UNIVERSITY OF GHANA

FINANCING PREFERENCE OF SMEs AND ITS IMPACT ON GROWTH

BY

VIVIAN OSEI BAAFIWAA

(10700655)

A LONG ESSAY SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MSC. ACCOUNTING AND FINANCE DEGREE

AUGUST 2019

DECLARATION

I declare that this work is as a result of my own research produced under supervision and has not been presented by anyone to this or any other university.

All references used have been duly acknowledged.

…………………………………   …………………………………..

VIVIAN OSEI BAAFIWAA   DATE

(10700655)

CERTIFICATION

I hereby certify that this thesis was supervised in accordance with procedures laid down by the

University of Ghana.

……………………………………………… ………………………………

DR. JOSEPH M. ONUMAH   DATE

(SUPERVISOR)

DEDICATION

I dedicate this long essay to Almighty God for his grace and mercy. It is also dedicated to my

beloved family who made a great investment in my life by contributing to my education. May

God grant you long life.

ACKNOWLEDGEMENT

I am thankful to God Almighty for granting me wisdom and mercies throughout my years of study. My sincerest appreciation goes to my supervisor, Dr. Joseph M. Onumah, for his guidance, directions and constructive criticisms which helped shape and enrich this work. Finally,"I am grateful to my husband, Mr. Eric Ofosuhene Abrokwah, and my beautiful daughters, Afia Konadu Ofosuhene Abrokwah, Akosua Fremah Ofosuhene Abrokwah and Yaa Serwaa Ofosuhene Abrokwah for their encouragement which made me complete this long essay successfully. God richly bless you all.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ABBREVIATIONS

AGI- Association of Ghana Industries

ASeM- Alternative Securities Market

GAX- Ghana Alternative Market

GSS- Ghana Statistical Service

IFRS -International Financial Reporting Standards

NBSSI- National Board for Small Scale Industries

SEC- Securities and Exchange Commission

SME- Small and Medium Scale Enterprise

ABSTRACT

This dissertation presents a study to examines the influence of firm characteristics, owner characteristics and control mechanisms for information asymmetry on the SMEs external financing preference and how this preference together with other firm determinants impact the growth of firms. This research was a cross-sectional study which relied solely on primary data. A binary logistic regression was used to analyze the data due to the dichotomous nature of the dependent variable- financial contract type and the objectives that needed to be achieved. The empirical results suggest that firm characteristics play an important role in influencing the external debt preference of SMEs. Both legal status and age of the firm had a positive influence on SMEs preference for debt.

In addition, the sector in which SMEs operated and the growth category had a positive influence on their preference for debt. The study suggests that SMEs follow the pecking order theory. However, this preference for debt has a negative impact on the growth of firms. Therefore, SMEs should implement internal policies on debt management and have in place proper monitoring mechanisms to mitigate the adverse implication of debt and its negative impact on growth.

x

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The common objective of every business entity is to grow its operation in order to increase its turnover and ultimately the profitability. Most of these entities finance their expansion projects through internal financing. Being the main sources of finance for most business entities especially small and medium sized enterprises (SMEs), the retained earnings might prove insufficient to support their business expansions. Firms are therefore compelled at a certain point to look for external finance. The ordeal, however, lies with how to raise the needed funds. A financial contract design for small firms is chosen or developed on the basis of the financial characteristics of the firm, the entrepreneur, the firm's prospects and the associated information problems (Berger & Udell, 1998). The factors that play a crucial role in determining the financial contract type (debt or equity) can therefore be broadly categorized into three; the firm characteristics which combine the financial characteristics of the firm and its prospects, the owner characteristics representing the entrepreneur factor and the control mechanisms present to deal with the issues with information availability on the firm.

The firm characteristics include the age, size, asset structure and the legal status of the firm. These firm-specific characteristics may affect the type of external finance a firm will prefer. Given the firm characteristics of SMEs, the financing costs associated with external financing may be relatively higher than their larger counterparts. The preference for an external financial contract type is dependent on the financing costs associated with the various sources of finance (Chittenden, Hall, & Hutchinson, 1996). For instance, the cost associated with the issue of public

1

securities (especially equity securities) is essentially characterized by significant fixed cost. Therefore, the firm creates economies of scale by virtue of its size. As a result, it becomes difficult for SMEs to raise equity finance and tend to prefer debt financing.

However, efforts to improve SMEs' access to external funding has led to the promotion of SMEs' public market which lessens the listing requirement and transaction cost. Currently, there are a number of public markets available to SMEs in the form of SMEs' market (a sub-market of the main stock exchange) in many countries around the world. There are fifteen (15) SMEs market exchanges in Africa which include the Ghana Alternative Market (GAX) and Alternative Securities Market (ASeM) of Nigeria in West Africa both established in 2013. GAX has eight (8) listed companies with four of which issue debt securities and the other four issuing equity securities (Johnson & Kotey, 2018).

Unlike larger firms that follow the standard corporate finance theory of separation of ownership and management, the management of SMEs is frequently dominated by one individual who also is usually the major investor (Pettit & Singer, 1985). This owner-managed attribute of SMEs makes owners have an influence on these firms' investment and financing decisions. As a result, the attitudes and objectives of the owner/manager may influence the SMEs external finance preference (Cassar, 2004). Usually, these owner-managers are driven by the quest to retain ownership and control and may tend to prefer external debt finance.

SMEs are usually characterized by a greater level of information asymmetry and have greater flexibility to change their asset base than larger firms (Berger &Udell, 1998; Pettit & Singer, 1985). This concept suggests that managers have more information about the firm and its project

viability than investors or financiers (Myers &Majluf, 1984). Therefore, financiers/investors tend to have incomplete information which makes the assessment of their clients (firms) and projects difficult and complicated. As a result, there are adverse selection problems where capital providers might deny projects with good prospects and finance ones with bad prospects (Scholtens, 1999; Tucker & Lean, 2003). Also, there is the moral hazard element where managers of SMEs might fail to perform or renege on their contract.

Reputation and relationship are control mechanisms used to reduce the information gaps that arise in SMEs (Scholtens, 1999; Fluck, Holtz-Eakin & Rosen, 1998). Long term relationship between providers of funds and the firm improves information flow between the two parties. It enables the providers of funds to make a better assessment of the risk associated with the firms. On the other hand, firms benefit from lower risk-premium and/or improved availability of funds (Scholtens, 1999). Also, the reputation of SMEs is enhanced as they develop a track record of their operations in the form of financial statements. In order to promote and standardize SMEs' financial reporting, the International Financial Reporting Standards (IFRS) for SMEs was issued in July 2009. This IFRS provides principles to guide the preparation of financial statements tailored to the capabilities of SMEs and their stakeholders. In Ghana, all SMEs are either permitted to use the IFRS for SMEs or full IFRS.

