UNIVERSITY OF CAPE COAST

FIRM UNIQUE CHARATERISTICS AND ACCESS TO SHORT-TERM FINANCE AMONG ENTERPRISES IN GHANA

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BY

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this University or elsewhere.

Signature ………………………………… Date ………………………

Name: Ayyub AidooYakub

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Signature ………………………………Date …………………………………

Name: DR. Joseph Tufour Kwarteng

ABSTRACT

The relationship between Enterprise unique characteristics and access to short term finance from formal financial institutions was examined in this study. The secondary data set from the 2013 Enterprises Survey conducted by the World Bank on selected enterprises across the whole Ghana was employed for the study. The study adopted a qualitative analysis such as descriptive statistics, percentages and Analysis of Variance (ANOVA) to address the stated objectives. The outcomes suggested that enterprise unique features such as size, age and business location are important variables in explaining enterprises access to finance in Ghana. That is access to finance improves as firm size increase suggesting that micro and small enterprises can be said to be more constrained in accessing bank loans than their counterparts medium and large enterprises. Also, older enterprises were found to have moderate perception of access to finance as a major obstacle as compared to younger enterprises. Enterprises operating in Accra and other business centres were found be more constrained than other operation outside such locations. The study recommend that the concentration on supports for micro and small enterprises must continue but must expand alongside given loans to include technical advice on how to overcome the fear of accepting the responsibility of taking a loan. Also, major supporting policies from government agencies and NGOs must consider other unique characteristics such as age and business location of enterprises. For example, Younger enterprises can be given support irrespective of size since they are equally financially constrained.

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DEDICATION

To my wife, Nafisah and children

Hafsah, Ridwaan, Ramadaan, Raheemah

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ANOVA	-	Analysis Of Variance
AGI	-	Association of Ghana Industries
ES	-	Enterprise Survey
IMF	-	International Monetary Fund
SMEs	-	Small and Medium scale Enterprises

CHAPTER ONE

INTRODUCTION

Background to the Study

A liquid capital or short-term loan is seen as the life line to the survival of enterprises irrespective of size and age. The special role of transactional and precautionary demand for money points to the special role of liquid capital in the growth and survival of any enterprise. Enterprise has many sources of short-term finance which may be internal and external. The internal sources can be strongly linked to the profitability of the enterprise or the personal savings of the owner in the case of sole proprietorship. The external source is a tall list which can also be categorized into formal and informal sources. The informal sources are easily accessible but can extend very limited amount of capital to enterprises. Because of the limited amount of finance that can be accessed from the informal money market, the attention has always been on the formal market and specifically bank loans (Sharpe, 1990). The formal money market can extend large loans but it usually comes with terms and conditions which most enterprises find complex and time consuming (Bigsten, Collier, Dercon, M. Fafchamps, Guthier, Gunning, Soderbom, Oduro, Oostendorp, Patillo&Zeufack (2000).

There are less 'paper works' in the informal money market because mostly the dealers of the informal money market operate within the same catchment area as their client and may have some form of personal relation with them. The tight network between the informal money market lenders and their client reduces information asymmetry and allow the lender to extend loans mostly without any form of collateral.

Banks and other formal financial institutions do not have that luxury of near perfect information about their client and have to contend with information asymmetry with high tendency of adverse selection. Sharpe (1990) attributed the cause of financial market malfunctioning to information asymmetry which compels financial institutions to adopt non-price strategies such as credit rationing in allocating credit in the imperfect market environment. The credit rationing theory, propounded by Stiglitz and Weiss (1981) asserts that information asymmetry is the main cause of financial market malfunctioning in developing countries. That is banks that advance loans to economic agents are not only interested in the interest they receive on loans, but also the risks of such loans. According to Abor and Quartey (2010), financial intermediaries that use the asset-based lending techniques look at the underlying assets of the firm (which are taken as collateral) as the primary source of repayment. But Stiglitz and Weiss (1981) argued that the problem of adverse selection and credit rationing can again occur even if banks require collateral for loans which still give way for loan defaulting.

To manage information asymmetry and hence reduce adverse selection to ensure high repayment rate, banks demand some guarantees and sureties from their clients before extending loans to them. In practice, the size of the loan has direct relationship with the value of collateral required for the loan. In this case, both small and large enterprises can have issues with provision of collateral to access loans. That is, since large enterprises usually go for large corporate loan they may as well face the issues of providing the corresponding collateral despite the assets endowments. Thus the issue of whether access to formal finance is a direct function of size or not becomes an empirical research issue which demand attention.

Statement of the Problem

The Ghana constrain analyses of 2011 suggested that credit is a binding constraint on enterprises in the country (Ghana Constrain Analyses, 2011). A survey by the Association of Ghana Industries (AGI) for the second quarter of 2011 also indicated that lack of adequate access to credit topped the factors hampering the growth of small businesses in Ghana (Nkuah, Tanyeh&Gaeten, 2013). Despite the fact that access to finance is proven to be a major constraint on enterprises, very little is known about the actual implication on the respective size groups in the country. That is who bears the greatest grudge of the financial constraints and how does the size of a firm affect its ability to access fund from banks. Earlier studies in the domestic scenes have concentrated on the Small and Medium scale Enterprises (SMEs) since it was thought the large enterprises have no issues with access to finance (Bigsten et al, 2013). The current business environment presents the need to look into the access to finance since the ongoing power crisis has eroded the internally generated funds of most enterprises irrespective of size (Braimah &Amponsah, 2012; Doe &Asamoah, 2014).

Therefore a gap is created in the light of the relationship that exists between some unique firm characteristics and its ability to access finance across industries and business zones in Ghana.

Significance of the Study

The study explores the influence of firm unique characteristics on its access to finance of enterprises in Ghana. The outcome shall aid in policy decision on financial support to enterprises. Also, it shallaid stakeholders like the financial institutions, government agencies and the non-government organizations (NGOs) to identify which business group to concentrate their support program as well as providing support services on cost containment to reduce demand for funds.

Objectives of the Study

The general objective of the study is to determine the influence of firms' unique characteristicsonaccess to short-term finance among enterprises in Ghana. Specifically the study sought to:

1. determine the preparedness of enterprises to access bank loans and overdrafts.
2. examine the influence of firm sizeon its access to finance.
3. examine the influence of firm ageon its access to finance.
4. examine theinfluence of firm locationon its access to finance.

Research Questions

To address the main problem, the following sub-problems have been crafted to guide the study:

1. What is the level of preparedness enterprises in Ghana to access bank loans and overdrafts?

2. What is the influence of firm size on its access to finance?
3. What is the influence of firm age on its access to finance?
4. What is the influence of firm location on its access to finance?

Delimitation of the study

The scope of the study is limited to access to short-term finance among enterprises in Ghana as were sampled for the 2013 World Bank Enterprise Survey (ES). The firms' unique characteristics were limited to firm size, firm age and location. These three unique characteristics were considered appropriate since they capture the most important aspect of a firm such as risk, reputation, experience and financial accessibility. Hence the outcome of the results shall be reliable enough for policy recommendations.

The use of secondary data also has its own limitation since the researcher has little control over what information was retrieved and their relevance. However, the World Bank Group that gathered the enterprise survey dataset has the reputation and the capabilities to retrieve the right kind of data on enterprises using standardized questionnaires. Thus the analyses done on the enterprises dataset was consistent enough for policy actions.

Organization of the Study

The study is organized into five main chapters. The first chapter covered the introduction, the statement of the problem, significance for the study, the objectives of the study, the delimitation of the study and organization of the study. The second chapter entailed the review of theoretical framework and empirical literatures which are relevant to the objectives and approaches to the study. The third chapter covered the methodologies adopted to address the research questions and hence to achieve the stated objectives of the study. The fourth chapter presented the results of the analysis which is followed by the discussion of the main findings. The last chapter, the fifth chaptercovered the summary of the study and the key findings of the study, the conclusions and recommendations of the study and suggestions for future research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

This Chapter reviews both theoretical and the empirical literature on the profitability and growth relationship. The theoretical review covers definitions and explanations of important concepts pertaining to access to finance in general while the empirical review cover literature on studies on the two variables that involves the use of empirical data.

