KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

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"ACCESS TO MICROFINANCE AND PERFORMANCE OF SMALL AND MEDIUM SCALE ENTERPRISES IN GHANA: A CASE OF SELECTED SMEs IN THE KUMASI METROPOLIS"

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DECLARATION

I hereby declare that this submission is my own work towards the award of Master of Science (Economics) and that, it contains no material previously published by another person nor material which has been accepted for the award of any degree by this university or any other university, except where due acknowledgement has been made in the text.

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ABSTRACT

The underlying focus of the study was to investigate the impact of services provided by the microfinance institutions on the profitability of small- and medium-scale enterprises that access those services. Employing cross sectional data gathered through the administration of structured questionnaire, the Ordinary Least Squares estimation technique was adopted. On the basis of MFIs services enjoyed by the SMEs in the Kumasi Metropolis, a number of respondents indicated that they have the opportunity to save, invest, and access loan facilities from the MFIs. However, it was made known to the researcher that not much advisory support is received from the MFIs. The results from the OLS estimation revealed that percentage of loans granted outright to the SMEs, cash collateral security required by the MFIs, interest charged on loans and the period of time allowed for the repayment of loans secured are the loan terms that critically influence the profitability of SMEs in the metropolis. On the contrary, the length of time taken to access loans, the grace period permitted by the MFIs, and cost of labour do not have any power in determining the profitability of the SMEs at the various margins of error adopted by the study. The researcher therefore recommends regularly monitoring of loans advanced to Small and Medium Scale Enterprises. The researcher also recommends that Microfinance institutions can partner enterprise development agencies to increase the advisory support rendered to Small and Medium Scale Enterprises.

DEDICATION

This work is dedicated to our God almighty and my dear parents, Mr. Anthony Antwi and Madam Monica Appiah.

ACKNOWLEGDEMENT

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ABBREVIATIONS

CCS   Cash Collateral Security

CIDA   Canadian International Development Agency

DANIDA   Danish International Development Agency

GPA   Grace Period Allowed

GTZ   German Technical Cooperation

IFC   International Finance Corporation

IL   Interest on Loan

ILO   International Labour Organisation

LTAL   Length of Time taken to Access Loan

MFIs   Microfinance Institutions

MIF-IADB   Multilateral Investment Fund- Inter-American Development Bank

PLG   Percentage of Loan Granted

RP   Repayment Period

SMEs   Small and Medium Scale Enterprises

UNDP   United Nation Development Programme

WSA   Wage, Salary and Allowance

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

According to Moruf (2013), Microfinance involves the provision of limited financial services to a group or catchment area who mostly do not have access to formal banking facilities. Worldwide, microfinance is seen as a tool for economic growth facilitating the growth of SMEs through providing capital for start-ups and expansion of existing small businesses among other financial services (Nahamya et al., 2013). In Ghana, a lot of small businesses have benefitted from loans from microfinance institution. A report from Bank of Ghana in 2007 revealed that GH¢ 71.63million was advanced as credit to clients by Rural and Community Banks in 2005 while GH¢ 115.3million was granted in 2006 representing a 35.4% rise in loan advancement.

Many economies in the world see SMEs to be very important due to their immense contribution to productivity and employment (Hayford, 2012). Small businesses in Ghana constitute about 92% of enterprises in the country and contribute about 70 % to the nation's Gross Domestic Product (Quaye et al., 2014). According to an economic survey conducted in Kenya in 2009, SMEs contributed about 80% of employment (Muteru, 2013). There is therefore no doubt that SMEs remains the highest employer and the biggest contributor to many developing countries in Africa.

Unfortunately, over the years, micro businesses and other entities face many challenges when accessing credit from formal banking institutions in order to grow their businesses (Quaye et al., 2014). Micro finance institutions, in their quest to solve this market failure, have made small businesses their main operation target. Although microfinance is not an overall panacea for higher SME development and

productivity, when properly harnessed it can make considerable contributions through financial investment which can lead to the growth of SMEs, which in turn will promote economic growth.

1.2 Statement of the Problem

Small and medium scale enterprises have contributed a lot to Ghana. A study performed by Villars (2004) showed that about 92 percent of enterprises as well as 70 percent of Gross Domestic Product in Ghana are contributed by SMEs. Abor et al (2010) conducted research on the issues in SME development in Ghana and South Africa. The study found out that SMEs by producing of goods which have value and by rendering of services to other entities and individuals contribute to the national product of a country. According to Harvie (2003), a considerable number of the poor and women rely on small businesses in the informal sector for survival. SMEs have helped to provide the poor with income therefore reducing poverty and increasing their welfare.

However, studies have disclosed that SMEs find it difficult accessing credit from financial institutions. A research done by Levy (2003) revealed that SMEs have inadequate access to credit compared to large enterprises. A study conducted by Sowa et al (1992) also reveal that SMEs lament about difficulties in banking procedures and difficulties involved in acquiring credit from banks.

Microfinance institutions have served as a solution by facilitating the delivery of financial services especially to SMEs in order to increase growth (Ahiabor, 2013). According to Quaye (2011), microfinance institutions have become instrumental to the survival of SMEs in Ghana.

That notwithstanding, studies have shown that microfinance institutions have posed some problems to SMEs. A study conducted by Karlan and Zinman (2009) revealed that the microfinance system is not helping in the progress of small enterprises that take loans from them. Also, according to Valentino (2008), short duration for repayment as well as exorbitant interest rate of loans from microfinance institutions causes SMEs to mismanage credit.

There is therefore no consistency with regards to the impact of MFI financing on the performance of SMEs. This study provides an investigation to show how MFI financing have impacted on the performance of SMEs.

1.3 Objectives of the Study

Generally, the study seeks to investigate the services MFIs provide for SMEs and the effect of MFI credit on the profitability of SMEs.

The specific objectives of the study are to:

1. Examine the services offered by Microfinance Institutions to SMEs.
2. Examine the effect of MFI loans' terms on the performance of SMEs.

1.4 Hypotheses of the Study

These are the null hypotheses to be analysed:

H_0: MFIs do not offer services to SMEs.

H_0: MFI loans' terms do not have any effect on SME performance.

1.5 Justification for the Study

A number of studies have been conducted on the services MFIs provide for SMEs and the effect of MFI credit on the performance of SMEs. Kibet et al. (2015) investigated the effects of MFI credit on the growth of SMEs capital and human resource. Ahiabor (2013) investigated the extent to which MFIs are attaining their objectives towards the development of SMEs. Muteru (2013) also conducted a study to assess the effect of the cost of MFI services on women owned enterprises in Kikuyu Township. Njoora et al. (2014) investigated the impact of Microfinance credit on SMEs.

All these empirical works failed to investigate the MFI loan terms and their impact on the performance of SMEs. Hence, the need for further research to investigate how the loan terms defined by MFIs affect the performance of SMEs. So this study seeks to address the gap.

The research would also serve as a point of reference for other researchers who need information on the characteristics of MFI credit and how these activities impact SME performance.

1.6 Scope of the Study

Geographically, the study was conducted in the Kumasi Metropolis in the Ashanti Region of Ghana. The primary motive for choosing this area was its proximity to the researcher as well as the numerous registered SMEs that the metropolis can boast of. The secondary motives for choosing these SMEs include the provision of first-hand information regarding challenges that they face due to the virtual exclusion from the banking services provided by the universal banks and availability of data.

1.7 Organization of the Study

This research is structured into five chapters. The first chapter deals with introduction of the research whiles the second chapter discusses the conceptual and theoretical matters regarding the effect on MFI activities on SME development. The chapter three of this paper discusses the methodology of the research. Chapter four analyses and presents data gathered SMEs in the Kumasi metropolis. Chapter five summarises the results of the analysis and gives recommendations for consideration.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The impact of microfinance institution financing on SME performance has been vastly explored by several weights in the world of finance. It is in this light that this chapter looks extensively at the areas explored by these authors and analysts. The chapter begins with an overview of microfinance. It goes further to review the development issues associated with the concept. Attention is then switched to the SME concept and its development issues. At this stage the contributions of SMEs to economic development is reviewed. The chapter also examines works on the reasons why SMEs encounter challenges in loan accessibility. The chapter ends by looking at conceptual and theoretic relationships between microfinance activities and SME performance.

2.2 Definitions and Conceptual Reviews

According to Ngehnevu et al. (2010), microfinance refers to an instrument developed to provide services such as micro loans, savings, and insurance, transfer services to help the extremely poor set up or expand their small enterprises. The need to offer financial services to the low income earners led to the formation of the concept of microfinance (Kisaka et al, 2014). MFIs do not provide only financial intermediary services but also provide social intermediation, enterprise development, and other non-financial services (Quaye, 2011 in Bennett, 1997). According to Leggerwood (1999), some MFIs form groups and train group members on basic financial management. The microfinance term comprises micro credit, micro savings and

micro leasing (Babajide, 2011). Credit unions, rural banks, non-bank financial institutions and Financial Non-government organisations are some of the institutions involved in the provision of microfinance services. In developing countries in recent times, developments are normally concentrated in urban areas and therefore there is the need for microfinance in rural areas to help facilitate rural development (Iheduru, 2002).

Microfinance refers to the rendering of financial services to clients on low income and it involves the management of small savings as well as the provision of other financial products which include micro credit and insurance (Bank of Ghana, 2007). According to the Finance Ministry of Ghana, microfinance has passed through 4 stages and they are:

Phase One: Lack of capital was presumed to be the major barrier to the kicking out of poverty therefore the government, from the 1950's provided loans at reduced interest rates.

Phase Two: During the 1960's and the 1970's, NGOs offered loans to the poor.

