# THE EFFECT OF FINANCIAL ACCESS ON THE FINANCIAL PERFORMANCE OF SMALL AND MICRO ENTERPRISES IN MUKURU SLUMS

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**OCTOBER 2014** 

# **DECLARATION**

I, the undersigned declare that this is my original work and has not been presented to any
other institution or forum for any other award prior to this declaration.
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All praises goes to our Almighty God.

# **DEDICATION**

To my family for their encouragement, selfless support and sacrifices on my behalf as well as ceaseless prayers. And to my colleagues, classmates and friends, I say a big thank you for your moral and material support that you accorded me during my studies.

#### **ABSTRACT**

The role of the small and micro enterprises (SMEs) continues to be in the forefront of policy debates not only in developing countries but also in developed countries in creation of employment, driving innovation and entrepreneurship, reduction of poverty and other social challenges. This is more so for SMEs in slums as debate on how to improve living standard in informal sector attracting a lot of interest. Financial access has been found to be the blood of small and micro enterprises and a key determinant of financial performance in developed countries.

The role of ensuring financial access is facilitated by the financial sector that mobilizes savings and allocates them to economic uses while providing critical information and discipline for economic agents as well as a mechanism for the allocation and management of risks and hence influencing firm's financial performance. Due to the short term nature of the financing needed by the SMEs in slums, informal and semiformal financial institutions respond relatively well compared to the formal financial institutions to provide the required finances. However the effect of finance access to Mukuru slums SMEs remains unknown with studies neglecting the area. This study therefore sought to determine the effect of finance access on financial performance of SMEs in Mukuru slums.

The study adopted descriptive research design. The research data was collected using questionnaires and secondary data from financial statements. Data was analyzed using SPSS version 21. The study found that financial access has positive and significant effect on SMEs financial performance in Mukuru slums. Further, 43% of the SMEs in Mukuru slums finance their operations from informal financing, 34% from formal sources and 23% from semiformal sources. The study concluded that informal sources of finance lead to better financial performance on SMEs that formal and semi-formal sources of finance. The size of the SME and the age were found to have positive and significant effect on financial performance. The study recommends the formulation of measures to ensure to facilitate SMEs in slums areas financial access. The policies can involve an establishment of special fund to cater for slums SMEs financial needs.

# LIST OF ABBREVIATIONS

**ACSAs** Accumulated Savings and Credit Associations

**FSD** Financial Sector Deepening

**GOK** Government of Kenya

**MFIs** Micro Finance Institutions

**PBO** Public Benefit Organizations

**ROCSAs** Rotating Credit and Savings Associations

**SACCOS** Savings and Credit Cooperative Societies

SMEs Small and Micro Enterprises

WGs Welfare Groups

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#### **CHAPTER ONE**

#### INTRODUCTION

# 1.1 Background of the Study

Financial access is a precondition for financial performance of small and micro enterprises and has become an increasingly important development metric, as one of the factors which can drive widespread economic development (Cracknell, 2012). Small and micro enterprises have been noted to play a significant role in employment and economic growth of many countries (Liedholm and Mead, 1999). Indeed, in many developing countries as well as developed countries, small and micro enterprises are the focal point of growth and self-employment. In low-income countries, it is estimated that small and micro enterprises account for more than 60 per cent of the GDP and provide over 70 per cent of employment opportunities (Lukacs, 2005).

Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which a firm's financial objectives are being or have been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. (Mido 2006)

Financial market in developing countries is composed of formal, semiformal and informal financial institution with formal institutions being unable to meet the needs of firms and individuals in informal settlements (Steel and Andah, 2004). Formal financial services refers to financial services provided by registered financial institutions that are licensed to offer financial services by the country's bank regulator (in case of Kenya is the Central Bank of Kenya)largely urban based in terms of distribution of branches and the concentration of deposit and lending activities (Ghate, 1992). Examples of institutions

offering formal financial services are the commercial banks, insurance companies and development banks.

The main source of financing of small and micro enterprises in slums and low income areas in Nairobi constitutes mainly of semiformal and informal financial sources (Macharia, 2012). Semi-formal finance refers to the financing provided by Semi-formal financial institutions. These are the institutions which are registered to provide financial services and are controlled by country's bank regulator and mainly include of Microfinance Institutions. Semi-formal financial institutions are distinguished from formal institutions by the nature of the financial services offered and the level of regulation by the country's regulator. Formal financial institutions operate in a much regulated environment and strictly offer financial products for which the institution is authorised by the regulator which is not the case to semi-formal institutions (Steel and Andah, 2004)

Informal financial services refers to all transaction, loans and deposits that take place outside the regulated monetary system this include activities of intermediaries such as relatives and friends, traders, money lenders (Kashuliza, Hella, Magayane, and Mvena, 1998). Informal finance institutions exists to provide financial services for which formal institutions will not be able to offer due to the nature of their regulation; for example where the risks involved are high and returns of offering the services are low (Kashuliza, et al.,1998).

Numerous programs to enhance financial access through the government and nongovernmental organizations in informal sector have over the years being put in place. However, the effect of enhancing financial access to these firms remains unknown with many studies indicating that the finances accessed by informal settlements populations and businesses is used in financing consumption other than generation of income. The importance of both formal and semi-formal financial services is to accelerate the development of the priority areas including small and micro enterprises. This is because informal institutions do not have the capacity to intermediate overlarge distances, to

efficiently manage large deposit and make long term loans; moreover they do not also provide rural people with secure saving facilities and their credit are more expensive (Gockel, 1995).

#### 1.1.1 Financial Access

Access to finance can be defined as the availability of a supply of reasonable quality financial services at reasonable costs, where reasonable quality and reasonable cost have to be defined relative to some objective standard, with costs reflecting all pecuniary and non-pecuniary costs (Claessens2006). Theoreticians have argued that lack of access to finance generates persistent income inequality or poverty traps and limits financial performance of small firms. Without inclusive financial systems, small enterprises need to rely on their personal wealth or internal resources to invest in their education, become entrepreneurs, or take advantage of promising growth opportunities (Nwanna, 1995). Financial market imperfections, such as information asymmetries and transactions costs, are likely to be especially binding on the talented poor and the micro and small enterprises that lack collateral, credit histories, and connections, thus limiting their opportunities and leading to persistent inequality and slower growth. The inability of the formal financial sector to satisfy the demand for credit leads to the reliance on the informal and semiformal financial units for credit (Bouman, 1989).

The continued existence of informal financial institutions despite the development of formal and semiformal financial sector in developing countries has proven that these three sectors have differing strengths, and that they can coexist and have differing roles on the same market. Their products offer different characteristics and are demanded in different ways. The most cited differences are probably that the informal sector has an easier time dealing with problems regarding information and enforcement of contracts, while the formal sector can take advantage of economies of scale and the intermediation of funds over a longer period of time (Jain and Mansuri 2003).

Access to financial services remains low among the small and micro enterprises mostly those that are operating from the slums. According to the Fin Access surveys of 2006 and

2009, formally included people (defined as those using a bank or insurance product) went up from 18.9% in the year 2006 to 22.6% in 2009. Across all income groups, informal sources of finance have become especially common with the number of people using them increasing from under one million in 2006 to over 1.5 Million in 2009 with estimated that about Kshs 60 Billion (US \$ 860 M) being intermediated through the informal financial sector annually. This fact underlines the significance of the informal/semiformal financial sectors in Kenya (FSD, 2009).

SMEs use various ways of accessing finance such as internal and external finance. Internal finance is concerned with sourcing funds through personal saving, and those of friends and relatives. However, as the firm grows its financing requirements may go beyond personal savings. The next source is external finance. External funding is based on merit according to the evaluation of financial institutions. There are two notable variants of external finance: debt financing and equity financing. Debt financing involves the procurement of interest bearing instruments. They are secured by asset-based collateral and have term structures, that is, either short or long term. The equity component of external finance gives the financier the right of ownership in the business and such may not require collateral since the equity participants will be part of the management of the business (Oguijiuba, Ohuche, and Adenuga, 2004).

Despite efforts by financial institutions and public sector bodies to close funding gaps, SMEs continue to experience difficulty in obtaining capital. These funding gaps relate to firm size, risk, knowledge and flexibility. In addition, SME borrowing requirements are small and more collateral may be required than SMEs can pledge. Further, the financial institutions may lack expertise in understanding SMEs and also flexibility in terms and conditions of financing that are required by SMEs. Small firms have traditionally encountered problems when approaching providers of finance for funds to support fixed capital investment and to provide working capital for the firm's operations. The presence and nature of a "finance gap" for small firms has been debated for decades (World Bank, 2004).