Theoretical Framework

Kira and He (2012) studied the impact of firm characteristics in access of financing by small and medium-sized enterprises in Tanzania in which they developed a framework on access to finance based on capital structure. The framework was adopted for this study and extended to cover large enterprises. The content of the framework are presented in the discussions below.

Capital structure of a firm is described as the mix of debt and equity that the firm uses to finance its operations (Gitman, 2007; Brealey, Myers and Allen(2008) as cited inKira and He, 2012). The original hypothesis of capital structure originated from the Modigliani-Miller theorem (MM theory), the study argued that the value of the firm is irrelevant in financing decisions in a perfect market (Modigliani and Miller, 1958; 1963).The benefit to employ debt in a firm's capital structure exists as the interest on debt is tax-deductible, thus creating tax savings for the borrower (Modigliani & Miller, 1963).

Therefore, it is possible to reduce firm's costs of capital and maximize shareholders' wealth by employing debt.

Tax saving makes debt finance cheaper than equity finance whenever employed in a firm's capital structure. The combination of inexpensive debt with relatively expensive capital equity decreases a firm's cost of capital, which is the hurdle rate for investment acceptance or rejection decisions. For a project to be pursued, it must be viable to generate enough cash flows to cover the initial cost of that investment. The MM theory by Modigliani and Miller (1963) stipulated that a firm should have 100% debt in its capital structure in order for a firm to enjoy the tax shield benefit. Scott (1972) and Kraus, Litzenberg (1973) pointed out that theoretically 100% tax shield does not exist because of the existence of financial distress costs. The utilization of debt financing by a firm has a cost attached to a firm thereby to settle legal obligation including interest and principal. Failure to meet these legal obligations leads a firm to encounter liquidation and suffer the related settlement expenses.

Jensen and Meckling (1976) pioneered the concept of agency theory which explains that conflicts arise between the shareholders, managers and lenders collectively known as principal – agent problems. The conflict between stockholders and management arise when managers are not performing to attain the shareholders' value maximization goal, literally shareholders incur costs to monitor managers and influence their action in which managers have to make viable decisions for the prosperity of the firm. In contrast, lenders are united with the shareholders in requesting firm's performance, but whenfirm face difficulties this unity of the purpose can collapse. The common goal of the union between lenders and shareholders is to take several necessary measures to rescue the firm. These conflicts will never exist if all stakeholders have the same information which is rarely to exist in finance. The presence of information asymmetries could lead managers, shareholders and lenders to have different information about the value of a firm and it might take several years before all information is revealed to impact their decisions.

Stiglitz and Weiss (1981) stipulated that the presence of agency problems such as asymmetric information and moral hazards can impact the access to finance and thereby capital structure of small and medium scale enterprise (SMEs). The pecking order theory states that the presence of asymmetries of information among the stakeholders; most firms utilize in optimal internal sources available to finance their investments before opting to use debt and equity (Myers &Majluf, 1984). SMEs face challenges in making decision on financing choices because of adverse selection problem which hinder their access to credit and it's expensive to solve the problem. SMEs' costs to finance their investment opportunities by issuing stock (stock market) are higher than debt financing. SMEs operators may decide to finance their investment by using either internal or external sources; when external source is priority the least risk should be selected.

Large enterprises on the other hand are more visible and perceived to be credit worthy but faces high tendency of agency problem. That is, ownership is usually separated form control in lager and matured enterprises than smaller and young ones. Hence, banks will be carefully on the continuous borrowing of large enterprises since the agent does not bear the grudge of default and may not be prudent as a self-employed small enterprise with unlimited liability.

Traditional tradeoff theories stipulate that firms should decide optimal capital structure option by evaluating the tax saving available in debt; bankruptcy and agency costs of debt and equity basing on available information to maximize firm's value. The firm that maintains optimal debt in their capital structure minimizes the cost of capital therefore tends to maximize firm's value. Despite of financial distress problem exists when firm imply debt financing in their capital structure; SMEs imply debt as the only choice available because of insufficiency of internal sources and unavailability of equity finance(Frelinghaus, Mostertand andFirer (2005)

Definition of Access to Finance

Access to credit (also referred to as financial inclusion) can be seen as the absence of both price and non-price barriers in the use of financial services (Nkuah et al. 2013). Access to finance has been operationalized in a narrow seen in most studies.

The study of Nkuah et al. (2013), considered loan applicants whose loans were approved by commercial banks as having access to credit and those whose loan application were rejected were seen not to have access to credit. This operationalization leaves no room for non-formal loans and internal financing which very key sources of finance to enterprises in Ghana and other emerging economies. This study used a matrix of variables which include loan approval, perception of loan eligibility and access to trade credit as composite measures of financial accessibility. For example, if enterprises can buy on credit for a reasonable period, then they may apply for loan even if they fell they are eligible. In such situations also, low liquidity may not present a financial major challenge or constrain a firm that much.

Firm Size and Access to Finance

Firm size is one of the most important variables in literature related to access to finance or credit in both developed as well as developing countries. Numerous studies have discussed that small and medium enterprises are financially more constrained than large firms. Calomiris and Hubbard (1990) observed that smaller enterprises have the greater restrictions on access to finance or credit. Previous studies have mentioned several reasons for small firms to have less access to credit. Firstly, the small firms are faced with information opacity such as inability to provide reliable financial information (Binks&Ennew, 1996). When a firm is small, most of the time it is owned and operated by the informal entrepreneur and there is no such legal requirement to regularly report financial information and many firms do not maintain audited financial accounts. It therefore becomes difficult for leading institutions to assess their credit worthiness in order to extend loans to them.

In addition, smaller firms have lesser assets to offer as collateral. In order to reduce the anticipated risk and moral hazard associated with lending, however banks use collateral as one of the instruments to extend larger loans. The collateral is seen as an assurance to the bank in case of default and it also ensures the borrowers commitment to the loan repayments. Berger and Udell (2006) discovered that smaller and younger firms are more likely to face higher cost of financing and they are required to offer collateral than large enterprises.

For smaller firms, there is high risk of default because small firms have high failure rate compared to large firms. For example, Schiffer and Weder (2001) sampled firms across a number of countries and found that there was a negative relationship between the size of a business and the risk it might pose for a lender in terms of default. In contrast, Lopez-Gracia and Aybar-Arias (2000) came up with a different explanation stating that the smaller firms may themselves limit their financial structure with the aim of avoiding the need to share control of the business with others.

There have been a number of empirical studies on the relationship between enterprise size and access to finance. A recent study by Bigsten et al. (2000) on six African countries, however, covered firms of all size categories. They reached the conclusions that a positive relationship exist between access to finance and firm size. Their analysis suggests that while banks allocate credit on the basis of expected profits, micro or small firms are much less likely to get a loan than large firms. The work of Nkuah et al. (2013) underscored the importance of firm specific characteristics in determining access to finance. They demonstrated that, factors such as owner's personal characteristics like gender, age, marital status, and number of financial dependents as well as the firm's own characteristics such as its legal status, size, record keeping behavior, have significant impact on the SMEs access to credit in the Wa Municipality of Ghana. Nkuah et al. (2013) actually used firm size within the range of 1 to 10 employees. In finance literature of Ghana very little can be said about access to finance of large enterprises which leaves room for more work to be done in the area. The study of Nkuah et al. (2013) further revealed that, all the entrepreneurs sampled had established financial relations with numerous financial institutions in the metropolis in the form of bank accounts which is an indication of readiness to access formal loans. According to Ahiakpor and Dasmani (nd) while perception does not automatically translate into actual barriers, either psychological or real financial constraints inhibit the full potential of both output and efficiency of firms in Ghana. They also observe that size of firm really matters in the discourse on output and efficiency of firms.

In adaptation to the inherent financial constraint, Michaelas, Chittende, and Poutziouris (1999) indicated that larger firms use higher gearing ratios than smaller firms, and they suggest this is a result of the fact that smaller firms face higher financial barriers. This view is also supported by Chittenden, Hall, Hutchinson (1996) and Cassar and Holmes (2003), who provided empirical evidence suggesting that size is positively related to long term debt and negatively related to short-term debt. Lopez-Garcia and Aybar–Arias (2000) also suggested that size significantly influences the self-financing of smaller companies.

