

**INFLUENCE OF COMMERCIAL BANK CHARACTERISTICS ON  
LENDING APPROACHES TO SMALL AND MEDIUM  
ENTERPRISES IN KENYA**

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## **DECLARATION**

This research project is my original work and has not been presented for an award in any other university.

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## **DEDICATION**

This research project is dedicated to my parents James and Mary Mbiti who tirelessly fought against the economic hurdles of this world to see their son attain quality education, my wife Faith Kavata who in the most trying times of this world remained on my side providing support and encouragement and my young son Liam Makau who gives the motivation and drive to keep on pursuing my dreams.

## TABLE OF CONTENTS

<b>DECLARATION.....</b>	<b>ii</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>iii</b>
<b>DEDICATION.....</b>	<b>iv</b>
<b>TABLE OF CONTENTS .....</b>	<b>v</b>
<b>LIST OF TABLES .....</b>	<b>vii</b>
<b>LIST OF FIGURES .....</b>	<b>viii</b>
<b>ABSTRACT.....</b>	<b>ix</b>
<b>ACRONYMS .....</b>	<b>x</b>
<b>DEFINITION OF TERMS.....</b>	<b>xi</b>
<b>CHAPTER ONE: INTRODUCTION .....</b>	<b>1</b>
1.1 Background of the Study .....	1
1.2 Problem Statement .....	5
1.3 Research Objectives .....	7
1.4 Research questions .....	7
1.5 Study Justification .....	7
1.6 Scope of the study .....	8
1.7 Limitations and delimitations of the study .....	8
<b>CHAPTER TWO: LITERATURE REVIEW.....</b>	<b>9</b>
2.1 Introduction .....	9
2.2 Theoretical Review .....	9
2.2.1 Relationship Lending Theory .....	9
2.2.2 Organization Architecture Theory .....	10
2.3 Empirical Review .....	11
2.3.1 Bank Size.....	11
2.3.2 Organization structure .....	14
2.3.3 Bank ownership .....	16
2.4 Overview of Literature .....	19
2.5 Conceptual framework .....	20
<b>CHAPTER THREE: RESEARCH METHODOLOGY .....</b>	<b>22</b>

3.1 Introduction .....	22
3.2 Research design.....	22
3.3 Definition and measurement of variables.....	22
3.4 Target population .....	23
3.5 Sample size and data .....	23
3.6 Data collection procedures .....	24
3.7 Data Analysis Procedures .....	24
<b>CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSION .....</b>	<b>26</b>
4.1 Introduction .....	26
4.2 Response Rate .....	26
4.3 General Information .....	26
4.3.1 Respondents position in the bank .....	26
4.3.2 Years working at the bank .....	27
4.3.3 Assets Owned by the bank.....	28
4.3.4 Ownership of the bank.....	28
4.4 Factors Considered in lending to SMEs.....	30
4.7 Regression Results .....	31
<b>CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS</b>	<b>35</b>
5.1 Introduction .....	35
5.2 Summary of Findings .....	35
5.3 Conclusions .....	36
5.4 Recommendations .....	37
5.5 Recommendations for Further Research.....	38
<b>REFERENCES.....</b>	<b>39</b>
<b>APPENDICES .....</b>	<b>43</b>
Appendix 1: List of commercial banks serving SMEs in Kenya .....	43
Appendix 2: Questionnaire to Bank Officials .....	44
Appendix 3: University permission to collect data letter.....	47

## LIST OF TABLES

Table 3.1: Definition and Measurement of Variables.....	23
Table 4.1: Respondents' Position .....	27
Table 4.2: Assets Owned by the bank.....	28
Table 4.3: Ownership of the banks .....	28
Table 4.4: Length of Time Banks have served SMEs .....	29
Table 4.5: Factors considered in lending to SMEs .....	30
Table 4.6: Model Summary .....	31
Table 4.7: Analysis of Variance.....	32
Table 4.8: Significance of Independent variables.....	32

## **LIST OF FIGURES**

Figure 2.1: Graphical presentation of the conceptual framework.....	21
Figure 4.1: Years Employee had worked in the Bank .....	27
Figure 4.2: Where Decisions of SMEs are Made .....	29

## ABSTRACT

Banks use various approaches to lend to SMEs. Among others, two main lending approaches used to finance small- and medium-sized enterprises (SMEs) can be primarily distinguished by the type of information that a bank uses in granting and monitoring the loan. On the one hand, transaction-based lending approaches are primarily based on borrowers' hard quantitative information, such as the strength of the financial statement or the value of their assets, which are relatively easy to document and transfer. On the other hand, relationship lending is extended primarily based on borrowers' soft qualitative information, such as the entrepreneurs' characteristics including skill and integrity, which are difficult to verify. It is not quite known how, and to what extent, bank characteristics influence the choice of lending approach used by banks to finance SMEs. Using data from a survey on banks serving primarily SMEs in Kenya, the study investigated how bank size, organization structure and ownership structure influences the choice of different lending approaches which are utilized in lending to SMEs. The targeted population was the 44 commercial banks in Kenya. Sample size was 18 commercial banks that served SMEs. Respondents were 4 employees involved in SME lending from each of the 18 commercial banks. Questionnaire method was used to collect data. Secondary sources of data were also used to get information on bank classifications in Kenya. The study utilized descriptive statistics and regression analysis to analyze the collected quantitative data. Study findings indicated that size of a bank is significant in predicting the choice of lending technology in a bank. Large banks relied more on hard information than small banks. The findings further reveal that organizational structure had significant effect on the lending approach applied by commercial banks when lending to SMEs. Banks that made their lending decisions in the head office were more inclined to rely on hard information. However, the study results indicated that ownership of a bank is not a significant predictor of choice of lending technology. The following recommendations are made. First, the government should support small banks through regulatory and tax incentives so that access to finance by opaque SMEs is enhanced. Secondly, should decentralize their lending decisions to ensure that they have a more responsive structure to respond to the credit needs of SMEs. Lastly, small banks should invest in infrastructure and human resources so that they are not disadvantaged in processing hard as well as the soft information for SME lending.

## ACRONYMS

<b>CBK</b>	Central Bank of Kenya
<b>FOB</b>	Foreign Owned Bank
<b>LOB</b>	Locally Owned Bank
<b>SACCO</b>	Savings and Credit Co-operative
<b>SME</b>	Small and Medium Enterprise

## DEFINITION OF TERMS

**Bank characteristics** – These are main micro or macro features of a bank that influence its decision making or operations.

**Hard information** – This includes verifiable data and knowledge about the SME including financial information, collaterals, assets and credit rating of the SME.

**Informationally opaque** – Having very little or no verifiable data and knowledge in regard to the financial, management, credit and corporate performance.

**Local investor** – This is a Kenyan shareholder either an individual or corporate entity. (Kenyan citizen or incorporated in Kenya respectively)

**Relationship lending** - Provision of credit by a commercial bank on the basis of long-term relationship with the customer after obtaining firm-specific information or borrower-specific information through multiple interactions with the customer.

**Soft information** – This is information about an SME that cannot be verifiable such as feelings, perceptions, opinions and values which are often the key to the business success or failure.

# CHAPTER ONE

## INTRODUCTION

This chapter presents the background information relating to commercial bank characteristics and lending to small and micro enterprises (SMEs) and also presents the problem statement. Further the chapter presents the research objectives, research questions, study justification and scope of the study. Lastly, the chapter discusses the limitations and delimitations of the study.

### 1.1 Background of the Study

The term small and micro enterprise (SME) encompasses a broad spectrum of definitions across countries and regions. Governments, international organizations, and financial institutions deploy an array of guidelines to define what constitutes a SME—based on the number of employees, sales, assets, or a combination of factors. Definitions also vary between countries, largely depending on geographic location and the size and scope of a nation's economy. In Kenya the Micro and Small Enterprises (MSE) 2012 Act defines a Micro Enterprise as a business that has less than Ksh.5million invested in it, or has sales of less than Ksh.500,000 a year, or has 1 – 9 people working in it. A Small Enterprise is a business that has sales of between Ksh.500,000 – Ksh.1million a year, or has 10–50 people working it.

SMEs play a major role in economic development in every country. Studies indicate that in both advanced economies and developing countries SMEs contribute on average 60 percent of total formal employment in the manufacturing sector (Ayyagari, Beck and Demirguc-Kunt, 2007). For African economies, the contribution of the SME sector to job opportunities is even more important. Taking into account the contribution of the informal sector, SMEs account for about three-quarters of total employment in manufacturing (Ayyagari et al., 2007). SMEs have the potential to contribute significantly to economic growth and poverty reduction through increased production and employment.

A crucial element in the development of the SME sector is access to finance, particularly to bank financing, given the relative importance of the banking sector in serving this segment. As regards extending financing to SMEs, banks have an important role to play in Sub-Saharan Africa due to their dominance in the financial systems and the limitations of informal finance, especially as regards serving the higher end of the SME market (Ayyagari et al, 2007). Other external financing options such as corporate bond and organized securities markets are typically only accessed by larger firms requiring longer-term funding (Beck, Demirguc-Kunt and Martinez, 2008).

Research has shown that access to external finance is the most significant factor contributing to the growth of SMEs (Mason and Brown, 2013). Furthermore, the majority of SMEs have been found to be heavily dependent on bank finance (Norton, 2013) and Kenyan SMEs are not an exception. In comparison to other African countries, Kenya is highly ranked for availability to entrepreneurs of informal finance sources but scores weakly for formal, institutional forms of investment. Generally, Kenyan SMEs are heavily dependent on both formal and informal sources, in particular bank finance.

Bank characteristics are the main micro or macro features of a bank that influence its decision making or operations (Wu, Chen and Shiu, 2012). These features include factors such as capitalization, size, age of the bank, ownership of the bank, and the internal organization of the bank among others. The characteristics that are included in this study are size, organization structure and ownership structure.