Commercial banks and other formal institutions fail to cater for the credit needs of small businesses mainly due to their lending terms and conditions. It is generally the rules and regulations of the formal financial institutions that have created the myth that poor are not bankable, and since they can't afford the required collateral, they are considered un-credit worthy (Adera, 1995). Hence despite efforts to overcome the widespread lack of financial services, especially among small businesses in developing countries, and the expansion of credit among small business of these countries, the majority still have only limited access to bank services to support their private initiatives (Braverman and Guasch, 1986)

#### 1.1.2 Financial Performance

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. There are many different ways to measure firms' performance, but all measures should be taken in aggregation. Line items such as revenue from operations, operating income or cash flow from operations can be used, as well as total unit sales. Furthermore, the analyst or investor may wish to look deeper into financial statements and seek out margin growth rates or any declining debt (Mido, 2006).

Quantitative measures of firm performance include profitability measures such as gross profit margin, net margin for example return on sales, return on equity, economic value added, return on equity less cost of equity, return on capital employed; cash flow measures such as free cash flow over sales; and revenue growth. Ideally, forward-looking measures such as expected profitability, cash flow and growth should be used to measure a firm's performance because the current operating conditions (such as number of hierarchical levels or organization form) will influence future performance (Kumar, 2003).

Other financial performance measures used include return on equity (ROE), return on investment (ROI), and return on assets (ROA), along with their variability as measures of risk. Earlier studies typically measure accounting rates of return. These include: Return

on Investment (ROI), return on capital (ROC), return on assets (ROA) and return on sales (ROS). The idea behind these measures is perhaps to evaluate financial performance-how well is a firm's management using the assets to generate accounting returns per unit of investment, assets or sales. The problems with these measures are well known. Accounting returns include depreciation and inventory costs and affect the accurate reporting of earnings. Asset values are also recorded historically. Return on equity (ROE) is a frequently used variable in judging top management performance, and for making executive compensation decisions. ROE is defined as net income (income available to common stockholders) divided by stockholders equity. On the other hand, ROA is the most frequently used performance measure in previous studies. It is defined as net income (income available to common stockholders), divided by the book value of total assets (Donaldson & Preston, 1995).

#### 1.1.3 Financial Access and Financial Performance

There is consensus in theory that a well-developed financial sector can contribute to improved performance of small and microenterprises. Access to financial services provides firms with the opportunity to manage their risks, broaden their menu of choices and smooth their consumption patterns. This promotes development, thereby contributing to poverty reduction. Credit is an important instrument for improving the performance of firms directly and for enhancing productive capacity through financing investment (Nwanna 1995). Some of the factors that have been fronted as determinants of improved access include financial innovations such as introduction of microfinance units in mainstream financial institutions, technological advances and improved standards of living and less regulations of the banking sector. However it has also been observed that these innovations in the formal financial sectors do not necessarily decrease the reliance on the informal and semiformal financial sectors of an economy (Udell, 1992).

Access to financial services by small business is normally seen as one of the constraints limiting their benefits from credit facilities, in most cases the access problem, especially among formal financial institutions, is one created by the institutions mainly through their lending policies. This is displayed in the form of the prescribed minimum loan amounts,

complicated application procedure and restrictions on credit for specific purposes. Small businesses lack access to capital and money markets. Investors are unwilling to invest in proprietorships, partnerships or unlisted companies. As risk perception about small businesses is high. So is the cost of capital, institution credit, when available, requires collateral which in turn makes owner of the business unable to access financing (Kamweru, 2011).

#### 1.1.4 Small and Micro Enterprises in Kenya

Micro enterprises refer to firms having between 1 to 9 employees while small enterprises are those having 10-49 employees (GOK, 2012). According to the Economic Survey (GOK, 2012), the SME sector contributed 79.8% of new jobs created in the year 2011 in Kenya. Consequently, the Kenya's development plans including vision 2030 have given special emphasis on the contribution of small and micro enterprises in the creation of employment in the country (GOK, 2012). However, one of the most significant challenges facing SMEs is lack of access to appropriate financing (Amyx, 2005).

The small and micro enterprises lack collateral (Kamweru, 2011) and are unable to comply with the bank long procedures (Macharia, 2012) and hence hindering the SMEs from accessing formal financial services forcing them to opt to informal and semi-formal financing. However, the effect of this decision remains unknown with minimal studies carried out to determine the effect of financial access on the profitability of small and micro enterprises. Economists agree to the fact that financing (formal, informal and semiformal) enhances credit access which in turn enhances SMEs innovation, growth and overall profitability (Cracknell, 2012).

In a developing country context, credit is an important instrument for improving the welfare of the poor directly (consumption smoothing that reduces their vulnerability to short term income shocks) and for enhancing productive capacity through financing investment by the poor in their human and physical capital (Nwanna, 1995). Based on this notion, Kenya, for the past 10 years has formulated policies and enacted acts that have led to impressive strides in ensuring financial access to individuals and more specifically to small and micro enterprises. Although formal exclusion has yet to match

levels of some Southern Africa countries, the proportion of the population which is completely excluded is lower in Kenya than any other African country except for South Africa. The largest drivers of financial inclusion in Kenya have been M-PESA mobile transfer and Equity bank, Supportive regulation, innovativeness and Technological advances (FSD, 2009, 2013)

Access to financial services remains low among the small and micro enterprises mostly those that are operating from the slums. According to the Fin Access surveys of 2006 and 2009, formally included people (defined as those using a bank or insurance product) went up from 18.9% in the year 2006 to 22.6% in 2009. Across all income groups, informal sources of finance have become especially common with the number of people using them increasing from under one million in 2006 to over 1.5 Million in 2009 with estimated that about Kshs 60 Billion (US \$ 860 M) being intermediated through the informal financial sector annually. This fact underlines the significance of the informal/semiformal financial sectors in Kenya (FSD, 2009).

# 1.1.5 Small and Micro Enterprises in Mukuru Slums

According to a study by Muungano Support (2006), Mukuru Slum is the second largest in Kenya, second only to the Kibera slums, which is considered one of the largest slums in the world. Mukuru covers an area of about 8.5 square Km and has an estimated population of about 700,000 people. The slum lacks basic services such as clean water, roads and sanitation. Most of the families residing in this slum are headed by single mothers or children. The study also states that about 40% of the working populations are casual laborers while 60% are self-employed in small enterprises. The main contributing factor to the high level of small enterprises is the developmental organizations running poverty alleviation projects that use enterprise growth as one of the sustainability measures. Given the micro nature of the enterprises, most of the capital to start and grow these enterprises is from the informal financial sector (Muungano Support Trust, 2006). It is with this information that there is much interest in understanding the effects of

financial access from both formal and informal institutions on financial performance of the SMEs in Mukuru slums.

#### 1.2 Research Problem

Financial access has been found to be the blood of small and micro enterprises and a key determinant of financial performance (Cracknell, 2012). Due to the short term nature of the financing needed by the SMEs in slums and in the rural areas, informal and semiformal financial institutions respond relatively well compared to the formal financial institutions (Kashuliza et al., 1998). The popularity of these unregulated informal and semi-formal financial intermediaries has presented both opportunities and challenges.

The main advantages of informal and semiformal financial services is accessibility and low application costs (Fridell, 2007). However, it has also been argued that the interest rates charged by informal and semiformal sectors are high hence crowding out the benefits associated to informal sector financing (Michael and Cesare, 2006). The question not yet answered is; what is the effect of formal, and informal finance on profitability of small and micro enterprises?

The continued existence of informal, formal and semiformal financial institutions in developing countries has proven that these three sectors have differing strengths. It also proves that they can coexist and have differing roles on the same market. (Jain and Mansuri 2003). However, there is consensus in theory that a well-developed financial sector can contribute to improved performance of small and micro enterprises. Access to financial services provides business with the opportunity to manage their risks, broaden their menu of choices and smooth their consumption patterns. This promotes development, thereby contributing to poverty reduction (United Nations, 2006).

Various studies that have been carried out globally on the effect of financial accessibility on the performance of SMEs show conflicting results. Cressy and Ollofson (2006) in their study concluded that the growth and financial performance of firms was more

constrained by managerial and psychological factors than it was by the availability of external finance. (Cressy, 2006). On the other hand, schiffer & Weder (2001) in their paper on firm growth and business environment identified constraints on access to finance as the main factor hindering growth of firms.

In attempt to understand the nature and effect of SME financing, various studies relating to financial access have been carried out in Kenya. Macharia (2012) studied the effects of access to finance on micro and small enterprises investment growth in Ongata Rongai Township and found that informal financing was the main source of finance for small and micro enterprises. Kamweru, (2011) studied the challenges faced by Small and Medium Enterprises in accessing finance in Kiambu town where the study found that the main challenge hindering SMEs was lack of collateral hence forcing them to them to rely on informal finance. However, none of the studies reviewed had sought to find out the effect of formal, informal and semiformal finance access on financial performance of small and micro enterprises in Mukuru slums. Further the studies focussed on the supply side issues such as policies imposed by formal institutions as the main constraints, this study in addition focused on the firm's internal constraints such as previous performance and firm's age.