Phase Three: Microfinance Institutions become formalized in the 1990's.

Phase Four: The microfinance institutions activities have been commercialized and has gained much importance since the mid 1990's.

According to Asiamah (2007), various successive government have development financial programs that has help the microfinance sector develop into its present state. Among these are:

1. Offering of loans with low interest rates in the 1950s;

2. Forming of the Agriculture Development Bank to offer financial services to the agriculture sector in 1965;

3. Forming of the Rural and Community Banks, in the 1970s, to increase financial services to small businesses.

4. Moving, in 1986, from a restraining financial sector system to a liberalized system;

5. Allowing the institution of different types of non-bank financial institutions, in 1991, with the formation of the PNDC Law 328.

As a result of these programs, there was the development of three types of microfinance institutions and there are

1. Finance service providers who are regarded formal and they include rural banks and savings and loans companies;

2. Financial services providers who regarded as semi-formal and they include credit unions;

3. Financial service providers who are regarded informal and they include money lenders and susu clubs (Asiama, 2007).

2.2.1 MFI Objectives and Services

The main objectives of MFIs is to meet the financial objectives of the neglected market in order to reduce poverty, help expand business, generate employment and empower women (Olu, 2009). Microfinance have it as their main aim to provide credit ,train and provide advisory services to enable small enterprises manage their businesses well (Mintah et al., 2014, in Otero, 1999) . The aim of microfinance

institutions is to provide financial services to the poor to enable them improve their welfare (Asiama et al., 2007). Microfinance institutions intend to provide financial services to the poor who are constantly neglected by formal banking sector (Rosenberg, 2004). MFIs provide products and services that can be classified into 4 major groups and they are financial intermediation, social intermediation, enterprise development and social services (Obli, 2011). Financial intermediation services offered by MFI's include savings products, insurance services, credit cards, payment services and other financial services that do not require subsidies. Social intermediation services include providing subsidized products and services to the poor in the efforts to build human and social capital. Social intermediation occurs when intermediation services which are financial in nature are offered at reduced rates. Enterprise development refers to services performed by MFIs which are non-financial in nature and are directed towards increases the skills as well as the technological capacity of small businesses. These services can be performed at reduced rate but this is not in all cases. It can sometimes be performed at high rates (Obli, 2011). Social services or non-financial services include the delivery of welfare development services to small businesses. These include the offering of services in education, knowledge, wellbeing and diet. This services are offered at reduced rates and are frequently provided with donor money, NGO forums, etc. (Bennett, 1997; Legerwwod, 1999)

2.2.2 Microfinance Contributions to Poverty Reduction

Microfinance offers loans, savings micro insurance and basic management skills to the poor in the bid to alleviate poverty (International Year of Microcredit, United Nations, 2005). Microfinance helps to provide capital to the poor as well as training

to the poor to be able to utilize the capital to reduce poverty and contribute their quota to the society (Otero, 1999). According to Littlefield and Rosenberg (2004), the financial sector has neglected the poor so microfinance was established to provide a financial helping hand to the poor.

According to Simanowitz and Brody (2004), Microfinance will provide a financial system that will help the poor achieve their needs and in so doing the Millennium Development Goals will be met.

Microfinance is special and great when it comes to developmental programs and its gains are considerable (Littlefield, Murduch and Hashemi, 2003). According to Kofi Annan, former UN Secretary General, during the unveiling of the International Year of Micro Credit (2005), he said access to microfinance enables the poor to reduce poverty, provide support to families, generate employment for others, access quality health care services and pursue choices that will benefit them.

2.3 SME Definition

Due to the unstructured nature of the SME sector, researchers have hardly agree on a simple definition for SMEs. According to Storey (1994), SMEs have no generally accepted definition. The definition depends on the person as well as the location where it is been defined and therefore there is no generally accepted description for SMEs (Ward, 2005). SMEs vary in terms of the people they employ, sales and their capital requirements. Therefore a definition of SMEs that is based on the number of people employed would generate a different meaning if it is applied to a different location of SMEs. According to the USAID, SMEs refer to business which aside their land and building, have fixed resources whose values are not beyond US $250,000.00. The International Labour Organization (ILO) are also of the opinion

that no one meaning can describe all the characteristics of SMEs. According to Recommendation 2003/361/E accepted by the European Commission, small businesses are grouped as employing people whose number is not beyond 50, sales as well as balance sheets not going beyond 10 million Euros. . Firms that employ people whose number does not go beyond 250 and whose sales value does not go beyond 50 million Euros with balance sheet value not going beyond 43 million Euros are also regarded as medium-sized businesses. In France, SMEs are businesses which employ a number of people but has the employment numbers less than 250. For the purpose of this study the definition accepted by the European Commission was adopted because it takes into account number of employees and sales made. Other definitions by some multilateral organisations are shown below in Table 2.1.

Table 2.1: SME Definitions by some Multilateral Organisations

Institution	Maximum No. of employees	Maximum revenue or Turnover ($)	Maximum Assets ($)
World Bank	300	15,000,000	15,000,000
MIF-IADB	100	3,000,000	(none)
African Development Bank	50	(none)	(none)
UNDP	200	(none)	(none)

Source: Gibson and Vaart, 2008

2.3.1 Small and Medium Scale Enterprises in Ghana

According to the Ghana Statistical Service, firms with fixed resources not going beyond $100,00.00 and has workers numbering between five and twenty-nine are regarded as small enterprises while firms workers numbering between thirty and ninety-nine are regarded as medium sized enterprises .

Firms with fixed resources value not costing beyond US$100,000.00 excluding land and buildings and hires employees whose number does not exceed twenty-nine are known as SMEs and this is according to the National Board for Small Scale Industries.

One of the characteristics that differentiates SMEs from large businesses is that large businesses have access to capital markets both at the local and international level whiles SMEs do not have access to capital markets both at the local and international level. Besides, large and SMEs incur equal cost in going according to the rules and regulations yet there is limited opportunity as well as capacity for SMEs in terms of selling goods and services in foreign countries (Kayanula & Quartey, 2000).

Rural and urban enterprises are the sub divisions for SMEs in Ghana. Under the urban enterprises, we have the organised and unorganised enterprises. The organised enterprises are characterised by registered places of work, salaried workers and it is either owned by an individual or a group of people in the form of partnership. On the other hand, unorganised enterprises do not have registered places of work and most often than not do no have employees that receive salaries. The concept of separate business from family issues is not found in rural enterprise. Workers are mostly family workers and the funds for personal use are not separate from the business. In Ghana SMEs provide a lot of diverse goods and services ranging from shoe making,

furniture making, to the selling of second-hand clothing as well as provision of consulting services. Some SMEs in Ghana use innovate ways in running their businesses which lead to growth while others do not resort to any innovative ways to make them grow.

2.3.2 Types of SMEs

SMEs receive different types of financial support from MFIs and these support is based on whether the SMEs are at the start-up level or has been operating for some time now. In addition to this, the support also depends on whether the SMEs is unstable, developing or stable. The venture that the SME is dealing in is also taken in consideration before financial support is rendered to it (Ledgerwood, 1999).

2.3.3 Existing and Start-up SMEs

Start-up SMEs need start-up capital to begin operations. It is more risky compared to existing businesses and there most financial institutions do not want to channel their financial support into these areas. They either use their personal savings or borrow from friends, family member, or individual moneylenders whose interest are most often than not exorbitant. According to Ledgerwood (1999), due to their in most cases good track record, MFIs deem it less risky to deal with SMEs that are existing.

For start-up businesses they do not only need the financial support. They also need non-financial support like financial management skills as well as business management skills to be able to put the funds received from MFIs into good use. Start-ups equipped with training skills normally attract loans from MFIs. Businesses

that are existing and have part of their resources as capital are seen to be less risky by MFIs because they have capital level involvement (Ledgerwood, 1999).

2.3.4 Level of Business Development

Based on the growth level of the SME, MFIs offer their financial services. SMEs can be categorised into three stages that gain from accessing services from financial institutions.

2.3.4.1 Unstable survivors

They are business that will exist for a short period of time. They cannot be survive for a very long time not even with the help of financial institutions. Financial institutions concentrating on these businesses only waste their time and increases their cost.

2.3.4.2 Stable survivors

These businesses also access financial services from financial institutions which they gain from and these services help them to produce goods and services for sale as well as having some for consumption. However, only small profits are made from these businesses and therefore most often than not these gains are consumed rather than reinvested. Seasonal changes also determine the success or failure of these businesses.

2.3.4.3 Growth Enterprise

These are businesses that have high prospect of growth. MFIs with the aim of expanding businesses to increase employment invest in these types of businesses.

Moreover, MFIs also invest in these types of businesses to transform in terms of size and move them from the informal sectors to the formal sectors (Ledgerwood, 1999).

2.3.5 SME Contribution to Economic Growth

SMEs have contributed a lot to economic as well as social development in Ghana and the world at large. In Africa, SME development is a priority to most nation and this is due to its contribution to the development of the country in terms of their revenue and employment generation. It is therefore an undeniable fact that SMEs are ventures that entrepreneurs can solve problems and create wealth. 90 percent of all registered businesses are SMEs and this is according to United Nations Industrial Development Organization (UNIDO).

In Africa, government in an attempt to speed the growth of their economy pay much attention to SMEs as these ventures are part of the major drivers of the economy.

SMEs serve as a source of income as well as employment to a large proportion of the working class in the urban areas (Aryeetey, 2001).In developing countries, it is estimated that about twenty-two percent of the population in the adult category is working in SMEs (Daniels, 1994). In Ghana, it is also estimated that SMEs contribute about 50 percent of the GDP annual and also employ about sixty percent of the working force (Minister of Finance, Dr Kwabena Dufour, reported by Business and Financial Times 13-07-2009).

