CHRISTIAN SERVICE UNIVERSITY COLLEGE

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FACTORS AFFECTING CAPITAL STRUCTURE OF SMALL AND MEDIUM ENTERPRISES IN THE KUMASI METROPOLIS: A SURVEY

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THIS PROJECT WORK IS SUBMITTED TO THE CHRISTIAN SERVICE UNIVERSITY COLLEGE, OF THE CSUC BUSINESS SCHOOL, DEPARTMENT OF ACCOUNTING AND FINANCE IN PARTIAL FULLFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF BUSINESS ADMINISTRATION IN ACCOUNTING

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DECLARATION

We, the undersigned, hereby declare that this Project Work is our own original work and it has not been submitted, and will not be presented at any other University for a similar or any other degree award.

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Supervisor's Declaration

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

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ABSTRACT

This study investigated the determinants of capital structure of small and medium enterprises (SMEs) in the Kumasi Metropolis in the Ashanti region of Ghana. The objectives of the study were, to ascertain whether the use of internal equity was positively or negatively related to the size, age and profitability of the firm. Furthermore, the study examined if the use of external equity was negatively or positively related to the age, size and profitability of the firm. The results revealed that size, age and profitability of the firm were some of the major determinants of capital structure. Finally, the study recommended that SMEs, commercial banks and the Ghana government take measures to improve access to capital by SMEs. Such measures included government intervention in reducing discrimination from the banks as well as encouragement of SMEs training and education so that they are empowered with business and financial management skills.

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DEDICATION

We dedicate this project work to our families for their prayers and resolute support that inspires me to complete this project.

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CHAPTER ONE

INTRODUCTION TO THE STUDY

1.0 Background

Small and Medium Enterprises (SMEs) activities tend to dominate in every economy of a country, since its formation is very simple and devoid of any complications. SMEs are composed of cooperative firms and sole proprietor firms such as pharmaceutical firms, timbers firms, and small trading firms with its branches in other locations (National Small Business Act of Ghana of (1996). Most successful economies have relied on SMEs to build and growth their economies. Zingales (2000) in the study emphasized that economic stability, empowerment of gender and minority of SMEs serves as the basis for foundation

Creation of employment is one of the intended objectives of establishment of SMEs in emerged and emerging economies. To support SMEs would assist them to tap their full potential benefits that contribute positively to the development of the economies. This contribution is vital for both social and economic objectives, especially in alleviating and reduction of poverty in our rural settings. Private sector employment in Ghana had received contribution of fifty-six percent (56%) and thirty six percent (36%) to account for the Gross Domestic Product (GDP). Indeed, creation of employment is mostly facilitated by the role of SMEs in Ghana (Ntsika, 2002).

In Ghana, the contribution of SMEs to the economy is high and is much influencing the growth of the economy. However, withstanding this, the rate at which they fail is high, mainly due to little access of finance, low managerial skills and capability, little technology and innovation and others (Glen, 2004; Glen, 2004). Empirically, literature about SMEs has revealed that they do not have access to public markets (Zingales, 2000). Large and listed firms in relation to SMEs achieve many studies about financial decisions. Ways Company finances their activities applying mixture of debt and equity. Academicians are interested into the manner both listed and SMEs finance their capital structure through the financial community (Rajan and Zingales, 2004). Finance source for large firms cannot be applicable to SMEs as posited by Barbosa and Moraes, (2004). This is because, SMEs pose methodological challenges in academic research. SMEs are not mandated to have their accounts to be published, since they are not listed on the Ghana Stock Exchange, therefore analyzing their performance is crucial. On this basis, it is important to study this topic.

Capital structure determinants can be ascribed to either a qualitative or quantitative design method. Numerical numbers such as size, profitability, asset turnover, age of the company are attributed to quantitative determinants. Full descriptions about experiences, social norms, culture, shared belief, norms and respondent thoughts are classified as qualitative determinants. The quantitative determinant is used as the focus of this project work. Justification for the topic is due to long standing acceptable within extant empirical studies. This serves to facilitate easy comparison between previous studies and current. Moreso, data analysis under quantitative data assures quality testing to achieve significance in reporting the results in central tendency, graphical and mean forms.

The study of capital structure in the SMEs domain is few in Ghana and is still proving areas for further research (Glen, 2004). Hence, this topic is worthy to study and therefore underscore the motivation for the study. Hence, with this project, the study serves to contribute immensely in the SMEs and capital structure empirical studies. The objective of this study aims to focus on how selected factors of SMEs financing structure support theories in finance and accounting. Capital structure theories in academic which include the static trade-off theory, the agency theory (Jensen Meckling, 1976) and pecking order theory of Modigliani and Miller (1963). The application of these theories in vital in both large and SME firms

1.2 Statement of the problem

One key important of SMEs is recognized as assurance of employment, more or less income distribution, identifying of niche market and promoting productivity to lead to stimulating economic development in the country. Notwithstanding this, there is high failure rate of about 85%, with access to funds as the major reason for the failure (Boateng, 2004).

SMEs financing has been a problem for since time ago, and therefore has affected their growth and expansion to enjoy the economies of scale. Three financing methods are employed in this study, namely using internal earnings (retained earnings), debt and funds from owners. Equity is mostly used by SMEs firms. The last cited is the most common source of finance used by SMEs. This research analyzed the extent to which the theories of finance were applicable to the companies‟ decision-making process of capital structure.

It is necessary to select portfolios of capital structure that gives assurance of sustainability and would increase shareholders wealth. Different mix of equity and debt are mostly employed by the financial managers to deal with the situation. A sensitive question to pose is “what is the motivation factor to do so?” some fundamental questions to ask is” what determinants factors are force to reckon with as far as SMEs are concerned?” This study is therefore trying to answer these questions by throwing investigation in the capital structure decisions of SMES in Ghana.

Large firms are seen to be more discussed by the academic researchers, but the combination of equity and debt as sources are looked a few. For instance, studies by Negash (2001, 2002) concentrated on large firms, especially those listed on the Johannesburg Stock Exchange. Modigliani and Miller (1963) proposed that there is gains in using leverage as source of finance comparatively (Negash, 2001). However, there still remains a lot of academic work to done about determinants and financing mode of SMEs in Ghana. Therefore, this project work seeks to examine the extent determinants of the SMEs firms could correspondingly explain their capital structure. The capital structure was broken down into several components which form the capital such as internal equity (retained earnings), external equity (capital from owners) and debt so as to analyses each individual factor of capital structure. We develop some hypotheses based on these components of capital structure for testing. Against this background, the following are the objectives of the study:

1.3 Objectives of the study

2. To examine the relationship that exist to explain retained earnings and the size, age and profitability of SMEs in Ghana;
3. To examine the relationship between sage of external equity and the age, size and profitability of SMEs in Ghana;
4. To establish how the extent of relationships between the debt and the size, age and profitability of SMEs in Ghana.

1.4 Research Hypotheses

H_0 – It is likely that there is no relationship between retained profits and the age, size and yhjprofitability of SMEs

H_1 – It is likely that there is relationship between retained profits and the age, size and profitability of SMEs

H_0 - It is likely that there is no relationship between external equity and the age, size and profitability of SMEs.

H_2 - It is likely that there is relationship between external equity and the age, size and profitability of SMEs.

H_0 - It is likely that there is no relationship between debt finance and the age, size and profitability of SMEs.

H_3 - It is likely that there is relationship between debt finance and the age, size and profitability of SMEs.

1.5 Significance of the Study

The study is aimed at providing a platform to those charged with governance for meaningful decision-making policies to encourage financing strategies of SMEs in Ghana. The study shall also provide basis for discussions to reduce failure rate of SMEs in Ghana. This will go a long way to promote employment and stimulate economic growth in Ghana. The study provide platform to share key success information within SMEs business environment, especially where we resort to innovation strategies to facilitate information dissemination among SMEs in Ghana. This study contributes to the empirical literature on the SMEs and factors that determine the capital structures in Ghana. Therefore, this study serves to underpin what actual factors that drive capital structure decisions of SMEs in Ghana.

1.6 Method and Research design

Research method is the process relevant data purposely for the study is carefully collected to investigate the interest of the topic. Estimations and analyzing of the data is necessary to examine the study objectives (Churchill, 1998). The study employs ordinary least squares in the area of multiple regressions to measure the constructs of the research. The study used a quantitative research design.