Therefore, the study sought to find out the effect access to financing through formal, informal and semiformal sources on financial performance of small and micro enterprises in informal settlements and to identify the internal and external constraints faced by SMEs in accessing finance. It bridged the gap that existed in literature on financial access and SMEs financial performance. The research answered the question; what is the effect of financial access on financial performance of small and micro enterprises in Mukuru slums?

#### 1.3 Objective of the Study

The main objective of this study was to assess the effect of financial access on profitability of small and microenterprises in Mukuru slums.

# 1.4 Importance of the Study

The findings of this study are expected to be of importance to the various stakeholders who include financial institutions, small and micro enterprises managers and owners, the government and community welfare organization, general public, researchers and academicians. To the financial institutions, they will be able to understand the financing needs of the SMEs in Mukuru slums and hence come up with products that will serve the SMEs better leading to their improved performance.

To the managers and owners of small and micro enterprises, from the study, they will be able to learn the effect the effect of financial access on their financial performance and the factors that hinder access to credit. This will make them more informed and hence be able to make more informed financing decisions. To the government, the study has come up with policy recommendations that will assist the policy makers when drawing regulatory measures and guidelines aimed at overcoming the barrier of access to finance by SMEs in slum areas. To the community welfare organizations concerned with improved slum livelihood, the study has highlight the financing challenges facing the slum SMEs which will enable them to better address the challenges. General public will benefit from job creation, while scholars and academicians who may be stimulated to venture into studies on effects of finance access on SMEs from the gaps identified by the study.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Introduction

This chapter examines theoretical framework and empirical studies that have been done in the area of effects of formal, informal and semiformal finance sectors in extending access to finance. The chapter starts with section 2.2 that has reviewed the theoretical literature available and is followed by section 2.3 that has dealt with empirical literature on the area of study and section 2.4 that has detailed the existing literature from Kenya on study subject. The chapter ends with section 2.5 on summary of key literature

#### 2.2 Theoretical Literature

The study was anchored in the financial liberalization theory and the information asymmetry (Moral Hazard and adverse selection) theory of financial markets.

# 2.2.1 Financial Liberalization Theory

The financial liberalization theory was brought into salience with the seminal work of McKinnon and Shaw (1973). They popularized the concept of financial repression as a financial system with policies that distort domestic financial markets and credit controls. The observation is that such a system interferes with the economic development of a country as the intermediaries are not well developed for mobilization of savings while allocation of financial resources among competing uses is inefficient.

The early hypothesis of McKinnon and Shaw (1973) assumed that liberalization (absence of repression) which would be associated with higher real interest rates as controls are lifted would stimulate savings which would lead to higher levels of investments and therefore to economic growth. McKinnon and Shaw also suggest that liberalization of financial markets allows penetration of financial services among the poor population. These groups of people are always on the lower cadre of the social cycle. Therefore,

providing them with accessible tools of finance could be considered a very significant step towards achieving economic growth. This is because peasant communities could be mainly left out due to poor infrastructure, insecurity and abject poverty. Providing these people with access to credit gives them the opportunity to expand their business activities to middle class economy.

The critics of this theory include Allen & Santomero (1997) who reviewed financial liberalization theory and attempted to reconcile it with the observed behaviour of institutions in modern capital markets. They argue that current theory of financial liberalization too heavily focuses on the functions of financial institutions that are no longer crucial in mature financial systems. They suggest that the emphasis on the role of intermediaries as reducing the frictions of transaction costs and asymmetric information is too strong; while these factors may once have been central to the role of intermediaries, they are increasingly less relevant. Allen & Santomero suggest a view on financial intermediaries that centres on two of their roles. First, they are the facilitators of risk transfer and deal with an increasingly complex maze of financial instruments and markets. The key area of intermediary activity therefore has become risk management, whereas traditional intermediation theory offers little to explain why institutions should perform this function. Second, financial intermediaries reduce participation costs and the costs of learning about effectively using markets as well as participating in them on a day-to-day basis and this plays an important role in understanding the changes that have taken place.

# 2.2.2 Adverse Selection Theory of Financial Markets

The adverse selection theory of financial institutions originates from the work of Stilglitz and Weiss (1981). In his explanation interest charged by a credit institution are assumed to have a dual role of sorting potential borrowers (leading to adverse selection) and affecting the actions of borrowers (leading to incentive effect). Interest rates thus assumed to affect the nature of the transaction and do not necessarily clear the market. Both effects are seen as a result of the imperfect information inherent in credit markets.

Adverse selection occurs because lenders would like to identify the borrowers most likely to repay their loans since the banks' expected returns depend on the probability of repayment. In order to identify borrowers with high probability of repayment, banks are likely to use the interest rates that an individual is willing to pay to screen. However, borrowers willing to pay high interest rates may on average be worse risks; thus as the interest rate increases, the riskiness of those who borrow also increases, reducing the bank's profitability.

Stiglitz and Weiss (1981) further show that higher interest rates induce firms to undertake projects with lower probability of success but higher payoffs when they succeed (leading to the problem of moral hazard). Since the bank is not able to control all actions of borrowers due to imperfect and costly information, it will formulate the terms of the loan contract to induce borrowers to take actions in the interest of the bank and to attract low risk borrowers. The result is an equilibrium rate of interests at which the demand for credit exceeds the supply. Other terms of the contract, like the amount of the loan and the amount of collateral, will also affect the behavior of borrowers and their distribution, as well as the return to banks.

Adverse selection arises because in the absence of perfect information about the borrower, an increase in interest rates encourages borrowers with the most risky projects, and hence least likely to repay, to borrow, while those with the least risky projects cease to borrow. Interest rates will thus play the allocative role of equating demand and supply for loanable funds, and will also affect the average quality of lenders' loan portfolios. Lenders will fix the interest rates at a lower level and ration access to credit. Imperfect information is therefore important in explaining the existence of credit rationing for small and microenterprises. Moral hazard occurs basically because projects have identical mean returns but different degrees of risk, and lenders are unable to discern the borrowers' actions (Stiglitz and Weiss, 1981).

Stiglitz and Weiss' theory was designed to apply quite generally, rather than in a specific context of informal credit in developing countries. In the latter context, the theory has

often been criticized for its underlying assumption that lenders are not aware of borrower characteristics. The close knit character of many traditional rural and close knit urban societies implies that lenders possess a great deal of information about relevant borrowers' characteristics, such as business ability, size and quality of assets, and risk attitudes. Criticism for this theory stems from the fact that it ignores the fact that borrowers themselves who can seek ways to assure the lender that they are not "lemon" and hence have access to credit.

# 2.3 Empirical Literature

Empirically, research on the use of credit by poor households tends to imply that although it is not obvious that demand for credit far outweighs the supply, there are significant obstacles to the transformation of potential demand into revealed demand (Aryeetey, 1996). The absence of supply creates a lack of demand expressed in low revealed demand. Again, due to market failure in the credit market, the transaction cost involved in obtaining credit is considered greater than the utility, prompting households to switch profits between activities as a way of financing working capital.

Van (1983) carried out a study in Korea on the welfare effects of liberalization. His study demonstrated characteristics that are opposite to the position highlighted by McKinnon and Shaw. He concluded that in the presence of curb markets (Informal and unregulated markets), financial liberalization is likely to reduce the rate of economic growth by reducing the total real supply of credit available. That is an increase in the interest rate will reduce credit available to the informal sector due to substitution of deposits in the organized sector. Further he stated that reserve requirement in the formal sector may constrain credit supply which does not apply in the informal market, which is not subject to reserve requirements

Looking at the role of informal financial sectors in Ghana, Aryeetey & Gockel (1991), in their study to investigate factors that motivate the private sector to conduct financial transactions in the informal financial sectors found that the informal sector derives its dynamism from developments in the formal sector as well as from its own internal

characteristics. The informal and formal sectors offered similar products that are not entirely homogeneous, implying that both sectors cater to the needs of easily identifiable groups of individuals and businesses. However, participants from either sector may cross to the other depending on factors like institutional barriers, availability of credit facilities and the ease of physical access.

Morduch (1999) found that semi-formal finance which includes microfinance had positive impact on poverty reduction. However he is keen to add that "Even in the best of circumstances, credit from microfinance programs helps fund self-employment activities that most often supplement income for borrowers rather than drive fundamental shifts unemployment patterns". The study further found out that semi-formal finance rarely generated new jobs for others and success has been especially limited in regions with highly seasonal income patterns and low population densities.