Moreover, SMEs tend to use local raw materials as inputs which helps to provide income to raw material producers and also helps reduce the demand for foreign currencies. SMEs have provided avenues for people to save and channel financial resources for more income generation. In some cases, local technology is promoted

by SME activities. SMEs is about 90 percent of companies that are registered in Ghana. SMEs have developed and become key suppliers to companies. Their activities in Ghana significantly affect income, employment and economic growth and in 2012 SMEs contributed about 49 percent to GDP (Pwc Ghana, 2013).

2.3.6 Credit Challenges faced by SMEs.

Over the years, SMEs have found it very difficult accessing loans from banks and most often than not SMEs in the rural areas are the hardest hit. Banks design programs that do not go in favour of SMEs (Von Pischke, 1991). The illiteracy rate among the poor is high the banks lack those expertise to focus and provide financial services to the poor in villages.

In terms of numbers, SMEs in the rural areas are very few and also these places are located at distant areas and this makes the cost of providing financial services to these people very expensive. This situation serves as a barrier to many banks (Devereux et al 1990:11). Due to their risky nature many banks in developing countries do not want to provide financial services to SMEs.

According to Hossain (1998), Bhattacharya, et al. (2000) and Sia (2003), banks find it very difficult loaning money to SMEs because they see them to be risky ventures. According to Sia (2003), banks do not want to invest in SMEs because they realise that SMEs do not have the financial resources to repay their debt during unfavourable economic conditions. According to Meagher (1998), even though government sometimes reduce borrowing cost for SMEs, the cost of borrowing is high and this prevents SMEs from accessing loans from banks. It is difficult for SMEs to access capital from financial institutions because the procedures involved in

applying for loan is too long and cumbersome (Hossain, 1998). Banks require securities which are sometimes secured against fixed assets which are high in value and this is sometimes difficult to get by some SMEs. These collaterals are sometimes 200 percent of the loan value and include lands and buildings which these SMEs find very difficult to get (Meagher, 1998).

Most often than not, profitability as well as cash flow ratio are used to determine the credit worthiness of a business. This method is very complicated and it is not an appropriate way of determining the credit worthiness of businesses in the rural areas Economic activities in the rural areas is determined by certain uncontrollable factors such as climate conditions that are not taken into consideration by businesses and this affect them when they want to deal with financial institutions because they consider those ventures as too risky (Otero et al 1994: 13).

2.4 Some Financing Schemes for SMEs in Ghana

According to Abor and Quartey (2009), SMEs represent a considerable number of enterprises in Ghana. They comprise about 92 percent of enterprises in the country and contribute about 70 percent to GDP. However, SMEs in Ghana mostly face the problem of inadequate credit provision from commercial banks (Ahiabor, 2013). Due to this financial problems faced by SMEs, governments and development partners have introduced a lot financing programs to help facilitate the flow of funds to SMEs (Mensah, 2004). Bank of Ghana has also played a significant role in facilitating the flow of funds to SMEs through the Credit Guarantee for Small Borrowers Scheme which started in 1969 and was operated through the financial department of the bank (Bank of Ghana, 2007).

The financing programs put in place by governments of Ghana to help assist SMEs in the country include:

2   Export Development and Investment Fund: With respect to this program, SMEs involved in export business can access credit at a reduced rate of 15 percent and pay over five years.

3   Business Assistant Fund: This fund was established in the 1990s and it provided direct credit to SMEs. However, the program did not serve its purpose because funds from this program was being channelled to supporters of the then government (Mensah, 2004).

Over the years many donor agencies have also intervened in supporting SMEs in Ghana through the implementation of some financing programs and this is shown below in Table 2.2.

Table 2.2: Activities of Some Donor Agencies in Providing Support to SMEs in Ghana

Donor	Title	Brief Description
CIDA	Private Sector Development Support	Helping MSMEs (deepening technological capacity)
DANIDA	Private Sector Program	Business connections between Denmark and Ghana
GTZ	Promotion of Private Sector	Promotes and facilitates German investments in Ghana
IFC	Africa Project Development Facility	Providing support for the growth of SMEs through training

Source: Mensah, 2004

2.5 Theoretical Reviews

Several attempts have been made by scholarly writers in developing theories that explain the sources of financing small and medium scale enterprises. Among these are the Pecking Order Theory by Myers (1984), the Financial Growth Theory by Berger and Udell (1998), the Contract Theory among others.

2.5.1 Pecking Order Theory

This theory was formulated by Myers (1984). This theory explains that there are factors that cause capital structure decisions of SMEs. This theory is of the view that enterprises will first use internal earnings before they resort to external sources of finance. This theory has been found to be very important to the provision of finance to SMEs because many enterprises, especially the small ones, exhaust internal earnings before they seek for external ones. One factor influencing the capital decision of SMEs is the size of the firm. Due to inadequate access to external credit for small businesses, the pecking order applies more to small enterprises (Babajide, 2011, in Holmes and Kent, 1991).

The study is supported by Chitten et al. (1996) and they unveiled that the size of an enterprise has a correlation with the capital structure decision according to the pecking order theory. The financial decisions of unlisted enterprises tends to be consistent with the pecking order theory unlike the unlisted ones (Maheraut, 2000). This is because financial information on listed enterprises tend to be readily available unlike private businesses. This therefore indicates that the less the non-availability of information on a company, the more the pecking order applies to the company in the making of financing decisions. According to Weinberg (1994), lenders require higher

interest rates because there is no information to indicate the likelihood of default on the part of small enterprises and this results in limited external capital to small enterprises.

2.5.2 Financial Growth Theory

This is a theory proposed by Berger and Udell (1998) and it says that as small firms grow and become more experienced and more transparent in information, their financial options and needs also changes. According to them, businesses are on a size/age/information continuum where smaller/budding /less transparent enterprises are found near the left part of the continuum showing that these small enterprises must depend on internal finance, finance from their suppliers and finance from business angels. Venture capital becomes the intermediate source of equity finance and medium term credit becomes the intermediate source of debt finance as the enterprise grows. The enterprise is able to access funds through public equity or long term loan when it reaches the final stage of growth. A lot of studies have shown that one challenge hindering SME performance is inadequate credit (Edafiaje, 2011; Hayford, 2012; Kibet et al., 2015). Small enterprises have capital strictures different from that of big enterprises because small enterprises rely on financial sources which are informal and have limited funds.

2.5.3 Contract Theory

This studies the formulation of agreements of legal backing between individuals. This theory occurs as a result of information asymmetry and it studies how parties to a business agreement make decisions when they are faced with information

asymmetry. Information asymmetry refers to the situation where one party to a contract has inadequate information about the other party and therefore make wrong judgements.

In the finance sector, providers of credit face information asymmetry in providing credit to SMEs. This situation results in adverse selection and moral hazards. Adverse selection is caused due to information asymmetry and it occurs when borrowers of credit provide inaccurate information about their assets and liabilities as well as their debt capacities in order to enter into a loan transaction with the provider of credit.

Moral hazard occurs after the adverse selection because the loan falls into the wrong hands and are used for activities that are not productive or not for the purpose for which the loan was contracted. This can result in loan default or loan repayment delay. Due to this risk, providers of finance normally request for securities before they advance loans to small enterprises. The major reason why small enterprises face credit challenges is due to information asymmetry and not because of the resultant adverse selection and moral hazard (Babajide, 2011 in Stigilitz and Weiss, 1981).

2.5.4 The Concept of Profit Maximisation

Profit maximisation can be analysed from two different perspectives. One, given the factor inputs and level of technology, the firm maximises output (specifically, profit) by efficient combination of the factor inputs; or two, at a given level of output, the firm can minimise cost of production. In each case, the firm must take into account the prevailing market condition in determining the quantity to supply. The underlying assumption in this analysis is that firms operate in a perfectly competitive

product market and for that matter take price as given by the market (Cowell, 2006). The price-taking assumption can be formalised by considering the elasticity of the market demand the firm faces, expressed as:

$$\epsilon_D = \frac{\partial y}{\partial p} \times \frac{p}{y} \qquad (2.1)$$

Where ϵ_D represents the market demand elasticity, p and y denoting the prevailing market price and firm's output level at a particular period respectively with ∂ signifying a change.

From equation (2.1), a firm operating in the perfectly competitive market assumes an infinitely elastic market demand schedule. The implication here is that the firm cannot influence price by its choice of quantity supplied.

Intuitively, a firm with small market share would hardly exert great influence on price. Also, the very elastic market demand condition limits the likelihood of a firm influencing price in an industry. The price elasticity of demand, therefore, plays a crucial role in a firm's output decision making process. Finally, if the other competing firms in the industry are very responsive to market price changes, it becomes impossible for a firm to influence price through its output decision. The elasticity of demand a firm faces can, then, be decomposed into two effects as:

$$\epsilon_D = \frac{1}{ms} E_D \left(\frac{1}{ms} - 1 \right) E_S \qquad (2.2)$$

Where ms represents the firm's market share, E_D and E_S are the price elasticity of demand and supply respectively of the other firms in the industry. Equation (2.2) shows clearly that ϵ_D increases with E_D and E_S but decreases when ms increases.

A firm operating in a perfectly competitive environment must consider the cost and revenue to decide the scale of operation (i.e. its supply function). The objective function of the profit maximising firm operating in a competitive product market can be expressed as:

$$\max_{y} py - C(w,r,y) = 0 \tag{2.3}$$

Taking the first order condition with respect to output (*y*) gives:

$$p = \frac{\partial C(w,r,y)}{\partial y} = MC \tag{2.4}$$

Equation (2.4) implies that the optimal scale decision of a firm depends on the factor prices, *w* and *r* as well as output price, *p*. That is to say, the profit maximising competitive firm will choose its output to equate marginal revenue and marginal cost. It must be stated that upon the price-taking assumption in the goods market, a firm's marginal revenue is constant and equal to *p*.