Enterprise Size Measurement and Categorization

There are various ways to measure the size of an enterprise. According to Canback (2002), a better measure of size is value added, which is more or less equivalent to revenue less externally purchased products and services. Number of employees is the most widely used measure of size. A review by

Kimberly (1976) reveals that more than 80 percent of academic studies use number of employees as proxy for enterprise size. Finally, assets base can also be used to define the size of the enterprise (Grossman and Hart, 1986). There are other measures like capital, sales and revenue. In the setting of developing country like Ghana where production is usually labour intensive, it was advisable to adopt total number of employees or workers as a measure of enterprise size for the study.

One of the major arguments against the structure of the Enterprise Survey adopted for this study is the fact that it did not capture firms below five employees (World Bank, 2013). Thus by default the dataset put firms into three categories as small, medium and large enterprises. The frequencies indicate that the small enterprises were over sampled. A critical look, however, suggests that about half of the enterprises in the small enterprises which cover 5 to 19 employees have exactly 5 employees. Thus, the study categorized firms with five employees as micro enterprise since it coincides with the upper limit of micro enterprise definitions in most studies (Söderbom& Teal 2003). The categorizations adopted for the study are as below:

Table 1:

Enterprise Size Categorisation

Enterprises		Number of Employees
Micro Enterprises	-	5 Employees
Small Enterprises	-	6 to 19 Employees

Medium Enterprises	-	20 to 99 Employees
Large Enterprises	-	100 and above Employees

Sources: Author's calculation from ES dataset

Life Cycle Theory of a Firm and Access to Finance

One of the main stylized facts to emerge from the recent empirical literature on industrial evolution in developed economies is the existence of clear life cycle among firms: entering cohorts are relatively small and in their early years firms either converge fairly quickly to their long-run size or die (Sutton, 1997). In the case of Ghana, Sandefur (2010) recorgnised the existence of clear life cycle in his study on firm size distribution in the manufacturing sector and concluded that firm size over the life cycle is driven almost entirely by selection. Sandefur (2010), however, discovered that most entering cohorts are relatively large in the case of the manufacturing sector of Ghana and that the small entrant firms do not usually survive the test of time.

Rathe and Witt (2001) defined life Cycle as the age and stage of development of a firm. The idea that firm can be compared to human beings who are born, live and die is not necessary a recent development but an age long concept. Mueller (1972) wrote extensively on the Life Cycle Theory of the firm where he extended his argument to cover profit maximization. More recently, Van Wissen (2002) created what he termed a useful metaphor between the demographic nature of human and that of a firm. According to Fama and French (1998), the demographic metaphor does not arise because of applying biological laws to firms, but because of the methodological similarities in population dynamics and micro-macro linkages.

Van Wissen (2002) reached a number of conclusions about the distinctions between the demography of humans and that of the firm. The major distinction between human and firm demography that is of interest to this study is that firm size is the key characteristic of the firm and a major determinant of all demographic events (Van Wissen, 2002). Van Wissen (2002) further added that research in any of the other dimensions of firm demography without taking into account size differentials, is likely to be biased.

Most empirical studies have focused on two possible effects of aging upon firm performance: the effect on the survival probability, and the effect on firm growth and size (Van Wissen, 2002). There is a general agreement that younger firms have a higher mortality rate, which is called the liability of newness, and that the mortality rate declines with age Freeman, Carroll, Hannan (1983); Carroll and Hannan,(2000). An important hypothesis behind this observed relationship is that firms learn from their behaviour over time. Mature firms are therefore better equipped than young firms, who still have to learn the tricks and avoid the pitfalls of market operation. This is called the theory of the learning organization (Van Wissen, 2002).

The life cycle theory of the firm has a number of implications for access to finance for enterprises. That is if age is seen as experience and a direct measure of reputation, then more matured enterprises shall be considered for loans by formal financial institution than younger ones. If on the other hands, younger firms are seen as more innovative since they may enter the industry with the most current technology, then they may attract more loans. In the special case of Ghana where it has been empirically proven that most young firms are larger than old ones, it will be difficult to tell the role that age can play in access to finance with an empirical study like this one.

According to Pandula (2001), a number of studies have found that there is a correlation between firm age and access to credit. Being in the business for many years suggests that the firms are at least competitive on average. It can be argued that being an older firm means there is lower informational opacity. The reason is information required by the lenders to evaluate and process applications are readily available because these businesses have an established reputation or track records.

On the other hand, the new firms are not likely to meet the collateral requirements of the banks since they have not accumulated sufficient assets. Combined with the absence of information on their financial records, this makes difficult for lenders to assess lending proposals submitted by new firms. The studies conducted in the past have found that the financing constraints are particularly severe in startup enterprises and relatively young firms (three years old or less).

Robb and Wolken (2002) acknowledged that firm size, type and age may influence the financing decisions of firms. According to them, younger firms may desire an injection of working capital for expansion projects but are unlikely to be approved as a result of their limited performance history. As a result, in its infancy, a firm is more likely to depend on internal finance or retained profits to sustain it. This is because it does not have a track record which financial institutions can use to assess the financial health of the business. Another perspective was given by Chandler (2009) that the longer a firm exists; the more it signals that it can weather tough economic conditions. Furthermore, by staying in business, afirm can signal that it does not adopt opportunistic behavior. It also signifies that the firm and in particular the owners or managers are mature enough to deal with business challenges. Older firms provide a resume in which lenders can use to gauge their credit worthiness. Ngoc, Le, Nguyen (2009) found that it is often difficult and expensive for young SMEs to access bank financing, due in large part to information asymmetry between the banks and firms. Bougheas, Mizen and Yalcin (2005)argue that young firms are more prone to failure than older ones.

The work of Chittenden et al. (1996) postulated that younger firms rely more on short-term finance than more mature firms, as a result of a positive relationship between age and profitability. The study further suggested that the use of both short-term and long-term debt falls with age. Michaelas et al. (1999) postulated that younger firms have higher average gearing ratios than older firms because the latter is more profitable and might have accumulated more internal sources. Romano, Tanewski and Smyrnois (2001), however, found that firm age is not a significant predictor of debt as a source of financing. According to Frazer (2005), larger firms are more likely to survive than smaller ones while older firms are also more likely to survive than younger firms, although the effect decreases with age.

Johnson and Noni-Zarazua (2009) using financial access national survey data for Kenya and Uganda examined patterns of access and socio-economic, geographic and demographic variables associated with access to finance. The surveys were nationally representative comprising of 4,418 observations (4,214 used in the analysis) and 2959 observations for Kenya and Uganda respectively. All respondents were over 18 years of age. Results indicate that age, employment, education and gender are key factors explaining access to formal financial services.

Using data from surveys from developing and transition economies, Clarke, Cull and Peri (2001) find that foreign bank penetration in a country improves financing conditions of firms. Also using survey data, Beck, Demirgüç-KuntandMaksimovic (2004) showed that, in terms of access to external finance, small firms benefit disproportionally from higher levels of property rights protection. Also, Beck, Demirgüç-Kunt, Laevenand Maksimovic (2006) illustrated that larger, older firms and foreign-owned firms enjoy increased access to finance.

Location of a Firm and Access to Finance

Berger and Udell (2002) found out that the geographic closeness between lenders and customers has an association with a firm to access to credit. The lenders who have geographical proximity to their customers are capable to utilize soft available qualitative information to establish the credibility of their customers for credit quality. Gilbert (2008) spotted that the location of the firm has a noticeablerelationship with access to the marketplace, supplies and to other resources such as capital, labor, and land. Consequently, firms sited in urban locations may have a higher possibility of success thanfirms located in rural locations with access to credit, market and other resources. Fatoki and Asah (2011) found out that SMEs located in urban are successful in access to debt financing compared to those located in rural areas. Physical closeness between lenders and borrowers produce an improved form of environmental scrutinize that aid SMEs to access credit from lenders. Consequently, there is a positive relationship between firm’s location and access to debt financing by SMEs.