Matovu (2006) researched on microfinance and poverty alleviation in Uganda. According to research findings, majority of women clients of Uganda Women Finance Trust had registered increased incomes from their microenterprises. From these incomes they were able to solve some problems of poverty like isolation, physical weaknesses and could afford a good diet. They were also able to send their children to school and to pay for their health which is critical for their continued wellbeing and as a consequence break the poverty trap. The findings also reported that clients increased in comes enabled them to save and to buy property. The savings enabled clients to deal with severe crises and to cope up with the shocks and reduce vulnerability and bought property that can be sold also to deal with the crises; savings could be used to acquire another microfinance cycle and also to start and expand the existing micro enterprise activities.

Fridell (2007) explored the roles of informal, formal and semiformal microcredit in Jordan credit. The study found that accessibility and low application costs are the key advantages of informal credit, while these are often perceived to be disadvantages of formal credit. Informal finance was found to be very flexible since the dominant source

of informal credit seems to be family, friends, neighbours, it may not be so surprising that most informal loans were interest free and that many do not agree that interest rates are higher for informal lending in general. The informal financial sector was also seen to be disadvantaged by credit ceilings, while the formal sector had reliable funds available. The study concluded that the key method of enhancing credit access to business and individuals and hence reduce the financial exclusion was by encouraging development of informal financial sector. The reduced costs and flexibility was found to enhance credit access which in turn led to increased business performance.

Empirical review suggests that in small and micro enterprises industry, informal financial sources are more popular due to the ease in access and the availability of more information. Though the formal financial sources benefit from the economies of scale, they are less popular due to supply side driven barriers.

#### .2.4 Local Literature Review

Atieno (2001) found that credit rationing is significantly higher in the formal financial markets as compared to the informal and semiformal financial sectors in Kenya. She found that the concern with the loan repayment among formal lenders determines the amount credit a borrower gets while in the informal financial sector, the main determinant is their limited resource base. She concluded that lending terms imposed by the formal financial sector (emphasizing collateral security) ration a large number of borrowers out of the credit market leaving only a few who can afford the required collateral. On the other hand, some of the borrowers do not get what they want from the informal sector due to the limited resource base creating a credit gap in the rural markets in Kenya.

Kiiru (2007) in her study on semiformal finance in Kenya dismisses the notion that lending small amounts normally co-secured by a group is "a positive poverty eradication tool and potentially powerful engine of growth for the economy." The group lending tool was found to be the main feature of informal finance in slum setting. The study further found that lack of financial knowledge was condemning millions to abject poverty. Lack

of understanding by borrowers on what the loan contract entails and exploitation by microfinance of this ignorance by semi-formal organization was prevalent.

Macharia (2012) studied the effects of access to finance on micro and small enterprises investment growth in Ongata Rongai Township. The study found that in financing of the micro and small business, family and friends played a big role in helping the business owners boost their operations with an average of 40% of the finances coming from them, an average of 24% came from financial institutions while on average 30% of the finances were from business savings. The study also found that the main hindrance of SMEs in getting access to formal financial services due to lack of credit services awareness, lack of collateral, banks vetting procedures, requirements of a guarantor, cost of loans and the employment as a security issue are some of the obstacles hindering utilization of the available credit facilities.

Nyabuga (2013) noted that informal financial sector plays an important role in enhancing access to credit for small and microenterprises ran by women in Kibera leading to their empowerment. He found a positive correlation between accesses to and management and the growth of the enterprises ran by the women concluded that informal financial sectors have a positive effect on the growth of SMEs in Kibera.

The studies carried out in Kenya indicate that there is a positive relationship between financial access and financial performance. They focus more on the supply side of issues that hinder access to finance such as collateral limitations and costs of credit. These studies also indicate a high reliance on informal sources of finance by SMEs

# 2.5 Summary

From the empirical studies above it is evident that access to finance is an important source of credit for SMEs. The studies show that the imperfections in the formal markets lock out the borrowers who do not have the required collateral and SMEs fall in this category. Information asymmetry in the credit market is also an important factor in determining access to finance as it leads to credit rationing. Further studies go on to

suggest that informal financial markets exist due to the fact that there is unsatisfied demand in the credit market arising from the SMEs whose demand for credit is considered too small to be economically viable in the formal sector.

The studies also suggest that the informal financial market may become insufficient as the SMEs grow to medium enterprises. A credit gap results where those who may not access credit from the informal credit market may still not be considered for loans from the formal financial sectors. Very few studies have been done on the effects of financial access on the financial performance of SMEs in Kenya and none has been done in Mukuru slums. It is with this background and the gaps identified that this study sought to establish the role that the informal, semiformal and formal sectors in extending access to the SMEs and the effect of the same on financial performance. The potential contribution that access to financial services can make to growth and poverty reduction is now widely accepted in academic and policy circles, and thus improving access has become an issue of increasing focus for developing country governments and donors.

#### **CHAPTER THREE**

#### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter outlines the research design and methodology that was followed in conducting this study. It describes the research design, population of the study, sample size, sample frame, data collection methods and data analysis and presentation of the research findings. The chapter has section 3.2 which covers the research design, section 3.3 on the target population and sample frame, section 3.4 on data collection methodology and instruments and section 3.5 covering the data analysis techniques applied, the conceptual and analytical model.

# 3.2 Research Design

Kerlinger (1986) defines research design as the plan and structure of investigation so conceived so as to obtain answers to research questions. The plan is the overall program of the research and includes an outline of what the investigator will do from writing of the hypothesis and their operational implications for the final analysis of data. The study will adopt a descriptive design in determining the relationship between the variables. A descriptive research design determines and reports the way things are (Mugenda and Mugenda, 2003).

Survey research design was adopted in this study to assess the effects of financial access on financial performance of SMEs in Mukuru Slums. The design adopted was quantitative and aimed at collecting information from a sample of population such that the results are representative of the population within a certain degree of error.

# 3.3 Population of the Study

A population is the collection of all possible observations about which the study will make inferences (Mbugua 2010). It is a group of individuals taken from the general population who share a common characteristic. The study's target population was all the

SMEs operating at Mukuru slums as licensed by County Government of Nairobi. Data sourced from the Nairobi County-Licensing department indicates that there are 2,464 licensed businesses registered in Mukuru slums (NCC, 2012).

# 3.4 Sampling Frame and Techniques

The sampling frame describes the list of all population units from which the sample was selected (Cooper & Schindler, 2011). A sample is a collection of observations representing only a portion of the population (Mugenda & Mugenda, 2003). The sample size depends on what one wants to know, the purpose of the inquiry, what is at stake, what was useful, what had credibility and what can be done with available time and resources (Paton, 2002).

Therefore, 100SMEs were sampled using stratified random sampling techniques; stratification was based on nature of business. The strata was on the basis of their industry which included manufacturing, services and trade. Out of the 100 SMES sampled, 49 were in the trade industry, 33 in the manufacturing industry while 18 were in the services industry. The number of SMEs chosen in each industry was dependent on the total number of SMEs in Mukuru slums and the ratio of SMEs in each category.

# 3.5 Data Collection and Research Instruments

The study was facilitated by the use of primary and secondary data. Primary data was collected using a structured and unstructured questionnaire to gather a wide range of baseline information about the type of informal and semiformal financial services SMEs receive in Mukuru Slums. The study data was obtained from primary sources by use of questionnaire so as to collect the required data. The questionnaire consisted of a list of closed ended questions. Close ended questions have the advantage of collecting viable quantitative data while open-ended questions allow the respondents freedom of answering questions and the chance to provide in-depth responses (Mugenda & Mugenda, 2003). Questionnaire is preferred because it is efficient, cheap and easy to be administered. For more insight data collection, the researcher administered the

questionnaire through interviews to enable probing for more precise details and hence deal with the challenge of incredible information.

In line with ensuring accuracy of data obtained, profitability data was obtained from secondary data that includes financial statements, company financial records and accounts. The Targeted respondents were the owners of the SMEs. The questionnaire was divided into three parts. Part A aimed at gathering background information about the SME. Part B aimed at getting the response on the financing methods of SMES. Financial performance data was collected from secondary sources mainly the financial statements.

# 3.6 Data Analysis

Before processing the responses, the completed questionnaires were edited for completeness and consistency. The data was then coded to enable analysis of the responses. A descriptive analysis was employed to analyse data. This included the use of table, charts, graphs, percentages and frequencies. Multiple regressions were used to measure the quantitative data which was analysed using the Statistical Package for Social Sciences (SPSS) version 21.

Tables and other graphical presentations as appropriate were used to present the data collected for ease of understanding and analysis. Cooper & Schindler (2011) notes that the use of percentages is important for two reasons; first they simplify data by reducing all the numbers to range between 0 and 100. Second, they translate the data into standard form with a base of 100 for relative comparisons. Small and micro enterprises financial returns were measured using Return on Assets (ROA) since it is easy for the respondents to understand and compute.

The significance of the results was evaluated using statistical inference techniques that include t-tests, z-tests, f-test analyses of variance (ANOVA). Coefficient of correlation and determination was used in making conclusions.

