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

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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 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. 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. The findings of the study were that the firm ownership, financial performance and credit information sharing had statistically significant relationship with credit worthiness while CBK guidelines didn’t. 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

I. INTRODUCTION

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
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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. 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.

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.

II. RESEARCH OBJECTIVES

(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

III. RESEARCH HYPOTHESES

The following research hypotheses were utilized for the study;

(i) \( H_{01} \): Firm ownership has no statistically significant influence on credit worthiness of SMEs in commercial banks in Nakuru Town, Kenya
(ii) \( H_{02} \): Firm financial performance has no statistically significant influence on credit worthiness of SMEs in commercial banks in Nakuru Town, Kenya
(iii) \( H_{03} \): Credit information sharing has no statistically significant influence on credit worthiness of SMEs in commercial banks in Nakuru Town, Kenya
(iv) \( H_{04} \): Central Bank regulations has no statistically significant influence on credit worthiness of SMEs in commercial banks in Nakuru Town, Kenya

IV. LITERATURE REVIEW

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 (González, 2007).

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 for women 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.

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.
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 (2001) 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...
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.

**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 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.

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. 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.

**V. RESEARCH METHODOLOGY**

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 target population for the study comprised of credit officers SME sections 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. 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. 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 ($\chi^2$) 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.

**VI. RESEARCH FINDINGS AND DISCUSSIONS**

**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 1.

**Table 1: Model results**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted Square</th>
<th>R Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.663&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.439</td>
<td>.398</td>
<td>.70892</td>
</tr>
</tbody>
</table>

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 1 shows 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 2: ANOVA<sup>b</sup>**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>21.268</td>
<td>4</td>
<td>5.317</td>
<td>10.580</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>27.138</td>
<td>54</td>
<td>.503</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>48.407</td>
<td>58</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 2, 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 3.
Table 3: Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Co linearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>3.084</td>
<td>1.719</td>
<td>1.794</td>
</tr>
<tr>
<td>ownership</td>
<td>-.526</td>
<td>.195</td>
<td>-.286</td>
</tr>
<tr>
<td>Financial performance</td>
<td>1.588</td>
<td>.321</td>
<td>.547</td>
</tr>
<tr>
<td>Credit information sharing</td>
<td>-1.521</td>
<td>.287</td>
<td>-.603</td>
</tr>
<tr>
<td>CBK guidelines</td>
<td>.116</td>
<td>.228</td>
<td>.054</td>
</tr>
</tbody>
</table>

The regression coefficients in Table 3 shows that β = -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 β = 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 $\beta = 0.116$, $p > 0.05$ 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 multicollinearity 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).

VII. CONCLUSION OF THE STUDY

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 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. 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. 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.

VIII. RECOMMENDATIONS OF THE STUDY

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.

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