The characteristics discussed above will induce SMEs' preference for either debt to equity or vice versa. For instance, small and young owner-managed SMEs might have a preference for debt financing in order for the owner-manager to retain ownership and control and avoid incurring unbearable transaction costs. This external finance preference has an implication on the

3

firm, depending on its associated costs and benefits. Considering that a financial resource plays a crucial role in firms' growth (Zhou & de Wit, 2009), the type of external finance used will influence the growth. As these external financing options place differing demands on the firms, it is likely to influence growth differently.

1.2 Research Problem

Petit and Singer (1985) argue that business firms of all sizes select their financial structure in view of the cost, nature and availability of financing alternatives. This implies that the characteristics of a business are key to the determination of its financial structure. SMEs have unique characteristics that affect their financing choice (Cassar, 2004). The main one-information asymmetry is the foundation of the underlying theoretical principles. The other characteristics include the owners/managers experience and knowledge base, and the firm-specific characteristics (Berger & Udell, 1998; Cassar, 2004). The magnitude of these characteristics present in a firm may or may not constrain the firm in its access to external finance. This suggests that in a well-developed private debt and equity market, the external financing of SMEs should reflect its characteristics (Berger & Udell, 1998).

In Ghana, research on SMEs has mainly focused on the debt to equity mix and problems faced in obtaining these finances (Abor & Biekpe, 2006; Abor & Biekpe, 2009). These studies have come up with a number of characteristics and problems of SMEs in Ghana. They include owner-managed, high-interest rates, collateral requirements, difficulty in finding out about available finance, lack of financial performance track records. Therefore, there is a fair idea of the factors that influence financial structure according to Petit and Singer (1985). However, the extent to

which these factors influence the type of external financing used by SMEs is underexplored in Ghanaian literature. In addition, there has been a new development to improve SMEs access to finance like the introduction of GAX and IFRS. Therefore, there is the need for a holistic study to investigate the influences of external financing decisions. In particular, the influence of SMEs' owner characteristics, firm characteristics and control mechanisms are examined in the external finance preference of SMEs and how this preference together with other firm determinants impact growth.

1.3 Research Purpose

This paper presents a study to examine the influence of firm characteristics, owner characteristics and control mechanisms for information asymmetry on the SMEs external financing preference and how this preference together with other firm determinants impact the growth of firms. Investigating the issue of external financing will enhance SMEs financial management and thereby increase their survival and their immense contribution to the growth of Ghana's economy.

1.4 Research Objectives

The objectives of this study are:

1. To investigate how the owner characteristics, firm characteristics and control mechanisms present to deal with information asymmetry influence SMEs' external financing preference.

2. To assess the impact of this preference and other firm determinants on growth.

5

1.5 Research Questions

The purpose of the study will be achieved by finding answers to the following questions.

1. How do the owner characteristics, firm characteristics and control mechanisms present to deal with information asymmetry influence SMEs' external financing preference?

2. How does this preference together with other firm determinants impact SMEs' growth?

1. 6 Significance of Research

The findings of this study in practice will help SMEs to better understand their financial structure and the implication of their financial decisions on the growth of the firm. In addition, the model proposed will help suppliers of funds to quantitatively assess their potential and existing clients which will reduce the level of uncertainties and help them make informed decisions. Also, the study will give policy makers a better understanding of the dynamics of SMEs financing which when incorporated in policies will enhance SMEs access to external finance.

1.7 Chapter Outline

The study is in five chapters. The first chapter introduces the study by giving a background to the research and placing it in the Ghanaian context. It also provides the focus of the study and its importance. Chapter two reviews the relevant literature to provide a theoretical framework. Chapter three discusses the methodology outlining the procedures, tools and strategy used in obtaining data. Chapter four analyzes and discusses the data gathered. Finally, chapter five concludes the study and makes recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two reviews the relevant literature on SMEs' external financing and its growth. It gives an explanation to the concept of SMEs and the associated theories of external financing.

2.2 Theories of Financial Structure

Relevant literature has identified some theories that explain the financial structure of SMEs. These include the agency theory (Jensen &Meckling, 1976) and the pecking order theory (Myers & Majluf, 1984). The agency theory is of the view that, an agency relationship exists in firms where the owners or capital providers are viewed as principals who contract managers (the agents) to act on their behalf. However, the agent does not always act in the best interest of the principal, leading to conflicts between the parties, a phenomenon referred to as the agency problem. On one hand, there is a conflict of interest between the shareholders and debt holders. On the other hand, there exists an agency problem between the shareholders and managers. The owner-managed feature of SMEs tends to eliminate the latter conflicts; nevertheless the first conflict can be severe in SMEs given the high level of information opacity associated with small firms (Barnea, Haugen &Senbet, 1981). As a result, the costs of dealing with agency problems are likely to be greater for SMEs (Chittenden, et al, 1996).

The pecking order theory holds that, firms in financing their activities will first resort to retained earnings, then debt before equity due to the cost associated with information asymmetry. The pecking order theory already outlines the preference of firms' financing which is likely to be

7

more evident in SMEs. With the agency theory, it implies that a firm's preference for a particular type of finance is informed by how best it can control its information asymmetry. According to Berger and Udell (1998), the dimensions of information problem will influence the type of finance SMEs prefer and use.

2.3 Overview of SMEs

Small and Medium Scale Enterprises (SMEs) do not have a unique definition as there are differences in definition by international institutions, definition by national laws and definition by industry (Berisha & Shiroka Pula, 2015). However, the concept (of SMEs) connotes the classification of organizations based on a criterion that fall outside the definition of large enterprises. A number of criteria, usually grouped into qualitative and quantitative, are used to define SMEs. The term SMEs is used interchangeably with others such as 'small businesses' and 'micro small and medium enterprises.' Using the quantitative criterion, size is the commonly used indicator. This is measured either using the number of employees, annual turnover (sales) and assets. Table 1 and Table 2 present the size criterion for the European Union and Ghana respectively, using the number of employees and assets. This study will use the National Board for Small Scale Industries (NBSSI's) definition of SMEs; hence only firms with six or more employees but less than one hundred will be examined.