# 3.6.1 Conceptual Model

The following function shows the mathematical relation of dependant and independent variable. **FP=f** (**TCF**, **FS**, **FA**) (1)

Where:

FP = SME Financial Performance as measured by Return on Assets

TCF = Total credit finance used by SMEs

FS = Firm Size as measured by the number of employees

FA = Firm's age

SME financial performance was measured by return on Assets (ROA) which was computed by dividing net profit by the total SME assets. Total credit finance was constituted to the financing from formal, informal and semiformal sources. Firm's size and age was used as control variables in the model and measured by the amount of number of employees and the years of SMEs operation.

It was expected that financial access will have a positive effect on the financial performance of SMEs in Mukuru slums. In turn, the higher the total finance accessed by SMEs, the larger would be the size of the SME as measured by the number of employees and also more likely the firm would exist for longer.

# 3.6.2 Analytical Model

This study employed an analytical model to determine the relative significance of each of the four main financial performance determinants above. The model took the following format;

$$FP = \beta_0 + \beta_1 TCF + \beta_2 FS + \beta_3 FA + \varepsilon$$
 (2)

Where:

 $\varepsilon$  = represents the error in the model which will be assured to be zero

 $\beta_0, \beta_1, \beta_2, \beta_3$  are the various intercepts

# 3.7 Data Validity and Reliability

According to Mbugua (2010) data reliability is the consistency in which the instruments gave the same results. In order to maintain reliability of the data collected, standard structured questionnaire were used.

Data reliability was assessed using the test re-test method. This entailed administering the questionnaire twice to three respondents from SME. The data obtained was correlated with the data obtained earlier using the same questionnaire. This ensured that the right data was collected and ambiguous questions avoided. It also eliminated the risk of collecting invalid data.

#### CHAPTER FOUR

# DATA ANALYSIS, RESULTS AND DISCUSSION

#### 4.1 Introduction

This chapter contains the analysis of data collected from the administered questionnaires. The chapter presents the study findings. It also discusses the findings in length. Section 4.2 gives the summary statistics of the collected data. Section 4.3 discusses the findings of the regression analysis while section 4.4 contains the discussion and interpretation of the study findings. Section 4.5 contains the summary of the findings.

# 4.2 Summary of Statistics

The researcher managed to obtain all the 100 questionnaires administered representing 100% response rate. The 100% response rate was attributed to the methodology of administering the questionnaires through interviews and assurance of confidentiality of information provided by the SMEs. Data reliability and validity was ascertained by pre testing the questionnaires as well as administering the questionnaires to different person in same company. To ensure accuracy, data obtained from cross checked against the available secondary data sources that included human resource records and operations license documents.

# 4.2.1 Classification of Small and Micro Enterprises by Industry

In the study, the SMEs industry was stratified according to the nature of business. As shown in chart 4.1 below, 49% of the studied SMEs were in trade, 33% in manufacturing while 18% were in service industry.

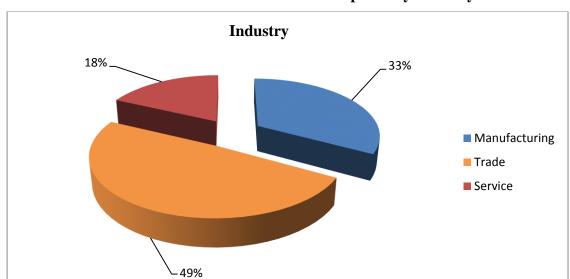
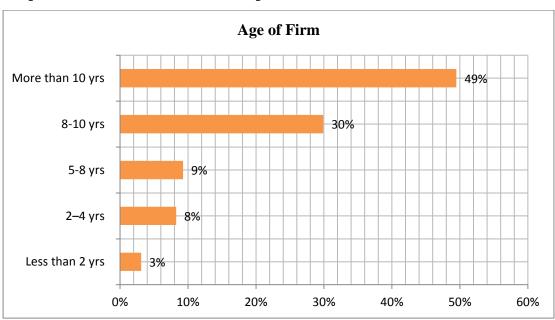


Chart 4.1: Classification of Small and Micro Enterprises by Industry

## 4.2.2 Age of Small and Micro Enterprises

The age of studied SMEs is presented in graph 4.1 below. As shown in the 49% of the SMEs were in existent for more than 10 years, 30% existed for 8 to 10 years, 9% for 5 to 8 eight years, 8% for 2 to 4 years and 3% for less than two years.



**Graph 4.1: Duration of Business in Operation** 

Source: Study Data

## 4.2.3 Size of Small and Micro Enterprises

The size of the firm was measured by the number of employees. As shown in graph 4.2 below, 34% of SMEs had 21 to 50 employees, 30% were had 1 to 5 employees, 23% had 6 to 10, 12% 11 to 20 employees while 1% had over 50 employees.

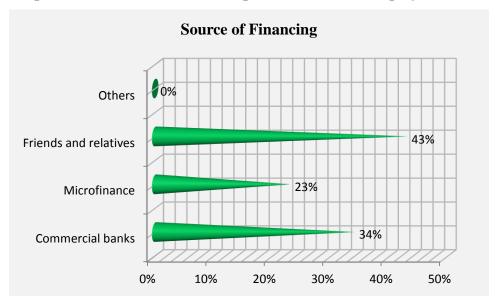
**Number of Employees** 40% 34% 35% 30% 30% 23% 25% 20% 15% 12% 10% 5% 1% 0% 1 to 5 6 to 10 11 to 20 21 to 50 Over 50

**Graph 4.2: Small and Micro Enterprises Number of Employees** 

Source: Study Data

## 4.2.4 Small and Micro Enterprises Source of Financing

As show in the graph 4.3 below, the main financing source used by SMEs is from informal sources including friends and family at 43%, Formal financial institutions such as commercial banks, 34% and microfinance sources, 23%. All respondents were able to identify the listed sources of finance and none stated other unspecified sources of finance.



**Graph 4.3: Small and Micro Enterprises Number of Employees** 

## 4.2.5 Factors Hindering Small and Micro Enterprises Access to Financing

This question sought to determine the factors hindering access to finance by SMEs in Mukuru Slums. A Likert scale was used to determine the key hindrance to SMEs access to credit financing using a scale of 1-5 where 5 represented limitation to a very great extent, 4 great extent, 3 moderate extent, 2 Low extent and 1 very low extent.

As shown in graph 4.4 below, lack of collateral is the main factor hindering SMEs in Mukuru slums from accessing financing with an average score of 4.01 (to great extent) with a standard deviation of 1.501. Second is the lack of credit worthiness with a mean of 3.68 and standard deviation of 1.05, third is cost of finance at 3.62 and standard deviation of 1.17 and short period of repayment at 3.11 and standard deviation of 0.54.

**Factors Hindering Finance Access** 1.50 Collateral 4.01 1.05 Lack of SME credit worthiness 3.68 ■ Std Dev Average 0.54 Short repayment period 3.10 Cost of finance (interests, legal fees, 1.16 insurance) 3.61

Graph 4.4: Factors Limiting Small and Micro Enterprises Financing Access

## 4.2.6 Factors Easing Small and Micro Enterprises Access to Financing

Table 4.1 below shows the rank of factors for ease of credit access over years to Mukuru slums SMEs. The table indicates that reduction on the cost of finance over recent past was the main factor for increased access to financing by SMEs; followed by reduced collateral requirements, increase in number of financial institutions, technological advancements, growth of SMEs and availability of alternative loans.

Table 4.1: Factors Responsible for Ease of Access to Financing

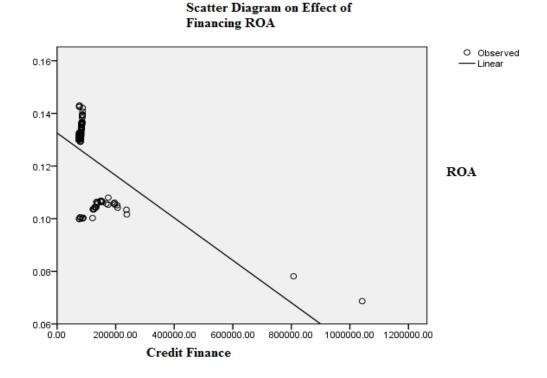
		Std	
Factor	Score	Dev	Rank
Reduction on the cost of finance, that is interest rates, application			
fees, loan insurance premium, legal fees etc	6.27	1.61	1
Reduced collateral requirement			
	5.79	1.40	2
Increase in number of financial institutions offering financial			
services	5.52	0.94	3
Advancement in technology making loan application easier and			4

faster processing	5.51	1.15	
Growth in the asset base of SME hence are able to meet the			
collateral requirement	5.09	0.80	5
Availability of other alternative sources of finances from friends			
and relatives	4.15	0.67	6

## 4.2.7 Relationship between Financial Access and Financial Performance

As shown in graph 4.5 below, the relationship between financial access and Mukuru slums SMEs financial performance is linear and negative.