1.6.1 Research Instrument

The research instrument was an archival data of the SMEs that are used for the study. Variables of interest include numbers of years the firms have been operating, number of employees in the firms, profitability level of the firms, debt financing value, and amount of the outsiders' contribution to the financing structure of the SMEs

1.6.2 Secondary data

Secondary data that were relevant for the literature review include the published material. The published materials included journals, books, conference reports, internet sources, and masters" dissertations relating to capital structure and financing decisions of SMEs. Other relevant sources of information such as published data obtained from Statistics Ghana and the Association Ghana Industries were also assessed and deductively applied.

1.6.3 Population and Sample size

Simple random sampling technique is employed to deal with sample size of the SMEs. Simple random sampling is the basic sampling technique where we select a group of subjects (a sample) for study from a larger group (Cooper & Schindler, 2003). Simple random sample is used to select the SME firms on the basis of equal selection chance. We contacted the Small Enterprise Agency for the number of SMEs to take part of the study. Sample size is 200 SMEs out of the population of the SMEs of 412

1.6.4 Data analysis Procedure

Statistical Package for Social Sciences (SPSS) is employed for the data analysis. Graphs forms, descriptive, univariate and multiple regressions test statistics are used to test the associations among both the dependent and independent variables. Moreso, the relationships between the variables were tested by employing multiple linear regressions. Correlation study was also introduced, to complement with the mean, median and frequency distribution graphs.

1.7 Organisation of the Study

Chapter one covers the introduction to the study, which includes the following: the problem statement, the significance of the study, the background to the study, research objectives, research hypotheses, and research design. Chapter two focused on the overview of SMEs in Ghana, the definition of SMEs, the importance of SMEs in Ghana, contribution of SMEs to the economy, and the challenges faced by SMEs. Chapter three focused the methods of data collection and data analysis, the validity and reliability of the research instrument, statistical tests, reliability and validity of the data. Chapter four addresses the analysis and interpretation of data. The final chapter incorporates the summary of findings, recommendations and conclusions of the study. The limitations of the study were addressed to pave way for further studies in future on SMEs in Ghana.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter explains key issues on the topic in relation to the overview of SMEs in Ghana, SMEs definitions, its contributions and matters that border on the capital structure literature related.

2.1 Overview of SMEs in Ghana

2.1.1 Nature of SMEs

Cronje, Du Toit and Motlatla (2001) posited that there are some challenges that make definition for SMEs become universally. Besides, there are important features that are predominant of SMEs and therefore worthy to mention them. The following features have been identified by the World Bank (1978) as acceptable for SMEs in emerging economies.

1. SMEs are of labor intensive than larger firm with innovation.
2. SMEs generate more direct job opportunities as compared to large firms;
3. SMEs activities promote harnessing of individual talents to nurture entrepreneurship, which is not possible for large organizations;
4. SMEs serve to render services to small firms, of which large firms find no incentive to do that;
5. Entrepreneurial skills are heightened and form the basis for testing in such firms;

The above characteristics of SMEs make it different from the large enterprises and predominantly applicable for rural settings where it is noted for small markets sizes that are not suitable for large businesses (Cronje *et al.*, 2000). There is an evidence of social acceptance of this type of businesses our rural settings, especially within the employment creation and meeting of the needs of smaller markets in rural areas.

2.1.2 Defining an SME

SME definitions tend to vary from country to country as their business environment of any economy is different. In Ghana, the various institutions involved in the SME sector have slightly different means of classification. However, some common elements in the classification can be described, such as the number of employees and the turnover of the enterprise.

2.1.3 The International Perspective

In another strand, SME is defined as one that is separately owned, and which is not dominated by its own operations activities (Small Business Act, 2002). In determining what constitutes an SME, the definition varies from industry to industry to reflect industry differences accurately. The Act has therefore stressed on size standards, specifically the turnover, the balance sheet total and the employees for the various types of SMEs (Small Business Administration, 2004). In the United Kingdom, the Companies Act of 1989 defines an SME as the one that satisfies specific quantitative and qualitative requirements. The turnover requirement states that the firm should not be more than twenty-two million eight hundred thousand

(22.8m) British Pounds Sterling, a balance sheet value of not more than eleven million four hundred thousand (11.4) British Pounds Sterling and the number of employees should not be over two hundred and fifty (250).

European Union defines small and medium enterprises as whereby the employees' number is fewer than 250 (European Union, 2004). Turnover benchmark should read fifty million euros with balance sheet value of. The maximum annual turnover is fifty (50) million Euros with a balance sheet value to stand at forty-three (43) million

2.1.4 Overview of the SME Sector in Ghana

It is difficult to know the exact number of SMEs in Ghana, as data is rare to find (Mensah, 2004), but evidence of fact from the Registrar General's department depict that about 90 percent of registered companies are SMEs. Many of these companies are in the informal sector where many are unregistered (Mensah, 2004). There are several reasons accounting for poor statistics on SMEs: no consensus definition, high cost of capturing scattered SMEs, and the fact that many SMEs do not many unregister SMEs within outside the formal economy (UNCTAD, 2005). A distinguishable characteristic of SMEs in Ghana include their inadequate access to finance, low participation in the international and local capital markets as compared to larger firms (Ackah and Vuvor, 2011).

SMEs in Ghana are assured of local ready market but few have a capacity to go abroad market. This is due the fact that they have sufficient capital requirement to meet international demand. In addition they have low level of education, training and awareness of some small business owners. Labour intensive and low technological know-how and innovation are characterized by SMEs in Ghana. They are mostly family-owned businesses, and therefore financed by the family members (Ackah and Vuvor, 2011). In some cases, they are owned by single a person and therefore key decisions are being taken by such persons (Mensah, 2004). They often have limited formal education, and lacks information in the use of new technologies and the credit market. They are also characterized by weak management skills, lack of technical know-how and extreme working capital volatility (Mensah, 2004).

SMEs in Ghana are in varied number of businesses which include: provision and retailing shops and supermarkets, restaurants and food vendors, hair dressing and barbering saloons, clothing and tailoring shops, carpentry and furniture-making shops as well as small scale manufacturers of assorted items like fruit drinks, and sachet water (Kayanula and Quartey, 2000; Ackah and Vuvor, 2011). SMEs composition is mainly family groups, individual artisans, women engaged in food production of local crops, textiles and leather, agro processing, timber and mining, etc. (Kayanula and Quartey, 2000). Urban and rural SMEs in the informal sector as well as those in the industrial sector are very heterogeneous in terms of productivity, entrepreneurial talents, and profits, level of technology, capital assets, and development prospects (Seibel, 1996).

2.2 Contribution of SMEs Globally

An economic developmental stage worldwide depicts the value of SMEs in every business sector. This has promoted inclusion of SMEs policies into national economic plans. Within African business operations, SMEs dominate more than ninety percent (90%). This role is more than fifty percent (50%) of employment contribution (Kibby & Watson, 2003) of the gross domestic product (Ghana Statistical Service, 2002).

SMEs contribution in Ghana has been affirmative so as with countries Kenya, Zimbabwe and Tanzania, despite the differences in their respective roles. For SMEs to be globally competitive, innovative application become vital to embrace within their operational dimensions to achieve an optimal performance (Luiz, 2002).

Well-managed and healthy SMEs are a source of employment opportunities and wealth creation. They can contribute to social stability and generate tax revenues. According to the International Finance Corporation (IFC), there is a positive relationship between a country's overall level of income and the number of SMEs per 1,000 people. The World Bank Institute's Doing Business reports indicates that a healthy SME sector corresponds with a reduced level of informal or" black market" activities (Baldwin, Gellatly, & Gaundreault, 2002). Though there might be inadequate information to show the actual combination made by small firms in developing countries, it is their potential to turn around an economy, because of this government usually support them.

2.3 SMEs Contribution to Ghana

Differences of SMEs role may vary across countries in Africa but are very minimal. SMEs play economic growth roles in all economies to stimulate small market agility. Business competitiveness and utilization of idle funds for production activities promote more equal distribution of economic powers and to stimulate to increase employment.

2.3.1 Contribution to Governments

In Ghana, SMEs constituted fifty-six percent (56%) of all jobs and thirty-six percent (36%) of gross domestic product (GDP) in the year 2003 (Kesper, 2002). SME entrepreneurs are force to reckon with as far sustenance of Ghana economy is concerned, especially in terms of increasing productivity, job placement, and innovative creativity to bring life to the community they (McPherson, 1999). Table 2.1 will summarize the contribution of SMEs to employment, gross domestic product as well as investment in different countries.