Table 1: European Union Size Criterion Definition of SMEs

Enterprise Category	Head Count Annual Work Unit (AWU)	Annual Turnover or Annual Balanced Sheet Total
Medium-Sized	<250	≤ 50 million
Small	<50	≤ 10 million
Micro	<10	≤ 2 million

Source: European Commission (2005)

8

Table 2: Ghanaian Definition of SMEs Based on Size

	Number of Employees	**Non-Current Asset**
Micro	1-5	$10,000
Small	6-29	$100,000
Medium	30-39	$1,000,000

Source: NBSSI

Qualitatively, SMEs are classified based on the characteristics of firms. Broadly, SMEs are characterized by the key role entrepreneurs play in ownership and management and their heavy reliance on internal funds and loans. These firms have a greater level of uncertainty, flexibility of operations and greater differences in information held by insiders and outsiders (Pettit & Singer, 1985; Berger & Udell, 1998).

Globally, SMEs represent the highest number of organizations as they account for over ninety-five percent (95%) of the total number of organizations (O.E.C.D, 2000). They also account for the largest number of organizations and are instrumental to economic development. In Ghana, the Integrated Business Establishment Survey Phase 1 Report conducted in 2014 shows that SMEs account for 99.7% of the businesses in Ghana (Ghana Statistical Service, 2015). In the report, these SMEs are mainly owned by Ghanaians and usually either take the form of sole proprietorship, partnership or private limited company. They are largely concentrated in the Greater Accra Region and predominate the service sectors; specifically the wholesale and retail trade sector.

2.4 Characteristics of SMEs

Typically, SMEs have certain unique features that can affect the investment and financing decisions. Whereas the concept of separation of management from ownership is mandatory in large firms, SMEs typically have a management team that is dominated by one individual who is the major investor. Therefore, the character of the owner plays a key role in the decision making of SMEs. SMEs are also characterized by certain firm-specific features that are unique and can affect their investment and financing decisions. Lastly, SMEs put in place mechanisms to attenuate the information problems they face in order to improve their access to external finance.

The following sub-sections discuss the three broad categories of characteristics.

2.4.1 Owner Characteristics

The owner-manager characteristic of the SMEs implies that the managers typically make large investments both in financial and human terms (Pettit & Singer, 1985). This huge investment is reinforced by other investors who use the management commitment as an assurance that the manager will act in their own best interest. As a result, most wealthy owner-manager investment portfolios are tilted towards an abnormal reliance on the firm they manage (Pettit & Singer, 1985). In effect, the selection of investment and financing options is dependent on the owner-manager's need for diversification and risk-return preferences which are in turn influenced by the owner/manager's education, experience, culture, gender, etc. The personal characteristics of the owners/managers have the propensity to affect their ability to obtain the needed finance (Fluck, et al, 1998). Education and experience may provide a signal for better human capital whereas gender relates to the risk aversion of individuals (Cassar, 2004).

10

2.4.2 Firm Characteristics

Size plays an important role in financing decisions because financing decisions have risks and cost implications. Due to the high level of information asymmetry and flexibility of SMEs' operations, they are deemed to be riskier than large firms (Pettit & Singer, 1985). Therefore, investors/financiers will require high risk-premium before extending capital to SMEs. As a result, the cost of capital of SMEs becomes relatively higher, thereby inducing SMEs' preference for the source of finance it deems relatively cheaper. Again, the availability of the various sources of fund is a factor to consider in financing decisions. The size of SMEs restricts their access to certain type of funds especially those in the capital market. For instance, the scale required to issue equity securities, places SMEs out of the scope. However, in recent times, the introduction of the SMEs' market is gradually bridging the access to the capital market gap. Also, the fixed cost element of transaction costs causes transaction costs to be relatively high for small firms hence placing them outside some financing options (Scholtens, 1999; Cassar, 2004). In previous empirical studies, the size of a firm is measured either by the log of total assets or the number of employees. Authors like Sogorb-Mira (2005), Cassar (2004), Mateev and Ivanov (2011) and Abor and Biekpe (2009) found a positive relationship between size and leverage, while other authors found a negative relationship (Chittenden, et al, 1996; Michaelas, Chittenden &Poutziouris, 1999).

As SMEs advance in age, it establishes itself as continuing business and thereby increasing its capacity to retain more profits and take on external funds (Abor & Biekpe, 2007; Abor & Biekpe, 2009). This is because young firms are usually seen to lack collateralizable assets, trading history and have limited internal equity (Berger & Udell, 1998; Mateev & Ivanov, 2011),

11

which might limit their ability to raise the needed funds for survival. With time, firms are able to gradually accumulate trading history and enhance their creditworthiness signals. Age is measured by the number of years the business has been in existence.

SMEs usually take the form of sole proprietorship, partnership or private limited liability company. Generally, sole proprietorship and partnership are not incorporated except in cases where partnerships are organized as limited liability partnership (i.e. audit firms). The choice of legal form (i.e. incorporation) depends on the benefits to be obtained from credibility and taxation variation and the cost of statutory audits and public information (Cassar, 2004). Incorporation may be a positive signal for credibility, the formality of operations and an indicator of future growth.

2.4.3 Control Mechanism for Information Asymmetries

In the presence of market imperfections, there are differences in the information available to insiders (managers) and outsiders (investors/financiers) of a firm of which the insiders have better or more information (Fluck et al., 1998). Therefore, financiers/investors tend to have incomplete information which makes the assessment of their clients (firms) and projects difficult and complicated. As a result, there are adverse selection problems where capital providers might deny projects with good prospects and finance ones with bad prospects (Scholtens, 1999; Tucker & Lean, 2003). Also, there is the moral hazard element where managers of SMEs might fail to perform or renege on their contract. This information asymmetry is greater for smaller firms because SMEs are not publicly-owned firms and therefore are not subject to public disclosure regulations (Gregory, Rutherford, Oswald & Gardiner, 2005). Again, SMEs do not often have

12

audited financial statements and in some cases do not even prepare the financial statements at all. Therefore, it becomes difficult for investors/financiers to distinguish between viable and profitable business. In effect, well-deserving investment projects may not be financed and undertaken at all or may not obtain funding at a reasonable cost (Scholtens, 1999). However, once the SME can attenuate the information problems, it can obtain the necessary external finance support (Fluck, et al, 1998).