Size of an organization indicates the asset or capital base of the organization where an organization can be classified as small, medium or large. Organization size can hence be defined as a structural property (like degree of formalization) or a contextual variable (like demand). It is a property at the interface between internal structures and the environment. Often it is treated as an independent variable that shapes and determines other structural variables. Size often characterizes the scale of the work being conducted by the organization (Shimizu, 2012).

Size is measured in several ways, floor space, sales volume, clients served, net assets, capital base, number of employees and other such variables. Most common is the number of employees, which is often most relevant in dealing with structural properties and work output. For banks, size of a bank is measured using capital contribution or asset base of the commercial banks. In Kenya, commercial banks are classified by the Central Bank of Kenya in relation to market valuation of each bank into Tiers (CBK, 2015). According to CBK (2015) Tier 1 are banks with assets over 25 billion shillings while Tier 2 are those with assets of 6 – 24.9 billion. Tier 3 includes those banks with assets below 6 billion shillings.

Organizational structure depicts that explicit and implicit institutional rules and policies designed to provide a structure where various work roles and responsibilities are delegated, controlled and coordinated. Organizational structure also determines how information flows from one level to another within the company (Mian, 2006). An organization structure depends on the organization's objectives and strategy. An organization can either be centralized or decentralized. In a centralized structure, the top layer of management has most of the decision making power and has tight control over departments and divisions. In a decentralized structure, decision making is delegated to the lower levels of management. In a bank with a centralized structure, decision making about lending is expected to be made in the head office while a bank with decentralized structure some decision will be made in the branch (Berger and Black, 2011).

The ownership structure is defined by the distribution of equity with regard to votes and capital but also by the identity of the equity owners. These structures are of major importance in corporate governance because they determine the incentives of managers and thereby the economic efficiency of the corporations they manage (Jensen and Meckling, 1976). In a bank, ownership structure relates to what percentage of the bank is locally owned and what is foreign owned. Depending on the percentage of local or foreign ownership, a bank can be referred to as foreign owned or locally owned.

The importance of ownership structure is evident in the fact that corporate governance and the ownership structure of companies is currently characterized by change processes as the economies of the world become more and more globally integrated. Ownership structures are also of major importance in corporate governance because they affect the incentives of managers, and thereby the efficiency of firms. The ownership structure also affects the decisions made in an organization. Ownerships structure of a bank is expected to affect investments decisions, lending decisions, capital structure decisions and other major decisions and policies in the bank (Holmstrom and Tirole, 2013).

The current research paradigm in small business lending emphasizes the advantages of large banks in lending to large, informationally transparent firms and the advantages of small banks in lending to small, opaque firms (Beck, Demirguc-Kunt and Martinez, 2011). In this paradigm, loan officers at large banks are hypothesized to focus on lending to large, transparent firms using their comparative advantages in lending technologies based primarily on “hard” quantitative information that the loan officers may credibly communicate to others in the bank – such as financial ratios from certified audited financial statements, collateral values, and credit scores. Loan officers at small banks have more flexibility to evaluate credit using techniques based primarily on “soft” qualitative information that is difficult to quantify and communicate by the loan officers – such as personal knowledge about the subjective circumstances of the firm, its owner, and its management (Shimizu, 2012).

Recent academic work on SME financing has also argued that some types of banks may have comparative advantages in different lending approaches based on factors such as their organizational structure (for example Stein, 2002 and Berger and Udell, 2006). The allocation of control within organizations shapes agents’ incentives (Stein, 2002), for example, shows that a centralized hierarchical bank offers greater incentives to employ information that is easy to communicate and store within an organization – that is “hard” information – whereas, in contrast, a decentralized bank provides an environment

advantageous to “soft” information. Hasan, Jackowicz, Kowalewski and Kozłowski (2014) observes that local cooperative banks lend more to small businesses than do large domestic banks and foreign-owned banks, even when controlling for the financial situation of the cooperative banks. Additionally, they note that cooperative banks provide loans to small businesses at lower costs than foreign-owned banks or large domestic banks. Finally, the authors posit that small and medium-sized firms perform better in counties with a large number of cooperative banks than in counties dominated by foreign-owned banks or large domestic banks. However, mostly due to the lack of appropriate data, the commercial bank characteristics that determine lending to SMEs are extremely limited. This motivated this study.

## **1.2 Problem Statement**

In most countries, financing to SMEs is important because SMEs provide more than two-thirds of employment (Narteh, 2013). However, because of the high auditing expenses, SMEs usually cannot afford to hire qualified auditors, which makes their financial reports suspicious and creates information asymmetries between insiders and outsiders. Despite their importance, SMEs have difficulty securing financing from banks. Shen, Chu and WangBeck (2013) report the perception that SMEs lack adequate external financing, especially if they are in countries with poor institutions. In addition, SMEs are less able to replace bank financing with other sources of external financing when facing financial constraints.

Owing to the strong positive association between SME development and economic growth, the great opportunities SMEs present to banks, policymakers and economists pay considerable attention to SME lending. Banks intending to exploit the financing opportunity provided by SMEs need to understand the lending approaches used to successfully serve SMEs and what influences their choice. In literature, studies typically compare the lending behavior of foreign-owned banks (FOBs) and locally owned banks (LOBs). Results are mixed. Some find that FOBs provide relationship SME lending more than do local banks (Nkundabanya, Kasozi, Nalukenge and Tauringana, 2014).

Agostino, Gagliardi, and Trivieri (2014) indicate that during the crisis periods of 2009 to 2013, domestic banks contracted their credit and practiced arms length lending approach, whereas Greenfield FOBs kept their credit base stable in ten Central and East European countries and related more to SMEs. While many studies compare the lending behavior of LOBs and FOBs, there are mixed results. This study sought to fill this gap.

Further, due to the opaqueness of SMEs, that is the challenges associated with ascertaining the reliability of information provided, small banks applying relationship lending are deemed better equipped to lend to SMEs (Ono, Hasumiand Hirata, 2014). Beck et al. (2011) indicated that large banks lend to SMEs effectively by using arms-length approach and centralized organizational structures. However, other studies have established that bank size or organization structure do not influence the type of lending approach (Dai and Bonfim, 2012). Another study by Nguyen, Le and Freeman (2014) established that large banks grant at least as many relationship loans as small and medium banks do. Bartoli, Ferri, Murro and Rotondi (2012), reporting the results of an Italian survey conducted by the Bank of Italy in 2007, illustrated that medium and large banks do use soft information in their credit scoring models. Owing to the fact that finding from these studies contradict, this study will investigate the position in Kenya.

Another determinant of the choice of lending approach is the bank's organization structure. McNulty, Murdock and Richie (2014) revealed that a centralized hierarchical bank uses hard information while lending to SMEs with decentralized banks preferring soft information. There was a dearth of studies on this aspect which made this study justified. Most of the reviewed studies were not local. This study therefore served the purpose of investigating the factors that influence the choice of lending approaches used by commercial banks in Kenya to finance SMEs.

### **1.3 Research Objectives**

#### **1.3.1 General Objective**

The broad research objective was to investigate how bank characteristics influence the choice of lending approaches used by commercial banks in Kenya to finance SMEs.

#### **1.3.2 Specific Objectives**

Specifically the research sought to:

- (i) Examine the effect of the size of bank on the choice of lending approach.
- (ii) To find out the effect of bank organization structure on the choice of lending approach.
- (iii) Establish how ownership structure affects the choice of lending approach.

### **1.4 Research questions**

Broadly the question was how bank characteristics influence the choice of lending approaches employed by banks in Kenya in SME financing.

Specifically the questions were;

- (i) What is the effect of the size of a bank on the choice of lending approach?
- (ii) What is the effect of the bank organization structure on the choice of lending approach?
- (iii) How does a bank's ownership structure affect its choice of lending approach?

### **1.5 Study Justification**

The knowledge gained from this research will assist various parties as follows: Banks will use this information as one of the reference points while developing new lending products to serve the SME sector in Kenya. In addition, SMEs in Kenya will have an understanding of the lending approaches banks use when financing them and use this information to properly position themselves and/or in choosing a bank for their business. This will increase their chances of accessing the highly required finance. Also, policy makers in government will understand the capacity building needs for SMEs and other

policy implications on SME financing in Kenya. For example, if SME lending by small banks is technologically different from that by large banks, it may be advisable to promote the small bank sector through legal, regulatory or tax initiatives. Finally, it will add the body of knowledge on SME financing for academicians and any other relevant parties

### **1.6 Scope of the study**

The study covered the current lending approaches being employed at the time of the study. The planned period of the study was up to December, 2015. The study only covered the licensed banks in Kenya and those serving the SME sector. Other financial institutions like micro finances and Savings and Credit Co-operative societies (SACCOS) were not included in the study.

### **1.7 Limitations and delimitations of the study**

Some of the limitations included; the study assumed that the respondents gave true and honest answers. Some of the banks were unwilling to divulge their strategies to avoid replication by competitors. To mitigate this limitation the respondents were assured that their responses in the questionnaires were to be held confidentially. This was meant to provide comfort to the banks in sharing their information, with the understanding that data was to be presented in an aggregate way, without disclosing each bank's position or strategy.

Another limitation was the time taken to undertake the study. The study took approximately two months which was not ample to get all the information required from all the banks. The time also limited the number of respondents in banks who were surveyed. However, with the study focusing on banks primarily serving SMEs, the available time was sufficient to undertake the study.

The last limitation of the study was with the ever changing business environment, some of the current proven strategies may not work in the future. However, with the largely untapped opportunities in the SME sector and relatively stable needs of the sector, these strategies will still be applicable in the future.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter analyses previous studies done on lending approaches used by banks to lend to SMEs. It reviews determinants of lending approach, looks at the overview of literature lastly the conceptual framework.