Table 2.1 Contribution of SMEs in different Countries (%)

COUNTRY	GDP	EMPLOYMENT	INVESTMENT
Japan	55	81	51
Germany	87	66	40
China	60	70	66
Pakistan	30	80	50
Namibia	11	20	51
Tanzania	33	20	51
Ghana	36	56	40

Source: African Economic, 2017

The key attributes of SMEs to the Ghana government are discussed to include the following:

2.3.2 Employment

The main gap filling role of SMEs is employment creation to those people who face challenges in obtaining jobs in the formal sector of the economy. They are those noted for low educational background associated with low level of capabilities and skils, especially among the women folks, elderly and handicapped. In Ghana SMEs are very important to the economy since they play a pivotal role in the wellbeing of Ghana society as well as in the creation of jobs (Kesper, 2002). SME activities have led to recognizing labour, penetration of new markets to expand the economy. This role is critical to the any economy's development.

Private sector employment of SMEs is contributing approximately fifty-six percent (56%), leading to reduction of unemployment (Ntsika, 2002) difficulties in Ghana. School leavers take advantage of SMEs job opportunities at the job market. This role has promoted the importance of SMEs in Ghana for government and other stakeholders' recognition.

SMEs are a central factor for growth and job creation in developing countries. However, looking at the contribution of SMEs to employment in Ghana it shows that the contribution is lower than other developing countries, for example the contribution of SMEs in Pakistan eighty percent (80 %), China seventy percent (70%) and Germany sixty six percent (66%) is far much higher than that of Ghana (African Development Bank, 2004).The reason for this could be that SMEs in Ghana lack adequate financial resource, hence most of them fail at the early stages since access to capital is mandatory for SMEs growth and sustainability. The expansion of SMEs in Ghana could boost employment more effectively but this is only possible when there are enough funds for them to grow. Sustained low growth of SMEs has contributed to low job absorption level of employment level in Ghana.

2.3.3 Gross Domestic Product (GDP)

SMEs provide stimulation in the economy, and almost without exception, countries have sought ways and means to encourage an increase in their number. SMEs function in every economic activity like achieving an optimal performance to sustain growth to meet expectations of the market they serve (Ntsika, 2002). SMEs act as the change agent by embracing innovative ideas to serve a new and existing market. This process of entry and exit, and growth decline creates a healthy turbulence and implies a constant search for more productive use of resources (Berry, 2000). Some SMEs complement large firms, introducing the advantages of flexibility, lower transaction costs due to close contact with customers and quicker decision-making while large enterprises exploit the economies of scale. Competitiveness is thus a question of having the right mix of small and large firms and an adequate division of labor that combines economies of scale with flexibility and the advantages of specialization (Ntsika, 2002). The excellence operational performance of SMEs gives assurance of increasing the GDP, especially exploring new markets (Berry, 2000).

The improvement by SMEs toward the gross domestic product is immense in the global settings. However, looking at the figure of SME contribution to GDP in Ghana was thirty six percent (36%) it was lower as compared to other developed countries such as the Germany with eighty seven percent (87%), China with sixty percent (60%) and Japan with fifty five percent (55%) (African Development Bank, 2004). The main reason for these differences may be that is that there is low growth rate for the SMEs in Ghana since they lack sufficient funds to invest in their business. A sound resource-based form bases by SMEs to improve the GDP of an economy.

2.3.4 Investment

SMEs are noted for contribution to investment of idle funds as a pivotal role in the economy. Their ability to sustained earnings and employment is much depending on efficient in finance to attract new investment with a bit innovative skills. Though the SME sector contributes to the investment in Ghana, their contribution is very low at 40% when compared to other countries such as China sixty six percent (66%), Namibia fifty one percent (51%), Pakistan fifty percent (50%) and Germany forty five percent (45%) that have high contribution (African Development Bank, 2004). The reason for low investment may be the difficulty experienced by SME sector to obtain sufficient capital resources to undertake investment. Therefore, due to these financial challenges SMEs are not in a position to grow to their full potential so as to contribute more to the investment of the country.

2.3.5 Contribution to the financial sector

Sub-Saharan Africa depicts existing markets for SMEs in credit facilities, expecially for those who have a bank account. Indeed, some financial institutions have identified to serve those with large earnings based that is associated with large profitability level. The presence of Barclays Bank in Africa has a large workforce with large customer base. Ghana accounts for about thirteen percent (13%) of the bank profit (Ntsika, 2001).

Above and beyond the contribution of SMEs to the financial sector the sector itself is not providing the SMEs with enough financial help. In the context of Ghana, small business capital requirements can mainly be financed through internal funding. This is in contrast to emerging and developed economies where their reliance is increasingly becoming external rather than internal. Historically, banks in Ghana were reluctant to provide credit facilities to SMEs. This posed a huge problem to the development of the SMEs sector since capital is the foundation of every firm and if it is not adequate the success of the firm will be hindered (Cook, 2001).

In Ghana SMEs, particularly those owned by blacks are constrained by the narrow range of market opportunities and limited access to finance. In the past Ghana Financial Institutions catered mainly to the modern white sector of the economy. Even though black entrepreneurs are no longer explicitly excluded from the financial system, the practice on the ground shows that even now they are not benefiting from the new dispensation (Glen, 2000).

2.3.6 Contribution to local communities

Community developmental activities are often under the interest of SMEs, especially where governance of the SME want to appeal to the community they serve, in relation to drawing workforce, provision of quality goods and services to their needs at affordably and reliable prices. In particularly, for low-skilled workers employment, as well as to women and young people, who most often make up the greatest proportion of the unemployed in emerging economies (Glen, 2000). Local market features serve to attract their small size and therefore fit more to comfort them. Other pivotal role SMEs play includes alleviating poverty, participating in the global economy and partnering with larger corporations (Berry, 2000). SMEs, however, need to be promoted to grow in all dimensions to gain attractiveness. The Economic openings afforded to SME are served by those with low earnings based, who have achieved unequal among others (Gibb, 1999). Apart from contributions, SMEs also some face challenges as they grow.

2.5 Challenges Faced by SMES in Ghana

Reduction of poverty and unemployment in Ghana could go pave way for improving the standard of living. This would ultimately tend to improve and contribute to economic growth of Ghana. Challenges that tend to impair the growth and contributions of SMEs (Ligthelm & Cant, 2002) are enumerated as follows: access to finance, access to Information; access to Skills and Training; and an un-conducive business environment.

2.4.1 Access to Finance

Finance availability and high finance transaction costs are two main constraints that are currently affecting the SMEs in Ghana. Absence of security and the lack of a track record are recognized as the secondary setbacks of SMEs. Sustainable earnings for effective continuous operations to serve the needs of the stakeholders still remain the crucial issue. Equity finance is not there for majority of such firms. Borrowing method for SMEs has been expensive due to lack of credibility, hence high debt to equity ratio (Cant & Ligthelm, 2002).

The highest challenge faced with almost all SME is finance to meet operational requirements. Although most often SMEs acquire their capital form their own savings or family members, they also resort to traditional banking sources to meet their capital requirements. However, because of their weak financial base, SMEs are regarded as high- risk areas and as such do not succeed in attracting enough loans. In some case, SMEs face high transaction costs, especially where there is lack of collateral security to serve as guarantor for the loan. This problem tends to affect all stages of their development in relation to expansion and growth (Nieuwenhuizen & Kroon, 2002).

The first limiting factor faced with the SMEs is identified to be access to finance (Oxford, Wood, Fischer, Herrington & Segal, 2003), especially from emerging economies perspective. This limiting factor is noted to be the common factor to all SMEs in large number of countries, as they face challenges of formal loan acquisition in absence of collateral security (Oxford *et al.,* 2003*).* It is evident that adequate funding is a crucial for the SMEs, as they lack sufficient cash inflows to augment their expansion and growth trajectory as echoed by Nieuwenhuizen and Groenewald's (2004) study. To raise funding in both short and long term loan facilities are serious problems to the SMEs (Naude and Havenga, 2004).

2.4.2 Market Penetration

Both local and foreign markets are posing difficult to penetrate by SMEs. This is as a result of lack of information and intelligence about market opportunities that demand high investment of resources. Exporting mode of SME goods and services are proof to be onerous and complicated due to stringent rules to comply with and huge bureaucracy paperwork. Furthermore, import duty refunds takes too long to process, which is cumbersome. Reinvestment money from refund to SMEs is at times not obtained. Therefore, SME are denied this funds which could be used expansion activities to ensure growth (Cant & Ligthelm, 2002).

It is evident that insufficient capital and capabilities inhibit majority of SMEs to expand for meeting export market (Jones and Tilley, 2003). There are adverse effect like inferior goods and services, and lower prices. There fierce competition local SMEs are face with the international market due to low level of skills and insufficient capital to mobilize competition.