Graph 4.5: Scatter Diagram on Financing and Financial Performance



Source: Study Data

## **4.3** Financial Access and Financial Performance

Regression analysis was done using SPPS. The linearity of the relationship was first tested before regression analysis was done.

#### 4.3.1 Results of Model Goodness of Fit

The model results analyzed as discussed in chapter three and results shown in table 4.2 below. As shown in the table below, the independent and dependent variables are positively related as shown by coefficient of correlation of 0.84 and coefficient of determination of 0.7. This implies that the model variables can explain 70% of financial performance. Access to formal finance has positive effect on financial performance of SMEs in Mukuru slums. This is shown by an R of 0.54. The relationship was also significant as shown by the p value of 0.00 which is less than 5%. Financing has strong and positive effect on financial performance of small and micro enterprises in Mukuru slums as shown by the coefficient of correlation (R) of 0.61. As shown in the table below, the coefficient of determination (R<sup>2</sup>) of 0.37 implying that financing accounts for 37% of changes in financial performance. As shown by the ANOVA results below, the relationship is positive as shown by the p value of 0.00 which is less than 5%.

As shown in table 4.2 below, informal finance has positive effect on SMEs financial performance as shown by R of 0.69. The relationship between informal finance and financial performance is also positive as shown by the p value of 0.0000 which is less than 0.05. The relationship between semiformal finance and financial performance is positive with an R of 0.06. However, the relationship is not significant since the p value was 0.52 was higher than 0.05.

**Table 4.2: Analytical Model Goodness of Fit** 

Independent Variable	R Square	Adjusted R	Std. Error of	Sig.
		Square	the Estimate	
Credit Financing, Size and Age	0.8362	0.6992	0.6898	0.009
Formal Finance	0.54	0.2916	0.2843	0.0137
Informal Finance	0.6866	0.4714	0.4661	0.0118
Semi-formal Finance	0.0655	0.0043	0.0059	0.0163
Total Credit Finance	0.6129	0.3757	0.3693	0.0129

Source: Study Data

## 4.3.2 Results of Analysis of Variance

As shown in table 4.3 below the relationship between independent and dependent variables is significant since the p value is 0.0000 which is less than 5%. This also implies that the developed model is significant at 95% confidence level.

Table 4.3: Analytical Model Goodness of Fit

	Sum of Squares	df	Mean Square	F	Sig.
Regression	0.0182	3	0.0061	74.3751	0.0000
Residual	0.0078	96	0.0001		
Total	0.0260	99			

Source: Study Data

### **4.3.3** Estimated Model

From the model coefficients in table 4.4 below, the model developed is FP = 0.106 + 0.0456TCF + 0.0002FS + 0.01FA, where FP is the SME Financial Performance as measured by Return on Assets, TCF is total credit finance used by SMEs, FS is the Firm Size as measured by the number of employees and FA is Firm's age. All the coefficients are significant at 95%.

From the model coefficients, total credit financing has higher effect on financial performance, followed by size and age.

**Table 4.4: Model Coefficients** 

Model		Unstandardize	Std. Error	Standardized	t	Sig.
		d Coefficients		Coefficients		
1	(Constant)	0.106	0.003		30.212	0.000
	Credit Finance	0.04554	0.000	0.346	-5.597	0.000
	Age	0.0002	0.000	0.126	-2.240	0.027
	Number of Employees	0.001	0.000	0.607	9.835	0.000

## 4.3.4 Results of Factor analysis

Factor analysis was performed to identify the patterns in data and to reduce data to manageable levels. The factor analysis analysed the factors that measured financial access, age and size of SMEs. The results were generated using the rotational Varimax methods to explore the variables contained in each component for further analysis. Factors with Eigen values (total variance) greater than 0.5 were extracted and coefficients below 0.49 were deleted from the matrix because they were considered to be of no importance.

By using factor analysis, a factor loading for each item and its corresponding construct was determined. In order to verify that the items tapped into their stipulated constructs, a principal components analysis with a Varimax rotation was executed. The items were forced into three factors and the output was sorted and ranked based on a 0.5 loading cut off. Typically, loadings of 0.5 or greater were considered very significant. The analysed data confirmed that all the three independent variables affecting financial performance namely credit finance access, age and size of SMEs significantly affected SMEs growth as shown by test of significance, ANOVA and coefficient of determination.

#### 4.4 Discussion

Determining industry of SMEs was important because industry factors significantly affect the level of SME profitability. Stierwald (2009) found that differences in industry-level characteristics, such as efficiency level, industry structure and specific industry regulations cause differences in profitability. Out of the studied firms, 49% of the SMEs were in trade, 33% in manufacturing while 18% were in service industry. 88% of the studied SMEs were in existence for more than five years and hence could give the required five years data. Additionally, older firms usually provides more reliable data and their performance can be predicted with higher degree of accuracy. This part was important since the age of a firm helps in determining the competitive advantage due to the creation of firm image in the eyes of customer which leads to increased sales for the firm and firm increased profit according to the findings by Barkham et al., (1996).

The size of SMEs affects the level of firms' profitability (Stierwald, 2009). Based on this knowledge, the size of the firm was included in the study as a control variable. The majority of the firms were small enterprises at 69% with 11 to 50 employees while 30% were microenterprises. The findings on source of financing indicate that 43% of SMEs in Mukuru slums finance their operations from informal sources, 34% from formal sources and semiformal sources 23%. The findings are in line with those of Macharia (2012) who found that informal financing was the main source of finance for small and micro enterprises in Rongai Township.

Lack of collateral was found to be the main factor hindering SMEs financial access in Mukuru slums with an average score of 4.01 (to great extent) with a standard deviation of 1.501. Second is the lack of credit worthiness with a mean of 3.68 and standard deviation of 1.05, third is cost of finance at 3.62 and standard deviation of 1.17 and short period of repayment at 3.11 and standard deviation of 0.54. The short repayment period is associated with informal financing implying that the challenge SMEs face by using informal finances. The collateral and credit worthiness issue is associated with semiformal and formal financing. Informal sources of financing are expensive at times even higher than formal sources. The findings concur with those of Kamweru, (2011) who found that the main challenge hindering SMEs was lack of collateral hence forcing them to them to rely on informal finance.

Numerous measures have been made by the Kenyan government and Non-Governmental Organizations in attempt to ensure SMEs access to credit. The factors hindering SMEs

access to financing sought to determine the extent to which the various measures put in place have enabled financing access to Mukuru SMEs. Reduction on the cost of finance over recent past was found being the main factor for increased access to financing by SMEs; followed by reduced collateral requirements, increase in number of financial institutions, technological advancements, growth of SMEs and availability of alternative loans. This implies that reduction of cost of financing and alternative loan schemes that will not require collateral will overcome the challenges to SMEs financing challenges. Adoption of technology by banks will also enhance financing access.

Access to financing was found to have positive effect on financial performance of small and micro enterprises in Mukuru slums with coefficient of correlation (R) of 0.61. The coefficient of determination (R<sup>2</sup>) of 0.37 implies that financing accounts for 37% of changes in financial performance. The ANOVA results indicated that the relationship between financing and financing performance is positive as shown by the p value of 0.00 which is less than 5%. The findings are similar to those of Nwanna (1995) who found that access to financing was an important instrument for improving the performance of firms directly and for enhancing productive capacity through financing investment and hence increasing profitability.

Informal financing was found to have positive effect on SMEs financial performance with R of 0.69. The relationship between informal finance and financial performance was also positive as shown by the p value of 0.0000 which is less than 0.05. The relationship between semiformal finance and financial performance was also found to be positive with an R of 0.06. However, the relationship was not significant since the p value of 0.52 is higher than 0.05. Access to formal finance has positive effect on financial performance of SMEs in Mukuru slums. This is shown by an R of 0.54. The relationship is also significant as shown by the p value of 0.00 which is less than 5%.

Notably, informal financing has the highest effect on SMEs financing performance as shown by the coefficient of determination of 37%, followed by formal financing of 28% and semiformal finance of 6%. This may be explained by the fact financing from informal may be cheaper and even cost free. The results on formal sources may be explained by the magnitude of the financing available from formal sources as compared

to semi formal. Whereas semi formal financing may be cheaper, the fact that only 23% of the SMEs finance from semi formal sources are forced to go for other sources like formal and informal. The findings conforms to those of Fridell (2007) who found that accessibility and low application costs are the key advantages of informal credit, while these are often perceived to be disadvantages of formal credit. Fridell (2007) further found that informal finance was very flexible since the dominant source of informal credit seems to be family, friends, neighbours, most informal loans were interest free and that studied firms did not agree to the argument that interest rates are higher for informal lending in general.

The model results analyzed as discussed in chapter three and results showed that the independent and dependent variables were positively related as shown by coefficient of correlation of 0.84 and coefficient of determination of 0.7. This implies that the model variables can explain 70% of financial performance. The relationship is also positive as shown by p value of 0.0000 which is less than 5%. This implies that financial performance can be explained up to 70% by amount of financing, size of the firm and years of operations.