Suppose, on the contrary, that price is over and above a firm's marginal cost of production as expressed below:

$$p > \frac{\partial C(w,r,y)}{\partial y}$$

Then, a profit maximising firm would stand to benefit from this market condition and as result increase output. If the situation turns otherwise where marginal cost exceeds marginal revenue and the marginal revenue cannot cater for its average variable cost, such a firm will shut down.

The first condition is the necessary condition for profit maximisation. A sufficient condition must be achieved by taking the derivative of the second order which must be negative to reflect the convexity of the cost function in output.

$$-\frac{\partial^2 C(w,r,y)}{\partial y^2} \; < \; 0$$

Explicitly, the profit function of a perfectly competitive firm can be expressed as:

$$\max_{k,l} pf(k,l) \, - rk - wl \, = 0 \tag{2.5}$$

Where k represent the unit of capital, l denotes labour units measured in hours spent in a productive activity, r represents rental cost of capital (interest rate) and w is the cost of labour (wage). The optimisation condition, then, can be expressed as:

$$pf_l(k^*,l^*) \; = \; w \tag{2.6a}$$

$$pf_k(k^*,l^*) \; = \; r \tag{2.6b}$$

The optimal levels of capital and labour are functions of rental cost of capital, wages, and the industry's market price. The firm, then, selects the best combination of capital and labour to maximise the difference between costs and revenues. Thus, the profit function becomes:

$$\pi^*(w,r,p) = py^*(w,r,p) - \, wl^*(w,r,p) - rk^*(w,r,p) \tag{2.7a}$$

$$= py^*(w,r,p) - \, wl^* - rk^* \tag{2.7b}$$

Where π^* is the optimum profit which a function of wages, rental cost of capital, and market price. The follow properties underlies the profit function.

    i.   The profit function is homogenous of degree one factor prices and market price:

$$\pi^*(\beta w, \beta r, \beta p) = \; \beta\pi^*(w,r,p)$$

    ii.   The factor demand function is derived by taking the derivative of the profit function with respect to w and r:

$$\frac{\partial \pi^*}{\partial w} = -l^*(w,r,p) \qquad \text{and} \qquad \frac{\partial \pi^*}{\partial r} = -k^*(w,r,p)$$

iii. The derivative of the profit function with respect to p gives the supply function of the firm:

$$\frac{\partial \pi^*}{\partial p} = y^*(w,r,p)$$

iv. The profit function is non-decreasing in output prices:

$$\frac{\partial \pi^*}{\partial p} \geq 0$$

v. The profit function is non-increasing in input prices:

$$\frac{\partial \pi^*}{\partial w} \leq 0 \qquad \text{and} \qquad \frac{\partial \pi^*}{\partial r} \leq 0$$

vi. The profit function is convex in w, r, and p.

2.6 Conceptual Framework

The conceptual framework shows the relationship between SMEs' labour cost (comprising wages, salaries, and allowances) and the terms of microfinance loans and SME performance. There are characteristics of MFI credit that impact the performance of SMEs and they are percentage of loans granted, time taken to process loans, collateral security required, time allowed for repayment of loans, interest rates on loans and grace period allowed for loan default. A decrease in the labour cost, requirements of collateral security, interest rates paid on loans, and time taken to process loan coupled with an increase in time allowed for repayment, grace period allowed for loan default, and percentage of loans granted outright, SMEs should be able to increase profit margin, employment, stock sales and asset accumulation. The profitability of SMEs is expected to decline should the conditions happen to be the reverse in each case.
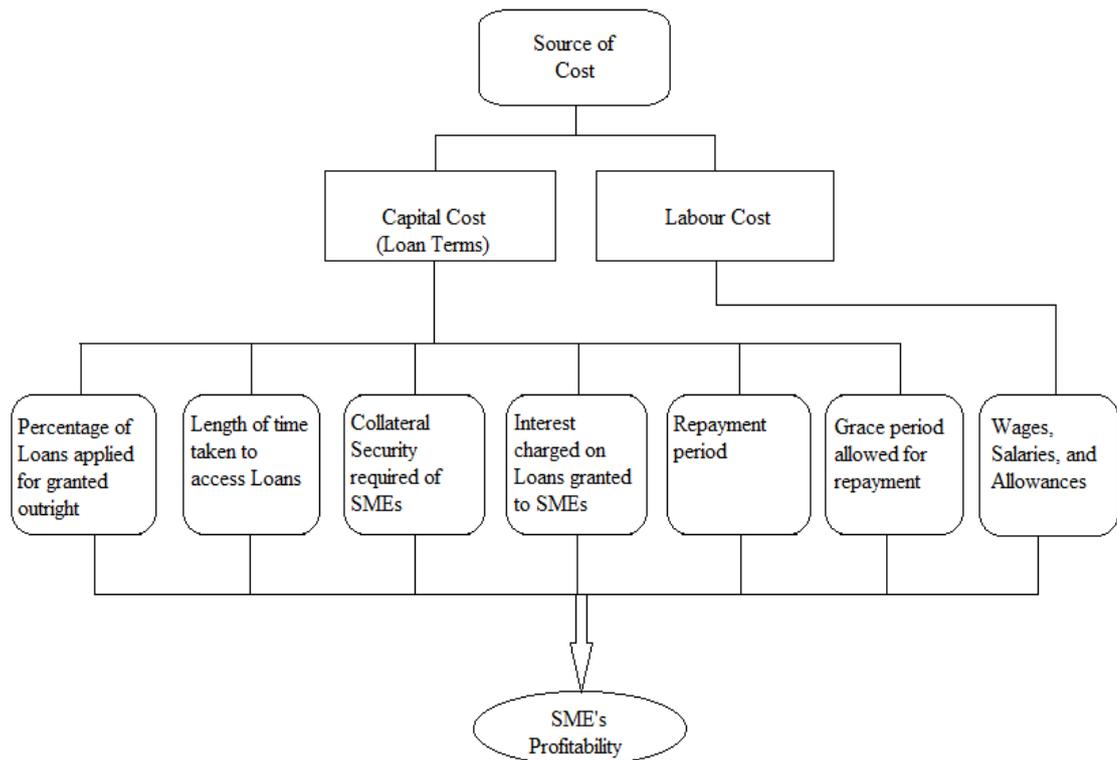
Figure 2.1: The Transmission Mechanism of MFIs' Loan Terms Effect and other cost on SMEs' Profitability

Source: Author's Own Construct

2.7 Empirical Reviews

Many researches have been conducted in this area of literature. Moruf (2013) researched on the impact of the credit of microfinance banks in Nigeria on the operations of SMEs. The study examined the impact of the administration of microfinance credit on the operations of SMEs, the perception SMEs had about the credit of the MFBs and the challenges that selected SMEs faced in accessing credit from MFBs. The researcher used structured questionnaires in gathering primary data from 240 sampled SMEs who were selected at random. The findings of this research revealed that there was a significant relationship between MFB credit and SME

performance. The study also revealed that SMEs faced some problems in obtain funds from the MFBs and this includes high interest rates being charged by MFBs.

Kibet et al. (2015) also investigated the effect of microfinance credit on the performance of SMEs in Uasin Gishu County in Kenya. The researchers used open and closed ended questionnaires, interview guides and observation as their research instruments in collecting data 47 sampled SMEs in Usain Gaishu County. The relationship between the variables of microfinance credit and SME performance was tested using the Pearson Product Moment Correlation Co efficient. The study found out that out that microfinance credit has increased performance of SMEs in the county.

Ahiabor (2013) also conducted a study on the impact of microfinance on SME development in the Ledzorkuku- Krowor Municipality in the Greater Accra Region of Ghana. The research adopted the inductive approach. Seventy (70) SMEs were sampled from 235 SMEs and quantitative data from this sample was analysed using the Statistical Package for Social Scientist (SPSS). The study found out that high interest rates as well as other charges from MFIs was making it very difficult for SMEs to make reasonable profit and pay their loans.

Njoora and Kyalo (2014) conducted a study on the effect of microfinance credit on SMEs in Ngong of Kajiado County in Kenya. The study revealed that credit advanced to the SMEs impacted positively on the growth of their businesses. The study also revealed that there was a significant correlation between credit advanced to SMEs and the rate of employment.

Edafiaje (2011) employed a descriptive survey to collect primary data from sixty (60) sampled respondents in order to ascertain the role of microfinance banks in

financing small scale enterprises in Delta State, Nigeria. The study found out that the number of SMEs financed by MFBs in the rural and urban areas of Delta State were not the same and encouraging. The study also recommended that the period between loan advancement and repayment should be increased.

Gathogo (2014) also used the purposive sampling method to select SME respondents, collected primary data using structured questionnaires and analysed the data using descriptive and inferential statistics to determine the effect of MFIs on the growth of SMEs in the Kiarabu County, Kenya. The study concluded that MFIs played a small role in the economic empowerment of SMEs as most SMEs relied on family members and village loans for start-up capitals.

Nahaya et al., (2013) also investigated the impact of microfinance service delivery on the growth of SMEs in Uganda. The research focused on eight district in the Eastern Region of Uganda selecting 228 SMEs from whom primary data were gathered. The found out that MFIs services increase SME growth but this can only be achieved when MFIs do not charge SMEs excessively and they make their services readily available to SMEs. They also added that lack of securities, poor location of businesses, inadequate skills to provide proper management were some of the reasons that to limited access of MFI services on the part of SMEs.