According to Naude and Havenga, (2004) SMEs experience high marketing risk associated with some products. Such risks renders them to consuming by the customers hence so difficult to deal with the demand requirement at the international markets. In addition, vital information at the international market is very difficult for the SMEs to access due to high costs of getting them. For SMEs to formulate effective market penetration strategies they need capital to fund their projects so that they can implement these strategies efficiently. However, the situation in Ghana does not allow the SMEs to formulate these strategies because access to financial resources is a major constrain hence it is difficult for them to implement good marketing penetration strategies since they will not be having enough cash resources to fund the projects. The subsequent section discusses the challenges that SMEs face when accessing technology and infrastructure support.

2.4.3 Technology and innovative support

SMEs find it difficult to harness appropriate innovative applications to facilitate customers specific market needs, due to unavailable large earnings base. In most cases, most of SMEs hook on to those innovative applications that are not suitable to their operational needs due to cheaper nature of it. Inability to acquire appropriate innovative applications affects the development and growth of SMEs in Ghana (Cant & Ligthelm, 2002).

The limited access to technology is also due to lack of funds. For SMEs to acquire technology which is effective and recent they need money to do so. Time, earnings and innovative applications for enabling research and development are rarely difficult to access by SMEs as posited by Jones and Tilley (2003).

Access to managerial talents and skills

Lack of appropriate managerial talents and capabilities hinder the effective corporate governance of SMEs in Ghana. Since, they do not have strong earnings base, caliber of human resource recruitment in areas such as marking, financial management, and leadership skills. The negative effect arising from these inefficiencies undermine reasonable assurance of growth trajectory of SMEs in Ghana (Luiz, 2002). Ladzini and van Vuuren, (2002) emphasize that training alone may not be the only solution that can help small firms succeed, but that constraints such as the lack of financial resources, lack of access to market, lack of support services and low literacy levels should also be addressed.

However, most SMEs due to a financial resource constraint, cannot afford high-caliber interim management who can assist with skills transfer and development. The accessibility to skills and training depends on the financial background of the firm. For SMEs to train their employees they need finances to fund the training programmes, however this is not happening in Ghana.

Un-conducive legal environment in business

The legal framework of SMEs establishment in Ghana is so relax, as there is little monitoring by those government officers. There are a number of laws, regulations and bylaws governing conservations, mining, commerce and industry. The laws relating to commerce and industry have proven barriers to business. SMEs have difficulties obtaining the required licenses as the capital requirements to reach the required standards are high. Other constraints experienced relate to the areas of taxation, labor law, business trade, property, land ownership and access to credit (Nieuwenhuizen & Groenewald, 2004).

SMEs are faced with increased competition and therefore affect their growth in Ghana. In Ghana challenges such as the regulatory environment (for example the legal framework) are not attractive to SME operational activities, leading to hindering their growth in Ghana (Kibby & Watson, 2003).

2.5 Failure Rate of SMEs in Ghana

When firms fail it is either voluntary or compulsory liquidation. Voluntary liquidation is described as an out of court settlement between the creditors and an insolvent company leading to liquidation (Gitman, 2003). Most SMEs fail annually either due to one or the combination of some of the constraints mentioned above. In Ghana, ninety percent of SMEs fail during their first years of operation due to lack of resources. there is high rate of SMEs failing since time past (Buckley, 1999). In the year 2016, the failure value of SMEs in Ghana stood at one hundred and two. This supports the notion that the failure rate of SMEs is very high and strategies to lower it should be implemented. In Nigeria, as many as 32 SMEs was not succeeful due to their inability to acquire foreign loans to expand their businesses Mambula (2002).

Other advocate of SMEs has added their voice to increasing failure of small enterprises as early as they start due to insufficient capital and other technical support (Ladzini and van Vuuren, 2002).

2.5.1 Definition of capital structure

Capital structure is explained as the value of debt and equity introduced for financing SMEs operational activities (Glen**,** 2004). There is still ongoing argument by academicians on the issues of capital structure (Myers, 1977; Boateng, 2004; Abor, 2005; Coleman, 2001). Modigliani and Miller (1963) pioneered important funding type of capital to the corporate firms, which has a relevancy on value. Contrary with Modigliani & Miller (1958) study many empirical work about capital structure have significantly proved that capital structure influence the firm's value.

2.6 Theoretical Considerations

Specific mix of outsiders own money and owners finance by the firms is referred to capital financing decision. Owners and individual are key persons charge with financing SMEs in all stages. Therefore, capital of the SMEs is crucial for the foundation of their success (Boateng, 2004).

Modigliani and Miller (1958) on capital structure identified three theories of capital structure namely: Static Trade-Off, Pecking Order, and Agency Cost Theories. The static trade-off theory states that tax shield arising from debt financing has positive effect on lowering transaction costs that leads to improve financing type of SMEs, on assumption that assets of the firm and decisions arising from investment are constant (Jensen and Meckling, 1976: Myer, 1984).

Pecking Order Theory herein refer to information asymmetry theory (Myers, 1984) states that new investment of the firm are preferably financed by resorting to internal earnings, then follow by loan and selling of shares finally. Myers (1984) stipulated that the fiest mode is owners funds, follow by internal funds as the bottom of the ’pecking order’. No transaction cost is incurred by internal mode. Business owners with high risk-taker tend to obtain greater returns (Hutchinson, 2004). SMEs are more comfortable with this theory comparatively as external financing dominate more with SMEs (Chittendale, Hall & Hutchinson, 2000), and Berger and Udell (1998). SMEs are adhered to severe information asymmetry due to poor information accessibility, leading to high risk level of such financing type.

The agency cost theory seeks to attain reducing transaction costs associated with conflict of interest between owners and managers (Meckling, 1976). Interest payment are supposed to be paid when fall due so as to avoid complains from debt-holders. Fear of job losses by managers will cause them to operate the firm to ensure efficiency to increase shareholders wealth.

Cassar and Holmes (2003), Esperança *et al.,* (2003), and *Hall et al.,* (2004) also suggested negative relationships between profitability and both long-term debt and short-term debt ratios. The pecking order theory is suitable to SMEs as their financing type follows usage of its own earnings, then if owner could bring funds and finally, resorting to the loans from banks. In as much as possible, SME lower the use of outside's funding source to avoid dilution of their control and other strategic implications on the operation of the business (Cassar & Holmes, 2003).

2.7 Uniqueness of the SME Capital Structure

Problems of ownership and credit rationing of SMEs are discussed in many empirical literatures of finance costs associated with such problems are bigger for SMEs comparatively. SMEs personal assets and the business assets are difficult to be separated from each other due to substitution effect, to demand the structure of the assets to change (Bates, 1999).

When firms are applying for funds from financial institutions they are supposed to go through evaluation criteria. Financial institutions will require for audited financial accounts to assess the cash flow position, if SME could be in position to pay the loan and the interest when giving the facility (Kim, 1999).

Following from these theoretical standpoints, there has been increasingly recognition that SMEs are different from large enterprises and that these differences affect numerous aspects of their performance, including capital structure. For instance, compared to large firms SMEs do not have a sophisticated capital structure. This is because SMEs are characterized by lower liquidity, lower use of long term debt and higher use of short term debt. Furthermore, SMEs are not usually listed on capital markets and tend to be more affected by information asymmetries. They are frequently owned and managed by only one director (or very few) who is not interested in sharing the control of the firm. SMEs are usually less leveraged, as they tend to be financially restrained by creditors. Consequently, they are more dependent on internal resources and short-term debt (Barton, 2001).

There is the need to choose an appropriate funding type that is sound for SMEs to avoid high interest of debt source of funding. This reduces financial risk of SMEs without causing dilution of interest in their strategic decision making and directions.

Equity

Equity is any financing vehicle that has a residual claim on the firm, and does not create a tax advantage from its payments. It implies the owners" financial contribution to the firm and it can be sourced internally or externally (Damodaran, 1999). As discussed above equity comes in different forms and each form has its benefits and cost. It is possible to use all the forms of equity however, the availability of these forms of equity is also important when firms choose the type of equity finance to use. The following section discusses the different sources of equity finance in detail.

Owner's funds

This is one of the most common sources of equity finance. This finance normally comes from friends, neighbors or family members who have information of the SME and wish to have a stake in it. It is a common source of equity finance because there is often a relationship of trust between the contracting parties and because the investor tends to have details of SME they are investing in. The owners" funds have an advantage that friends and Family do not charge interest. They are a helping hand rather than a serious investment thus reduces risk. Close, personal long time contacts also exist in this source of finance. However, the owner's funds cannot be relied upon for follow up finance and may not have useful commercial contacts (Hamilton & Fox, 1999).