#### 2.2 Theoretical Review

This study as with any credible research was based on a sound theoretical basis. A theoretical basis was used to provide the design and the explanation on how lending to SMEs may be affected by commercial bank characteristics. The study was based on the relationship lending theory and the organizational architecture theory.

##### 2.2.1 Relationship Lending Theory

The theory of relationship lending was developed by Lummer and Mc Connell (1989). The theory posits that banks and other financial intermediaries can reduce market frictions, information asymmetry and agency costs by analyzing enterprise information and using it for credit decision-making. The theory further postulates that banks should make a long-term investment in information production of borrowing enterprises as well as improving the bank-enterprise relationship which could create value. In support of the theory, Berger and Udell (2006) noted that relationship lending existed when three conditions were met: firstly, correspondent banks obtained the private information rather than public information; secondly, banks collected private information by maintaining long-term, diverse financial services contacts with borrowers; thirdly, after correspondent banks get the information, they would maintain secrecy to make it still private.

Relationship lending is defined in the theory as the credit decisions based on the information of enterprises and business owners (soft information) that are accumulated through long-term and multi-channel contacts (Beck et al., 2011). The basic premise of relationship lending is that companies and banks keep a continuous, closed trading

relationship. Unlike the easily encoded, quantized and transitive “hard information”, such as corporate financial statements, asset collateral and bank credit scoring techniques, soft information has a strong personification tendency, which is obtained by accumulation in long-term and multi-channel contacts between loan officers and business owners rather than by public market channels.

In relations to relationship lending, the theory posited that there existed a “Small Bank Advantage” when concerning comparative advantages of relationship lending for small businesses. According to the theory relationship lending, with such characteristics as less organization structures, shorter information delivery chains and lower agency costs, small and medium sized financial institutions possess the advantage of getting soft information with low financing costs (Lummer and Mc Connell, 1989).

### **2.2.2 Organization Architecture Theory**

Organizational architecture theory is an extension of positive agency theory and was developed by Johnson (1976). This theory attempts to study the basis of the ground rules that apply inside organizations. It justifies the existence of control systems on the basis of a study of decision-making rights, and particularly how they are divided within the organization and the fact that they can be revoked.

Jensen and Meckling (1992) stress the crucial role of soft information, its influence on the organization of the market and the firm, and the notion of organizational complexity defined by the transfer of this soft information. They propose organizational mechanisms to solve problems of control in organizations in the absence of inalienable decision-making rights. The ground rules proposed are defined by three subsystems on which organizations are based which must combine well together if the organization is to achieve an acceptable level of performance: the attribution of decision-making rights, systems of control and incentive mechanisms.

The level of organizational efficiency depends on the coherence, complementarity and interdependence of these three subsystems. The decision of a bank to grant a loan to an SME is thus in line with the work done by Jensen and Meckling (1992). Unlike the normative branch of agency theory, different financial decisions are approached from the point of view of organizational architecture theory resulting from the work of these principal founders of positive agency theory.

The current study studied how organizational mechanisms affect the decisional choice devices in a bank. In this context, organizational architecture theory is a unifying framework that enables the study to analyze the effects of mechanisms for the attribution of both decision-making rights in the organization and the choice of control and incentive systems, on SME lending decisions. The decisional choice cannot be studied without an analysis of the organizational characteristics and mechanisms that lie behind it. The study of the decisional process cannot be disassociated from that of the organizational architecture and processes of value creation and distribution. This study analyzed the decisional choice from the organizational point of view. Here the decision is considered as a process within an organization where different hierarchical levels can be in conflict. This approach takes account of several aspects of the organization, in particular, formal organization structure, ownership and size. Hence it highlights the role of the mechanisms that make up a bank's organizational architecture as a determinant of SME lending policy.

## **2.3 Empirical Review**

### **2.3.1 Bank Size**

With regard to the comparative advantages of large versus small institutions, for a number of reasons, large institutions may have a comparative advantage in transactional lending and small institutions may have an advantage in relationship lending. Large institutions may be able to take advantage of economies of scale in the processing of hard information, but be relatively poor at processing soft information because it is difficult to quantify and transmit through the communication channels of large organizations (Stein,

2002). Relationship lending is assumed to be more feasible with small and niche banks that are not only close enough to monitor the borrower's business, but also small enough to incorporate soft information into lending decisions, while large banks, on the other hand, might find it harder to handle and pass on such soft information, as they rely on more complex and hierarchical decision systems (Berger and Udell, 1995; Strahan and Weston, 1996).

Thanks to customer proximity, to a widespread presence in local markets often characterized by a lower competitive emphasis, to frequent exchanges of information and high social interaction between the loan officer and the customers served, small banks have a competitive advantage to manage firms with greater information opacity. This may give a comparative advantage in relationship lending to small institutions with fewer layers of management (Berger and Udell, 2002). Berger and Udell (2006) argue that large institutions deliver credit to many types of opaque SMEs through the transactions lending approaches that specifically address problems of informational opacity using hard information. For small business credit scoring, large institutions use hard information on the SME and/or its owner obtained from credit bureaus to infer future loan performance. For asset-based lending, these institutions use valuations of the assets pledged as collateral to evaluate repayment prospects. Moreover, for factoring, they focus on the quality of the accounts receivable purchased while for fixed-asset lending and leasing, large institutions look to the valuations of the fixed assets that are pledged as collateral (fixed-asset lending) or directly owned by the institution (leasing). Thus, when informative financial statements are not available, institutions are often able to use other types of hard information to assess repayment prospects.

A study by Shen, Xu and Bai (2009) in China established that bank size is an insignificant factor for banks' decision on SME lending, but lending authority, bank competition, incentives of loan officers, and law enforcement encourage commercial banks to lend to SMEs. However, a study by Ono, Hasumi, and Hirata (2014) indicated that due to the opaqueness of SMEs, that is the challenges associated with ascertaining the reliability of

information provided, small banks apply relationship lending and hence are better equipped to lend to SMEs. Another study by Beck et al. (2011) indicated that large banks lend to SMEs effectively by using arms-length approach while small banks are more inclined towards relationship lending. This study therefore indicated that size of a bank had a significant relationship with lending approach to SMEs. However, a study by Dai and Bonfim (2012) agreed with the findings by Shen et al. (2009) that bank size does not influence the type of lending approach applied by banks while lending to SMEs.

Dai and Bonfim (2012) examined two dimensions of bank lending specialization: the firm-size specialization and the lending approach specialization in Portugal. Through a comprehensive descriptive analysis of the credit market, they found that large banks' loan portfolios focus on larger firms, while small and medium banks' lending practices concentrate more on medium firms. However, the composition of loan portfolios by lending approaches is largely similar among banks of various sizes. In contrast to the predictions of the past research paradigm, findings showed that large banks grant at least as many relationship loans as small and medium banks do. Furthermore, they find that the banks that dedicate the highest proportion of their loans to transaction lending are the smallest ones. Their loans to large firms are dominated by transaction lending, probably as a result of their lack of capacity to be the main relationship lender to such firms. Another study with similar findings was by Nguyen, Le and Freeman (2014) who established that large banks grant at least as many relationship loans as small and medium banks do.

Cole, Goldberg and White (2004) found that small American banks invest more in relationship lending whereas large lending institutions turn more and more to transactional lending. These results are confirmed by the work done by Carter, McNulty and Verbrugge (2004) which shows that small American banks obtain a better yield from SME lending than bigger banks; this in turn explains the greater volume of their SME loans. The results of previous research demonstrate that large banks mainly grant loans to transparent companies with a long history that are solvent and present less risk (Cole et

al., 2004). These banks also prefer to lend to companies that are able to diversify their funding sources (Berger et al., 2001).

### **2.3.2 Organization structure**

Organization structure in the bank is another factor depicted to affect lending to SMEs. Organization structure determines the number of decision making levels in the bank and hence the complexity of decision making and passing on information. In order to respect the principle of organizational efficiency (Jensen and Meckling, 1992) it is necessary to reduce the cost of transferring soft information. In a complex structure, the loan officer has to work with several hierarchical levels. The difficulties these officers encounter in justifying the credibility of such information results is a reduction of their efforts to collect, process and transfer soft information. This leads to a decrease in the loan officer's performance (Stein, 2002). Therefore banks that opt to lend to opaque SMEs need an appropriate hierarchical structure to enable soft information and decision-making rights to be located in the same place. To resolve the problem of the cost of soft information transfer and to reduce the information gaps that result from it, Berger and Udell (2002), Liberti (2003) and Takats (2004) propose that decision-making rights should be decentralized towards small business loan officers. A centralized structure is less costly but results in fewer loans to opaque SMEs since it encourages the use of hard information.

According to Aghion and Tirole (1997), increasing an agent's formal authority increases both his initiative and the efforts he makes. This is observed particularly in cases where the agent is interested in results and not only in the efforts made. According to Liberti (2003), giving more autonomy to loan officers has several positive effects on bank-company relations. The author finds that there is an increase in the amount of time given to clients, an increase in effort perceived by borrowers and a reduction in the number of complaints. At the same time this increase in autonomy results in better perception of their own efforts by loan officers. It also implies that soft information is better utilized, since this has a direct result on individual results. Similarly, Shen et al. (2009) find that in their sample of Chinese banks there is a positive link between the use of soft information,

the amount of SME lending and the decentralization of decision-making rights in favor of loan officers. Moreover, Stein (2002) shows that a centralized hierarchical bank offers greater incentives to employ information that is easy to communicate and store within an organization that is “hard” information – whereas, in contrast, a decentralized bank provides an environment advantageous to “soft” information. Petersen and Rajan (2002) document that banks that rely more on hard information communicate in more impersonal ways with their borrowers. Hence, the bank’s mode of organization influences the lending approach employed. Large banks with many hierarchical levels are considered to have comparative advantages in hard approaches because they have economies of scale in the processing and transmission of hard information, and may be better able to quantify and diversify the portfolio risks associated with hard-information loans. Conversely, large banks may be disadvantaged in processing and transmitting soft information through the communication channels of large organizations (Stein, 2002).