A mechanism used to reduce information asymmetry is when the SMEs build a close relationship with investors/financiers. The capital providers, especially banks and venture capitalists, monitor the SMEs closely and learn about their abilities (Fluck et al., 1998). This is because it is difficult to write complete contracts and not easy to ensure enforcement of these contracts. With a close and long-term relationship, SMEs can open up the potential for contracts that allows the financiers to produce information and ensure compliance easily than direct monitoring (Scholtens, 1999). In addition, the improved information between both parties will enable the capital provider to make a better assessment of the SME and control moral hazard. Another way to ease the information problem is for SMEs to supply audited financial statements.

2.5 Overview of External Financing

External financing is used by SMEs to embark on viable investment projects and to run their operations when the owners' capital and retained earnings are insufficient. External finance mainly constitutes debt or equity raised from formal and informal sources. External equity funding can be in the form money or gifts from family, friends and folks. It also includes venture capital financing, private equity and public equity. The love money and business angel financing

13

are informal sources of equity whiles the other three are formal sources. SMEs that have the preference for external equity financing usually resort to the informal sources (Walker, 1989; Berger & Udell, 1998; Gudov, 2013). In some cases, high-growth and those in a strategic sector are likely to attract equity financing from venture capitalists (Mac Bhaird & Lucey, 2011). The external debt financing includes trade credit, bank overdrafts, bank loans, leasing and loans. Entities that prefer debt financing have a high reliance on trade credit and bank overdrafts and loans.

Usually, the external equity financing is not preferred by SMEs because the owner-manager is reluctant to relinquish ownership and control. Again, the relatively high cost associated with equity financing makes firms prefer debt more. Despite these disadvantages associated with equity financing, SMEs that assume equity financing benefit from their investors especially venture capitalist expertise as they tend to partake in strategic and operational decisions. In addition, SMEs using external equity financing are not obligated to make periodic payments.

On the other hand, firms that prefer debt financing retain the ownership and control and obtain financing at a relatively cheaper cost with some enjoying tax benefits. The owners of such firms are portrayed to be unable to understand the appropriate type of finance and have unrealistic expectations of deals involving the introduction of new equity (Hamilton & Fox, 1998). However, SMEs with the preference for debt are exposed to the possibility of bankruptcy cost and increase financial risk. Again, this type of financing usually needs to be guaranteed by the firms' current financial position (Gudov, 2013).

2.6 External Financing and Growth

Several factors impact the growth of a firm which is either measured by growth in sales, employment or profitability of which availability of financial resource is crucial (Zhou & de Wit, 2009). The argument is that financial resource can be converted into other form of resources. For instance, once a firm has ample financial resource, it can acquire the needed human capital, machinery or technology to expand its operations and/or outperform its competitors. Considering the two contract types of financing and the associated advantages and disadvantages already discussed, it implies that the differences in the type of finance matters. Becchetti and Trovato (2002) found that firms with high availability of finance that is debt financing grow more than their counterparts.

Generally, the determinants of growth can be categorized into individual determinants, firm determinants, strategic determinants and environmental determinants (Zhou & de Wit, 2009; Fadahunsi, 2012). Firm determinants which include factors like age, size, ownership form, financial resource and sector have an impact on growth (Zhou & de Wit, 2009). Although the Gibrat's law suggests that a firm's growth is independent of its age and size (Zhou & de Wit, 2009; Fadahunsi, 2012; Becchetti & Trovato, 2002), previous empirical studies have found a negative relationship between age and size on growth, implying that smaller and younger firms grow faster than their counterparts.

In conclusion, previous studies on SMEs' financing have mostly highlighted on the determinants of capital structures and financing challenges of SMEs. These studies have come up with a number of determinants and challenges which include owner-managed, age, size, high-interest

15

rates, collateral requirements, difficulty in finding out about available finance, lack of financial performance track records. According to Berger and Udell (1998), a financial contract design for small firms is chosen on the basis of the financial characteristics of the firm, the entrepreneur, the firm's prospects and the associated information problems. However, previous studies tend to focus on the firm-specific determinants and also do not show the extent to which these factors influence the type of finance used by the SMEs. Also, there is little in literature on how the availability or use of a particular financial contract-type affects growth of a firm. This study fills these gaps by presenting a holistic study to examine the influence of firm characteristics, owner characteristics and control mechanisms for information asymmetry on the SMEs external financing preference and how this preference together with other firm determinants impact the growth of firms.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The methodology used in conducting the research is outlined under this chapter. That is, it explains who the participants are and how they were selected, the instruments used and how data was collected and analyzed.

3.2 Research Design

The purpose of this research is to examine the influence of owner characteristics, firm characteristics and control mechanisms on SMEs external financing preference. It further investigates the effect of this preference and other firm determinants on growth. Thus the purpose of the research will emphasize the study of a situation in order to explain the relationship between the variables of interest. Therefore, it implies that this research is an explanatory study which seeks to show the relationship between owner and firm characteristics of SMEs and their external financing preference. The researcher conducted a cross-sectional study using a survey strategy and a quantitative approach in both the data collection process and data analysis.

3.3 Population and Sample

In this study the researcher adapted NBSSI's definition of SMEs hence examined only firms with six or more but less than one hundred employees. The population for this research is restricted to registered SMEs in the database of Association of Ghana Industries (AGI), operating in the Greater Accra Region. This is because the Greater Accra region has the highest number of registered SMEs and AGI is an association with readily available information on SMEs. Given

17

the purpose of the study, which required a statistical estimation of the characteristics of the population, the probability sampling was deemed the most appropriate technique to use. The use of probability sampling meant that the researcher needed to identify the suitable sampling frame. Given that existing databases are usually associated with problems such as incompleteness, inaccuracy and out of date information, the researcher eliminated all SMEs with any incomplete, inaccurate or out of date information from the AGI's list of SMEs. After ensuring that the sample frame was suitable for the study, the researcher had a list of two hundred and fifty (250) SMEs.

Following the sampling approach of Sanders, Lewis, and Thornhill (2009) and using a confidence level of 95% and a margin of error of 5%, the appropriate sample size was one hundred and fifty-one (151) as shown in Appendix 1. The sample was selected using the simple random sampling technique. Previous works on SMEs has noted a low response rate of about 35%, (Hamilton & Fox, 1998). Therefore, the actual sample size required to accommodate this low response is four hundred and thirty-one (431) but is not feasible since the sampling frame for this study is two hundred and fifty (250). In response to the possible low response rate, the researcher consistently followed up on the respondents in order to attain a high turnout. Nevertheless, the noted low responses are considered to be sufficient for the statistical analyses (Hamilton & Fox, 1998).