Equity source of funding by SMEs of early stage are faced with some difficulties for embarking on viable projects. Among the reasons include the following. Firstly, early stages of such firms are dominated by insufficient sales to command increased in earnings to improve retained earnings usage. Other reason is that borrowing will be very difficult for SMEs because lenders will not be willing to give SMEs loans because of the high risk of failure. Therefore, the use of owners‟ funds is going to continue until the firm starts generating some profits (Hogan & Hutson, 2005).

Naturally SMEs should be risk averse so they would want to minimize costs. Uses of owners‟ funds diminish the risk of bankruptcy increasing the creditability of the firm. However, it should be noted that using a hundred percent equity is not recommended because it endangers firm when they are borrowing since they will put all their personal assets as collateral in the case of sole trader. Even so bankers would also want assets as collateral even to companies which will put the companies at risk. Therefore, SMEs have to make use of other sources of finance.

Retained earnings

Retention of earnings is the dominant source of investment in all countries. It is the amount of profit the company has reinvested in the business since its commencement. These reinvestments are either asset purchases or liability reductions. They are also called earned surplus, retained capital, or accumulated earnings. In general, for small firms, retained earnings are the most important financing source for capital investment. When a small firm has a profitable investment opportunity, managers usually find it convenient to use retained earnings as a funding source. Alternatively, when a small firm earns profits on earlier investments, it tends to retain a significant portion of the profit for future capital needs (Hamilton & Fox, 1999).

Business early cycle is very difficult for the firm to use retained earnings since they won't be having sufficient profits. Profitability of the firm enhances growth so that it affirms relationship with use of retained earnings and the size and SMEs earnings level. The risk involved in using internal sources is normally very low. However, SMEs must be alert when using this type of finance. For example, they need to be careful that they do not deter their customers with an overly aggressive credit policy. Internal earnings for the SMEs afford them interest free as they use them judiciously in their operations (Hull & Robert, 2004). External funding type may be used to complement the internal source they are insufficient fot the designed projects investment. Internal funding type is attractive as compare to external funding type (Hamilton & Fox, 1999).

Debt

Debt is any financing medium that has a contractual claim on the firm. It creates a tax deductible payment, has fixed life and has a priority claim on cash flow in both operating and bankruptcy periods (Damodaran, 1999). Private and public sources are where SMEs could access debt funds including loans. Debt capital is limited to debt obtained by SMEs from commercial banks. Debt financing type from commercial institutions is major sources for SMEs (Damodaran, 1999).

From the perspective of the equity holder, firms that use debt rather than equity to finance their operations have two advantages. The first is due to the benefit of the tax shield on the interest paid on the debt itself, the second is due to the fact that debt allows firms to impose discipline on managers. Companies have to make regular payments to the lenders, and managers who choose to invest in non-performing investments will have difficulties in repaying back the amount borrowed. On the other hand, a large use of debt also presents disadvantages: the firm has a higher probability of default if cash flows from operations are not sufficient to make interest payments possible. Loan interest charges serve to eat more into SMEs earnings (Cassar & Holmes, 2003).

The availability of debt finance to SMEs in Ghana is discouraged by the strict monetary policy of the government. This had a negative impact on SME borrowing since it was now expensive to obtain loans. Because it is impossible to obtain a positive leverage meaning that of returns will exceed cost of debt. Return on assets should be greater than the before tax and interest on debt. The current global financial crisis is also impacting negatively on SMEs since it is decreasing the level of investment across the globe (National Treasury Report, 2008).

2.8 Capital Structure Determinants and Hypothesis Formulation

Chittenden, Hall and Hutchinson, (2000) investigated the determinants of capital structure for a sample of small enterprises which included both listed and unlisted firms. Several extant literature about the financing type of SMEs emphasize profitability, asset structure, size (total assets), age and access to the capital markets as dominant role in financing decisions of small firms. Activities of capital market determine the kind of financing type that are available to SMEs. This study examines the extent the age, size and profitability influence the financing type that the SMEs would resort to so that they could operate to achieve an optimal level.

Application of External Equity versus Age of the Firm

Profitable firms are as the result of growth, therefore there is high propensity to utilize more of internal retained earnings (Bates, 1999). Cressy and Olofsson (1999) revealed that external equity capital is additional source to the SMEs alternatively. External equity source is ideal finance to both young and lower quality firms since such firms do not have sufficient profits to cause increase in earnings capacity. Older firms resort to external equity finance to sustain their business operations (Schmid, 2001: Bates, 1999). Thus we can therefore hypothesis that 'relationships that exist between external equity and the age is negative'.

Retained Earnings versus Age of the Firm

Growth and maturity firms are successful to reinvest their retained profits on operational projects to increase internal source of funding. Accumulated retained profits serves as backbone for sustain preference to internal equity comparatively. Internal equity availability is enhanced through improved profits. This implies that profitable firms have a high possibility to be using internal equity due to increased in their earnings (Hogan & Hutson, 2005; Berger & Udell, 1998; Zoppa and McMahon, 2002; Hogan & Hutson, 2005; Watson & Wilson, 2002). On this basis, several empirical literatures affirm using retained profits of SMEs, especially where the firm is matured one. We therefore hypothesize that: *"There is positive relationship between use of retained profits by SMEs and the aged firms".*

Use of debt versus age of the firm

Age of the firm measures its reputation in operation and therefore may have a positive effect on the financing type of SMEs. Financial institutions are willing to loan to such firms than bad reputation firms. Aged SMEs are standing good chance to resort to debt financing type, hence establish a positive relationship with debt type of financing (Dhawan (2001). Matured firms are very often noted for small debt ratios than young ones due to available usage of retained earnings (Ozakan, 2001). This finding is contrary to the study by Petersen & Rajan, (1999). The study of Hall *et al.* (2004) established positive association between the age and long-term debt, but achieved negative relationship with short-term debt. We therefore hypothesize that "the association *between employing debt of SMEs and the age depict a positive one*".

Use of external equity versus firm size

High growth firms tend to attract investors interest, especially where the size of the firm is reasonable large. Such investment attract a high investment return at shorter repayment time as revealed by Delcourse 2006() study. External financing requirement is so with efficient growth firms comparatively (Hogan & Hutson, 2005; Cressy & Olofsson, 1999; Timmons, 2004). Based on this, the study hypothesize that "*the association of the use of external equity and the size of the firms depict positive*".

Use of debt versus firm size

Debt finance of firm could drive by the size of the firm. Among the associated reasons include: information asymmetry is costly to SMEs, transaction costs may be greater for SMEs (Cassar & Holmes, 2003), there is inverse relationship between bankrupt costs and the size of the firm (Barclay, Smith & Watts, 2000; Cassar & Holmes. 2003; Esperança *et al.,* 2003; and Hall *et al.,* 2004;Chittenden *et al.,* 2000; Michaelas *et al.,* 1999; and Diamond, 1999). We therefore could hypothesis: *"there is positive relationship between the firm size* and SMEs *debt"*

Use of Internal Earnings and size

Information asymmetry pose difficulties to firms such that more usage of funds for investment are undervaluation suffered as posited by the Pecking Order Theory (POT). In this view, firms have first in hand to use internal equity for project investment, follow by debt financing and finally the external (Myers, 2001: Hutchinson, 2004: Hall *et al.,* 2004; Aryeetey, Baah-Nuakoh, Duggleby, Hettige & Steel.1999). Several evidence confirmed that by employing retained profits, there would be a positive relationship with the firms size. Consequently, we propose the hypothesis that "*there is positive relationship between retained profits and size of the SMEs*".

Use of internal equity versus firm profitability

Availability of internal equity form the basis for increased profits, as the chance of using internal equity is driven by more profits of the firms. Projects that are profitable is embarked on by firms in easily using internal equity as a funding type. So the use of equity funding type and SME profitability exhibit a positive (Wald, 1999; Van der Wijst and Thurik (1999; Hogan and Hutson, 2005). Against this background, the study could hypothesize that "*retained profits usage and profitability of SMEs establish a positive relationships*"

Use of debt versus profitability

Retained earnings becomes strong due to profitability of firms in most cases, therefore do encourage SMEs to go for outside source of funding. High profitability of a firm could lower the rate to use debt source of finance. (Cassar & Holmes, 2003; Esperance *et al.,* 2003; Hull & Robert, 2004; Petersen & Rajan, 1999). The less usage of debt is as a result of increased in earnings base of the firm. As a result, we therefore hypothesize that "*debt and profitability have a negative relationship*".