Although the afore-reviewed empirical studies were conducted in different economies with diverse research objectives, their findings revealed that microfinance institutions, through the services provided, play a critical role in the determination of the profitability of small- and medium-scale enterprises in their respective economies. However, they failed to have detailed look at the issue at stake. The

uniqueness of this study can then be seen from the fact that it goes ahead to analyse,

quantitatively, the effect of loan terms on the profitability of SMEs in the metropolis.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The chapter seeks to elucidate the tools and methods adopted in gathering and analysing the data thereby arriving at the findings of the study. Also, this chapter discusses the variables that have the potential to determine the performance of small and medium scale enterprises and from which the conclusion of the study can be drawn. On the basis of the information given in this very chapter, in terms of data employed and analytical approaches adopted, a critical assessment on the validity of the research work can be done.

3.2 Research Design

This study made use of correlational and descriptive research design types. The correlational research design was adopted in order to determine the strength of relationship existing between the dependent variable and each of the independent variables. The study also employed the descriptive research design to enable the researcher identify the characteristics of the SME respondents in relation to their patronization of Microfinance services.

3.3 Population

Small- and medium-scale enterprises have sprang up all over the Kumasi Metropolis and because some of them operate unregistered, the true population of SMEs that are in the metropolis is hard to come by. According to the Kumasi Business Advisory Centre of the National Board for Small-Scale Industries, One Hundred and Thirty-Six (136) SMEs have registered with it. The researcher, therefore, resorted to this number as the population from which a sample was extracted for the study.

3.4 Sampling Technique

The sample selection criterion employed in choosing the participants for the survey was that of simple random sampling approach. This method gives individuals (here, the SMEs) in the study equal chance of being selected for the study and, thus, avoiding any selection bias. Again compared to other sampling techniques, it is easier verifying the efficiency of the parameters estimated when the simple random sampling is adopted. This study adopted the sample size selection criterion as expressed in equation (3.1) propounded by De Vaus (2002).

$$n = \frac{N}{1 + N(e^2)} \qquad (3.1)$$

Where N represents the population of registered SMEs in the Kumasi Metropolis, n representing the sample size and e denoting the margin of error.

Substituting the corresponding values (i.e. $e = 5\%$ and $N = 136$), the sample size can be calculated as:

$$n = \frac{136}{1 + 136(0.05^2)}$$

$$=> \quad n \quad = \quad \frac{136}{1.34}$$

$$= \quad 101.4925 \quad \approx \quad 101$$

Therefore, a total of one hundred and one (101) SMEs were contacted to solicit their views in relation to how the services provided by microfinance institutions have impacted their businesses in terms of profit.

3.5 Source of Data

This study relied principally on primary data source. For example, data on whether or not small- and medium-scale enterprises receive any form of training or advisory support on their business from the microfinance institutions was that of primary in nature. The use of the primary source is advantageous for its appropriateness and accuracy. That is, it creates the room for the researcher to observe the demeanour of the respondents. The secondary data source was equally indispensable because information for the study comprises of already manufactured data, especially, when it comes to the definition of SMEs. As a result, the internet, published and unpublished papers served as additional sources of information.

3.6 Data Collection Techniques

The tool employed in collecting the primary data was personally administered structured questionnaire. In this regard, predetermined questions were posed to proprietors of small- and medium-scale enterprises by the researcher personally. The questionnaire was segmented into four parts: the first section consisted of the bio data where the researcher sought to know the demographic characteristics of SMEs' proprietors such as gender, age, and their educational background; the second section inquired about business; the third section investigated the MFIs' services enjoyed by the SMEs; and the fourth section examined the SMEs' loan characteristics defined by the MFIs.

3.7 Theoretical Framework

The concept of profit maximisation serves as the backdrop of this empirical study. The concept relates the marginal revenue of a profit maximising firm to its marginal cost resulting from a business transaction it engages in at a specified period of time. Recall from equation (2.7b):

$$\pi^*(w, r, p) = py^*(w, r, p) - wl^* - rk^* \tag{3.2}$$

Applied to the profit of small and medium scale enterprises, proprietors may be said to compare their cost of factor inputs (especially, interest on loans granted by MFIs) and their profit margin in firm's scale decision. Also, time taken and bureaucratic processes involved in acquiring loans from these MFIs can be factored in as implicit cost to the SMEs. Exorbitant interest charges on loans serves as higher operating cost for the SMEs thereby dwindling their profit remarkably. Collateral security (for this

study, cash collateral) required of SMEs in their quest to secure loan facilities from MFIs is one other cost these small firms have to face. This stems from the fact that when there is inflation in the economy, the value of the money deposited with the view to meeting targeted savings in order to qualify for the said amount of loan would have depreciated. Unfavourable loan terms, inter alia, contribute significantly to reduce SME's output and worsen the unemployment situation in the Ghanaian economy.

3.8 Model Specification (Ordinary Least Square Model)

The study formulated the small simultaneous equation model as expressed in equation (3.3) below where the profit of an SME is expressed as a function of the loan terms defined by the MFIs.

$$Profit_t = f(LTAL_t, PLG_t, CCS_t, IL_t, RP_t, GPA_t, WSA_t)^\beta \quad (3.3)$$

Where β represents the vector of the parameter. Hence:

Reformulating equation (3.3) and introducing an intercept gives:

$$Profit_t = \alpha LTAL_t{}^{\beta_1} PLG_t{}^{\beta_2} CCS_t{}^{\beta_3} IL_t{}^{\beta_4} RP_t{}^{\beta_5} GPA_t{}^{\beta_6} WSA_t{}^{\beta_7} \quad (3.4)$$

A natural logarithm transformation of equation (3.4) and an introduction of a stochastic term results:

$$lnProfit_t = ln\alpha + \beta_1 lnLTAL_t + \beta_2 lnPLG_t + \beta_3 lnCCS_t + \beta_4 lnIL_t + \beta_5 lnRP_t$$
$$+ \beta_6 lnGPA_t + \beta_7 WSA_t + \mu_t \quad (3.5)$$

Assuming $ln\alpha = \beta_0$ which is the autonomous component of the regression model, the OLS can then be estimated as presented in Equation (3.6).

$$lnProfit_t = \beta_0 + \beta_1 lnLTAL_t + \beta_2 lnPLG_t + \beta_3 lnCCS_t + \beta_4 lnIL_t + \beta_5 lnRP_t$$

$$+ \beta_6 lnGPA_t + \beta_7 WSA_t + \mu_t \tag{3.6}$$

Where:

$Profit_t$ = Net Income at time, t = Total Revenue − Total Cost

$LTAL_t$ = Length of Time taken to Access Loans at time, t.

PLG_t = Percentage of Loans Granted outright at time, t.

CCS_t = Cash Collateral Security required at time, t.

IL_t = Interest charged on Loans at time, t.

RP_t = Repayment Period

GPA_t = Grace Period Allowed

WSA_t = Wages, Salaries, and Allowances (Lobour Cost) at time, t.

μ_t = Stochastic term

It must be stated that $\beta_1 \dots \beta_7$ represents the respective elasticities and μ_t is the disturbance term.

3.9 Definition Variables

The factors considered by this study in the regression model are defined in Table 3.1 below. The dependent variable is the SMEs profitability with length of time taken to access loans, cash collateral security required, interest charged on loans, repayment period, percentage of loans granted outright, and grace period allowed as the explanatory variables. The cost of labour was used as the control variable.

Table 3.1: Definition of Variables and their *a priori* Signs

Variables	Definition of Variables	A priori expectation
Dependent Variable		
SMEs Profitability	Measured in term of the difference between cost of operations and revenue generated thereof. It will increase when there are favourable loan terms and decrease when loan terms are unfavourable.	
Independent Variables		
Length of time taken to access loans	Measured in terms of hours. When it takes longer time to access loans, it will prevent SMEs from executing investment plan in time.	Negative
Percentage of loan granted outright	If greater percentage of loans are granted outright to SMEs, it will serve as sufficient funds to embark on	Positive

	proposed investment.	
Cash Collateral Security required	Measured in terms of percentage of loan amount required. The requirement of collateral security implies that an SME that cannot provide will not be granted a loan.	Negative
Interest charged on loans	Measured in terms of lending rate offered by MFIs. Higher interest charged on SMEs' loans will increase their operation cost.	Negative
Repayment period	Measured in terms of months. If longer period is given for repayment of a loan, the SME will be able to derive maximum benefit from it.	Positive
Grace period allowed	Measured in terms weeks. The lengthier the grace period allowed for loan repayment the better as it will ease pressure on SMEs.	Positive
Labour Cost (Wages, Salaries, and Allowances)	Measured in thousands of Ghana Cedis on a daily basis. The profit margin of a producer is reduced when the cost of labour experiences a rise.	Negative

Source: Authors Own Construct

3.10 Method of Data Analysis

The E-views and Statistical Package for Social Sciences are the softwares that were employed in estimating the parameters of the underlying variables. The collated data was analysed in the following two ways. First, a descriptive analysis of the variables was conducted employing frequencies, percentages and measures of central tendencies. Second, after performing a multicollinearity test, the multiple regression model was adopted in analysing the influence of MFIs' credit characteristics on the profitability of SMEs. The significance of the variables in the various test performed was adjudged with 5 percent margin of error being the guide. The results from the various analysis were presented in tables and charts to allow for easy visual appreciation.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

In line with the accomplishment of the objectives of this study, an empirical analysis has been done in this chapter. In order to determine the degree at which the loan terms stipulated by the MFIs affect the profitability of the SMEs, the regression analysis has been conducted in this chapter. Again, the chapter brings to bear the MFIs' services enjoyed by the SMEs in the Kumasi Metropolis. Also received attention in this chapter are the background information relating to the respondents themselves as well as that in relation to their businesses.