Lending based on soft information may also be associated with agency problems within the financial institution because the loan officer is the main repository of the information, giving a comparative advantage to small institutions with fewer layers of management (Berger and Udell, 2002) or less hierarchical distance between the loan officer and the manager that approves the loans (Liberti and Mian, 2009). In such a context, branch managers of decentralized banks — who have more autonomy over the adjudication process and the terms of lending — will invest more *ex ante* in processing the soft information inherent in small firms while branch managers in centralized, or hierarchical firms rely much more heavily on ‘hard information’ such as credit scoring models. Therefore, banks with a decentralized lending structure will have a comparative advantage in lending to young and small businesses with predominantly “soft information” even if larger banks are able to recreate some of the benefits of lending relationships.

A study by McNulty et al. (2014) revealed that a centralized hierarchical bank uses hard information while lending to SMEs with decentralized banks preferring soft information.

Another study by Beck et al. (2011) further indicate that banks with centralized organizational structures lend to SMEs using arms-length approach while those with decentralized structures using the relationship approach. However, these findings disagreed with findings from a study by Dai and Bonfim (2012) which established that bank organization structure do not influence the type of lending approach that the bank uses to lend to SMEs.

### **2.3.3 Bank ownership**

Empirical studies into SME funding by foreign banks compared with local banks find differing results. Some research finds a positive link between lending to local SMEs and the arrival of foreign banks (Berger et al., 2004). Other research, such as that carried out by Beck et al. (2011) using a questionnaire sent to large banks located in 45 countries and the work carried out by Berger et al. (2003), Mian (2006) and De Haas et al. (2010) covering a selection of banks located in Central Asia and the Baltic states, shows that foreign banks grant less credit to opaque SMEs. Similarly, de la Torre et al. (2010) found that in Argentina and Chile private domestic banks are most involved in the SME lending segment.

Berger et al. (2008) shows that for a sample of Indian companies, foreign banks lend more to large, transparent companies belonging to large, foreign, listed groups. Degryse et al. (2012), using information on 110 Polish banks, point to a comparative disadvantage of Greenfield banks in lending to opaque borrowers. The study shows that foreign banks that entered via Greenfield investment devote 14% less of their portfolios to entrepreneurs while they lend over 84% more to private firms than domestic private banks. Indeed, foreign banks have a competitive advantage in the use of standardized assessment techniques and the processing of hard information whereas local banks are more competitive in relationship lending using soft information. In their analysis of cultural and institutional differences, Berger et al. (2001) also find that foreign banks based in other Latin American countries tend to grant more credit to SMEs in Argentina than banks based on another continent.

Unlike local banks, the size and organizational complexity of foreign banks cause them problems in terms of relationship lending (Mian, 2006). Indeed, a greater physical distance between the management of a foreign bank and their agent means agency costs are higher. Moreover, foreign banks are in a location where the linguistic, cultural, institutional and regulatory environments are different (Buch 2003). These differences make the cost of processing local information higher. Therefore subsidiaries and divisions of foreign banks use relationship lending less frequently. They have standardized funding procedures and more prudent risk assessment strategies using hard information (Cole et al., 2004).

Opaque SMEs are more likely to receive credit from local banks than from foreign banks (Mian, 2006). The rationing of credit to local companies can be partly explained by a lack of information. The relationship between the foreign bank and the SME will be a recent one, and personal contacts will still be in their infancy. In such a situation, there will not be enough soft information to assess the risk involved. This lack of information means that there will be a risk of opportunism and moral hazard, which will incite banks to ration lending and increase funding costs. Therefore such banks prefer to work with foreign companies that they already have a long-term relationship with. Indeed, the costs linked to the bank's development of a personal client relationship are high. Moreover, information technology and techniques of information processing and risk assessment can be replicated overseas with lower marginal costs. So companies receive standardized loans based on hard information.

Foreign banks may have more difficulties in processing “soft” information, such as information on the trustworthiness of a potential client, over greater distances and through more hierarchical layers. This may especially be the case if the foreign head office is in a country with a significantly different culture and language. They will therefore prefer to grant most loans on a transaction-by-transaction basis, using standardized decision methodologies. Such methods to assess creditworthiness tend to

use “hard” information such as financial ratios calculated on the basis of firms’ financial statements (Berger et al., 2001).

Foreign banks may also focus more on serving multinational corporations from their home country. Domestic banks, on the other hand, may have a deeper understanding of the local business sector and will be able to base their credit decisions on soft and more qualitative information that is available on local and smaller firms. Small domestic banks may be better suited to collecting such information over time when dealing with smaller clients (Berger and Udell, 1995 and 2002). They may also have a greater commitment to local prosperity (Collender and Shaffer, 2003).

Transaction approaches such as credit scoring that use hard information can be successfully applied to provide credit to opaque SMEs without the need to develop relationships (especially when credit scores are mainly based on the owner’s personal history rather than on information on the SME itself). Similarly, foreign banks may use asset-based lending approaches, in which the bank looks mainly at the underlying assets as the primary source of repayment (Berger and Udell, 2006) rather than at the overall creditworthiness of the borrower. By using such approaches, large and foreign banks may also expand SME credit. Credit scoring may therefore allow foreign banks to lend to SMEs without having to develop relationships in order to extract soft information.

A study by Nkundabanyanga et al. (2014) established that Foreign owned banks provide relationship SME lending more than do local banks. These findings agreed with findings from a study by Agostino et al. (2014) which indicate that during the crisis periods of 2009 to 2013, domestic banks contracted their credit and practiced arm’s length lending approach, whereas Greenfield foreign owned banks kept their credit base stable in ten Central and East European countries and related more to SMEs.

## 2.4 Overview of Literature

The current academic paradigm seems to have reached a consensus. Small banks have comparative advantages in using soft-information approaches to lend to the smallest firms. Loan officers at small banks are hypothesized to have more flexibility to evaluate credit using techniques based primarily on “soft” qualitative information that is difficult to quantify and communicate by the loan officers – such as personal knowledge about the subjective circumstances of the firm, its owner, and its management. In turn, large banks are expected to excel at making fast and cost-efficient evaluations based on “hard” information and grant transaction-based loans to informationally transparent firms (Berger and Udell, 2002; Berger et al., 2005, Uchida et al., 2008, Shimizu, 2012). However, some studies found that large banks also apply relationship lending while some small banks apply transaction based lending approaches (Dai and Bonfim, 2012). Furthermore, they found that the banks that dedicated the highest proportion of their loans to transaction lending were the smallest ones. This study investigated the true position in Kenya.

Stein (2002), for example, shows that a centralized hierarchical bank offers greater incentives to employ information that is easy to communicate and store within an organization – that is, “hard” information – whereas, in contrast, a decentralized bank provides an environment advantageous to “soft” information. And Petersen and Rajan (2002) document that banks that rely more on hard information communicate in more impersonal ways with their borrowers. Hence, the bank’s mode of organization influences the lending approach employed. These studies were done outside Kenya more than 10 years ago. This study investigated if these findings are consistent with current practice in Kenya.

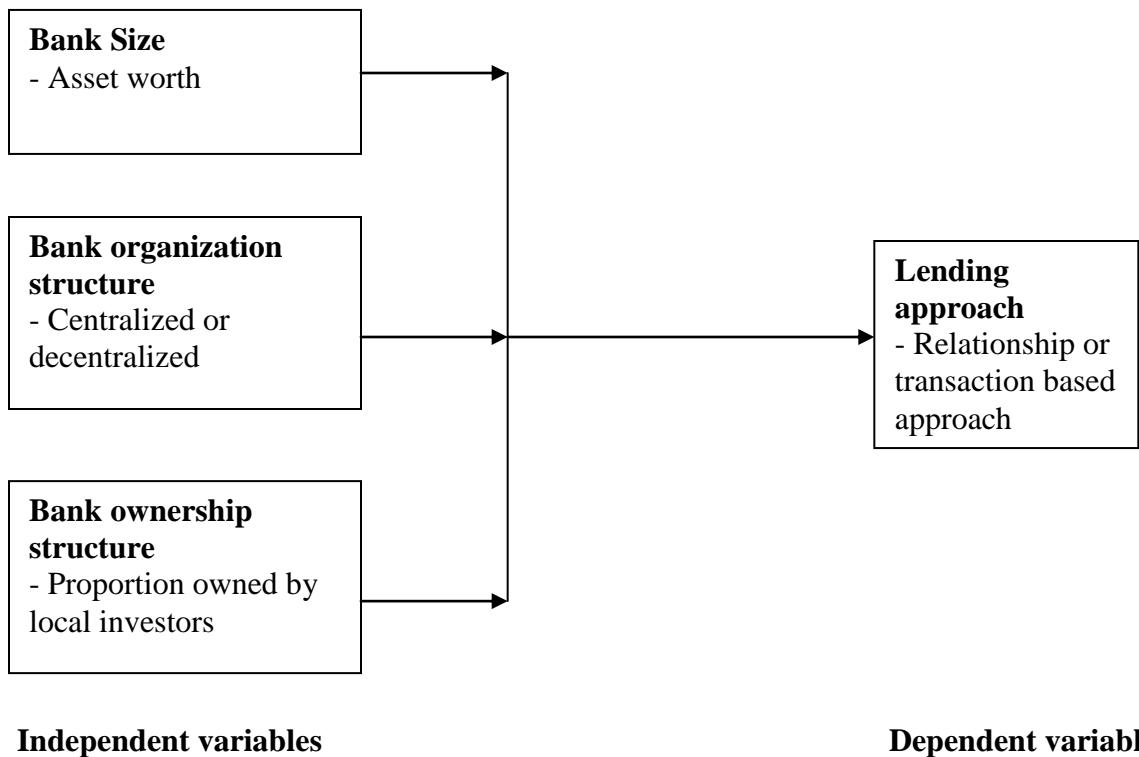
In the case of bank ownership, some studies indicate that foreign banks are more likely to apply arms-length lending approaches (Berger et al. 2001; Mian 2006). Foreign banks may have more difficulties in processing “soft” information, such as information on the trustworthiness of a potential client, over greater distances and through more hierarchical

layers. This may especially be the case if the foreign head office is in a country with a significantly different culture and language. They will therefore prefer to grant most loans on a transaction-by-transaction basis, using standardized decision methodologies. Such methods to assess creditworthiness tend to use “hard” information such as financial ratios calculated on the basis of firms’ financial statements (Berger et al, 2001).