3.4 Data Source and Data Collection Tools

The data used in this study was collected directly from the selected SMEs by administering questionnaires to the manager/owners of the SMEs. The researcher deemed the use of questionnaires as the most appropriate tool for collecting data solely made up of behaviourial and

18

attribute variables. In addition, the wide coverage capability advantage of questionnaires contributed to the adaptation of this tool in this study. Lastly, the questionnaires provided the researcher with a consistent and uniform measure of characteristics of SMEs and their external financing choice which was easily transformed for the quantitative analysis. The questionnaires were carefully designed to ensure that the accurate data was collected with ease. The questionnaires consisted of clear and precise closed- ended and opened ended questions with clear instructions. Refer to Appendix 2 for a copy of the questionnaire used in this research.

3.5 Method/Procedures

The researcher administered the questionnaires to the selected SMEs over a period of 6 weeks from the last week in February to the first week in April. However, due to the busy schedule of the owners/managers, the collection of the answered questionnaires lasted up to end of April.

3.6 Model Framework and Design

The researcher employed the use of descriptive statistics and regression analysis to perform the data analysis. Stated differently, this study seeks to predict the financial contract type (i.e. debt or equity) an SME will choose given its firm characteristics, owner characteristics and information asymmetry control mechanisms available. Taking into consideration this objective and the categorical nature of the dependent variable, the researcher deemed the logistic regression as the most appropriate model to use. Cassar (2004) in a similar study used a logit regression to determine the influence of a selected independent variable on the choice of a type of financing.

To examine the influence of owner characteristics, firm characteristics and control mechanisms on the choice of external financing, the researcher used a binary logistic regression model to analyze the relationship between the dichotomous dependent variable - debt or equity external financing and it independent variables - the owner characteristics(owner/top manager's educational level and experience), firm characteristics(age, size and legal status) and control mechanisms (financial statements and number of years in relationship with capital providers).

The control variables used in this model are the stage of development and sector in which the SME operates. A firm's stage of development is usually classified into four namely the start-up stage, the growth stage, maturity stage and decline stage. According to Tucker and Lean (2003), the stage of development may play an important role in the determining or constraining the type of external finance SMEs use. Lastly, the different sectors of the economy do matter in empirical results (Zhou & de Wit, 2009). In our case, it is likely that more capital intensive firms will prefer debt than less intensive firms based on the pecking order and agency cost theory.

The binary logistic regression model is given as follows with the definition of variables presented in Table three (3):

$$\ln\left(\frac{\pi^{debt}}{1-\pi^{debt}}\right) = \alpha + \beta_1\,TMX_i + \beta_2\,TMUgrad_i + \beta_3\,TMPost_i + \beta_4\,Bage_i + \beta_5\,Bsize_i +$$

$$\beta_6\,Inc_i + \beta_7\,CMFS_i + \beta_8\,Cmyr_i + \beta_9\,STdevG_i + \beta_{10}\,STdevM_i + \beta_{11}\,SecM_i + \beta_{12}\,SecC_i +$$

$$\beta_{13}\,SecW_i + \varepsilon\ \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(1)$$

$$\pi^{debt} = \frac{e^Y}{1+e^Y}\ \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(2)$$

Where,

$$y_i = \alpha + \beta_1\,TMX_i + \beta_2\,TMUgrad_i + \beta_3\,TMPost_i + \beta_4\,Bage_i + \beta_5\,Bsize_i + \beta_6\,Inc_i +$$
$$\beta_7\,CMFS_i + \beta_8\,Cmyr_i + \beta_9\,STdevG_i + \beta_{10}\,STdevM_i + \beta_{11}\,SecM_i + \beta_{12}\,SecC_i + \beta_{13}\,SecW_i +$$
$$\varepsilon$$

Table 3: Definition of variables in External finance preference model

Variables	Notation	Definition
External finance preference	Y	1 if preference is debt or 0 if preference is equity
Intercept	a	The intercept term
Odd ratio	β1, β2 … β13	The odd ratios for the respective independent variable
Top manager's experience	TMX	The number of years in managerial position
Top manager's level of education	TMUgrad	1 if educational level is an undergraduate or 0 otherwise (Reference category: educational level below undergraduate)
Top manager's Level of education	TMPost	1 if educational level is graduate/ post graduate or 0 otherwise (Reference category: educational level below undergraduate)
Age of firm	Bage	Number of years since commence of business

21

Size of firm	Bsize	Number of employees of the SME
Incorporation status	Inc	1 if firm is incorporated or 0 if not
Financial Statements	CMfs	1 if firm has financial statements or 0 if not
Length of relationship with capital providers	CMyr	Number of years the SMEs has been in a relationship with capital provider
Stage of development of firm	StdevG	1 if the SME is in the growth stage or 0 otherwise (Reference category: start-up)
Stage of development of firm	StdevM	1 if the SME is in the maturity stage or 0 otherwise (Reference category: start-up)
Firm's sector	SecM	1 if firm operates in the manufacturing sector or 0 otherwise (Reference category : Other services sector)
Firm's sector	SecC	1 if firm operates in the construction sector or 0 otherwise (Reference category : Other services sector)
Firm's sector	SecW	1 if firm operates in the wholesale and retail trade sector or 0 otherwise (Reference category : Other services sector)

To assess the impact of external financing preference on growth, the researcher restricted the determinants of growth to only the firm determinants. The influence of firm growth was narrowed to firm determinants as the organizational determinants were seen as the most

22

important influence on growth and the variable of interest (external finance preference) is an organizational factor.

The dependent variable-firm growth was measured by the trend in sales growth of the SMEs. This was categorized into positive growth or negative/constant growth. This dichotomous independent variable was regress on its independent variables (firm determinants of growth) in a binary logistic regression. The independent variables are namely, external finance preference, firm size, firm age, business form and sector controlled by the growth category. The researcher in assessing the impact of external finance on growth controlled for the firm characteristics that had a confounding effect.