4.2 Bio Data of Respondents

4.2.1 Ages of Respondents

The study sought to ascertain the ages of the respondents. Table 4.1 shows that 17.8 percent of respondents were below the ages of 25. Sixty four (64) percent of the respondents aged from 25 to 45 years whiles 18.8 percent of the respondents were above 45 years. . This indicates that the respondents who form the majority of 63.4 percent fall within the economic active age group. The SME sector should therefore be given the needed attention so that it can contribute more to the Gross Domestic Product of the country.

Table 4.1: Ages of Respondents

Age Of Respondents	Frequency	Percentage
Below 25 Years	18	17.8
25 to 45 Years	64	63.4
Above 45 Years	19	18.8
Total	101	100

Data Source: Field Work, 2016.

4.2.2 Educational Background of Respondents

Table 4.3 presents the educational background information of the sample respondents the study employed.

Table 4.2 Educational Background of Respondents

Educational Background	Frequency	Percentage
Basic	2	2
Secondary	50	49.5
Technical	15	14.9
Vocational	8	7.9
Tertiary	24	23.8
None	2	2
Total	101	100

Data Source: Field Work, 2016.

As shown in Table 4.2, only 2 percent of the respondents have attained basic education whiles 49.5 percent of the respondents had secondary education. The table also indicates that 14.9 percent of the respondents had technical education, 7.9 percent received vocational training, and 23.8 percent had tertiary education. Those without any form of education represented 2 percent of the respondents. According

to Nahamya et al., (2013), access to MFI services is significantly influenced by the level of education. This suggests that clients with higher level of education can come out with feasible business plans that can land them credit facilities from the MFIs.

4.3 Business Information

4.3.1 Category of Business

Table 4.3 indicates that 24.8 percent of the respondents had their businesses falling under the manufacturing sector, 64.4 percent of the respondents had their businesses being commerce, 9.9 percent of the respondents engaging in service businesses and 0.9 percent of the respondents engaging in farming. The finding commensurate that of Kumasi Metropolitan Assembly which is of the view that commence dominates every business activity in Kumasi and this buying and selling activity is mostly executed by small enterprises who deal with the MFIs. (Quaye, 2011).

Table 4.3 Category of Business

Category of Business	Frequency	Percentage
Manufacturing	25	24.8
Commerce	65	64.4
Service	10	9.9
Farming	1	0.9
Total	101	100

Data Source: Field Work, 2016.

4.3.2 Period of Operation

Table 4.4 shows that 17.8 percent of the respondents have been operating for less than five years. The table also shows that 70.3 percent of the respondents have been operating from five to ten years and 11.9 percent of the respondents have been operating over 10 years. The table shows that majority of the SMEs sampled have existed for quite a long time (5 years or more) and therefore have experienced the services of MFIs for a reasonable period of time and can tell their (MFI services) impact on their performance. The researcher also sought to find out reasons for the operation of SMEs from the respondents and the reasons given were:

    i.   to generate income for personal and family support

    ii.   to provide employment to others

    iii.   to fulfil their entrepreneurial ambition

    iv.   to develop an alternative source of income aside that from their salaried work

Table 4.4: Period of Operation

Period of Operation	Frequency	Percentage
Less than Five Years	18	17.8
Five to Ten Years	71	70.3
More than Ten Years	12	11.9
Total	101	100

Data Source: Field Work, 2016.

4.4 MFI Services enjoyed by SMEs

4.4.1 SMEs Saving's Opportunity

Table 4.5 indicates that 78.2 percent of the respondents patronized savings products of microfinance institutions whiles 21.8 percent of the respondents do not save with microfinance institutions. The table shows that majority of SMEs sampled save with the MFIs because they are required to save for some time (either three or six months) before they qualify to access loans from the MFIs. According to the respondents some types of savings products include:

i.   Interest bearing savings account

ii.   Non-interest bearing savings account

Table 4.5: SMEs Saving's Opportunity

Saving Opportunity	Frequency	Percentage
Yes	79	78.2
No	22	21.8
Total	101	100

Data Source: Field Work, 2016.

4.4.2 Microfinance Institutions' Loans Accessibility

Table 4.6 reveals that 79.2 percent of the respondents involved in this research had accessed loans from microfinance institutions while remaining 20.8 percent had not sought for financial assistance from microfinance institutions. According to the respondents who answered in the affirmative, they accessed the loan to enable them:

i.   Expand their businesses

ii.   Increase their stock levels

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<ol type="i" start="3">
Make large purchases at a trade discount
Increase working capital

Out of the 101 respondents, 79.2 percent answered that they have been able to access loans from MFI. According to the respondents, less documentation associated with MFI loan application as well as the low collateral requirements motivates them to access loans from MFIs.

Table 4.6: MFIs' Loans Accessibility

Loans Accessibility	Frequency	Percentage
Yes	80	79.2
No	21	20.8
Total	101	100

Data Source: Field Work, 2016.

4.4.3 Advisory Support from MFIs

It can be inferred from Table 4.7 that 36.6 percent of the respondents receive advisory support from their microfinance institutions whiles 63.4 percent of the respondents do not receive advisory support from their microfinance institutions. According to the respondents, most of the MFIs they deal with do not offer advisory services to them and therefore do not receive training on how to keep proper books and practice basic business management. This indicates that most MFIs focus on the financial services which include savings, loans and investments and neglect the non-financial services like advisory services.

Table 4.7: Advisory Support from MFIs

Advisory Support from MFIs	Frequency	Percentage
Yes	37	36.6
No	64	63.4
Total	101	100

Data Source: Field Work, 2016.

4.4.4 Frequency of Advisory Support

As shown in Table 4.8 below, the percentages of respondents who received support on monthly basis is 2, on quarterly basis is 3, every semi-annually is 5.9 and annually is 25.7. The reason accounting for low frequency of advisory support from MFIs is due to the high cost associated with training SMEs on basic financial as well as business management.

Table 4.8: Frequency of Advisory Support

Regularity	Frequency	Percentage
Monthly	2	2
Quarterly	3	3
Semi-Annually	6	5.9
Annually	26	25.7
None	64	63.4
Total	101	100

Data Source: Field Work, 2016.

4.4.5 Investment Opportunity enjoyed from MFIs

According table 4.9, the percentage of respondents who patronized investment products from their microfinance institutions is 52.5 while the 47.5 do not patronize the investment products of microfinance institutions. According to the respondents, they fix their idle funds with the MFIs to enable them earn interest on the money. Some of the investment products patronized by the respondents are:

    i.   Fixed term deposits

    ii.   Monthly contribution investment products

    iii.   Home investment fund

    iv.   Scholarship based investment fund

Those who did not patronize the investment products were of the view that reinvesting their money into their businesses will fetch them more returns than fixing the money with the MFIs.

Table 4.9 Investment Opportunity Enjoyed From MFIs

Investment Opportunity	Frequency	Percentage
Yes	53	52.5
No	48	47.5
Total	101	100.00

Data Source: Field Work, 2016.

4.5 Ordinary Least Square Model

4.5.1 Descriptive Statistics

In this section, the descriptive statistics of the variables considered in this study has been presented. Among the statistical measures presented are: standard deviation, median, mean, minimum and maximum values, kurtosis and skewness.

Table 4.10: Descriptive Statistics

	Mean	**Median**	**Maximum**	**Minimum**	**Std. Dev.**
PROFIT	¢3202.54	¢3000.10	¢ 20000.25	¢599.98	2.06
LTAL	89.36 Hours	96 Hours	551.97 Hours	12 Hours	2.48
PLG	71.38 %	75 %	95%	50%	1.21
CCS	23.75%	25.59%	50%	5%	1.78
IL	5.31%	5.5%	11.5%	2%	1.41
RP	7.45 Months	6 Months	24 Months	3 Months	1.66
GPA	2.13 Weeks	2 weeks	12 Weeks	1 week	1.79
WSA	GH¢9.54	GH¢3.30	GH8¢3.26	GH¢7.48	1.38

Data Source: Field Work, 2016.

Table 4.10 indicates that the average percentage of loan granted to SMEs is 71.38%. It can also be observed from the table that the disparity among the percentages of loans granted to SMEs is the lowest with a standard deviation of 1.21. The average daily wage given to an employee of a SME is GHC 9.54 and the wage ranges from GHC 7.48 to GHC 83.26. The wage disparity among employees is not that much compared to the dispersion among interests rates charged on loans to SMEs. The interest rate on loans to SMEs is about 5.31%. According to Table 4.10, the duration of loan repayment for SMEs averages 7.45 months with the highest duration being

24 months and the lowest duration spanning 3 months. Table 4.10 also shows that SMEs are expected to keep about 23.75% of the loan amount as cash collateral with the MFIs. SMEs also have a grace period averaging 2.13 weeks. This implies that they have about 2.13 weeks to settle their loans if they fail to meet their financial obligation within the repayment period. SMEs make about GHC3202.54 of profit every month. The profit margin of SMEs also ranges from GHC599.98 to GHC 20,000.25 every month. The implication here is that income disparity among operators of SMEs is not that much as compared to the disparity in the lengths of time taken by SMEs to access loans which has a mean of 89.36 hours and ranges from12 hours to 551.97.

From Table 4.10 above, the intensity of deviation of the actual values from the expected values of the variables is represented by their respective standard deviations. Length of time taken to access loans has the highest variability followed by profit, grace period allowed, cash collateral security required, repayment period, interest charged on loans, labour cost, and percentage of loans granted outright in that order.