Abor (2008) SMEs located outside major cities face greater difficulties in acquiring external finance, especially long-term debt, compared with their counterparts operating in cities.

A study conducted by Okpara and Wynn (2007) reported poor location results in inaccessible businesses to both customers and suppliers as one of the reasons for SME failure in Nigeria. Additionally, another study by Reddy (2007) examined the challenges and obstacles encountered by SMEs in Fiji. They found that in spite of the relatively high cost of rentals, SME owners preferred tomove their firms’ activities to urban areas to escape the negative impact of the local environment features of rural areas on raising external finance, including poor local transportation and communications infrastructure, and consequently on the performance and growth of their firms which made their survival more difficult where such a climate exists.

Summary of the Literature Review

The extensive literature reviewed suggested that access to finance have constituted a major obstacle to enterprises in both advanced and emerging economies. The onus however has been on enterprises in developing and emerging economies due to uncertain business environment and low performance. A great deal of the analysis of financial constraint has concentrated on small and medium scale enterprises with little attention paid to large enterprises. There are very few studies that consider enterprises' size distribution in financial constraints analyses making comparison by size and other firm specific characteristics hard to make. This study seeks to fill the gap identified by considering access to credit/finance across firms of different sizes, age categories and business locations in Ghana.

CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

This chapter presents the methods adopted for the study. It presents the research design adopted for the study followed by data source and description and finally discussed the estimation techniques and data analysis.

Research Approach

Research approach refers to the theoretical and philosophical foundations, knowledge claims, strategies and methods under which a research is carried out (Sarantakos, 2005). That is, the research approach determines the research paradigm that a study intended to follow. The approach could be more of qualitative, quantitative or mixed (Creswell, 2003). This study followed the positivist philosophy which suggests that social fact can be objectively studied in a quantitative setting (Sarantakos, 2005). Thus, the study adopted a quantitative approach by putting responses on an interval scale which makes descriptive statistics and hypothesis testing viable options.

Research Design

The study adopted a descriptive research design to address the stated research objectives. The adoption of a descriptive design was appropriate since the study intended to explore the state of financial accessibility and describe the observed outcome objectively. The views and the responses of the respondents were put on an interval or ratio scale which allowed for descriptive statistics to be adopted for the analysis.

To ensure validity of the constructs, which was the major aspect of validity for this study, the variables where given multiple measurements and were constructed in line with the best methods available in the literature. For example, firm size was defined to include micro firms though the original data set does not make such distinctions. That is, when micro firms are pushed into the small firms, the small firms becomes over sampled with large sample size difference. Also, different measure of location such as physical location and relative locations were all employed for the analysis.

Ethical consideration was not a major issue since the study adopted a secondary data that has been collected by a reputable institution like the World Bank following the best available survey methods (World Bank, 2013). The study, however, enhanced the ethical consideration by being honest with outcomes and reporting results as accurate as possible.

Data Source and Description

The study adopted the 2013 Enterprise Survey data set on enterprises of Ghana. The World Bank's Enterprise Surveys (ES), interview formal, private, non-agricultural firms in countries around the world including Ghana (World Bank, 2013). The standard sample of enterprises includes firms of all size categories and allows for their comparison on common variables. A number of variables on access to finance and financial constraint were captured which serves the interest of this study better. In the context of developing countries, survey data sets are deemed the best way of access issues of financial constraints and access to finance. According to Claessens and Tzioumis (2006), financial constraints analyses which employ econometric modeling of firms' financial statements provides a rigorous method for empirical investigations but such methods are of little usefulness in the context of developing countries where there are poor record keeping. In these countries, the majority of private sector activity originates from SMEs for which financial data is limited. SMEs are typically not obliged to file detailed financial reports nor raise equity or debt in public markets, thus not required to disclose the rich data needed for empirically testing of financing constraints. Also, in transition and developing countries, even the listed or large non-listed firms' financial statements are not as reliable as those in developed countries. This provided the justifications to adopting the World Bank Enterprise Survey (ES) data set for the analyses.

Measurement of Variables of the study

Table 2:

Measurement of Main Variables of the study

Variable	Measurement
Lack of Access to Finance	Perception of Severity of Access to Finance as a major obstacle 1. Binding Constraints covers Moderate perception through to severe obstacle. 2. Non-Binding constraints cover perception of no obstacle and Minor obstacle.

Size of Enterprise	Total Number of Employees or Workers
Age of an Enterprise	Number of years in active operations 1. Young if less than 8years. 2. Matured between if greater than 8 but less than 21 years. 3. Ages of greater than 21 years
Regional Location	Location in one of the business region of Ghana as identified by World Bank Enterprise Survey team. 1. Accra Zone 2. Tema Zone 3. Takoradi Zone (Takoradi and Cape Coast) 4. Northern Zone (Kumasi and Temale)
City Location	1. Location in the main business city 2. Location outside the main business city

Source: Author’s Construct

Data Analysis Procedure

The decision to employ regression analysis to a survey data usually leads to large loss of observation due to missing values. Where regression analysis is the only option it sometimes become necessary to drop important variable which has many missing values to be able to get a relatively large sample size required for consistent results. In the case where percentages and comparison of means are enough to achieve the research objectives they become a better option than regression analysis since they do not require a complete square matrix for their applications. This study adopted cross tabulations, frequencies and percentages to address the research objectives as it is commonly done in finance literature on the issue of access to finance. The Analysis of Variance (ANOVA) and independent t-test of the equality of the mean was used where necessary to compare the mean perception of the respective enterprise unique characteristics. Technically, the ANOVA results is comparable to independent t-test results of the factor variable has two categories.

Analysis of variance (ANOVA) uncovers the main and interaction effects of classifications or independent variables on one or more dependent variables. ANOVA analysis uses the F-statistic, which tests if the means of the groups, formed by one independent variable or a combination of independent variables, are significantly different (Park, 2009). It is based on the comparison of two estimates of variances, one representing the variance within groups, often referred to as error variance and the other representing the variance due to differences in group means. The larger the F-ratio, the greater is the difference between groups as compared to within group differences. An F-ratio equal to or less than 1 indicates that there is no significant difference between the groups and the null hypothesis is correct, and then one can conclude that the independent variables did not have an effect on the dependent variable (Park, 2009). When the numbers of factor variables in the independent variable are two, the analysis of variance gives a result comparative to the independent t-test of equality of the mean.

Where the ANOVA process involves only one continuous dependent variable, the process is termed the ONEWAY ANOVA and where there are two continuous dependent variables it is said to be TWOWAY ANOVA. This study adopted the ONEWAY ANOVA since it used only one dependent variable which was the coding of perception of access to finance as an obstacle by enterprises into an interval variable. That is, once a qualitative variable is coded into well-defined interval variable, the mean becomes meaningful and comparison of means can be done.

As it is the general weakness of ANOVA, the results only suggest that the groups have some significant differences among them but do indicate the source of the differences in the mean. Hence where some differences were observed in the analyses, the Post Hoc Analyses following the Bonferroni pairwise comparison test was used to determine the actual source of the differences. The Post Hoc results is simple an independent t-test analyses of the factor variable after the ANOVA indicate the existence of some significant differences among the factor groups.

Test of Equality of Variance

One of the basic assumptions that must be met for the ANOVA results to be reliable is that the groups have equal variances in terms of the dependent variable (Park, 2009). The Bartlett test is one of such tests available in STATA statistical package to test for the equality of the variance. Markowski and Markowski (1990) both the traditional F test for the homogeneity of variances and Bartlett's generalization of the F test to K samples are very sensitive to the assumption that the data are drawn from an underlying Gaussian distribution. That is, as a parametric test the ANOVA analysis assumes a relatively normal distribution. Since in reality data sets do not always behave well, Levene (1960) proposed a test statistic for equality of variance that was found to be relatively robust under non-normality. Subsequently, Brown and Forsythe (1974) proposed alternative formulations of Levene's test statistic that use more robust estimators of central tendency in place of the mean. These reformulations were demonstrated to be more robust than Levene's test when dealing with skewed populations. The Robvar command in STATA reports Levene's robust test statistic (W0) for the equality of variances between the groups and the two statistics proposed by Brown and Forsythe that replace the mean in Levene's formula with alternative location estimators. The first alternative (W50) replaces the mean with the median. The second alternative replaces the mean with the 10% trimmed mean (W10). Brown and Forsythe (1974) use of the median can be sanctioned by the fact that when it comes to skewed data (whether positively or negatively Skewed) the median becomes a better measure of central tendency than the mean. That happens because the mean is heavily affected by outliers which abound in skew data sets. This study adopted both the Levene's and Bartlett's where appropriate to test for the equality of the variance.

