Getabu Ombuna

P.O. Box

Private Bag,

Kabarak

Dear Respondent,

RE: REQUEST FOR YOUR PARTICIPATION IN MY RESEACH PROJECT

I am a final year Master of Business Administration Finance option student at Kabarak University, currently undertaking a research project in partial fulfillment of the requirement of the award of the degree. The research seeks to was to evaluate factors influencing SMEs credit worthiness by commercial Banks in Nakuru Town, Kenya

I will greatly appreciate you sparing some time from your busy schedule and assist in answering the questionnaire attached here with. All information provided will be for solely used for academic purposes and your identity will be treated with a lot of confidentiality.

Thank you in advance for your assistance and cooperation

Yours Faithfully

Joash Ombuna

Kabarak University Student

Introduction

I am Joash Ombuna, a student at Kabarak University taking MBA in Finance. I would wish to request you to provide me with the information as asked by this questionnaire to facilitate in the completion of an academic research titled: **Evaluation of Factors Influencing Small and Micro Enterprises' Credit Worthiness by Commercial Banks in Nakuru Town, Kenya.**

Any information provided will be treated with utmost confidentiality for academic purposes only. Your assistance will be highly appreciated.

Instruction:

Please fill in words or by ticking {v} where appropriate.

Section 1: General in formation

1. What is your current age? ……………. Years
2. Select your gender
   a. Male { }
   b. Female { }
3. What is your current position in this Bank?
   a. SME loan/relations officer { }
   b. Credit Manager { }
4. How long have you worked in bank SME credit departments? ……….. Years

Section 2: Firm Ownership

5. Do you consider the ownership of SMEs in determining the credit worthiness of the enterprises?

Yes { } No { }

5. In your own opinion, to what extent is the following parameters considered important in evaluating SMEs for credit. Express your opinion using the weights of 1 – 5 where 1 – not important at all, 2 – less important, 3 – moderate, 4 –Important, 5 – Very important.

Ownership	**5**	**4**	**3**	**2**	**1**
j) Gender of the owner of business					
k) Age of the owner/manager					
l) Previous credit history of the owner					
m)The nature of business registration					
n) Business ownership (sole proprietorship, partnership or limited company)					
o) Education background of the owner					
p) The experience of owners of SMEs in business					
q) Number of shareholders					
r) Nature of ownership (International or local firms)					

6. Are there other ownership factors that are considered in determining the creditworthiness of SMEs in your bank (Please state).

…………………………………………………………………………………………
…………………………………………………………………………………………
………………………………………………………………………………………….

Section 2: Financial Performance of SMEs

7. Is the financial performance of an SME critical to your bank when advancing loans to them?

Yes { } No { }

8. How important are the following financial parameters considered in your bank when determining the creditworthiness of SMEs. Express your opinion using the weights of 1 – 5 where 1 – not important at all, 2 – less important, 3 – moderate, 4 –Important, 5 – Very important.

Financial Performance of SMEs	**5**	**4**	**3**	**2**	**1**
j. Total assets					
k. Asset structure					
l. Cash flows					
m. Profitability					
n. Projected future profits					
o. Tax liability					
p. Capital structure					
q. Debt level					
r. Size of the business					

9. Are there other financial performance indicators used in determining the credit worthiness of SMEs in your bank (Please Specify)

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

Section 3: Credit Information Sharing

10. To what extent has your bank embraced credit information sharing in evaluating the creditworthiness of SMEs?

Very large extent { } Large extent { } Moderate extent { }

Low extent { } Very low extent { }

11. To what extent does your bank consider following information about SMEs important when assessing their creditworthiness. Express your opinion using the weights of 1 – 5 where 1 – not important at all, 2 – less important, 3 – moderate, 4 – Important, 5 – Very important

Credit Information sharing	**5**	**4**	**3**	**2**	**1**
h. Outstanding loans					
i. Loan repayments patterns					
j. Payments of statutory fees					
k. Payment of bills					
l. Default					
m. Payment of personal bills					
n. Payment of taxes					

12. State any other information obtained from credit reference bureaus concerning SME customer creditworthiness.

…………………………………………………………………………………………

…………………………………………………………………………………………

13. Do you consider the use of relationship banking in obtaining information about the customer?

Yes { } No { }

13. If Yes Comparing the use of credit reference bureaus information and relationship banking which one provides more accurate information on the credit worthiness of SMEs?

Relationship Banking { }

Credit Reference Bureaus { }

14. Cite reasons for your choice above.

…………………………………………………………………………………………

…………………………………………………………………………………………

Section 4: Central Bank Regulations

15. Are Central Banks' guidelines clear on SME Banking?

Yes { } No { }

16. Do you consider CBK guidelines on SME Banking to work in favor of SMEs enhanced access to credit or not?

In favor { } against { }

17. Please provide a brief explanation on your choice above.

…………………………………………………………………………………………

…………………………………………………………………………………………

18. In your own opinion to what extent are the following aspects considered important in the CBK regulations when assessing SME creditworthiness. Express your opinion using the weights of 1 – 5 where 1 – not important at all, 2 – less important, 3 – moderate, 4 –Important, 5 – Very important

Central Bank Regulations	**5**	**4**	**3**	**2**	**1**
g. Interest rates					
h. Documentation					
i. Lending period					
j. Credit information					
k. Credit risk					
l. Security					

Section 5: SME Credit Worthiness

19. What is the current loan portfolio allocated to SMEs in your Bank ________ Percent

20. What kind of loans do SMEs mostly seek for from your Bank?

Working Capital loans { }

Asset financing { }

Personal loans { }

21. In your view how would your rate the SME lending in your Bank based on the following parameters?

	Very High	High	Average	Low	Very Low
e. Number of new loan applications					
f. Number of loan application successfully accepted and approved					
g. Number of loan applications rejected					
h. Credit absorption rate					

Thank You for the information

God Bless You

Appendix II: List of Commercial Bank Branches in Nakuru

1. Kenya Commercial Bank 1896
2. Equity Bank 1984 (originally)
3. Barclays Bank 1916
4. Standard Chartered Bank 1911
5. Cooperative Bank 1872
6. Commercial Bank of Africa 1962
7. Diamond Trust Bank 1945
8. Bank of Africa Kenya 2004
9. Eco Bank 2005
10. Family Bank 1984
11. CFC Stanbic Bank 2007
12. NIC Bank 1959
13. I&M Bank 1974
14. Housing Finance Bank 2010
15. National Bank 1968
16. Bank of Baroda 1953
17. Bank of India 1953
18. African Banking Corporation (ABC) 1984
19. Jamii Bora Bank 1999
20. Citibank N.A Kenya 1974
21. Consolidated Bank 1989
22. Credit Bank 1986
23. Development Bank 1963
24. Fidelity Bank 1988
25. Guardian Bank 1992
26. Transnational Bank 1984
27. Oriental Commercial Bank 2002
28. Gulf Africa Bank 2006
29. First Community Bank 2007
30. Equatorial Bank 1983
31. Giro Commercial Bank 1993
32. Sidian Bank 1985
33. Habib Bank Ltd. 1946
34. Victoria Commercial Bank 1987

Source: Central Bank of Kenya annual report (2018)