The binary logistic regression model used in this study is given below with the definition of variables presented in Table 4:

$$\ln\left(\frac{\pi^{growth}}{1-\pi^{growth}}\right) = \alpha + \beta_1 Exfin_i + \beta_2 agecatA_i + \beta_3 agecatM_i + \beta_4 sizecat_i + \beta_5 SecM_i +$$

$$\beta_6 SecC_i + \beta_7 SecW_i + \beta_8 BFP_i + \beta_9 BFLL_i + \beta_{10} GCmidmkt_i + \beta_{11} GChigh_i + \varepsilon \ \dots\dots (3)$$

$$\pi^{growth} = \frac{e^{\gamma}}{1+e^{\gamma}} \ \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots(4)$$

Where,

$y_i = \alpha + \beta_1 Exfin_i + \beta_2 agecatA_i + \beta_3 agecatM_i + \beta_4 sizecat_i + \beta_5 SecM_i + \beta_6 SecC_i + \beta_7 SecW_i + \beta_8 BFP_i + \beta_9 BFLL_i + \beta_{10} GCmidmkt_i + \beta_{11} GChigh_i + \varepsilon$

3.7 Limitations

The researcher anticipated that the result from the regression analysis may be subjective due to the measure of the control variables. Therefore, the researcher tried to be as objective as possible by relying on accurate indices. Also, some of the respondents might not answer some of the questions while others might not have the time or refuse to partake in the study. Therefore, the researcher crossed check the questionnaires when collected and gave the respondents ample with consistent reminders and follow- ups. Lastly, this research is strictly on small firms and medium firms hence the findings are applicable to firms that fall in this category.

Table 4: Definition of variables for the growth model

Variables	Notation	Definition
Growth in Sales	y	1 if growth in sales is positive or 0 if not
Intercept	α	The intercept term
Odd ratio	β1, β2 … β11	The odd ratios for the respective independent variable
External finance preference	Exfin	1 if preference is debt or 0 if preference is equity
Age of firm	agecatA	1, if SME is an "adult" firm (6 to 10 years) or 0 otherwise (Reference category: young firm(1 to 5 years)
Age of firm	AgecatM	1, if SME is a "matured" firm (above 10 years) or 0 otherwise (Reference category: young firm(1 to 5 years)
Size of firm	sizecat	1 if the SME is a small firm or 0 if it is a medium-

24

		sized firm
Firm's sector	SecM	1 if firm operates in the manufacturing sector or 0 otherwise (Reference category : Other services sector)
Firm's sector	SecC	1 if firm operates in the construction sector or 0 otherwise (Reference category : Other services sector)
Firm's sector	SecW	1 if firm operates in the wholesale and retail trade sector or 0 otherwise (Reference category : Other services sector)
Business form of the firm	BFP	1 if SME is a partnership or 0 otherwise (Reference category: sole proprietorship)
Business form of the firm	BFLL	1 if SME is a limited liability or 0 otherwise (Reference category: sole proprietorship)
Growth category of firm	Gcmidmkt	1 if firm is categorized a middle-market firm or 0 otherwise (Reference category: lifestyle firm)
Growth category of firm	Gchigh	1 if firm is categorized as a high-growth firm or 0 otherwise (Reference category: lifestyle firm)

CHAPTER FOUR

DISCUSSION AND FINDINGS

4.1 Introduction

This chapter analyzes the data gathered on the SMEs in the Greater Accra Region. It presents demographics, descriptive and regression analyses used to examine the influence of owner characteristics, firm characteristics and information asymmetry control mechanisms on external financing preference and its impact on growth. The analysis included eighty-four (84) out of ninety-three (93) responses from target sample size of one hundred and fifty-one (151). The nine (9) responses were excluded because these SMEs did not use external financing. In effect, the SMEs used in the data analysis comprise approximately fifty-six percent (56%) of the targeted sample size. However, the results are deemed to be sufficient for statistical analyses (Hamilton & Fox, 1998).

4.2 Characteristics of SMEs

A main distinguishing feature of SMEs is that such firms are owner-managed. The case might be slightly different in Ghana. This section discusses the characteristics of SMEs based on size, age and whether or not the firms are owner-managed across the type of organizations. Table 5 presents the size of the firm and whether or not it is owner-managed. It can be observed from Table 5 that approximately fifty-four percent (54%) of small firms are owner-managed. With medium-sized firms (i.e. firms with 30-99 employees) just about thirty-eight percent (38%) are owner-managed. In total, owner-managed SMEs are approximately fifty-one percent (51%) hence the case of SMEs generally being owner-managed is different in Ghana. The differences might be that because the term SMEs can be used interchangeable with micro, small and medium

26

enterprises. Micro firms usually account for the largest percentage of SMEs (i.e. firms different from large firms). For instance, in Ghana micro firms account for about seventy-nine percent (79%) of all the business other than large firms (Ghana Statistical Service, 2015). Micro firms, sometimes referred to as one-man business, are owner-managed and the huge number of micro firms will impact the owner-managed attribute in totality.

Table 5: Size Classification and Owner/Non-Owner-managed

Size Category	Owner-managed		
	No	**Yes**	**Total**
Small	33	38	71
Medium	8	5	13
Total	41	43	84

Source: Field data, 2019

Table 6 presents whether SMEs are owner-managed or not, across the different types of organizations. Surprisingly, a majority of sole proprietorships are not owner-managed, which may be as a result of the trend in Ghana where the working class start small businesses alongside their paid employments and get others, usually a family member or friend, to run the business. Partnership, on the other hand is mostly owner-managed which fall in line with the norm where the partners that form partnership are the ones that run its affairs. With respect to private limited company, about sixty-one percent (61%) are owner-managed which may be as result of the predominant entrepreneurial culture where individuals or group of entrepreneurs preferred to use limited liability to signal credibility and seriousness.

Table 6: Type of Organization

Owner-Managed	Sole Proprietorship	Partnership	Private Limited Company	Total
No	21	1	19	41
Yes	5	10	28	43
Total	26	11	47	84

Source: Field data, 2019

4.3 Descriptive and Frequency Statistics

The variables in the external finance preference model for the study are made up of continuous and categorical variables. Out of the ten (10) variables, four are continuous variables and the rest are categorical variables. Therefore, Table 7 presents the descriptive statistics for the four continuous variables while Table 7 presents the frequency statistics for the categorical variables.

In Table 7, it can be observed that on average owner/managers have about eleven years' experience in managing firms. On the average, SMEs in the sample has a size of approximately nineteen (19) employees. Averagely, SMEs in this sample are approximately nine (9) years old which implies they can be classified as adult firms per Abor and Biekpe (2006), or middle-aged per Berger and Udell (1998). The average years of relationship with their financiers or investors of about seven (7) years suggest that the SMEs adopt external finance in their early stages. This is consistent with Fluck (1998) findings that SMEs at some point in their early stage are able to develop a reputation that enables them to get access to external finance.