4.5.2 Regression Analysis

Presented in Table 4.11 is the test results of the multiple regression estimations. With the exception of the length of time taken to access loans, the grace period allowed for loan repayment, and labour cost, all the independent variables contribute significantly in determining the profitability of SMEs in the Kumasi Metropolis. The significance of the F-statistic at 1 percent margin of error indicates that the regressors have a strong explanatory power in the regressand. It is worth concluding that 84.37

percent variation in the SMEs' profit can be accounted for by the length of time taken to access loans, interest charged on loans, percentage of loans granted outright, cash collateral security required, repayment period, grace period allowed, and cost of labour.

Percentage of loans granted outright by the MFIs to the SMEs has a significant effect on the profit margin of the SMEs in the metropolis. Increase in capital formation is anticipated to cause output to increase thereby increasing profit, all things being equal, but the test results showed otherwise. It can be said that a proportionate rise in percentage of loans granted outright has the potential of reducing the profit margin of the SMEs by 63.58 percent. This may be as a results of misappropriation of funds borrowed since they will have to settle the debt out of the proceeds from their operations. The issue becomes more imperative when the loan amount is huge.

Consistent in *a priori* sense, the profit margin of SMEs is affected by the cash collateral required in their quest to seek financial assistance from the MFIs to increase their capital stock. The SMEs' profit margin falls by 60.56 percent when cash collateral experiences a percentage increase. This is due to the fact that the increase in the required cash collateral dwindles the investment capacity of the said SMEs with eventual fall in output making them less profitable.

Table 4.11: Regression Estimates (Dependent Variable: LN Profit)

Variable	Coefficient	Standard Error
C	6.5990***	1.0289
LN Length of Time taken to Access Loans	0.0739	0.0536
LN Percentage of Loans granted outright	-0.6358**	0.1882
LN Cash Collateral Security	-0.6056*	0.3511
LN Interest charged on Loans	-0.8361***	0.1488
LN Repayment Period	0.5598**	0.1900
LN Grace Period Allowed	-0.1267	0.1388
LN Wages, Salaries, and Allowances	-0.1705	0.1211

$R^2 = 0.8437$ F-stat = 23.1060   N = 80

$\bar{R}^2 = 0.8172$ P(F-stat) = 0.0000   D-W Stat = 2.1552

Data Source: Field Work, 2016.

Note: ***, **, and * signify 1%, 5%, and 10% level of significance respectively.

Also in line with theoretical point of view is the negative significant impact found to exist between interest charged on loans and the profitability of SMEs in the Kumasi Metropolis. A proportionate increase in interest charged on loans can bring about 83.61 percent fall in the SMEs' profit. That is to say, an increase in lending rate translates into high cost of operation and, with revenue remaining unchanged, the profit margin of SMEs will decline.

Again, Table 4.11 shows clearly that the profitability of SMEs in the metropolis increases with loan repayment period and this does meet *a priori* expectations. At 5 percent error level, a 55.98 percent rise in the SMEs' profit can be accounted for by a

percentage increase in the period allowed for loan repayment. This is possible because of the opportunity to be enjoyed by the SMEs to plow back profit from preceding production activity.

Although having the appropriate sign, the labour cost incurred in the production process of SMEs sampled is not an influential factor in determining their profitability at any of the error margins adopted by the study.

4.5.2.1 Diagnostic Test

In order to ascertain the validity of the estimates obtained from the Ordinary Least Square model in Table 4.11 above, the following assumptions underlying the classical linear regression model were tested: no perfect linear relationship between any two regressors, the error term follows the normal distribution, and constant variance of the error term. Also left unattended to is the correct specification of the multiple regression model and the problem that pertains to serial correlation.

All the correlations between each paired independent variables were found to be less than 0.8. The implication here is that, desirably, multicollinearity is not a problem in this model. It can, therefore, be said that the independent variables uniquely influence the dependent variable.

Table 4.12: Correlation Matrix

	LN LTAL	LN PLG	LN IL	LN GPA	LN CCS	LN RP	LN WSA
LN LTAL	1						
LN PLG	-0.1018	1					
LN IL	-0.0966	-0.0235	1				
LN GPA	0.0538	-0.0421	0.0662	1			
LN CCS	0.0501	-0.1944	0.0911	0.0465	1		
LN RP	0.2444	-0.0262	0.0295	0.2442	-0.0204	1	
LN WSA	0.0556	0.6125	0.3125	0.0021	0.0000	0.4379	1

Data Source: Field Work, 2016.

Table 4.13 depicts clearly that we fail to reject the null hypothesis in each test. It is conclusive to say that: 1) the regression model is not heteroscedastic, 2) there is no specification error, and 3) the model is multivariate normal.

Table 4.13: Diagnostic Tests

	LM Version	F Version
Heteroscedasticity	CHSQ(6) = 5.5764* [0.4723]	F(6, 72) = 0.9116* [0.4916]
Functional Form	CHSQ(1) = 0.6610* [0.4162]	F(1, 72) = 0.5974* [0.4421]
Normality	CHSQ(2) = 1.6453* [0.4393]	NA

Data Source: Field Work, 2016.

Note: * signifies failure to reject the null hypothesis at 5 percent error margin.

Heteroscedasticity: test conducted using Breusch-Pagan-Godfrey approach

Functional form: based on Ramsey's RESET test

Normality: tested using Jarque-Bera method based on Skewness and kurtosis

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS, AND CONCLUSION

5.1 Introduction

In this chapter, a brief overview of the study highlighting the objectives, the methodology and the findings has been provided. Also, the chapter touched on the measures to be put in place geared towards improving the profitability of the SMEs in the metropolis and beyond. More so, the challenges confronted by the researcher in his quest to gather a more accurate data received attention in this chapter. A conclusion of the study then is drawn.

5.2 Summary of Findings

The underlying focus of the study was to investigate the impact of services provided by the microfinance institutions on the profitability of small- and medium-scale enterprises that access those services. Employing cross sectional data gathered through the administration of structured questionnaire, the Ordinary Least Squares estimation technique was adopted.

On the basis of MFIs services enjoyed by the SMEs in the Kumasi Metropolis, a number of respondents indicated that they have the opportunity to save, invest, and access loan facilities from the MFIs. However, it was made known to the researcher that not much advisory support is received from the MFIs.

The results from the OLS estimation revealed that percentage of loans granted outright to the SMEs, cash collateral security required by the MFIs, interest charged on loans and the period of time allowed for the repayment of loans secured are the

loan terms that critically influence the profitability of SMEs in the metropolis. On the contrary, the length of time taken to access loans, the grace period permitted by the MFIs, and cost of labour do not have any power in determining the profitability of the SMEs at the various margins of error adopted by the study. All diagnostic test conducted revealed that the model suffers from no such problem as: multicollinearity, specification error, heteroskedasticity, and normality of residuals.

5.3 Recommendations

There should be extension and improvement in the advisory support rendered by the MFIs to the SMEs. MFIs can collaborate with enterprise development agencies to reduce cost in providing training on business management to SMEs. Theoretical and empirical evidence (in the studies by Kessy *et al.*, 2010; Kimaru, 2014; etc) support the fact that enterprises that receive business related training demonstrate higher growth compared to their counterparts who enjoy no such opportunities. Such training and workshop are expected to motivate the operators changing their behaviour and perception about their activities thereby building their capacity.

There is, also, the need to put in place measures to reduce the high interest on borrowing and cash collateral security required of the SMEs. This stems from the fact that an increase in interest rates results in an increase in the cost of production which leads to a decrease in profitability of SMEs. Cash collateral security should also be reduced by MFIs to enable SMEs have access to more cash to invest into their businesses for more profit.

MFIs should also increase the loan repayment period for their SME clients. This measure will allow the SMEs ample time to make use of the amount borrowed to generate more profit.

MFIs should regularly monitor credit advanced to SMEs. The check should be done from the time the loan is contracted to the time the last payment will be made by the SME customer. This will ensure that SMEs use the loan for the intended productive purpose and enhance repayment of loans on time.

5.4 Limitations of the Study

The study was faced with significant drawbacks paramount among them was data acquisition. This was due to the fact that some of the managers of the enterprises contacted hardly keep books of their transactions which necessitated the use of estimates hindering the smooth conduct of the study. On the grounds of keeping confidentiality, unwillingness in divulging information in relation to SMEs' finances also surfaced as one major problem the study had to battle with.

The constraint of limited resources, especially in terms of time and finance, cannot be relegated to the background in undertaken this study.

Nonetheless, the researcher relied on scientific methods to gather the data and the analysis was based on superior analytical techniques, which enabled the researcher to come out with the findings.

5.5 Conclusion

The findings from the study has revealed that the profitability of SMEs is highly influenced by the services provided by the MFIs, especially terms of loans. The study then concludes that the growth in SMEs depends on the variations in advisory support, micro-credit and savings. The SMEs are very promising not only on the grounds of potential profits to be gained but also on creation of employment and economic growth. Therefore, microfinance institutions should be innovative enough in their provision of such services to the SMEs.