From the model developed, that is FP = 0.106 + 0.0456TCF+ 0.0002FS + 0.01FA, where FP is the SME Financial Performance as measured by Return on Assets, TCF is total credit finance used by SMEs, FS is the Firm Size as measured by the number of employees and FA is Firm's age, total credit financing has higher effect on financial performance, followed by size and age. All the coefficients are significant at 95%.

## 4.5 Summary

From the study, 49% of the SMEs were in trade, 33% in manufacturing while 18% were in service industry. 49% of the SMEs were in existent for more than 10 years, 30% existed for 8 to 10 years, 9% for 5 to 8 eight years, 8% for 2 to 4 years and 3% for less than two years. 34% of SMEs had 21 to 50 employees, 30% were had 1 to 5 employees, 23% had 6 to 10, 12% 11 to 20 employees while 1% had over 50 employees.

The study found that financial access has positive effect on financial performance of small and micro enterprises in Mukuru slums with coefficient of correlation of 0.61 and coefficient of determination of 0.37. Informal financing was found to have significant positive effect on SMEs financial performance with R of 0.69. The relationship between semiformal finance and financial performance was also found to be positive with an R of 0.06. However, the relationship was not significant at 95% confidence internal. Access to formal finance was also found to have significant positive effect on financial performance of SMEs in Mukuru slums with an R of 0.54.

Lack of collateral was found to be the main factor hindering SMEs financial access in Mukuru slums with an average score of 4.01 (to great extent) with a standard deviation of 1.501. Second is the lack of credit worthiness with a mean of 3.68 and standard deviation of 1.05, third is cost of finance at 3.62 and standard deviation of 1.17 and short period of repayment at 3.11 and standard deviation of 0.54. 43% of SMEs in Mukuru slums finance their operations from informal sources, 34% from formal sources and semiformal sources 23%. Out of the studied firms, 49% of the SMEs were in trade, 33% in manufacturing while 18% were in service industry. 88% of the studied SMEs were in existence for more than five years and hence could give the required five years data. The majority of the firms were small enterprises at 69% with 11 to 50 employees while 30% were microenterprises.

#### **CHAPTER FIVE**

#### SUMMARY AND CONCLUSION

#### 5.1 Introduction

This chapter provides a summary and conclusion of the study. Section 5.2 discusses the summary of key findings, Section 5.3 provides the research conclusion, Section 5.4 contains recommendations for policy, Section 5.5 on limitations of the study and Section 5.6 gives recommendations for further research.

## 5.2 Summary of the Study

The objective of the study was to establish the effects of access to finance on financial performance of small and micro enterprises in Mukuru slums. The study found that financial access has positive effect on financial performance of small and micro enterprises in Mukuru slums with coefficient of correlation (R) of 0.61 and coefficient of determination (R<sup>2</sup>) of 0.37. The effect of financial access was found to be significant at 95% confidence level. Informal financing was found to have significant positive effect on SMEs financial performance with R of 0.69. The relationship between semiformal finance and financial performance was also found to be positive with an R of 0.06. However, the relationship was not significant at 95% confidence internal. Access to formal finance was also found to have significant positive effect on financial performance of SMEs in Mukuru slums with an R of 0.54.

Notably, informal financing was found to have the highest effect on SMEs financing performance as shown by the coefficient of determination of 37%, followed by formal financing of 28% and semiformal finance of 6%. The model results analyzed as discussed in chapter three and results showed that the independent and dependent variables were positively related as shown by coefficient of correlation of 0.84 and coefficient of determination of 0.7. This implied that the model variables could explain 70% of financial performance. The model developed by the study is FP = 0.106 + 0.0456TCF + 0.0002FS + 0.01FA, where FP is the SME Financial Performance as

measured by Return on Assets, TCF is total credit finance used by SMEs, FS is the Firm Size as measured by the number of employees and FA is Firm's age, total credit financing has higher effect on financial performance, followed by size and age. All the coefficients are significant at 95%.

Lack of collateral was found to be the main factor hindering SMEs financial access in Mukuru slums with an average score of 4.01 (to great extent) with a standard deviation of 1.501. Second is the lack of credit worthiness with a mean of 3.68 and standard deviation of 1.05, third is cost of finance at 3.62 and standard deviation of 1.17 and short period of repayment at 3.11 and standard deviation of 0.54. Reduction on the cost of finance over recent past was found being the main factor for increased access to financing by SMEs; followed by reduced collateral requirements, increase in number of financial institutions, technological advancements, growth of SMEs and availability of alternative loans

The findings on source of financing indicate that 43% of SMEs in Mukuru slums finance their operations from informal sources, 34% from formal sources and semiformal sources 23%. Out of the studied firms, 49% of the SMEs were in trade, 33% in manufacturing while 18% were in service industry. 88% of the studied SMEs were in existence for more than five years and hence could give the required five years data. The majority of the firms were small enterprises at 69% with 11 to 50 employees while 30% were microenterprises.

#### 5.3 Conclusion

Based on the research findings, the research concludes that financial access has positive and significant effect on SMEs financial performance in Mukuru slums. Further, the study concludes that 43% of the SMEs in Mukuru slums finance their operations from informal financing, 34% from formal sources and 23% from semiformal sources. This is due to lack of collateral and credit worthiness history forcing them to look for alternative source of financing.

The study also concludes that informal sources of finance lead to better financial performance on SMEs that formal and semi formal sources of finance. However, the amount that can be obtained from informal sources of finance is limited. In addition, the

size of the SME and the age has positive and significant effect on financial performance. The study also concludes that lack of collateral is the main factor hindering SMEs financial access in Mukuru slums followed by the lack of credit worthiness, cost of finance and short period of repayment.

## **5.4** Recommendations for Policy

Small and micro enterprises play crucial role in an economy and are key source of economic growth, dynamism and flexibility and can adapt quickly to changing market demand and supply situations. They generate employment, help diversifying economic activity and make significant contribution to export trade. Therefore, measures to boost the financial performance of SMEs are important. According to the study findings, majority of SMEs in Mukuru slums rely on financing from informal sector to which the finances from the source are limited. Hence, the study recommends formulation of measures to ensure to facilitate SMEs in slums areas financial access. The policies can involve an establishment of special fund to cater for slums SMEs financial needs.

Secondly, the study recommends that the collateral requirements by formal and semiformal financial institutions to reduced so that the firms can be able to access formal financial services. This can work perfectly if the government and nongovernmental organizations can act as the guarantors to the funds advanced to the SMEs.

In addition, the study recommends for reduction on the cost of finance reduction on the same will lead to increased access to financing by SMEs. Finally, the study recommends that in cases where SMEs can't get, the management should not fear use of informal finances since they were found to have the highest effect on financial performance.

### 5.5 Limitations to the study

This research did not go without challenges in the methodology adopted by the study. First, good number of SMEs in Mukuru slums was found to lack complete set of books of accounts and not preparing annual financial statements. The researcher had to take the challenge of computing the figures with the respondents which was time consuming. In addition, the reliability and accuracy of such information obtained depended on the

information provided but the researcher took all the measures to ensure that most accurate information was obtained.

The data collection was also marred by interferences such as the respondents needed to attend to their business besides serving customers which sometimes led to premature discontinuation and follow ups after wards. Some respondents opted not to respond to some questions, increasing the number of missing values while some were reluctant to fill the questionnaire forcing the researcher/ agent to fill on behalf thus consuming time. Also, this study targeted SMEs from Mukuru slums only; the SMEs may not be representative of all SMEs in informal settlement or SMEs in Kenya. Other respondents treated the researcher with suspicion as they thought perhaps we were spies from the government or tax authorities since most SMEs were found not to be tax compliant. The researcher had to take a lot of time assuring anonymity and confidentiality of information provided.

#### **5.6** Recommendations for Further Research

The study recommends that further research should be done on the effect of financial access of financial performance of big corporations since this study only dealt with small firms and therefore; the findings may not be applicable to big firms. Secondly, this study targeted SMEs from Mukuru slums only; the SMEs may not be representative of all SMEs in informal settlement or SMEs in Kenya. Hence, further study can be done but focusing on SMEs in other slums or in Kenya or developed countries.