Use of external equity versus profitability

Profitability of SMEs lead to improve the owners financing type. There is high access to internal equity as the firm records consistent higher profitability, and therefore could have access low level of external equity in the type of their capital structure. This is consistent with the pecking order theory (Chittenden et al., 2000; Johnson, 1999 and Michaelas *et al.,* 1999). Based on this suppositions, the study hypothesize that " *the use of external equity and the profitability of SMEs have negative relationships*".

2.9 Government contribution to SME Finance

Taxation policy of government is necessary to address the equity finance gap of high transaction costs and high bankruptcy rate of SMES, especially developing economies story. There is the need to remove stringent measures and regulatory obstacles SME are faced with in relation to lending so that their funding difficulties could be reduced (Barton, 2001). The Ghana government suggested that there is the urgent need to assist SMEs in like financial management, funding type and market inconsistencies to ensure its long time survival and growth to stimulate the economic growth as intended to achieve

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter deals with the research design of the study in the following categories: 1) the source of data and collection tools, population and sampling technique, 2) operationalisation of the variables of interest, the various estimation models to employ, and 3) data analysis techniques which includes statistical tests and the rationale for the usage of any specific method (Cooper & Schindler, 2003).

3.1 Research Design

The study type followed by this project is quantitative research design. This aspect of study is abreast with explanation of generalization of the research findings. Quantitative design assumes large group of participant upon which we could generalize the study findings to represent the population (Tustin, 2005) and tend to facilitate statistical conclusions. This explanation promotes the topic of determinants of capital structures and the SMEs in Ghana, hence the use of quantitative design for this study. However, since the study resorts to development of hypotheses to spell out the variables of interest, we use the qualitative design method as well. .

3.3 The Sampling Procedure

The research instrument was an archival source of data collection. Cooper & Schindler, (2003) states that a situation whereby variables are selected to represent the entire idea about the population, so that it can facilitate drawing of reasonable inferences about the study. Sample method to be employed may be of profanity or non-probability

4.4.Population And Sampling Frame

SMEs that are used for the study are those of diverse manufacturing activities. The researchers also chose Ashanti region as a study area because of its proximity to the university and also the fact that it has a relatively large number of manufacturing firms from observation. Sampling methods used include:

Sampling method

The study employed the probability sampling framework for choosing the members (Roberts-Lombard, 2002). The study used this method because of the following reasons: 1) each element had a non-zero chance of being included in the sample; 2) this method ignores error of selection bias which increases the representation of the elected sample (Roberts-Lombard, 200).

Sample size and Sampling technique

Simple random sampling method is used to choose group of sample for the purpose of the study and to obtain a larger group (Cooper & Schindler, 2003). Under this method, each SME is having equal chance of being selected to be part of the sample size (Martins, 1999). Out of population of 410 SMEs, 200 firms were selected to be part of the studies. The research technique used to collect secondary data was an archival data collection type. SMEs that are below five (5) years are excluded from the sample.

Secondary Data

Published materials of secondary data were the main source of literature review for the study. This included journals, books, internet sources, and masters‟ dissertations relating to capital structure and financing decisions of SMEs. Statistical Service of Ghana documentary materials were used as other relevant source of information for the literature review. The data used were from archival source and analysis is done by employing statistical graphs, and regression tables

Data analysis and Statistical tests

The need to analyse the data obtained is vital so as to do estimation for achieving the study objectives (Barrow, 1999). The study data is analysed at the Christian Service University College. Descriptive and correlation types of analysis are used. Relationship among the independent and dependent variables is done by using the regression estimation. Moreso, descriptive statistics explanation is done under the mean, mode, and median. SPSS software is used to do statistical analysis. Linear regression of the ordinary least square was also used to establish the association among the variables of interests.

Descriptive Statistics

Marshall and Rossman (1999) define a descriptive statistic as condensing large volumes of data into a few summary measures. Descriptive statistics used in the present study included frequency distribution, mean scores and standard deviation. More simply, the number of times a certain answer appears in the data. Frequencies and mean computations are the observations used to explain the nature of the data in terms of normal distribution test (Mellville & Goddard, 1999).

Regression model

The study used regression model results to serve as predictive power on the equation on the independent variables (Esperaunca *et al.*, 2003; Watsham & Parramore 1998; Delcoure, 2006 and Heshmati, 2001). Statistical analysis of regression seeks to statistically analysis the association between two variables. It is employed to ascertain the relationship between two variables. Regression models were used for studying how changes in one or more variables will change the value of another variable (Gujarati, 2000). Three regression equations were formulated to test the hypotheses. The primary hypothesis was tested by the multiple linear regressions, and it tested the dependence of the dependent variable Y (capital) on three explanatory variables profitability, size and age of the firm. The multiple linear regression model was used to model the relationship between the use of capital to profitability, size as well as the age of the firm. The regression equation 1 below is.

$$\mathbf{Y} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1} \, \boldsymbol{PROFIT} + \boldsymbol{\beta_2} \boldsymbol{SIZE} + \boldsymbol{\beta_3} \, \mathbf{AGE} + \boldsymbol{\varepsilon i} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \mathbf{1}$$

Where Y refers to capital structure

β_0 is a constant

β_1 measured the association between capital and profit

β2 measured the association between capital and the size of the firm

β_3 measured the association between capital and the age of the firm

$\sum_r$ is the error term

The first secondary hypothesis was tested by the multiple linear regressions, and it tested the dependence of the dependent variable DR (debt) on three explanatory variables: profitability, size and age of the firm. The linear regression model was used to model the relationship between the use of debt to profitability and size as well as the age of the firm. The regression equation 2 follows below.

$$\mathbf{DR} = \boldsymbol{\beta_0 + \beta_1 PROFIT + \beta_2 SIZE + \beta_3 AGE + \varepsilon}$$

...2

Where:

DR = the ratio of the SMEs

PROFIT = the profitability of the firm

SIZE= the size of the firm

Greater or equal to 5 but not more than 9 is coded as 0 and greater or equal to 10 is coded as 1

β_0 = Is a constant

β_1 = measured the association between debt (debt ratio) and profitability

$_2$ measured the association between debt (debt ratio) and the size of the firm

β_3 measured the association between debt (debt ratio) and the age of the firm

$\sum_r$ was the error or disturbance term

For the purpose of this study equity was denoted into internal equity and external equity (Damodaran, 1999). Internal Equity comprised of personal savings of owners (s), and retained profits that the profits generated from equity plus profits generated from borrowed funds. However, for reasons of simplicity the researchers used retained earnings as one of the variables of testing the research hypotheses in equation 3. Equation 3.1 tested the dependence of the dependent variable retained earnings on three explanatory variables profitability, size and age of the firm.

The multiple linear regression model was used to model the relationship between the use of equity to profitability, size as well as the age of the firm. The regression equation follows below.

$$\text{RE}=\boldsymbol{\beta_0} + \boldsymbol{\beta_1 PROFIT} + \boldsymbol{\beta_2 SIZE} + \boldsymbol{\beta_3 AGE} + \boldsymbol{\varepsilon} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3$$

Where:

RE = retained earnings

PROFIT = the profit of SMEs

SIZE= the size of the firm

β_0 = is a constant

β_1 =measured the association between retained earnings and profitability

β_2 =measured the association between retained earnings and the size of the firm

β_3 measured the association between retained earnings and the age of the firm and $\sum_r$ was the error or disturbance term

On a similar way, external equity (EXEQ) is measured as the total amount of money from the outside, mainly from family and friends as well as venture capital and business angels. The study formulated from the main equation to give rise to equation 4. The Equation tested the dependence of the dependent variable external equity on three explanatory variables profitability, size and age of the firm. The multiple linear regression model was used to model the relationship between the use of external equity to profitability, size as well as the age of the firm. The regression equation follows below.

$$\text{EXEQ}=\boldsymbol{\beta_0 + \beta_1 PROFIT + \beta_2 SIZE + \beta_3 AGE + \varepsilon}$$

....4

Where:

EXEQ = external equity

PROFIT = the profitability of SMEs

SIZE= the SMEs size

EQ = equity ratio of SMEs

β_0 =Is a constant

β_1 measured the association between external equity (equity ratio) and Profitability

β_2 measured the association between external equity and the size of the firm

β_3 measured the association between external equity and the age of the firm

$\sum r$ was the error or disturbance term

Definition of terms

This subsection gives the full explanation to variables the study employed them for clear understanding by the users.

β_0 Is a constant, that is, even if the dependent variable is zero, the value of a firm would have some positive or negative value (Gujarati, 2000).

$\sum_r$ is the error term (Gujarati, 2000).

β is the coefficient value. It measures unit change between the dependent variables and the independent variable (Gujarati, 2000). It implies as indicating the percentage change in the independent variable that is caused by one unit change in the value of β. If the value of β is positive, the variables will be positively correlated and if it s negative, the variables will be negatively correlated (Watsham & Parramore, 2000).