28

Table 7: Descriptive Statistics

Variable	Obs	Mean	Std. Dev	Min	Max
Top Manager's experience (TMx)	84	11.39286	7.714824	1	42
Business Size (bsize)	84	18.79762	16.43811	6	95
Business age (bage)	84	8.583333	5.597349	1	28
Length of relationship with financier/investor (cmyr)	84	7.220238	6.41269	0	28

Source: Field data, 2019

In Table 8, about seventy-six percent (76%) of the SMEs in the sample had a preference for external debt finance, specifically bank loans. Reason for this preference was mainly because the owner/managers viewed this source of finance as cheaper, easy to access or owner/managers did not have to relinquish control or ownership. Although these SMEs complained of the high cost of debts in the form of high interest rates, the external source of debt was viewed as cheaper because the cost of equity was even much higher due to the severity of the agency problem in small firms.

Ordinarily, SMEs are known not to prepare financial statements. However, the frequency statistics on the financial statements in the sample suggests the contrary. Table 8 shows that approximately seventy-one percent (71%) of the SMEs prepare financial statements of which about fifty-four percent (54%) are audited. This is as result of the number of firms incorporated in the study and hence is likely required by law to prepare statements. Also, about seventy-one percent (71%) of the SMEs are in the growth stage, hence have probably accumulated trading

history usually in a documented financial statement to facilitate access to external finance especially from the banks.

Table 9 presents the descriptive statistics of the variables in the growth model. From the table, seventy-five (75%) of the sampled SMEs have experienced growth in sales. The high percentage of younger firms and smaller firms can be linked to recorded percentage in growth. Typically, smaller and younger firms have been reported to grow more than their counterparts. However this notion should be used with caution as age may not be a reliant predictor of growth while size might differ (Fadahunsi, 2012).

Table 8: Frequency Statistics for Variables in External Finance Preference Model

	Freq.	**Percentage**
External Finance		
Equity	20	23.810
Debt	64	76.190
Top Manager Education Level (TMedu)		
Below Undergraduate	7	8.333
Undergraduate Level	27	32.143
Postgraduate level	50	59.524
Incorporated (Inc)		
Not Incorporated	37	44.048
Incorporated	47	55.952

Financial Statements (FS)		
No Financial Statements	24	28.571
Financial Statements	60	71.429
Stage of Development (Stdev)		
Start Up	16	19.048
Growth	60	71.429
Maturity	8	9.524
Sector of Operation (Sec)		
Manufacturing	5	5.952
Construction	9	10.714
Wholesale and Retail Trade	14	16.667
Other Services	56	66.667

Source: Field data, 2019

Table 9: Frequency Statistics of Variables in Growth Model

	Frequency	Percentage
Growth in Sales		
Yes	63	75
No	21	25
External Finance (Exfin)		
Debt	64	76.190
Equity	20	23.810

Age Category (agecat)		
Young	29	34.524
Adult	30	35.714
Mature	25	29.762
Size Category (sizecat)		
Small	71	84.524
Medium	13	15.476
Sector of Operation (Sec)		
Manufacturing	5	5.952
Construction	9	10.714
Wholesale and Retail Trade	14	16.667
Other Services	56	66.667
Business Form		
Sole Proprietorship	26	30.952
Partnership	11	13.095
Private Limited Liability	47	55.952
Growth Category (Gc)		
Lifestyle	24	28.571
Mid-Market	44	52.381
High Growth	16	19.048

Source: Field data, 2019

4.4 Diagnostic Tests

In running a logistic regression, certain assumptions are key and must be checked to reduce

biases in the results. These key assumptions are linearity of logit and multicollinearity. With the

linearity of logit, if there is no linearity between the relationship of the log odds outcomes and

each explanatory variable then the model will be considered inaccurate. The Hosmer and

Lemeshow test can be used to test for linearity of logit. The model fit of the data (Hosmer and

Lemeshow test) of the two models is shown in Table 10. In the table, the test is not statistically

significant; implying that the researcher has fitted a good model and there is no problem of

linearity of logit.

Table 10: The Hosmer and Lemeshow test

	Chi- Square	**df**	**Sig**
External Preference	1.512	8	0.992
Growth Model	5.986	8	0.174

Source: Field data, 2019

Lastly, the explanatory variables must not be highly correlated with each other. A correlation

matrix helps to identify multicollinearity. Tables 11 and 12 display the correlation matrix for the

external preference explanatory variables and growth explanatory variables respectively. In

Table 11, the correlation coefficient of 0.59 between top managers' experience (tmx) and age

(bage) is as a result of the same measure for both variables. Both variables were measured in

years. With Table 12, there is no correlation coefficient greater than 0.5. Therefore, both models

fit and are free from bias.

33

Table 11: Correlation Matrix for Variables in External Finance Preference Model

	Preference	tmx	tmungrad	tmpost	bage	bsize	inc	cmfs	cmyr	stdevG	stdevM	secM	SecC	SecW
Preference	1													
tmx	0.097	1												
tmungrad	-0.214	-0.198	1											
tmpost	0.165	0.279	-0.335	1										
bage	0.214	0.591	-0.031	-0.001	1									
bsize	-0.004	0.412	-0.191	0.235	0.344	1								
inc	0.180	0.293	-0.211	0.343	0.261	0.350	1							
cmfs	0.265	0.258	-0.129	0.230	0.265	0.244	0.447	1						
cmyr	-0.248	0.310	-0.065	0.048	0.491	0.185	0.133	-0.064	1					
stdevG	0.141	0.171	-0.016	-0.092	0.095	-0.072	-0.190	-0.050	0.043	1				
stdevM	-0.009	0.153	-0.050	0.102	0.323	0.198	0.206	0.115	0.001	-0.413	1			
secM	0.023	0.295	-0.173	0.105	0.381	0.410	0.223	0.159	0.228	-0.064	0.261	1		
SecC	0.013	0.003	0.091	-0.106	0.081	0.087	-0.003	-0.037	0.109	-0.037	-0.112	-0.087	1	
SecW	0.018	-0.239	0.103	-0.217	-0.133	-0.188	-0.311	0.212	-0.141	0.141	-0.036	-0.113	-0.155	1