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APPENDICES

A: REGRESSION ESTIMATES

Dependent Variable: LN_PROFIT
Method: Least Squares
Date: 05/18/16   Time: 20:07
Sample: 1 80
Included observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.599031	1.028904	6.413651	0.0000
LN_LTAL	0.073935	0.053573	1.380079	0.1508
LN_PLG	-0.635824	0.188154	-3.279267	0.0193
LN_CCS	-0.605606	0.351100	-1.724883	0.0888
LN_IL	-0.836066	0.148845	-5.617024	0.0016
LN_RP	0.559759	0.190017	2.945844	0.0390
LN_GPA	-0.126691	0.138823	-0.912606	0.3645
LN_WSA	-0.170450	0.121063	-1.407949	0.1810

R-squared	0.843730	Mean dependent var		17.87117
Adjusted R-squared	0.817203	S.D. dependent var		0.635083
S.E. of regression	0.637367	Akaike info criterion		0.024640
Sum squared resid	2.803030	Schwarz criterion		0.239313
Log likelihood	-1.093634	Hannan-Quinn criter.		0.510434
F-statistic	23.10603	Durbin-Watson stat		2.155178
Prob(F-statistic)	0.000000			

B: CORRELATION MATRIX

	LN_LTAL	LN_PLG	LN_IL	LN_GPA	LN_CCS	LN_RP	LN_WSA
LN_LTAL	1	-0.101765	-0.096650	0.053769	0.050132	0.244369	0.055640
LN_PLG	-0.101765	1	-0.023463	-0.042108	-0.194408	-0.026158	0.612457
LN_IL	-0.096650	-0.023463	1	0.066243	0.091062	0.029468	0.312456
LN_GPA	0.053769	-0.042108	0.066243	1	0.046492	0.244194	0.002145
LN_CCS	0.050132	-0.194408	0.091062	0.046492	1	-0.020437	0.000012
LN_RP	0.244369	-0.026158	0.029468	0.244194	-0.020437	1	0.437856
LN_WSA	0.055640	0.612457	0.312456	0.002145	0.000012	0.437856	1

C: NORMALITY OF RESIDUALS

Series: Residuals	
Sample 1 80	
Observations 80	
Mean	1.27e-15
Median	0.068282
Maximum	1.459902
Minimum	-1.376166
Std. Dev.	0.663847
Skewness	0.009508
Kurtosis	2.297705
Jarque-Bera	1.645265
Probability	0.439274
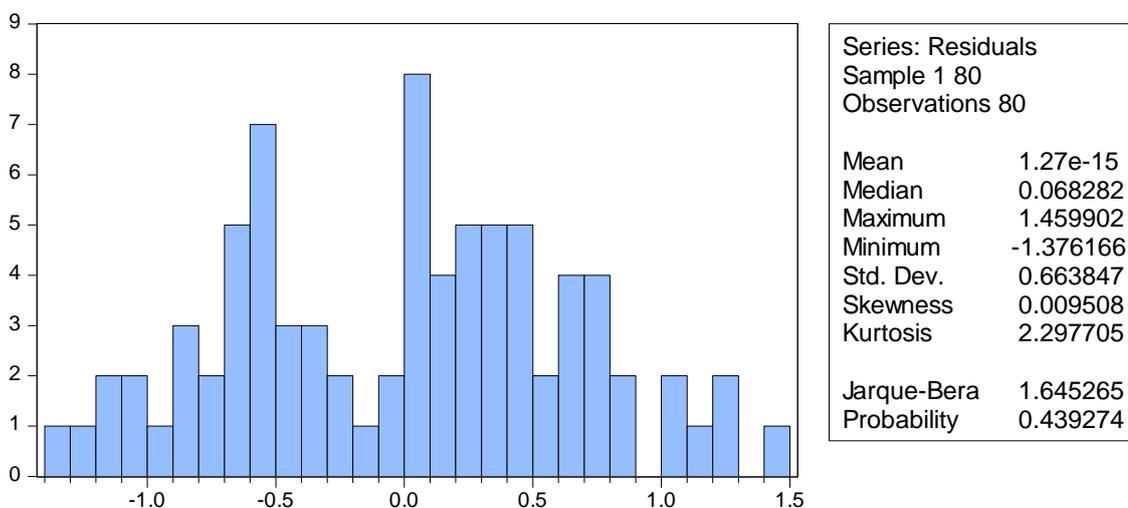
D: HETEROSCEDASTICITY

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.911615	Prob. F(6,73)	0.4916
Obs*R-squared	5.576361	Prob. Chi-Square(6)	0.4723
Scaled explained SS	3.012747	Prob. Chi-Square(6)	0.8072

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 05/18/16   Time: 20:09
Sample: 1 80
Included observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.748336	0.745778	1.003430	0.3190
LN_LTAL	-0.040884	0.064696	-0.631946	0.5294
LN_PLG	0.567461	0.763943	0.742806	0.4600
LN_CCS	0.091849	0.254487	0.360920	0.7192
LN_IL	0.069848	0.166068	0.420602	0.6753
LN_RP	0.228507	0.118234	1.932669	0.0572
LN_GPA	-0.079141	0.100162	-0.786513	0.4341
LN_WSA	-0.006790	0.021213	-0.320120	0.6421

R-squared	0.069705	Mean dependent var	0.435184
Adjusted R-squared	-0.006758	S.D. dependent var	0.498876
S.E. of regression	0.500558	Akaike info criterion	1.537248
Sum squared resid	18.29079	Schwarz criterion	1.745675
Log likelihood	-54.48991	Hannan-Quinn criter.	1.620812
F-statistic	0.911615	Durbin-Watson stat	0.692550
Prob(F-statistic)	0.491566		

E: FUNCTIONAL FORM

Ramsey RESET Test
Equation: UNTITLED
Specification: LN_PROFIT C LN_LTAL LN_PLG LN_CCS
LN_IL LN_RP
     LN_GPA LN_WSA
Omitted Variables: Squares of fitted values

	Value	df	Probability
t-statistic	0.772902	72	0.4421
F-statistic	0.597378	(1, 72)	0.4421
Likelihood ratio	0.661015	1	0.4162

F-test summary:

	Sum of Sq.	df	Mean Squares
Test SSR	0.286478	1	0.286478
Restricted SSR	34.81470	73	0.476914
Unrestricted SSR	34.52822	72	0.479559

LR test summary:

	Value	Df
Restricted LogL	-80.23561	73
Unrestricted LogL	-79.90510	72

Unrestricted Test Equation:
Dependent Variable: LN_PROFIT
Method: Least Squares
Date: 05/18/16   Time: 20:09
Sample: 1 80
Included observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-20.68777	35.31941	-0.585734	0.5599
LN_LTAL	-0.835008	1.194130	-0.699261	0.4866
LN_PLG	7.681392	10.90055	0.704679	0.4833
LN_CCS	6.298130	8.939159	0.704555	0.4834
LN_IL	-1.408045	2.020611	-0.696841	0.4881
LN_RP	-2.433344	3.473516	-0.700542	0.4858
LN_GPA	1.246109	1.781609	0.699429	0.4865
LN_WSA	0.480589	0.921455	0.521554	0.4821
FITTED^2	0.673931	0.871948	0.772902	0.4421

R-squared	0.853730	Mean dependent var	17.87117
Adjusted R-squared	0.830203	S.D. dependent var	0.635083
S.E. of regression	0.637367	Akaike info criterion	0.024640
Sum squared resid	3.003030	Schwarz criterion	0.239313
Log likelihood	-1.093634	Hannan-Quinn criter.	0.510434
F-statistic	23.95603	Durbin-Watson stat	2.155178
Prob(F-statistic)	0.000000		

F: QUESTIONNAIRE

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF GRADUATE STUDIES

DEPARTMENT OF ECONOMICS

(QUESTIONNAIRE ADMINISTERED TO SMEs)

The study is meant for academic purposes and has no bearing on anyone or institution. Confidentiality of respondents is assured.

A: Bio Data

1. Sex   [   ] Male   [   ] Female

2. Age   [   ] Below 25 years   [   ] 25 to 45 years   [   ] Above 45 years

3. What is your educational background?

    [   ] None   [   ] Basic   [   ] Secondary   [   ] Technical

    [   ] Vocational   [   ] Tertiary

B: Business Information

4. What is your position in this establishment? ....

5. Location   of
business…………………………………………………………………

6. Which of these categories of economic activities does your operation fall?

    [   ] Manufacturing   [   ] Commerce   [   ] Service   [   ] Farming

7. For how long have you been in operation?

    [   ] Less than 5 years   [   ] 5 to 10 years   [   ] More than 10 years

8. How   many   employees   do   you   have?

    ....

9. How   much   do   you   spend   on   your   employee(s)   monthly?

    ………………..….

10. Besides   labour   cost,   what   is   the   other   monthly   operating

    cost?..........................

11. How   much   are   you   able   to   sell   within   a

    month?..

12. What is your monthly net income from the business? …………………………...

C: MFIs Services enjoyed by SMEs

13. Do you save with any microfinance institutions?   [   ] Yes   [   ] No

14. Have you ever sought financial assistance from any microfinance institution

    to improve your business?   [   ] Yes   [   ] No

15. If   Yes,   what   loan   amount   did   you   take   recently?

    ………………………………….

16. Do you receive any form of training or advisory support on your business

    from the microfinance institutions?   [   ] Yes   [   ] No

17. If Yes, how often?   [   ] Monthly   [   ] Quarterly   [   ] Semi-

    annually   [   ] Annually

18. Do you enjoy any investment opportunity from the microfinance institutions?

    [   ] Yes   [   ] No

19. If Yes, specify…………………………………….…………………………..

D: Loan Terms

20. How long does it normally take for you to access a loan facility from the

microfinance institutions?

…………………………………….……………………………

21. What percentage of a loan applied for are you granted outright?

…………………….

22. What percentage of the loan amount required are you supposed to save as

cash collateral?

…………………………………….………………………………………….

23. What interest percent is charged on loans granted you by microfinance

institutions?

……………………………………………

24. How long are you allowed for repayment of a loan granted?

………………………

25. For how long are you allowed as grace period for repayment of a loan?

……………