The null hypothesis for the test of the equality of the mean is stated as:

Ho: The factor groups have homogeneous variances

Ha: The factor groups have unequal variances

The nature of the null hypothesis suggests that a larger probability value is preferred. That is, the success of this event is when the test fails to reject the null hypothesis. The Bartlett’s test assumes that the distribution is normal and hence passing the Bartlett’s test deals indirectly with the issue of normality.

CHAPTER FOUR

RESULTS AND DISCUSSION

Research Objective One: Preparedness of Firms to Access Formal Loan

It is not possible to talk about financial constraint until it is established that enterprises are prepared and are making efforts to access loans. The first factor considered to determine the preparedness of enterprises to access loan was whether enterprises have bank accounts with the formal banking institutions.

Figure 1 presents the outcome of number of enterprises that have bank accounts in the respective size categories.

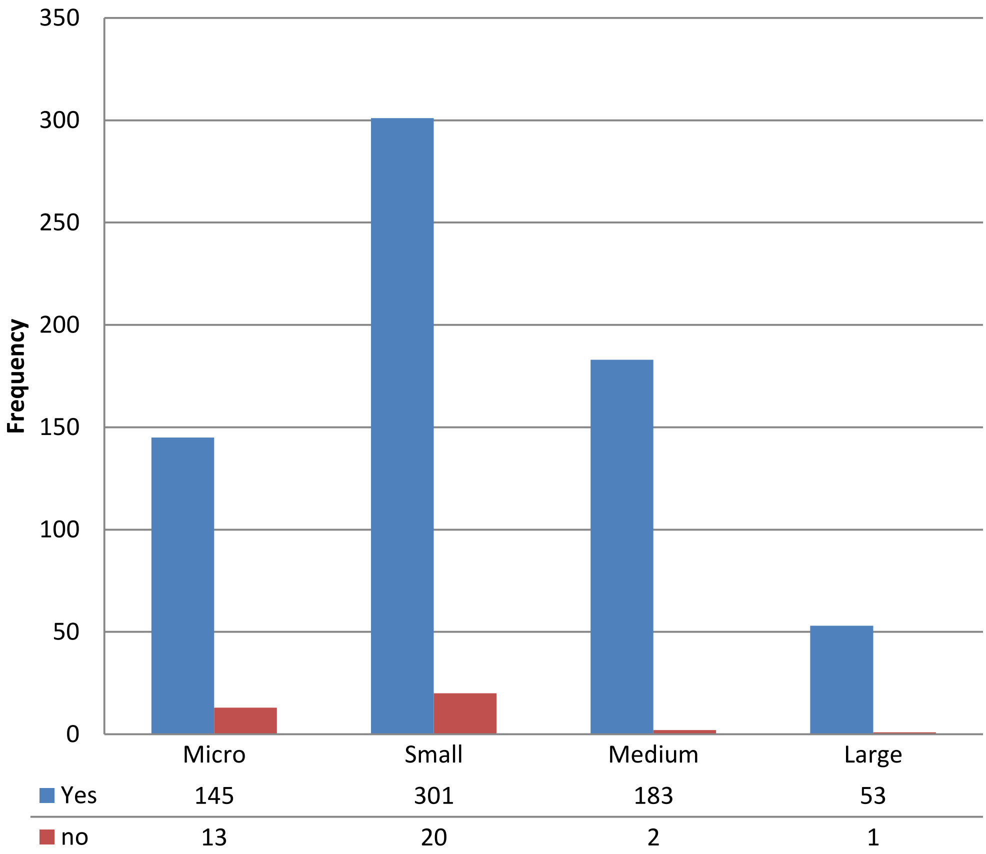


Figure 1: ***Enterprise with Bank Accounts***

The results from Figure 1 clearly suggest that enterprises in all size categories are relatively prepared to access banks loans considering the fact that the first conditions for most enterprise loans is the possession of an active bank account, preferably with the bank in question. That is over 90 percent of all enterprises have some form of a connection to a bank in the form of a bank account. This outcome is in confirmation of the observation of Nkuah et al. (2013) in the Wa municipality that all sampled SMEs in their study had bank accounts.

If enterprises do have current or savings accounts, do they actually use it to access finance form bank? Table 1 suggests that very few enterprises in all size categories are in possession of a line of loan with a formal financial institution. That is, about 20 percent of micro enterprises have loans, 17 percent of small enterprises have loans, and 24 percent of medium enterprises and 40 percent of large enterprises have a line of loan or credit with a formal financial institution. In spite of the advantage of size, large enterprises hold few lines of credit are at advantage over micro, small and medium enterprises. This goes to support the earlier observation that large enterprises are in a better position to access funds than the smaller enterprises.

As was discovered in the review of the related literature, having few lines of credit or loans may not be a good pointer to lack of access to finance since enterprises desire to hold such loans also matters. In this study, the desire to access a line of credit was measured by possession of bank account and number of loan application made in the immediate past periods.

Table 3:

Number of Enterprise Having Loan Application with Banks

Firm size	Enterprises with loans from financial institution	Percentage	Enterprises without from financial institution	percentage	Total
Micro	32	20.25	126	79.75	158
Small	56	17.89	257	82.11	313
Medium	44	24.04	139	75.96	183
Large	21	39.62	32	60.38	53
Total	153	-	554	-	707

Source: Authors calculations from ES data set

The results of Table 3 suggested that only 22 percent of the sampled enterprises had a line of loan or credit with a financial institution. Though about 78 percent (554 out of 707) of the enterprises do not have loan with a formal financial institution, the actual anticipation of constraints depends on the number of attempts the enterprises made to access loans and probably failed.

Table 4 presents the results on the number of enterprises that made a loan application in the last year before the survey.

Table 4:

Application for Loans in the Last Fiscal Year

Firm size	Application for New loan in last fiscal year	Percent	No Application for New loan in last fiscal year	percent	Total
Micro	35	22.15	123	77.85	158
Small	70	22.36	243	77.64	313
Medium	49	26.78	134	73.22	183
Large	16	30.19	37	69.81	53
Total	170	-	537	-	707

Source: Authors calculations from ES data set

The outcome of Table 4 suggest that about 24 percent (170 out of 707) of them actually made application for fresh loans in the last fiscal year before the survey (2011) which does not deviate significantly from the number that have loans. Considering the fact that about 76 percent did not make any application for loan in a whole year, it could be inferred that most of the enterprises are not making enough efforts at accessing bank loan rather than being severely constrained. A second argument could also be that enterprises have actually applied for loans severally in the past and be denied to the extent that they do not want to invest more time and efforts again. By this argument, attention was given to the reason why the enterprises did not apply for loans in the entire year which is contained in Table 5. Interestingly, about 230 of the enterprises could not give any reason for not applying for loans as such only

477 enterprises were involved in the analysis on reasons for not applying for loans.