## REFERENCES

- Adera, A., (1995). Instituting effective linkages between formal and informal financial sector in Africa: A Proposal. Saving and Development
- Allen, F.,&Santomero, M., (1997). The theory of financial intermediation. *Journal of Banking and Finance*
- Amyx, C. (2005) Small Business Challenges-The Perception Problem: Size Doesn't Matter. *Business Journal*. Washington
- Barkham, R., Gudgin, M., and Hanvey, E., (1996). The *Determinants of Small Firm Growth:* An Interregional Study in the United Kingdom, 1986-90 Jessica Kingsley: London.
- Bouman, A., (1989). Small, Short and Unsecured: Informal Rural Finance in India. Delhi: Oxford University Press.
- Braverman, A., &Guash, L., .(1986). Rural credit markets and institutions in developing countries: Lessons for policy analysis from practice and modern theory, World Development
- Cooper, R., & Schindler, S., (2011). Business Research Method.. NewYork: McGraw Hill.
- Cracknell, D., (2012). Policy Innovations to Improve Access to Financial Services in Developing Countries: Learning from Case Studies in Kenya. Centre for Global Development.
- Cressy, R., (2006). Why do small firms die young?: Small business economics, pages 103-116
- Claessens, S., (2006). Access to Financial Services: A Review of the Issues and Public Policy Objectives. *World Bank Research Observer* 21(2): 207-240.
- Donaldson, D., & Preston, G., (1995). Measuring Residential Real Estate Liquidity. *The AREUEA Journal*
- Financial Sector Deepening (2013). FinAccess National Survey. Central Bank of Kenya
- Financial Sector Deepening, (2009). Results of the FinAccess National Survey: Dynamics of Kenya's Changing financial landscape. Nairobi, FSD Kenya.
- Financial Sector Deepening, (2011). Financial Inclusion in Kenya. Survey results and analysis from FinAccess 200: Nairobi

- Fridell, M., (2007). Exploring the roles of informal, formal and semiformal microcredit in Jordan. Lund University School of Economics and Management
- Ghate, B., (1992). Interaction Between the Formal and Informal Financial Sectors: The Asian Experience. World Development.
- Gockel, F., (1995). *The role of Finance in Economic Development; The case of Ghana*. PhD Thesis, University of Manchester, UK.
- Government of Kenya, (2012). Economic Survey. Nairobi Kenya: Government Printers.
- Gulli, J., (1998). The Economics of Lending with Joint Liability: Theory and Practice. *Journal of Development Economics*
- Jain, S., & Mansuri, G., (2003). A little at a time: the use of regularly scheduled repayments in microfinance program. *Journal of Development Economics*
- Kamweru, R., (2011). Challenges Faced By Small & Medium Enterprises in Accessing Finance in Kiambu Town, Kenya. University Of Nairobi Mba Project
- Kashuliza, K., Hella P., Magayane, F., &Mvena, K., (1998). The Role of Informal and Semi-formal Finance in Poverty Alleviation in Tanzania: Results of a field study in two regions of REPOA. Research Report No 98.
- Kerlinger, .N., (1986). *Foundations of behavioral research*. Fort Worth, TX: Holt, Rinehart, and Winston.
- Kiiru, M., (2007). The impact of microfinance on rural poor households' income and vulnerability to poverty: Case study of Makueni District: Kenya, Nairobi.
- Kumar, D. (2003). Information Finance Markets. Conclusions. New Agriculture is Transforming Demand for Rural Financial Services
- Liedholm, C., & Mead, D., (1999). Small Enterprises and Economic Development: The Dynamic Role of Micro and Small Enterprises. London; Routledge.
- Lukacs, E., (2005). The Economic role of SMEs in World Economy especially in Europe. *Journal of European Integration Studies*, 4,1
- Macharia, P., (2012). The effects of access to finance on micro and small enterprises investment growth in ongata Rongai Township. University of Nairobi MBA project
- Matovu (2006). Microfinance and poverty alleviation in Uganda

- Mbugua W., (2010). *Impact of Microfinance services on Financial performance of MSEs in Kenya*. Unpublished M.B.A Project UON.
- McKinnon, I., & Shaw, E., (1973). The Order of Economic Liberalization: Financial Control in the Transition to a Market Economy. Baltimore: Johns Hopkins University Press.
- Michael, B., & Cesare, C., (2006). Financial Sector Development and Expanded Access to Credit. High level commission on legal empowerment of the poor
- Mido, B. (2006), Housing Microfinance, A Key to Improving Habitat and the Sustainability of Microfinance Institutions". Small Enterprise Development,14, 21 31
- Morduch, J., (1999). Microfinance, the Promise. Journal of Economic Literature.
- Mugenda, M., & Mugenda, G., (2003). Research methods: Quantitative and qualitative approach. Nairobi: ACTS Press.
- Muungano Support Trust (2006). Cities where urban poor live in dignity meeting basic needs to scale
- Nairobi City Council, (2012). Licensed businesses in Nairobi, Mukuru slums
- Nwanna, I., (1995). Financial Accessibility and rural sector development. Savings and Development 19(4): 453-491
- Ogijiuba, K., Oluche, F., &Adenuga, A., (2004). Credit Availability to Small and Medium Scale Enterprises in Nigeria: Importance of New Capital Base for Banks-Background Issues. *Working Paper Department of International Economics Relations*, Central Bank of Nigeria
- Patton, M., (2002). *Qualitative Research and Evaluation Methods*. Thousand Oaks, CA: Sage
- Steel, W., &Andah, D., (2004). Rural and Micro Finance Regulation in Ghana: Implications for development of the Industry. Publication for proceedings of conference on Ghana at Half Century
- Stierwald, A., (2009). Determinants of Firm Profitability- The Effect of Productivity and its Persistence. Melbourne Institute of Applied Economic and Social Research:

  The University of Melbourne

- Stiglitz, J., & Weiss, A., (1981). Credit Rationing in Markets with Imperfect Information. *American Economic Review Journal* 71(3): 393-410.
- Udell, F., (1992). Some Evidence on the Empirical Significance of Credit Rationing. *Journal of Political Economy*. University of Chicago Press
- United Nations, (2005). Building Inclusive Financial Systems
- Van, W., (1983). Welfare effects of liberalization in Korea.
- World Bank (2004), *Doing Business in 2004: Understanding Regulation*. The World Bank Washington, DC

# **APPENDIX I: QUESTIONNAIRE**

This questionnaire is to collect data for purely academic purposes. The study seeks to investigate the effects of financial access on the financial performance of small and micro enterprises in Mukuru slums. All information will be treated confidentially. Do not put any name or identification on this questionnaire.

CTION A: BACKGROUN	ND INFORMATION
Please indicate the SMEs	Nature of business
Manufacturing	[]
Trade	[]
Service	[]
How long has the busines	s been in operation?
Less than 2 yrs	[]
2–4 yrs	[]
5-8 yrs	[]
8-10 yrs	[]
More than 10 yrs	[]
Please indicate the numb	er of employees in the SME.
1-5	[]
6-10	[]
11-20	[]
21-50	[]
	Trade Service  How long has the busines  Less than 2 yrs  2–4 yrs  5-8 yrs  8-10 yrs  More than 10 yrs  Please indicate the numb  1-5  6-10  11-20

Over 50

[]

# **SECTION B: FINANCIAL ACCESS**

4.	Which of the following is your SME main source	of cr	edit fi	nanc	eing?			
	Commercial Banks [ ]							
	Microfinance Institutions [ ]							
	Friends and Relatives [ ]							
	Others [ ]]	Pleas	e Spec	cify				
5.	To what extent do the following factors affect ye	our a	ability	acc	ess ci	edit'	? Use	e a
	scale of 1-5 where 5= Very great extent; 4 Great ext	ent;	3= <b>M</b> c	dera	te ext	ent;	2= L	оw
	extent and 1=Very low extent. Tick as appropriate.							
	1	2		3	4		5	
	Cost of finance []			[]			[]	
	Short Repayment Period [ ]	[	1	[]	[]		[]	
	Short repayment remod [1]	L	J	LJ	LJ		LJ	
	Collateral []	[	]	[]	[]		[]	
	Lack of SME Credit Worthiness Information[]	[	]	[]	[]		[]	
6.	Please rank the following factors that could have	been	respo	onsib	ole fo	r cha	nges	in
	ease of credit access using 1-6, where 1 indicates t	he m	ost fa	ctor	and (	6 the	least	t <b>.</b>
Fa	ctors affecting SMEs ease of credit access at	1	2	3	4	5	6	
Mı	ıkuru Slums							
Inc	rease in number of financial institutions offering							
fin	ancial services							
Re	duction on the cost of finance, that is interest rates,							
app	plication fees, loan insurance premium, legal fees etc							
Ad	vancement in technology making loan application							
eas	ier and faster processing							
	Free and the control of the control							

meet the collateral requirement			
Reduced collateral requirement			
Availability of other alternative sources of finances			
from friends and relatives			

**7.** Please indicate the amount of credit financing from the following sources in the last five years.

Year	2013	2012	2011	2010	2009
Total credit finance accessed through informal financial sectors(friends,					
shylocks and relatives)					
Total credit finance accessed through semiformal financial sectors					
Total finance accessed from commercial banks (formal sources)					

# END OF QUESTIONNAIRE

Thank you for taking your time to fill it.