Domestic banks, on the other hand, may have a deeper understanding of the local business sector and will be able to base their credit decisions on soft and more qualitative information that is available on local and smaller firms. Small domestic banks may be better suited to collecting such information over time when dealing with smaller clients (Berger and Udell, 1995, 2002). They may also have a greater commitment to local prosperity (Collender and Shaffer, 2003). In Kenya, most of the foreign banks have been around for a long period of time allowing them to have a deep understanding of the local business sector. This study investigated if these foreign banks apply relationship lending to SMEs.

## **2.5 Conceptual framework**

The study intended to see the influence of bank size, bank organization structure and ownership on the choice of lending approach. The three variables namely bank size, ownership structure and organizational structure were the independent variables while the type of lending approach was the dependent variable.



**Figure 2.1: Conceptual Framework**

## CHAPTER THREE

## RESEARCH METHODOLOGY

### 3.1 Introduction

This chapter discusses research methodology under different sub headings. The methodology in this chapter includes research design, definitions and measurement of variables, target population and sample size and data. The chapter also discusses the data collection procedures and data analysis procedures.

### 3.2 Research design

The research design applied in this study was descriptive design. It typically includes how data was collected, what instruments were employed, how the instruments were used and the intended means for analyzing data collected. This study describes how bank characteristics influence the choice of lending approaches used by banks in Kenya in SMEs financing. Cooper and Schindler (2006) observed that a descriptive study is usually the best method for collecting information that is aimed at demonstrating relationships and describing the situation as it exists. Since this study was seeking to establish the relationship between bank size, organization structure and ownership structure on one hand and lending approach on the other, the descriptive design was well suited for this study.

### 3.3 Definition and measurement of variables

This section presents information on how the variables were defined and also how the variables were measured. Table 3.1 presents this information.

**Table3.1: Definition and Measurement of Variables**

Variable	Definition of variable	Measurement of variable	
Lending approach	unique combination of primary information source, screening and underwriting policies/procedures, loan contract structure, and monitoring strategies/mechanisms	(Use of hard information). Rating from 1 – 5. Banks using this hard information very much scored 1 while banks not using scored 5	
Bank size	Total assets (Loans)	< 6 bnKsh	Small
		6-24.9 bnKsh	Medium
		>25 bnKsh	Large
Bank organization structure	Either decentralized or centralized	Loan disbursement decision making level	
		Branch-Decentralized	
		Head office-Centralized	
Bank ownership structure	Either local or foreign owned	Shareholding level of locals	
		>50% Local	
		<50% Foreign	

### **3.4 Target population**

The target population was all the 44 commercial banks licensed in Kenya by The Central Bank of Kenya (CBK, 2014). These are banks which offer their services in the country and are classified as small, medium and large banks. The list of all the 44 commercial banks was received from Central bank of Kenya.

### **3.5 Sample size and data**

The study was done on all the 18 banks serving SMEs in Kenya. The information was collected from four officials (Credit officers, relationship managers and account executives) of each of the 18 banks from Nairobi Head offices of the commercial banks. This formed a total of 72 respondents. The choice of the 18 banks was advised by a preliminary study done to find out banks serving the SME sector. The data collected included information on assets owned by the bank, the bank's organization structure and

the bank's ownership structure. Information on the lending approach, the size of SMEs served was also received from the banks.

### **3.6 Data collection procedures**

The approach to be used for the study was based on a tabulated questionnaire to the bank officials. The questionnaires and data processing was confidential. This was meant to provide comfort to the banks in sharing their information, with the understanding that data would be presented in aggregate way, without disclosing each bank's position or strategy. The questionnaire consisted of two parts. The first part comprised of general characteristics of the respondents and the commercial bank. The second part was targeted at ascertaining the lending approach employed by the institution to lend to SMEs. In addition, information on bank size and ownership structure was obtained from CBK website.

### **3.7 Data Analysis Procedures**

All the collected questionnaires from the respondents were verified and checked for completeness. The study utilized descriptive statistics to analyze the collected quantitative data. Actual loans were categorized from a lending approach point of view. Factors believed to be most closely associated with each lending approach were linked. They were transaction based and relationship based lending technologies. First, transaction based lending is a lending technology which is extended primarily based on hard information contained in financial statements. Hard information refers to the usual quantitative details found in financial statements, such as sales, profit, assets, cash flows and leverage. On the other hand, soft information lending focuses mostly on the soft information in case hard facts are missing. Soft information, as the term suggests, is more qualitative and refers to such intangibles as management skills, company strategy and market share.

A descriptive analysis based on mean scores, percentages and frequency distributions depicted a distribution of the different responses and how the different variables affect the choice of lending approach.

Regression analysis was done to investigate the relationship of bank size, organization structure and ownership to the choice of lending approach. The regression model was of the form;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where, Y = Lending approach (Use of soft information)

$\beta_0$  = Constant

$\beta_i$  = Coefficients of the independent variables

$X_1$  = Bank Size (1 = Assets below 6b; 2 = assets from 6– 24.9 b; 3 = Assets over 25 b)

$X_2$  = Ownership Structure (1 = Local, 2 = Foreign)

$X_3$  = Organizational Structure (1 = Head Office; 2 = Branch)

$\epsilon$  = Error term

Presentation of results was through tables, pie-charts and graphs. This enabled a visual presentation of the data which gave more meaning to the output.

## **CHAPTER FOUR**

### **RESEARCH FINDINGS AND DISCUSSION**

#### **4.1 Introduction**

This chapter presents the analysis of results from the questionnaire survey. The analysis of findings starts with analysis on response rate and then analyzes the general information about the respondents and the major factors in their banks. The chapter further presents analysis of findings based on each of the research objectives. Presented lastly is the regression results which tests the relationship between the independent and the dependent variables.

#### **4.2 Response Rate**

Seventy two (72) questionnaires were distributed to the 18 commercial banks that offer lending to SMEs. After much follow-up and reminding the respondents on the need to give their feedback, 62 positive responses were received. This represented an 86 percent response rate. According to Babbie (2012), a response rate of above 50 percent is adequate for paper based questionnaires. This response rate was therefore deemed adequate. All questionnaires were checked for completeness and all were found to be fit for analysis.

#### **4.3 General Information**

##### **4.3.1 Respondents position in the bank**

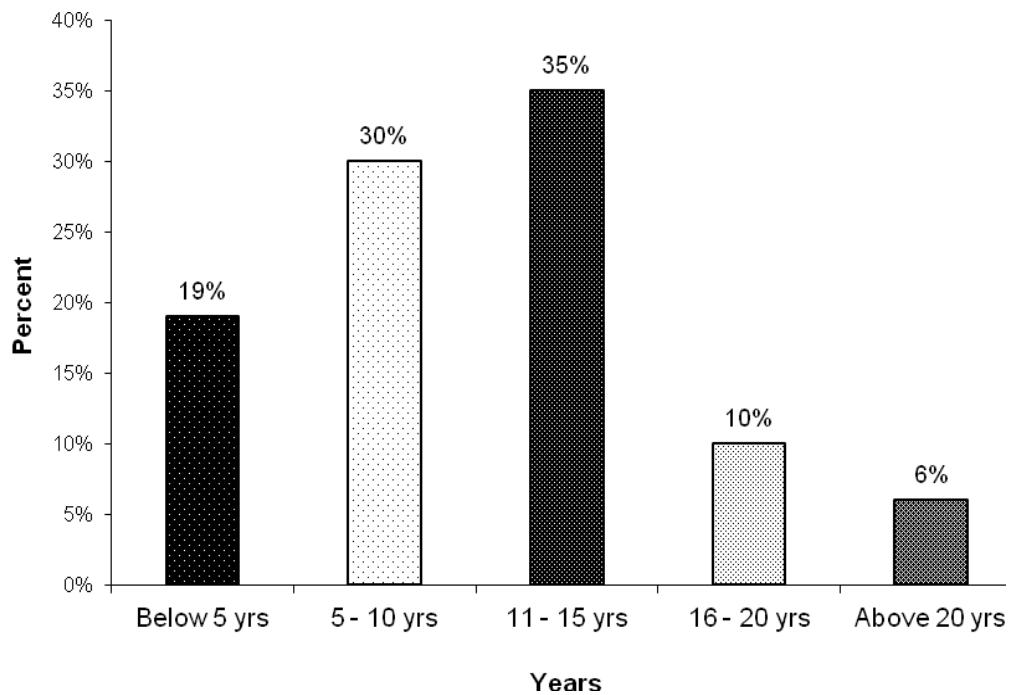
The questionnaire had a question which required the respondent to indicate his or her position in the bank. This was aimed at establishing whether the respondents had requisite competence to answer the questions. The findings are presented in Table 4.1. The study results indicated that most of the respondents were credit managers (34 percent), credit officers (27 percent) or relationship managers (21 percent) in the different banks. A few however indicated that they were account managers (18 percent). All these departments are related to the credit function and hence the information obtained was deemed to be relevant.