Table 5:

Reasons for not applying for Loans

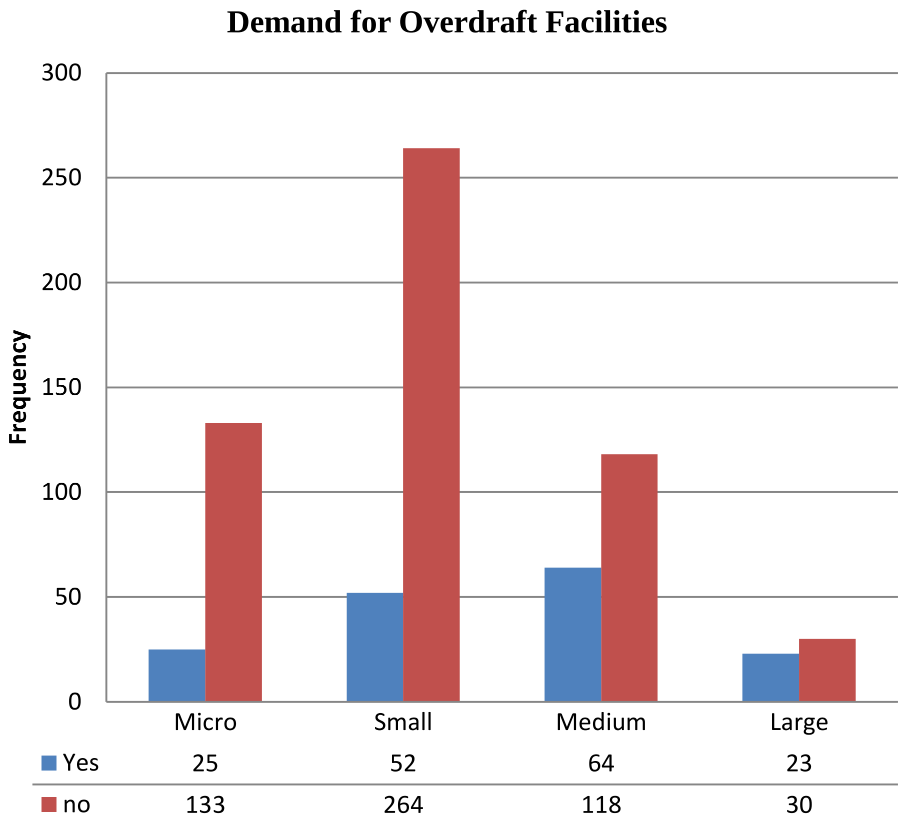
Firm size	No need	High Interest	Bureaucracy	High Collateral	Small loan size and maturity	Total
Micro	22	40	18	26	1	107
Small	68	77	32	42	5	224
Medium	43	26	27	19	2	117
Large	20	2	7	0	0	29
Total	153	145	84	87	8	477

Source: Authors calculations from ES data set

A rather interesting observation emerged on the reasons why enterprises are not applying for a loan which was the fact that the substantial percentage of enterprises (32 % of all enterprises -153 out of 477) feel they have no need to apply for a bank loan. If these firms really have no reason to apply for loans then they cannot be said to be constrained at accessing funds from banks. One possible interpretation for this attitude was that enterprises may be using informal loans instead of demanding bank loans or possibly they are not seeking growth and hence may not see the need for external funding. Interestingly, larger and medium enterprises held this view higher above all other reasons (67% of large enterprises against 37% of medium enterprises). High interest came up as the second reason for not applying for loans (30% of all enterprises). The high interest rate was the major reasons for micro (37%) and small (34%) enterprises. High collateral and bureaucratic procedures emerged the next two reasons for which enterprises are not applying for loans. Interestingly, no large enterprise had an issue with collateral requirement for loan.

Still the micro and small enterprises had the greatest complaints about collateral and bureaucracy in accessing formal loans. The size of loans and their maturity period did not matter much to the enterprises in all size categories as the reason for not applying for loan. In sum, the observations from Table 3can be summarised into two statements. First the medium and large enterprises have more personal reasons for not applying for loans than institutional and hence cannot be said to be severely constrained. Secondly, micro and small enterprises cited purely institutional reasons for not applying for loans than personal reason and hence can be said to be constrained from accessing funds from financial institutions. The general conclusion is that micro and small enterprise are more constrained in accessing funds than medium and large enterprises.

Enterprises can either fall on loans or overdraft facilities for short term financing. The outcome of Figure 2 suggests that only 23 percent of all the enterprises have overdraft facilities with banks. About 16 percent of Micro enterprises, 20 percent of small enterprises, 54 percent of enterprises and 56 percent of enterprises had overdraft facilities with banks. It could be observed from the percentages that adoption of overdraft facility increase as firm size increases.



Source: Authors calculations from ES data set

Figure 2: ***Demand for Overdraft Facilities***

The analysis was effective at addressing the first research objective of the study. First, it was established through the analysis that enterprises of all size categories are prepared for formal shot-term loans by possessing a bank account with the formal banks. However, the enterprises do not appear to have confidence in the loan process of the formal banks since most of them do not apply for loans or overdraft facilities from the banks. The large and medium enterprises cited personal reason for not applying for formal loan while the micro and small enterprises sited purely institutional reasons for not applying for loans.

Research Objective Two: Firm Size and Access to Finance

Major Obstacle of Access to Finance by Enterprises according to Size

The response to the question as to whether access to finance is a major obstacle had five mutually exclusive responses. The first two responses (No Obstacle and Minor Obstacle) were categorized as view access to finance as not a binding constraint while the last three responses (Moderate, Major and Severe Obstacle) were categorized as considering access to finance as a binding Constraint. The results as presented in Table 6 suggest that the perception of severity of access to finance as a binding constraint decreases with firm size.

Table 6:

Access to Finance as a Binding Constraint

Firm size	Binding Constraints	Not a Binding Constraints	Total	Number
Micro	88.46%	11.54 %	100%	156
Small	80.70 %	19.30 %	100%	316
Medium	70.65 %	29.35 %	100%	183
Large	56.60 %	43.40 %	100 %	53

Source: Authors calculations from ES data set

The result indicated that the perception of access to finance as a binding constraint decreased from 88.46% of micro enterprises through to 56.60 % of large enterprise which indicate that large enterprises perceive access to finance less as an obstacle compared to the Small Medium scale Enterprises (SMEs). The mere difference in the percentages may not be enough to formal assert that the mean perceptions of the respective size classes differ significantly. By putting the responses on a five point interval scale, it became statistically correct to test for the differences in the mean perception using ANOVA result. Table 7 presents the one way ANOVA analysis of respective size categories against the perception of severity of access to finance.

Table 7:

ANOVA results of Enterprise Size and Perception of Access to Finance

		Analysis of Variance			
Source	SS	df	MS	F	Prob>F
Between Group	88.7647367	3	29.5882456	19.90	0.000
Within Group	1048.14641	705	1.48673249		
Total	1136.91114	708	1.6058067		
Bartlett's test for equality of Variance: Chi2(3)=1.5230 Prob>chi2=0.139					

Source: Authors calculations from ES data set

The Bartlett's test of the equality of variance suggests that factor groups (micro, small, medium and large enterprises) have relatively homogeneous variances which support the consistency of the ANOVA results $\left(\chi^2 = 1.5230,\ \ p>0.05\right)$. That is, we fail to reject the null hypothesis that the sub-sample of micro, small, medium and large enterprises have relatively homogenous variances. The results of the ANOVA analysis suggest that a significant difference exist between the mean perceptions of extent of financial constraint among the enterprises in the respective size groups (df=708, F=19.90, p-value<0.05). That is enterprise size was discovered to be important variable in explaining access to finance among enterprises in Ghana. The pairwise comparison tests suggest that no significant difference exist between the perceived financial constraints among all size groups. A further analysis of the pairwise comparison test (Post Hoc analysis) suggests that the perception of access to finance as an obstacle decrease with increasing firm size.

Table 8*:*

Post Hoc Analysis (Bonferroni) according to Enterprise Size

Row mean –column mean	Small	Medium	Large	Micro
Micro	-0.1234	-0.357189		
	(0.213)	(0.017)		
Medium	-0.723384	-0.366194		
	(0.000)	(0.008)		
Large	-1.32644	-0.96925	-0.603056	-1.8743
	(0.000)	(0.000)	(0.009)	(0.000)

Source: Authors calculations from ES data set (2013)

This outcome support the popular view that large enterprise have better chances at accessing finance than smaller enterprises or at best large enterprises can raise funds internally or easily access them externally than smaller enterprises.