Dependent variables

According to Levin & Robin (1998) a dependent is a variable to be predicted. It represents the element or condition that is dependent on the value one or more independent variables. The dependent variables were Y (source of finance), debt (DR), retained earnings (RE) and external equity (EXEQ).

Y (source of finance)

The Y of dependent variables are: debt, internal earnings and external equity.

Debt

Debt ratio is depicted by the total debt to total assets ratio and measures the percentage of total funds provided by creditors. Total debt for the purpose of this study is inclusive of both long term and short term liabilities. Generally, it is perceived that the higher the debt ratio, the higher the risk of an investment and consequently the higher the returns of such investment. For this study, the debt ratio was used to determine the amount of debt in the firm‟s capital structure for the purpose of the regression. Total debt was used instead of long term liabilities the rational being that SMEs because of a shortage of long term finance would utilise short term finance more extensively. Debt is represented as debt ratio calculated as:

Total debt (long term + short term)

Total assets

Equity

Equity comprised of internal and external equity (Damodaran, 1999). Internal Equity comprised of personal savings of owners and retained profits. External equity comprised of the total amount of money from the outside that is funds from friends and family as well as Venture Capital and Business Angels were the sources of external equity (Damodaran, 1999).

The equity ratio was calculated as Total equity

Total assets

Retained earnings

When a company generates a profit generated by a company could be utilized by either paying out to shareholders as a cash dividend, or as retained earnings to plough back for expansion project in the business. Generally retained earnings are a corporation's cumulative earnings since the corporation was formed minus the dividends it has declared since it began. In other words, retained earnings represent the company's cumulative earnings that have not been distributed to its shareholders (Damodaran, 1999). The retained earnings ratio was calculated as: Total retained earnings divided by total assets

External Equity

External equity is the total amount of money from the outside and for the purpose of this study ie Venture Capital and Business Angels were the sources of external equity (Damordaran, 1999) The external equity ratio was calculated as Total external equity divided by Total assets

Independent Variables

An independent variable is a variable which value determines the dependent variable (Levin & Rubin, 1998). As we were trying to measure the determinants of capital structure over time, the independent variables of interest to us were the age, the size and profitability of the firm and these variables will each be discussed in turn below.

Age of the firm

Firm's age serves as independent variable of the number of years the SME is in existence and operating.

Size of the firm

Size of the SMEs serve as independent variable of the employees total number..

Profitability

Profitability represented the third and final independent variable. The profitability ratios of the business are a reflection of how profitable the available capital has been employed in the activities of the business, that is, it determines to what extent the business obtained a satisfactory return on available capital (Conradie & Fourie, 2003). Mesquita & Lara (2003) study employed the return on owners‟ equity to represent the profitability measure in their study. It was calculated as follows:

$$\frac{\text{Net profit after interest and tax}}{\text{Total Equity}}$$

CHAPTER FOUR

ANALYSIS AND INTERPRETATION OF RESULTS

4.0 Introduction

This chapter presents the data with findings. The study obtained the data from the un-audited annual financial statements of selected SMEs in the Ashanti Region, Ghana. The presentations and discussions are done in according with the research objectives as follows;

i. To assess the relationship between internal retained earnings and the age, size and profitability of SMEs in the Ashanti Region.
ii. To ascertain relationship between the application of outsider funds and the age, size and profitability of SMEs in the Ashanti Region.
iii. To ascertain the relationship between application of debt and the age, size and profitability of SMEs in the Ashanti Region.

Based on the above three objectives, the dependent variable for the study could be regressed and computed in that order as: retained earnings is computed as total retained earnings divided by total assets, debt ratio is calculated as total debts, including long term and short-term divided by total assets, and equity ratio is computed by total equity divided by total assets.

The independent variables used by the study are: Age of the firm – it is computed as the number of years the SMEs have been in existent, Size of the firm – this is measured by the employees numbers in each firm, and profitability **–** this indicator is measured as the net profit after interest and tax divided by the total equity. Based on the objectives, the study presents the regression models in that order as below:

$RE = \beta_0 + \beta_1$ PROFIT + β_2 + SIZE + β_3AGE+

$\sum_r$……………………………………...2

EXEQ =$\beta_0 + \beta_1$ PROFIT + β_2 + SIZE + β_3AGE+ $\sum_r$……………………….………..3

DR =$\beta_0 + \beta_1$ PROFIT + β_2 + SIZE + β_3AGE+ $\sum_r$……………………………………4

4.1 Descriptive statistics

Table 4.1 tells us the descriptive statistics of the variables of interest used for the study. Debt, age and profitability variables achieve higher mean score values as compared with other variables. Higher means score implies that these variables are the center of the distribution of the data.

Table 4.1 Descriptive statistics of capital structure determinants

Variable	**Mean**	**Standard deviation**
Debt	2.274286	0.955427
Retained earnings	1.411429	0.5890629
External equity	1.788571	0.8748633
Size	1.788571	0.8748633
Age	2.142857	0.9867763
Profitability	2.721000	1.868185

4.2 Correlation Matrix

A correlation matrix (see Table 4.2) establishes the relationships between two variables that the study employs (Gujarati, 2001). There is established positive relationship between debt and size, age and profitability at 5% significant level (Barclay, Smith & Watts, 2000, Kim, 1999; Al-Sakran, 2001, Hovakimian & Tehranian, 2004). Correlation results of the variables used for the association study in shown inTable 4.2.

Table 4.2 Correlation Matrix

Variable	**Debt**	**Retained E**	**Ext Eq**	**Size**	**Age**	**Profit**
Debt	1					
Retained E	0.00731	1				
Ext Eq	0.000384	0.0000	1			
Size	0.6193**	0.8890**	0.7219**	1		
Age	0.7457**	0.8944**	0.5221**	0.00072	1	
Profit	0.7053**	0.9656**	-0.0240**	0.7311**	0.9730**	1

**** Significant at 95%**

On a similar trend, retaining earnings and size, age and profitability achieves a positive correlation relationship, indicating perfect correlation. Size, age and external equity depict a positive correlation, but measures negative correlation between external equity and profitability. From the descriptive statistics table, it is likely that smaller firms would equity finance as opposed to larger firms to employ debt finance. It is true that other results revealed a positive association between debt and age as shown in this research (Petersen and Rajan, 1999; Chittenden et al., 2000; Hall et al., 2004).

4.3 Multivariate results

Retained profits and age, size and profitability

The objective of the study this result deals with is "To assess the extent retained profits of SMEs related with the age, size and their profitability". The results reveal that age, size and profitability explain the prediction on the use of retained earnings at 1% statistically significant level at positive coefficients. The tested p-values are all less than alpha value of 0.05, there the null hypothesis is rejected, to give way to the alternative hypothesis. That is to say that age, size and profitability predict the use of retained earnings as financing source of capital of SMEs in Ghana.

$RE= \beta_0 + \beta_1$ PROFIT $+ \beta_2 +$ SIZE $+ \beta_3$AGE+ $\sum_r$…………………………………...3.1

Table 4.3 Dependent variable: Retained Earnings ratio

Variable	Std Error	T-value	P-value	R-Square
Constant	0.0377654	7.009	0.00**	0.4632
Age	0.0920000	3.9887	0.0001**	0.8000
Size	0.072800	12.217	0.000**	0.4632
Profit	0.738084	1.5230	0.000**	0.9328

**** Significantly at 95%**

This result is consistent with the theory of pecking order, as it stresses that retaining earnings (internal earnings) are utilized first before anything else (Wald, 1999). This result reaffirms the positive relationship that exist between retained earnings and size, age and profitability, as managers mostly prefer the use of internal source type of finance as opposed to debt type, especially when the firms sustain sound profitability level (Van der Wijst and Thurik, 1999; Myers 1984).

Hutchinson (2004) result of the study is consistent with this result, as survival firms have an interest to use retained earnings as it causes internal equity to appreciate. Accumulate profits serve as incentive for matured firms to apply internal equity to undertake capital projects to gain more economies of scale as posited by Zoppa and McMahon (2002). Another school of thought argued that sized-age firms tend to rely more on internal financing type like trade credit, angel finance and family loans as suggested by Berger and Udell (1998).