**Table 4.1: Respondents' Position**

Position	Frequency	Percent
Credit manager	21	34
Credit Officer	17	27
Corporate relationship Manager	13	21
Accounts Manager	11	18
<b>Total</b>	<b>62</b>	<b>100</b>

#### **4.3.2 Years working at the bank**

Another question was on the length of time the respondent had worked in the respective bank. Study results as presented in Figure 4.1 indicate that 35 percent of the respondents had worked in the bank for between 11 and 15 years while 6 percent had worked in the bank for over 20 years.



**Figure 4.1: Years Employee had worked in the Bank**

### **4.3.3 Assets Owned by the bank**

The study also investigated the size of the banks through the assets owned by the banks. The results are presented in Table 4.2. The results indicate that 42 percent of the commercial banks commanded assets above Ksh. 25 billion, 29% had assets between Ksh. 6 billion and Ksh. 25 billion while another 29percent had assets below Ksh. 6 billion. This was interpreted to mean that small banks were 29%, medium banks 29percent and large banks 42percent.

**Table 4.2: Assets Owned by the bank**

<b>Classification</b>	<b>Frequency</b>	<b>Percent</b>
Below ksh 6 bn	18	29
Between ksh 6 bn-24.9 bn	18	29
Above ksh 25 bn	26	42
<b>Total</b>	<b>62</b>	<b>100</b>

### **4.3.4 Ownership of the bank**

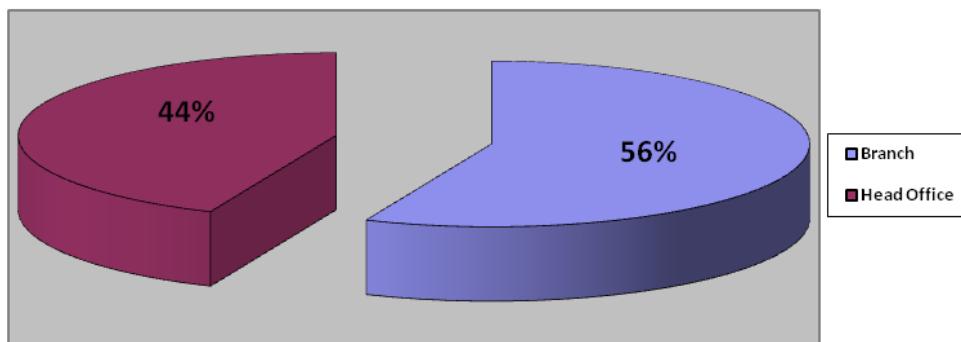
Another characteristic of the banks that was investigated in the study was the ownership of the banks. This was categorized as foreign owned or locally owned depending on who owns majority of shareholding. The results are presented in Table 4.3. The results indicate that 65% of the banks were locally owned with 35% being foreign owned.

**Table 4.3: Ownership of the banks**

<b>Ownership</b>	<b>Frequency</b>	<b>Percent</b>
Locally owned	40	65
Foreign owned	22	35
<b>Total</b>	<b>62</b>	<b>100</b>

#### 4.3.5 Where SME lending decisions are made

The study sought to establish where decisions on SME lending were made in the surveyed banks. Study results are presented in Figure 4.2. The study results reveal that 10 (56percent) of the banks had their branches making the lending decisions while 8 (44 percent) had lending decisions being made in the head office.



**Figure 4.2: Where Decisions of SMEs are made**

#### 4.3.6 Number of years the bank has served SMEs

The study investigated the length of time the commercial banks had served SMEs. Study results are presented in Table 4.4. The study results indicate that 35% of the commercial banks surveyed had served SMEs for between 5 and 10 years while 10% had served SMEs for less than 5 years.

**Table 4.4: Length of Time Banks have served SMEs**

Years banks has served SMEs	Frequency	Percent
Below 5 years	6	10
5 – 10 years	22	35
11 - 15 years	18	29
15 – 20 years	9	15
Above 20 years	7	11
<b>Total</b>	<b>62</b>	<b>100</b>

#### 4.4 Factors Considered in lending to SMEs

The study sought to establish the factors that commercial banks in Kenya considered when lending to SMEs. Several factors were listed and respondents were required to indicate to what extent the bank actually focus on each of the factors in making loans to an SME. Respondents were required to rate from a scale of 1 – 5 (1 - very much to 5 - not at all). Mean scores were used to analyze the results. Results are presented in Table 4.5.

**Table 4.5: Factors considered in lending to SMEs**

Factor	Mean score
SME's type of business	3.12
SME's size	3.64
SME's ability to make repayments	1.00
SME's soundness (capital asset ratio)	2.32
SME's profitability (current profit / sales ratio)	1.76
SME's growth (e.g. growth in sales)	1.83
SME's pledgeability of real estate collateral	3.54
SME's pledgeability of tangible assets collateral (other than real estate)	3.61
Guarantee by another firm	4.30
Personal guarantee	3.87
Personal managerial ability of the SME's representative	2.54
Assets commanded by the SME	3.59
Past record of the bankruptcy of the SME's representative	3.18
SME's operating base (customer pool, supply system)	3.59
SME's strength (e.g. creativity)	4.14
SME's frequency or quality of disclosure	2.46
Third party's evaluation of the SME	4.54
Length of relationships	1.43
Whether the bank is the SME's main bank or not	1.67
Trust between the bank official and SME representatives	3.21
Attitude of the potential lenders other than the main bank	4.32
The evaluation of the SME from an auditor	3.44

The study results presented in Table 4.5 indicated that factors that were considered much in lending to SMEs included SME's ability to make repayments (1.00), Length of relationship (1.43), Whether the bank is the SME's main bank or not (1.67), SME's profitability (current profit / sales ratio) (1.76) and SME's growth (for example, growth in sales) (1.83). Factors that were not included much included attitude of the potential lenders other than the main bank (4.32), guarantee by another firm (4.30), third party's evaluation of the SME (4.54) and SME's strength (for example, creativity).

#### 4.7 Regression Results

A regression analysis was done to establish whether the lending approach adopted by banks to lend to SMEs is influenced by ownership of the bank, size of the bank or the organization structure of the bank. In the regression, the dependent variable was the lending approach. Results of the regression analysis are presented in Tables 4.6, 4.7 and 4.8.

The model summary in Table 4.6 presents the R squared and the standard error of the model. The R squared of 0.657 indicates that 65.7 percent of the variation in lending approach applied by banks can be explained by size of the bank, ownership structure of the bank and the bank's organizational structure.

**Table 4.6: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.81	0.657	0.521	0.659

Table 4.7 presents the f value of the model and the significance of the whole model. The F value is 37.032 and it is significant at 5 percent significance level. This indicates that the three independent variables are good predictors of the dependent variable.

**Table 4.7: Analysis of Variance**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	7.2109	3	2.4036	37.032	000
Residual	3.7646	58	0.06491		
Total	10.9755	61			

Finally is Table 4.8 which presents the significance of the independent variables. The results on how each bank characteristic affects lending to SMEs is presented. Each characteristic is presented in relation to how it influences lending by banks to SMEs. The results reveal that size of a bank ( $\beta = 0.618$ ;  $t = 2.49$ ;  $p = 0.033$ ) is significant at 5 percent in predicting the choice of lending technology in a bank. The  $t$  is positive indicating that large banks relied more on hard information than small banks. The findings further reveal that organizational structure ( $\beta = 0.911$ ;  $t = 2.403$ ;  $p = 0.039$ ) had significant effect on the lending approach applied by commercial banks when lending to SMEs. However, the study results indicated that ownership of a bank is not a significant predictor of choice of lending technology ( $\beta = -0.479$ ;  $t = -1.502$ ;  $p = 0.142$ ).

**Table 4.8: Significance of Independent variables**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	0.98	0.89		1.101	0.297
Size of the bank	0.618	0.247	0.498	2.49	0.033
Ownership of the bank	-0.479	0.319	0.403	-1.502	0.142
Organizational structure	0.911	0.379	0.532	2.403	0.039

#### **4.7.1 Size of bank and lending to SMEs**

The results reveal that size of a bank ( $\beta = -0.618$ ;  $t = -2.49$ ;  $p = 0.033$ ) is significant at 5 percent in predicting the choice of lending technology in a bank. The  $t$  is positive indicating that large banks relied more on hard information than small banks. The coefficient is 0.618 indicating that a 1% increase in bank size will increase the use of the hard information by 0.618 percent in lending to SMEs. These findings imply that SMEs which are opaque without hard information may find it difficult to get funding from large banks.

This agrees with the study by Stein (2002) which indicated that large banks may be able to take advantage of economies of scale in the processing of hard information, but be relatively poor at processing soft information because it is difficult to quantify and transmit through the communication channels of large organizations (Stein, 2002). The current study findings also agreed with a study by Ono *et al.* (2014) which indicated that due to the opaqueness of SMEs, that is the challenges associated with ascertaining the reliability of information provided, small banks apply relationship lending and hence are better equipped to lend to SMEs. However, the study finding did not concur with findings by Shen *et al.* (2009) which had established that bank size is an insignificant factor for banks' decision on SME lending.

#### **4.7.2 Bank Organization structure and lending to SMEs**

The findings further reveal that organizational structure ( $\beta = 0.911$ ;  $t = 2.403$ ;  $p = 0.039$ ) had significant effect on the lending approach applied by commercial banks when lending to SMEs. The  $t$  ratio was positive indicating that banks that made their lending decisions in the head office were more inclined to rely on hard information (assets commanded by the SME). The commercial banks which made their lending decisions at the branch level relied mostly on relationships to lend to SMEs. The coefficient indicates that a 1% increase in making lending decisions at the branch level of the bank would increase the use of soft information in lending to SMEs by 0.911 percent.