The analysis addressed the second objective of the study by discovering that firms of all size categories are constrained to access short-term finance from formal financial institutions such as banks. The ANOVA analysis suggested that a statistical significant difference exists between the views of small and large enterprises about the severity of access to finance as an obstacle to business operations. Also, statistical significant differences exist between the views of the owners of small and that of large enterprises. The Post Hoc analysis suggested that large enterprises had a moderate view of access to finance as an obstacle as compared to medium enterprises and the severity increases as size decreases. Thus the micro enterprises emerged the most constrained to access loans from banks. This finding is supports of a recent study of Bigsten et al. (2013) on six African countries which discovered a positive relationship between enterprise size and access to finance.

Research Objective Three: Enterprise Age and Access to Finance

The analysis was extended to cover the role of enterprise age on access to finance among enterprises in Ghana. As was observed in the review of the related literature, enterprise age is seen as an indicator of goodwill and reputation which could affect the enterprise's ability to access funds from formal institutions. Table 9 gives the outcome of the perception of severity of access to finance as an obstacle to the defined aged groups.

Table 9:

Enterprise Age and Perception of Access to Finance as an Obstacle.

Firm age	Binding	Not a Binding	Total	Number

	Constraints	Constraints		
Young	82.07%	17.93 %	100%	184
Matured	80.47 %	19.53 %	100%	343
Aged	70.11 %	29.89 %	100%	174

Source: Authors calculations from ES data set

The results suggest that the perception of access to finance as a binding constraint reduces from 82.07% for the young enterprises through to 70.11% of the aged enterprises which perceive access to finance as less an obstacle to the SMEs. The possible implication of this observation is that though firms, irrespective of age saw access to finance a binding constraint, the younger enterprises had a high perception of severity of access to finance as an obstacle followed by matured and then the Aged enterprises. That is aging reduce the perception of finance as a major or severe obstacle.

Table 10 presents the formal ANOVA test of equality of mean perception and Bartlett's test of the equality of the mean perception of access to finance as a binding constraint.

Table 10:

ANOVA results of Enterprise Age and Perception of Access to Finance

		Analysis of Variance			
Source	SS	DF	MS	F	Prob>F
Between Group	14.3231814	2	7.16159069	4.50	0.0114
Within Group	1110.38438	698	1.59080857		
Total	1124.70756	700	1.60672509		

Bartlett's test for equality of Variance: Chi2(2)= 2.2340 Prob>chi2=0.327

Source: Authors calculations from ES data set

The test of equality of variance suggests that responses of the different age groups had relatively homogeneous variance which supports that consistency of the ANOVA results. Together the ANOVA results suggest that a statistical significant relationship exist between the mean perception of access to finance as an obstacle among the respective ages groups ($F=4.50$, df $=700$, p-value<0.05). To determine the sources of the differences, we consider the Bonferroni pairwise test of the equality of the mean as presented in Table 11. The outcome of the pairwise comparison test indicated that no statistical significant difference exist between the mean perception of the young and matured enterprises in terms of access to finance as an obstacle their business operations.

Table 11:

Post Hoc Analysis (Bonferroni) of Enterprise Age and Access to Finance

Row mean –column mean	Young	Matured
Matured	-0.049468	
	(1.000)	
Aged	-0.359695	-0.310228
	(0.022)	(0.025)

(The figures in the brackets are the P-values)

Source: Authors calculations from ES data set

The mean perception of the Aged enterprises however differs significantly from that of the young and matured enterprise both at the five percent significant level. The implication is that as enterprises grow beyond a certain age; they perceive access to finance less as an obstacle as compared to younger enterprises operating in the same environment. The conclusion is that age is an important variable in explaining access to finance among enterprise in Ghana.

The analysis addressed the third objective of the study by discovering that firms of all age categories are constrained at access shot-term finance from formal financial institutions such as banks. The ANOVA analysis suggested that a statistical significant difference exist between the views of small and large enterprises about the severity of access to finance as an obstacle to business operations. The Post Hoc analysis suggested that Aged enterprises had a moderate view of access to finance as an obstacle as compared to Matured and young enterprises. No statistical significant difference was discovered between the perceptions of the young and matured enterprises about the severity of access to finance as an obstacle. Thus the young and matured enterprises emerged the most constrained in access loans from banks. The outcome of analyses support a number of earlier studies including Pandula (2001), Robb and Wolken (2002), Bougheas, Mizen and Yalcin (2005) and Chandler (2009). In explaining why enterprise that has been in business shall have improved access to finance, Chandler (2009) noted that the longer a firm exists; the more it signals that it can weather tough economic conditions. Furthermore, by staying in business, a firm can signal that it does not adopt opportunistic behavior. Also, Bougheas, Mizen and Yalcin (2005) added that young firms are more prone to failure than older ones which make bank become very careful at extending more loans to them.

Research Objective Four: Enterprise's Location and Access to finance

Location was measured by region of operation and site of business. Table 12 present the perception of access to finance as an obstacle according to region of location

Table 12:

Enterprise Region and Perception of Access to Finance as an Obstacle.

Business Region	Binding Constraints	Not a Binding Constraints	Total	Number
Accra	83.23%	16.76 %	100%	352
Northern	77.40 %	22.60 %	100%	146
Tarkoradi	69.64 %	30.35 %	100%	56
Tema	74.52%	25.48	100%	157

Source: Authors calculations from ES data set

The outcome of the analysis suggest that enterprises that operate within Accra had the highest perception of finance as an obstacle with about 83 percent of them complaining about access to finance as an obstacle. This was followed by enterprises operating the northern region and then those operating in team. Enterprises in Tarkoradi had the least complain but even that is substantially large enough at about 70% of enterprises. Though some differences can be observed about the responses in table 10 above, a formal test was necessary to determine if the observed difference are statistically significant.

Table 13 gives the ANOVA results of region of operation on perception of severity of access to finance as an obstacle.

Table 13:

ANOVA results of Enterprise Location and Perception of Access to Finance

		Analysis of Variance			
Source	SS	Df	MS	F	Prob>F
Between Group	13.0195703	3	4.33985678	2.71	0.0440
Within Group	1130.51067	707	1.59902499		
Total	1143.53024	710	1.61060597		
Bartlett's test for equality of Variance: Chi2(3)=3.6137 Prob>chi2=0.306					

Source: Authors calculations from ES data set

The Bartlett's test of equality of the variance was passed which indicate that the distribution of the four regions have relatively equal variances. The ANOVA results suggests that a statistical significant results exist among the mean perceptions of the enterprises in the respective region at the five percent significant level (F=2.71, df =710, p-value<0.05). The pairwise comparison test (Post Hoc Analysis) was done to determine the actual sources of the differences.

Table 14:

Post Hoc Analysis (Bonferroni) of Enterprise Location and Access to Finance

Row mean –column mean	Accra	North	Takoradi
North	-0.239609		
	(0.032)		
Takoradi	-0.364854	-.125245	
	(0.027)	(1.000)	
Tema	-0.249294	-0.009685	-0.11556
	(0.024)	(1.000)	(1.000)

The figures in the brackets are the P-values

Source: Authors calculations from ES data set

The results suggested that a significant difference exist between the mean perceptions of enterprises in Accra and all the other regions. We can conclude that enterprises in Accra perceive access to finance more as an obstacle than enterprises in Tema, Takoradi and Northern (Kumasi and Tamale) business regions. This observation is very interesting since Accra is expected to be flooded with financial institutions with intense competition which will lower the processes and requirement to accessing funds. The perception of enterprises operating in the Tema, Takoradi and Northern (Kumasi and Tamale) business regions did not differ significantly each other.

Another area of location that was considered was whether enterprises were operating in the central business district of the region or not.

The Table 15; presents the perception of severity of access to finance as an obstacle according to location in the business center or not.

Table 15:

Enterprise Location as an obstacle of Access to Finance

Business Location	Binding Constraints	Not a Binding Constraints	Total	Number
Main Business City	80.97%	19.03%	100%	352
Not the Main Business City	74.93 %	25.07 %	100%	359

Source: Authors calculations from ES data set

The results suggest that enterprises in the main business city perceive access to finance as an obstacle than other enterprises that are not operating in the main business city. That is about 81 percent of the enterprises who operate in the main business city perceive access to finance a binding constraint while about 75 percent of enterprises that operate outside the main business city perceived access to finance as a binding constraint. The independent t-test of equality of the mean suggested that the observed difference in the mean perception of severity of access to finances as an obstacle is statistically significant at the five percent significant level ($t=7.73$, $df=710$, $p\text{-value}<0.05$). This finding adds to the earlier observation that enterprises in areas with expected high presence of financial institutions rather complain more about access to finance.