Use of external equity and age, size and profitability

The second objective that the study seeks to analyze is “to assess the extent external equity of the SMEs related with the age, size and their profitability”. The result of the second objective is seen at Table 4.4. Regression result states that age, size and profit achieve a 5% insignificant level in explaining the use of external equity as a financing type.

$$\textbf{EXEQ} = \beta_0 + \beta_1\ \textbf{PROFIT} + \beta_2 + \textbf{SIZE} + \beta_3\textbf{AGE} + \sum_r \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \textbf{3.2}$$

Table 4.4 Dependent variable: External equity

Variable	Std Error	T-value	P-value	R-Square
Constant	0.08630	28.00	0.0000	0.00015
Age	0.29999	2.97999	0.09490**	0.0488
Size	0.04340	0.5040	0.6146**	0.0015
Profit	0.02020	-1.187	0.2367**	0.00081

**** Significantly at 95%**

From the results, all the three independent variables reveal higher p-values than the alpha acceptable value, and therefore, we do not reject the test statistics. This implies that age size and profitability do explain the use of external equity as determinant of capital structure of SMEs, but are not significant factors at all. This result affirmed the result of study by Cressy and Olofsson (1999), which indicated that external equity source are attractive to smaller firms that do not have sufficient profits to encourage the use of retained earnings. It is evident that smaller firms rely on sales to improve their profits, therefore external equity as source of finance to SMEs is used to sustain the operations of businesses (Bates, 1999).

Use of debt and age, size and profitability

This sub-section explains and tests the third objective which states that "To assess the extent debt of the SMEs related with the age, size and their profitability". The regression of this objective tested the relationship between debt and independent variables of age, size and profitability. The result at Table 4.5 tells that the independent variables are explaining the application of debt ratio as financing type of SMEs in Ghana. They show a 1% statistically significant level as all their p-value are less than the acceptable alpha value of 0.05. This implies that the study reject the null hypothesis in favour of alternative one.

$DR = \beta_0 + \beta_1$ PROFIT + β_2 + SIZE + β_3AGE+ $\sum_r$……………………………………2

Table 4.5 Dependent variable: Debt ratio

Variable	**Std Error**	**T-value**	**P-value**	**R-Square**
Constant	0.0377654	6.9740	0.000**	0.3397
Age	0.17530	5.4627	0.000**	0.5561
Size	0.0222	44.604	0.000**	0.9202
Profit	0,0748	0.07480	0.000**	0.3397

**** Significantly at 95%**

The result at Table 4.5 portrays that the use of debt and age, size and profitability establish a significant positive relationship. This means that all the independent variables correspondingly explain the use of debt ratio as a source of finance to SMEs in Ghana. Empirical studies by Hall et all.(2004), and Petersen and Rajan (1999) are supporting this result, as positive significant long term debt with age, higher debt ratios are positively associated with maturing and aged firms respectively.

Business reputations are likely to ascribe to large organizations that are more matured and are able to harness public information as compared to small firms, especially in searching for debt facilities to argument their financing level (Diamond, 1999).

Debt usage are not applicable to the profitability firms, so there is negative relationship between them as consistent with the study of Cassar and Holmes (2003); Esperance et al. (2003); and Hull and Robert (2004). This implies that high profit firms resorts to internal sources of financing type.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The present chapter is made up of three sections. The first part comprises section: the summary of findings that revolve around the objectives of the study. The second is the recommendations there from the findings of the study and the final part is conclusions and areas of further research study.

5.1 Summary of finding

Based on the data analysis of the study, we present the key summary of findings in relation to the three objectives as follows:

1. In relation to retained earnings and age, size and profitability, the result revealed that there is positive relationship between the retained earnings and age, size and the profitability of the SMEs in Ghana. By implication, aged and matured firms, large size firms and profit earned firms are assured of sustained earnings that facilitate the growth of retained earnings, which consequently form the platform for SMEs to apply such earnings as funding type of their capital structure. This finding is in consistent with the pecking order theory. This theory maximizes the long-term retained earnings of the business.
2. Regarding the external equity and size, age and profitability under the second objective, the result reveals that external equity and independent variable have a negative relationship. We interpret the result as the application of external equity funding type is not explained by the size, age and profitability of the SMEs. The result has established that the factors are significant but have low predictive power for SMEs to cause usage of external equity as one of elements

of capital structure. It could be as a result the fact that large and matured firms (Bates, 1999) need sustained earnings to growth the firm in the competitive context, which is very rare in most cases.

3. In the case of debt ratio and age, size and profitability of SMEs, the result reveals that debt ratio and independent variables attain a positive relationship significantly. This implies that independent variables under the study explained the application of debt as one of the elements of capital structure. Where sales is the identifiable source to grow the internal earnings, it becomes necessary to use debt source of capital to sustain the operational activities of the businesses, especially to embark on the viable projects and continues to enjoy business competitiveness within the fierce environment.

5.2 Recommendations

Against the finding of the study, we seek to make recommendations in the following areas. This would go a long way to improve the SME sector so that sustained earnings could improve the competitiveness of the sector.

1. Government intervention

Management of small business should be the top role of government to educate them at costs. This would strengthen the owners to manage their SMEs to reduce the failure rate and to become successful in their operations. If this intervention is pursued, it would breed entrepreneurship creativity that renders support to the growth and success of SMEs in Ghana.

Education and training

SMEs lack skills and knowledge for obtaining funds from the financial institutions. Fundamental principles of accounting and financial management are rare for the growth and success of the SMEs. This has hindered their operations. There is the need for continuous education and training of owners to acquire such capabilities. Moreso, employment of qualified and trained personnel is rare to handle crucial financial affairs of the SMEs. The need for government to offer such advisory services to owners of such businesses are important, to arouse their confidence and ensure to make headway in operations to growth.

Awareness of government support services

There is the need to create awareness of government support services in all forms to be made available to SMEs in Ghana. the presence of such agent would address and increase advertisement of SMEs, train the owners especially the rural women about the service worth to assist their well-being. The place could serve as where vital informational needs can be accessible and harnessed to exploit the opportunities in the SME environment. SMEs should be able to identify the type of advisory services that would be of assistance to them, and where they could access them without difficulties. Effective monitoring and giving of feedback is paramount for effective achievement of the support's intended objective.

Support growth of SME sector

SME sector should have legal enactments that support its growth so that their lives could be improved. This regulatory framework should aim at achieving and reducing inherent market failure which affect the growth of SMEs. It is no doubt that when this is done, it would stimulate economic expansion and growth. Among the support mechanism include: 1) increasing the entrepreneurial creativity, 2) rendering advisory support to SMEs, and 3) efficient utilization of resources.

Support Banks on cost of training workshops

Ghana government should support banking sector to facilitate effective workability in financing SMEs. This should be in the form of training support to SMEs by banks under the auspices of government. In addition, the banks should make sure the requirements for loan application are devoid of any ambiguity to the SMEs.

Business mentoring and coaching

Mentors and SME coachers should be available at the cost of the government to render mentoring and coaching support to SMEs at all times. This caliber of persons should be of immense of business acumen and have achieved a track record in the same area. Such persons should avail themselves at all times to offer such services.

Small and Medium Enterprise Sector

Start-up and business growth should be the core mandate of the SME sector, with urgent support by the government. Here, it is necessary to devote much time to engage the SMEs with their operational problems revolving round financing. Advise should be geared towards reframing from expensive funding type, to pave way for more savings to increase their earnings capacity level to meet short term obligations when fall due

Encourage partnership and joint ventures

There is the need to motivate partnership and joint venture businesses among the SMEs to strengthen their resources base, meeting market needs, and strengthen managerial talents to forge ahead to ensure growth and exploiting opportunities for creating employment to support the government, as inherent in their intended purpose of its establishment.

Networking

Management should encouraged the drive of sharing ideas and vital information among themselves regarding support mechanisms and application of support advisory issues that affect their operations. This could harness at application of information systems facilitated by internet technologies.

5.3 Conclusion

Capital structure and SMEs in Ghana has been given little attention in the empirical literature of capital structure. Hence, the contribution in this sphere is more or less a huge one. It is therefore a worthy to study the topic. Results of this study revealed that age, size and profitability could be determinant of capital structure of SMEs in Ghana in relation to retaining earnings, external equity and debt ratio, especially from assets point of view. Pecking order theory is underlying proposition of this study, though other theories offer themselves to be employed in the study.

Financing decision options is refereed to us a strategic view and therefore, it is the role of top level management. Policy directions involved in this issue should be directed to improving the SMEs in Ghana. much emphasized should be placed on internal financing type due to heavy cost of transaction on borrowing by SMEs due lack of collateral security. Financing schemes under government support should be promoted to reduce failure rate among the SME sector in Ghana. Findings reveal that the application of retained earnings as financing source is motivated by the age of the firm, the size and the profitability level of the SMEs. On a similar note, application of debt type of financial capital structure is positively explained by the size, age and the profitability level of the SMEs.

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