These findings indicate that a decentralized structure of a bank is more suited to lending to SMEs than a centralized structure. These results agree with results by McNulty et al. (2014) which revealed that a centralized hierarchical bank uses hard information while lending to SMEs with decentralized banks preferring soft information. The findings also concur with Beck et al. (2011) that banks with centralized organizational structures lend to SMEs using arms-length approach while those with decentralized structures using the relationship approach. However, the study findings disagreed with findings from a study by Dai and Bonfim (2012) which established that bank organization structure do not influence the type of lending approach or level of lending that the bank provides SMEs.

#### **4.7.3 Bank Ownership structure and lending to SMEs**

However, the study results indicated that ownership of a bank is not a significant predictor of choice of lending technology ( $\beta = -0.479$ ;  $t = -1.502$ ;  $p = 0.142$ ). The coefficient of the size of bank variable is negative which indicates that foreign banks are inclined to use hard information lending while local banks use soft information lending. The coefficient further indicates that a 1 percent increase in foreign ownership of a bank would decrease the use of hard information lending by 0.479 percent. These results disagree with results by Collender and Shaffer (2003) that foreign banks may focus more on serving multinational corporations from their home country and thus issue credit to SMEs less. These findings indicated that being a foreign or locally owned bank did not influence lending to SMEs

The findings also do not concur with findings by Nkundabanyanga et al. (2014) whose study established that foreign owned banks provide relationship SME lending more than do local banks. The study findings also disagreed with findings from a study by Agostino et al. (2014) which indicated that during the crisis periods of 2009 to 2013, domestic banks contracted their credit and practiced arms length lending approach, whereas Greenfield foreign owned banks kept their credit base stable in ten Central and East European countries and related more to SMEs.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary of findings and conclusions from the study. The chapter further presents recommendations that were made after considering the study findings and conclusions.

#### **5.2 Summary of Findings**

Using data from a survey on banks serving primarily SMEs in Kenya, the study investigated how bank size, organization structure and ownership structure influenced the choice of different lending approaches which are utilized in lending to SMEs. The study established that of the surveyed bank employees, majority of the respondents had worked in the bank for between 11 and 15 years. Regarding bank size (assets worth), the results indicate a large number of the banks serving SMEs are large banks (have more than 25 billion in assets). On ownership of the banks, the results indicate that majority of the banks were locally owned. On where lending decisions are made, the study results reveal that majority of the banks had their branches making the lending decisions.

The study sought to establish the factors that commercial banks in Kenya considered when lending to SMEs. The study results indicated that factors that were considered much in lending to SMEs included SME's ability to make repayments, length of relationship, Whether the bank is the SME's main bank or not, SME's profitability (current profit / sales ratio) and SME's growth (for example growth in sales). Factors that were not included much by the banks in lending to SMEs included attitude of the potential lenders other than the main bank, guarantee by another firm, third party's evaluation of the SME and SME's strength (for example creativity).

Regression results indicated that size of a bank is significant in predicting the choice of lending technology in a bank. They indicated that large banks relied more on hard

information than small banks. Small banks relied mostly on relationships to lend to SMEs. The findings indicate that small banks have comparative advantages in using soft-information approaches to lend to the smallest firms. Loan officers at small banks were observed in the study to have more flexibility to evaluate credit using techniques based primarily on “soft” qualitative information that is difficult to quantify and communicate by the loan officers – such as personal knowledge about the subjective circumstances of the firm, its owner, and its management.

The findings further reveal that organizational structure had significant effect on the lending approach applied by commercial banks when lending to SMEs. They indicated that banks that made their lending decisions in the head office were more inclined to rely on hard information. The commercial banks which made their lending decisions at the branch level relied mostly on relationships to lend to SMEs.

However, the study results indicated that ownership of a bank is not a significant predictor of choice of lending technology. The coefficient of the ownership of bank variable is negative which indicates that foreign banks are inclined to use hard information lending while local banks use soft information lending.

### **5.3 Conclusions**

The various conclusions made in this study are as follows. First, large banks may not be disadvantaged in lending to SMEs but they deliver credit to many types of opaque SMEs through the transactions lending approaches that specifically address problems of informational opacity. This further indicates that large banks usually offer credit based on the ability to pay of the SMEs which is usually available from the financial statements of the SME. The study further concludes that large banks usually concentrate their lending to large SMEs while small and medium banks usually concentrate their lending to small SMEs. Size of the bank was therefore seen as a significant predictor of lending technology chosen by a bank to lend to SMEs.

Secondly, the organizational structure in a bank significantly affects the chosen lending technology for SME lending. This reveals that a centralized bank structure will mostly be less suited for SME lending and therefore only hard information lending is possible. On the other hand, decentralized structure is well suited for relationship lending as an SME can have a good relationship with the branch.

Lastly, ownership of a bank is not a significant predictor of the chosen SME lending approach. Locally and foreign owned banks lend SMEs using different approaches depending on other bank characteristics.

#### **5.4 Recommendations**

The following recommendations are made. First, the government should offer tax and/or regulatory incentives to small banks. Most of the SMEs do not have hard information and therefore are better served through relationship lending. As the results indicated, small banks rely more on soft information. Government's support to the small banks will thus lead to enhanced access to finance by SMEs hence creating employment and contributing to economic growth.

Secondly, banks should decentralize their structure to ensure that they have a more responsive structure to respond to the credit needs of SMEs. The decisions to offer credit to SMEs are better made in the branch since SMEs usually lack the hard information for credit but may have soft information which is better processed at the branch level. SMEs provide a great opportunity to banks in terms of loan sales. Therefore banks should align their structure in order to exploit these opportunities.

Lastly, small banks should invest in infrastructure and human resources so that they are not disadvantaged in processing hard as well as the soft information for SME lending. In addition to soft information, hard information such as availability of collateral, credit

reference bureau reports and financial performance of SMEs enhances credit scoring and thus lending decisions.

### **5.5 Recommendations for Further Research**

The study focused on influence of commercial bank characteristics on lending approaches to SMEs in Kenya. The study focused on size of the bank, ownership structure and organization structure of the bank. The study recommends that a similar study be conducted to establish other bank characteristics that may influence financing to SMEs that were not covered in this study such as profitability of the bank, liquidity of the bank and years of operation.

Moreover, a study on other financial institutions that offer credit to SMEs such as SACCOs and microfinance institutions need to be assessed. The factors that determine financing to SMEs by these financial institutions need to be determined as the SME sector is of utmost importance to the economy as a whole. Moreover, a study seeking to determine the SME characteristics or qualities that determine their funding by financial institutions are of importance to inform policy and practice in SME financing and growth.

## REFERENCES

Aghion, P. & Tirole, J. (1997). Formal and real authority in organizations. *Journal of Political Economy*, 105(1), 1-29.

Agostino, M., Gagliardi, F. & Trivieri, F. (2014). Bank competition, lending relationships and firm default risk: An investigation of Italian SMEs. *International Small Business Journal*, 30 (8), 907 - 943.

Ayyagari, M., T., Beck, T. & Demirguc-Kunt, A. (2007). Small and Medium Enterprises across the Globe. *Small Business Economics*, 29, 415 – 434.

Bartoli F., Ferri G., Murro, P., & Rotondi, Z. (2012). SME financing and the choice of lending technology in Italy: complementarity or substitutability? *International Small Business Journal*, 28 (8), 641 - 667.

Beck, T., Demirguc-Kunt, A. & Peria, M. (2011). Bank financing for SMEs: Evidence across countries and bank ownership types. *Journal of Financial Services Research*, 39(1-2), 35-54.

Beck, T., Demirguc-Kunt, A., & Martinez, P. M. (2008). *Bank Financing for SMEs around the World: Drivers, Obstacles, Business Models, and Lending Practices: World Bank Policy Research Working Paper 4785*. Washington: The World Bank.

Beck, T., Demirguc-Kunt, A., Laeven, L. & Maksimovic, V. (2006). The Determinants of Financing Obstacles. *Journal of International Money and Finance*, 25, 932–952

Benvenuti, M., Casolaro, L., Del Prete, S. & Mistrulli, P.E. (2010). Loan officer authority and small business lending: Evidence from a survey. In Cannari L., Pagnini M. & Rossi P. (Ed.), *Banks, Local Credit Markets and Credit Supply*, Bank of Italy, Milan, 24 March, 175-192.

Berger, A. & Black, L. (2011). Bank Size, Lending Technologies, and Small Business Finance. *Journal of Banking and Finance*, 35, 724-735.

Berger, A. & Udell, G. (1995a). Relationship lending and lines of credit in small firm finance. *Journal of Business*, 68, 351—382.

Berger, A. & Udell, G. (1995b). Universal Banking and the Future of Small Business Lending, *Center for Financial Institutions Working Papers 95-17*. Pennsylvania: University of Pennsylvania.

Berger, A. & Udell, G. (2006). A more complete conceptual framework for SME finance. *Journal of Banking and Finance*, 30(11), 2945-2966.

Berger, A., Klapper, F. &Udell, G. (2001). The ability of banks to lend to informationally opaque small business. *Journal of Banking and Finance*, 25(12), 2127-2167.

Berger, A., Klapper, L., Peria, M. & Zaidi R. (2008). Bank ownership type and banking relationships. *Journal of Financial Intermediation*, 17(1), 37-62.

Berger, A., Miller, N., Petersen, M., Rajan, R. & Stein, J. (2005). Does Function Follow Organizational Form? Evidence from the Lending Practices of Large and Small Banks. *Journal of Banking and Finance*, 76, 237-269.

Berger, A., Rosen, R. &Udell, G. (2007). Does market size structure affect competition? The case of small business lending. *Journal of Banking and Finance*, 31, 11 – 33.

Berger, A.N., & Frame W. S., (2007). Small business credit scoring and credit availability. *Journal of Small Business Management*, 46, 5 - 22.