The analysis addressed the fourth objective of the study by discovering that enterprise's locations significantly affect the chance of enterprise to access loans from financial institutions such as banks. The analysis suggested that enterprises operating in Accra are more constrained at access finance than those operating in other region. Also, enterprises that operate in the main business city of their region were more constrained than that elsewhere in the same region. This observation contradicts most of the earlier studies on the relationship between enterprises' location and access to finance. For example, Gilbert (2008) discovered that firms sited in urban locations may have a higher possibility of success than firms located in rural locations with access to credit, market and other resources. But in this study, enterprises in Accra zone which is the most urban areas in Ghana were the most constrained as well as enterprises that operated the main business cities which are most likely to be urban. The outcome of the study however is not out of place since there are heavy presences of micro finance industries in the remote areas of Ghana than in the urban areas. Also, most government interventions on access to finance usually target small enterprises in the remote areas as a poverty alleviation measure. Another firm level explanation to the outcome is the fact that firms in the urban areas may be more active at access loan than those elsewhere and hence they will perceive access to finance as an obstacle than others not necessary chasing funds.

Conclusion

The analysis and discussions above we can make the following conclusions about the influence of firm size on its access to finance among enterprises in Ghana. First, enterprises irrespective of size were prepared by institutional requirement to apply for formal loan by possess bank accounts. The desire to access formal loans is very low for firms of all size categories.

That is only 24 percent of 707 enterprises made application of loans in a whole year (2011). In terms of access to formal finance, micro and small enterprises are more financially constrained than medium and large enterprises. Finally, there was a clear cut difference between the reasons why micro and small and the reasons why medium and large scale enterprises do not apply for loans. Also, young and matured enterprises were more constrained than aged enterprises while location of operation does matter in accessing formal loans from banks.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introductions

This chapter presents a summary of the entire study and the outline of the major findings of the study. The appropriate conclusions were drawn and recommendations were given based on the conclusions. Finally, some directions for future studies were suggested as well.

Summary

This part of the chapter is divided into two parts. The first part is the summary of the research process and the second part presents the summary of the key findings.

Summary of the Research Process

The main objective of the study was to assess the relationship between enterprise unique characteristics and access to formal short-term finance. The unique enterprise characteristics studied were enterprise size which was measured by number of employees, enterprise age which was measured as number of years in continuous operation and enterprise locations which were measured by business region of operation and location within and outside the main business city of a business region.

The research approach follows the positivist philosophy and employed a quantitative approach to analyse the data used. Descriptive survey was used to describe the state of access to finance as portrayed by the data available. The data set on selected enterprises in four business regions in Ghana collected by a team from World Bank in 2012 was employed for the study. The World Bank Enterprise survey dataset interviewedstakeholders of firms from the non-agricultural sector of the economy following advanced sampling procedures that ensured representativeness of most industries in the country. The analyses was done using descriptive statistics and ANOVA test and Bonferroni pairwise comparison test of equality of the mean as the Post Hoc approach. Tables, cross tabulation and chart were employed to present the results of the analyses to address the following research questions:

1. What is the level of preparedness of enterprises in Ghana to access bank loans and overdrafts form banks?
2. What is the influence of firm size on its access to formal funds form banks?
3. What is the influence of firm age on its access to finance from banks?
4. What is the influence of firm location on its access to finance from banks?

Summary of Key Findings

After thoroughly discussion of the results the following findings were obtained:

1. Enterprises irrespective of size, age and location were prepared to apply for formal loans. This was evidenced by possession of bank accounts with a formal financial institution as the necessary first step to secure the fund when they require it.

2. The desire to access formal loans is very low for firms of all size categories. That is only 24 percent of 702 enterprises made application for loans in a whole year (2012). In terms of access to formal finance, micro and small enterprises were more financially constrained than medium and large enterprises. There was a difference between the reasons why micro and small and the reasons why medium and large scale enterprises did not apply for loans. Large enterprises had a moderate view of access to finance as an obstacle to business operation as compared to medium enterprises and the severity increases as the size decreases. Thus the micro enterprises emerged the most constrained to access loans from banks.
3. Aged enterprises had a moderate view of access to finance as an obstacle to business operations as compared to matured and young enterprises. No statistical significant difference was discovered between the perceptions of the young and matured enterprises about the severity of access to finance as an obstacle.
4. The findings suggested that enterprises operating in Accra zone are more constrained to access finance than those operating in other regions. Also, enterprises that operate in the main business city of their region were more constrained than enterprises elsewhere in the same region.

Conclusions

The findings of the study have a number of implications on the survival and growth of enterprises in Ghana. The analysis of the study suggests that both the small and large enterprises have confidence in banks by possessing a bank account and were prepared to access loans and overdraft. The concept of money creation in main stream of economics suggests that banks activities are boosted if individual have bank accounts and actually use them for transactions. The findingsof the study therefore implies that the positions of enterprises of all sizes in Ghana are consistent with bank operations and must therefore be able to access loans if there are no barriers.

The discovery that firm size has positive influence of access to finance has a serious implication for enterprises in Ghana. The negative side effect implies that the micro and small firms are the much constrained to accessing funds. That is, for a country like Ghana which has lots of informal enterprise activities, it becomes an important issue to observe that the micro and small enterprises are most constrained. It is also implied that medium and the large firms would have much accessibility to formal loans and overdraft for growth and survival and that would impair the growth and survival of the micro and small firms.

Base on the findings, the firms' age depicted a positive influence with access to finance which implies that firms should continuously be in operation to gather experience which will improve credibility and impose confidence in the formal financial institution when granting loans and overdraft to the firms. This fact about the ability of the age of the firm to improve performances and reputation makes the issue of financial constraint critical for young enterprises that must survive and growtoenable them stay in business for a longer period.

The findings on the firms' location lead to the general conclusion that firms situated in Accra zone and cities are more constrained to accessing formal funds than their counterpart elsewhere. The study considered this observation to be one of the many negative faces of centralization which leads to proliferation of enterprises in urban and main business centers. That is, as the invasion of enterprises increases in the urban area would increase the risk of loans defaulting which makes banks more cautious at giving credit to theenterprises.

Recommendations

Policy makers in Ghana are of the view that employment creation can be resulted from the expansion of the small enterprises to large enterprises, while job security depends largely on survival of firms. It therefore becomes necessary to implement measures that do not only help firms to grow but also keeps them in business (Republic of Ghana, ISSP, 2011). The outcomes of the study lead to the following recommendations:

1. Enterprises must be commended on their active involvement in bank operations, to transact business activities such as payment for goods and services, and salaries through their bank accounts. This recommendation that, when adhered to that, shall enhance their opportunities to secure funds from the formal financial institutions.
2. The incentive packages from the Ministry of Trade and Industry and other stakeholders should be given to all the enterprises irrespective of the size, since they all needs such supports to survive and grow ,

especially the micro and the small firms; and the formal financial institutions should also provide equal access to finance to firms.

3. Thesupport and incentive packages from the government and the international bodies like the International Monetary Fund (IMF) should also consider the age categorization which equally affects business operations and access to finance.
4. Enterprises must be encouraged in the short-term to concentrate on activities in remote areas where most assistance exist and rather trade with the city and urban places. In the long run, government agencies should speed up the decentralization process and make it operational since enterprises would want to operate where they will get market for their product.

Suggestions for Further Research

Since research is a cycle, the findings of the study form the premises for further studies.

1. Future studies can extend the analysis of access to finance to cover financial statement analyses when the culture of preparing financial statement improves among small and medium scale enterprises.
2. Also, the effects of other firm unique characteristics such as type of establishment, sector and level of efficiency on access to finance shall be explored to add to the argument on the role of firm unique characteristics on access to finance in Ghana.

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