Bonfirm, D. & Dai, Q. (2012).Bank size and lending technology: *working paper 19* Lisbon: Banco de Portugal.

Carter, D., McNulty, J. &Verbrugge, J. (2004). Do Small Banks have an Advantage in Lending? An Examination of Risk-Adjusted Yields on Business Loans at Large and Small Banks. *Journal of Financial Services Research*, 25(2-3), 233-252.

Central Bank of Kenya.(2014). Bank supervision reports. Nairobi: CBK.

Cole, R. A., Goldberg, L G. & White, L. J. (2004). Cookie Cutter vs. Character: The Micro Structure of Small Business Lending by Large and Small Banks. *Journal of Financial and Quantitative Analysis*, 39, 227-251

Cooper, D. R., & Schindler, P. S. (2006). *Business Research Method* (9th ed.). Boston: McGraw-Hill Irwin.

De Haas, R., Ferreira, D. &Taci, A. (2010). What determines the composition of banks' loan portfolios? Evidence from transition countries. *Journal of Banking and Finance*, 34(2), 388-398.

De la Torre, A., Martinez Peria, M. S. &Schmukler, S. (2010). Bank Involvement with SMEs: Beyond Relationship Lending. *Journal of Banking and Finance*, 34, 2280 –2293.

Degryse, H., Havrylchyk, O., Jurzyk, E. &Kozak, S. (2012). Foreign bank entry, credit allocation and lending rates in emerging markets: Empirical evidence from Poland. *Journal of Banking and Finance*, 36(11), 2949-2959.

Delgado, J., Salas, V. &Saurina, J. (2007).Joint size and ownership specialisation in bank lending. *Journal of Banking and Finance*, 31(12), 3563-3583.

Frame, W. S., Padhi, M., Woosley, L. (2004). Credit scoring and the availability of small business credit in low- and moderate income areas. *Financial Review*, 39, 34 - 54.

Grosse, R., & Goldberg, L. (1991). Foreign bank activity in the United States: An analysis by country of origin. *Journal of Banking and Finance*, 15(6), 1093-1112.

Hasan, I., Jackowicz, K., Kowalewski, O., & Kozłowski, L. (2014). Bank Ownership Structure, SME Lending and Local Credit Markets. *INE PAN Working Paper Series, 27th Australasian Finance and Banking Conference 2014 Paper*.

Haynes, G., Ou, C. & Berney, R. (2009). Small business borrowing from large and small banks", in Blanton J.L., Williams, A. & Rhine, S.L.W., (Ed.), Business Access to Capital and Credit, Federal Reserve System Research Conference, 287-327.

Holmstrom, B., & Tirole, J. (2013). Financial Intermediation, Loanable Funds, and the Real Sector. *The Quarterly Journal of Economics*, 112 (3), 663 – 691.

Johnson, R.A. (1976). Management, systems, and society: an introduction. *Pacific Palisades: Goodyear Publishing Company*.

Liberti, J. (2003). Initiative, Incentives and Soft Information: How Does Delegation Impact The Role of Bank Relationship Managers? *Working paper (404), London Business School*.

Lummer S. L., Mc Connell J. J. (1989). Further Evidence on the Bank Lending Process and the Capital Market Response to Bank loan Agreements. *Journal of Financial Economics*, 25, pp.99-122.

Mian, A. (2006). Distance Constraints: The Limits of Foreign Lending in Poor Economies. *Journal of Finance*, 61, 1465-1505.

Narteh, B. (2013). SME bank selection and patronage behaviour in the Ghanaian banking industry. *Management Research Review*, 36 (11), 1061 – 1080.

Nguyen, T. V., Le, N. T. B., & Freeman, N. J. (2014). Trust and Uncertainty: A Study of Bank Lending to Private SMEs in Vietnam. *Asia Pacific Business Review*, 12 (4), 547 - 568.

Nkundabanya, S. K., Kasozi, D., Nalukenge, I., Tauringana, V., (2014). Lending terms, financial literacy and formal credit accessibility. *International Journal of Social Economics*, 41 (5), 342 - 361.

Ono, A., Hasumi, R., & Hirata, H., (2014). Differentiated use of small business credit scoring by relationship lenders and transactional lenders: Evidence from firm – bank matched data in Japan. *Journal of Banking & Finance*. 42, 371 - 380.

Peek, J., Rosengren, E. & Kasirye, F. (2006). The poor performance of foreign bank subsidiaries: Were the problems acquired or created? *Journal of Banking and Finance*, 23(2-4), 579-604.

Petersen, M. A. & Rajan, R. G. (1997). Trade credit: Theories and evidence. *Review of Financial Studies*, 10, 661-669.

Rajan, R. (1992). Insiders and outsiders: The choice between informed and arm's length debt. *Journal of Finance*, 50, 1113—1146.

Sharpe, S. A. (1990). Asymmetric information, bank lending, and implicit contracts: A stylized model of customer relationships. *Journal of Finance*, 45, 1069 - 1087.

Shen, Y., Xu, Z. & Bai, Y. (2009). Bank size and small-and Medium-sized enterprise (SME) Lending: Evidence from China. *World Development*, 37(4), 800-811.

Shimizu, K. (2012). Bankruptcies of small firms and lending relationship. *Journal of Banking and Finance*, 36, 857 - 870.

Snyder, D. (2008). The Potential for Credit Scoring for SME Lending In Kenya. *Journal of Entrepreneurship*, 12, 45 – 66.

Stein, J. (2002). Information production and capital allocation: Decentralized vs. Hierarchical firms. *Journal of Finance*, 57(5), 1891-1921.

Stephanou, C. & Rodriguez, C. (2008). *Bank Financing to Small- and Medium-Sized Enterprises (SMEs) in Colombia: World Bank Policy Research Working Paper 4481*. Washington: The World Bank.

Strahan, P. & Weston, J. (1998). Small business lending and the changing structure of the banking industry. *Journal of Banking and Finance*, 22, 821 - 845.

Takats, E. (2004). Banking Consolidation and Small Business Lending. *Working Paper (407)*, European Central Bank.

Uchida, H., Udell, G. F., Yamori, N. (2006). *SME financing and the choice of lending technology: RIETI Discussion Paper Series 06-E-025*. Kyoto: Research Institute of Economy, Trade, and Industry.

Uchida, H., Udell, G.F. & Watanabe, W. (2008). Bank Size and Lending Relationships in Japan. *Journal of the Japanese and International Economies*, 22, 242 - 267.

## APPENDICES

### **Appendix 1: List of commercial banks serving SMEs in Kenya**

- 1.** Chase bank
- 2.** Jamii bora bank
- 3.** Fina bank
- 4.** K rep bank
- 5.** Family bank
- 6.** Africa Banking Corporation
- 7.** Development Bank of Kenya
- 8.** Bank of Africa
- 9.** Bank of Baroda
- 10.** Bank of India
- 11.** Barclays Bank of Kenya
- 12.** CFC bank
- 13.** Kenya Commercial bank
- 14.** Equity
- 15.** StanChart
- 16.** I&M bank
- 17.** NIC bank
- 18.** Cooperative Bank of Kenya

## **Appendix 2: Questionnaire to Bank Officials**

Thank you for agreeing to take this survey. It aims at seeking information about SME lending. All of the answers you provide in this survey will be kept confidential. No identifying information will be provided to the public or school. The survey data will be reported in a summary fashion only and will not identify any individual person or bank. This survey will take about 10 minutes to complete.

Please answer the questions by ticking or filling on the space provided.

### **SECTION A: GENERAL INFORMATION**

1. What is your position in this bank? \_\_\_\_\_

2. How long have you worked in this bank?

- Below 5 years [ ]
- 5 – 10 years [ ]
- 11 - 15 years [ ]
- 15 – 20 years [ ]
- Above 20 years [ ]

3. What is the size of your bank assets?

- Below ksh 6bn [ ]
- Between ksh 6 bn- 25bn [ ]
- Above ksh 25 bn [ ]

4. What is the ownership of this bank?

- Majority foreign owned [ ]
- Majority locally owned [ ]

5. Where are lending decisions made?

- Branch [ ]
- Head office [ ]

6. How long has your bank served SMEs?

Below 5 years [ ]  
 5 – 10 years [ ]  
 11 - 15 years [ ]  
 15 – 20 years [ ]  
 Above 20 years [ ]

**SECTION B: CRITERIA FOR FINANCING SMES**

In a scale of 1-5 (1 – very much 2 – Much 3 – Neutral 4 – Less 5 -not at all) indicate to what extent do the bank actually focus on each of the factors in making loans to a SME firm?

Criteria	1	2	3	4	5
(i) SME's type of business					
(ii) SME's size					
(iii) SME's ability to make repayments					
(iv) SME's soundness (capital asset ratio)					
(v) SME's profitability (current profit / sales ratio)					
(vi) SME's growth (e.g. growth in sales)					
(vii) SME's pledgeability of real estate collateral					
(viii) SME's pledgeability of tangible assets collateral (other than real estate)					
(ix) Guarantee by the government					
(x) Personal guarantee					
(xi) Personal managerial ability of the SME's representative					
(xii) Assets commanded by the SME					
(xiii) Past record of the bankruptcy of the SME's representative					
(xiv) SME's operating base (customer pool, supply					

system)					
(xv) SME's strength (e.g. creativity)					
(xvi) SME's frequency or quality of disclosure					
(xvii) Third party's evaluation of the SME					
(xviii) Length of relationships					
(xix) Whether the bank is the SME's main bank or not					
(xx) Trust between the bank official and SME representatives					
(xxi) Attitude of the potential lenders other than the main bank					
(xxii) The evaluation of the SME from an auditor					

**\*\*Thank you for your participation\*\***

### Appendix 3: University permission to collect data letter