Source: Field data, 2019

Table 12: Correlation Matrix of Variables in Growth Model

	Growth	Exfin	agecatA	agecatM	sizecat	BFP	BFLL	gcmidmkt	gchigh	secM	SecC	SecW
Growth	1											
Exfin	-0.129	1										
agecatA	-0.143	-0.050	1									
agecatM	-0.165	0.180	-0.485	1								
sizecat	-0.057	0.007	-0.113	0.153	1							
BFP	0.061	0.051	0.079	-0.098	-0.166	1						
BFLL	-0.069	0.180	-0.139	0.210	0.313	-0.438	1					
gcmidmkt	0.402	0.004	-0.005	-0.214	-0.037	0.002	-0.053	1				
gchigh	0.402	0.004	-0.005	-0.214	-0.037	0.002	-0.053	1.000	1			
secM	-0.087	0.023	-0.188	0.276	0.310	-0.098	0.223	-0.112	-0.112	1		
secC	-0.067	0.013	-0.098	0.027	0.065	-0.134	-0.003	-0.29	-0.29	-0.087	1	
secW	0.037	0.175	0.267	-0.221	-0.103	-0.174	-0.311	0.062	0.062	-0.113	-0.155	1

Source: Field data, 2019

4.5 Empirical Results

Table 13 presents the output of the binary logistic regression used to examine the influence of owner characteristics, firm characteristics and information asymmetry control mechanism of the SMEs' external finance contract type preference. This model explains 54.4% of the variation in the outcome. In Table 13, the factors that influence the likelihood of SMEs to choose debt-type contract over equity are the sector of operation (sec), incorporation status (inc), age (bage) and length of relationship with financers (cmyr). All these above-mentioned characteristics were positive influences; that favour the use of external debt-contract type with the exception of the length of relationship with financers.

With respect to the sector of operation, the wholesale and retail trade sector (OR=15.32) was statistically significant and positively associated with the choice of external debt over equity. The odds of SMEs in the wholesale and retail trade sector preference for external debt is about fifteen (15.32) times greater than SMEs in the other services sector. The preference for debt may be as a result of the possible capital intensive nature of businesses in this sector hence the need for huge amount of finance to support its activities. This implies that these firms will resort to external finance when their internal funds are used up. Following the pecking order theory and agency cost theory, firm in the wholesale and retail trade sector will choose debt over equity. Again, the wholesale and retail trade sectors usually operate their business on trade credit where they buy goods on credit from their suppliers.

The next influential variable in SMEs' preference for external debt finance is the incorporation status (OR= 5.62) of the SME. The odds of an incorporated SME choosing external debt finance

is six (5.62) times greater than SMEs without incorporation status. This is consistent with Cassar (2004) where incorporation positively affected the use of bank financing. Incorporation is usually seen as a good signal for credibility and formality of operations. As a result, debt financiers will find it easier and safer to extend credit to incorporated SMEs than not incorporated ones.

The last statistically significant variable that positively affects SME's preference for external debt is the age (OR= 1.52) of the SME. This implies that as the SME increases in age, the odds of preferring debt finance will increase by fifty-two percent (52%). This positive relationship is similar to that of Abor and Biekpe (2007). As SMEs increase in age, they become more transparent and easily gain access to credit than their newer counterparts. Given the pecking order and agency cost theory, these older firms will prefer debt to equity.

Length of relationship with financers (OR=0.70) was the only variable that negatively affects SMEs' preference for external debt. As the length of lending relationship between SMEs and their financers increase, the odds of preferring external debt to equity decreases by three percent (3%). This might be the case because the length of relationship between SMEs and their financiers reduce informational opacity and increases the SMEs' attractiveness for less informed investors (Berger & Udell, 1998). Therefore, the SMEs now have various equity financing options at their disposal and that will tend to reduce their preference for debt.

Surprisingly, Size was not statistically significant in the study but exhibited a negative influence on preference for debt to equity. The negative relationship may be as a result of the greater

investment opportunities available for smaller firms than their counterparts (Fluck, et al, 1998). The owner characteristics were not significant and may suggest that the financiers prioritize the firms' characteristics more than the owner characteristics (Cassar, 2004). The results suggest that among the three categories that influence SMEs' external financing preference, firm characteristics play an important role. The sector of operation is also very instrumental in influencing the external contract type preferred by SMEs.

In Table 14, the logistic output of the impact of external finance preference on growth is displayed. From the table, it can be observed that the model explains thirty-nine point four percent (39.4%) of the variation in the outcome. The odds ratio of firms that prefer external debt to equity is 0.163. This implies that the odds of growth in SMEs that prefer debt-type contracts are about eighty-four percent (83.7%) less likely than firms which prefer equity-type contracts. This observed negative relationship might possibly be because debt comes with implicit and explicit cost obligations that reduce profitability and hence tend to reduce the return on equity which gradually reduces the firm's growth rate and finally resulting in the reduction of growth in sales. Again, it can be argued that, the high leverage due to debt financing, increases the SMEs financial risk and tendency of bankruptcy cost. Therefore, such firms will find it difficult to sustain their growth levels and support future growth.

The results in Table 14 also show that firms classified as high growth firms have a negative impact on growth. The odds ratio of 0.045 implies that the odds of growth for high growth are about ninety-six percent (95.5%) less likely than lifestyle firms. Lastly the odds of growth in an adult firm is about eighty-two percent (82.2%) less likely than young firms.

Table 13: Logistic Regression Output on Influence of External Finance Preference

	Exp (B)	S.E	Sig	95% C.I for EXP (B) Lower	Upper
tmx	1.004	0.070	0.96	0.875	1.151
tmedu			0.146		
tmeduUngrad	0.281	1.508	0.399	0.015	5.393
tmeduPost	1.44	1.597	0.819	0.063	32.926
bage	1.52	0.16	0.009	1.111	2.08
bsize	0.959	0.026	0.108	0.911	1.009
inc(1)	5.62	0.927	0.063	0.913	34.609
cmfs(1)	2.029	0.886	0.424	0.358	11.511
cmyr	0.700	0.146	0.015	0.526	0.933
stdev			0.331		
stdevG	1.093	0.927	0.924	0.178	6.729
stdevM	0.121	1.711	0.218	0.004	3.472
sec			0.200		
secM	0.867	2.022	0.944	0.016	45.637
secC	3.161	1.358	0.397	0.221	45.276
secW	15.317	1.311	0.037	1.172	200.163
Constant	0.763	1.687	0.873		

N	-2 Log Likelihood	Cox & Snell R Square	Nagelkerke R Square
84	54.394*	0.362	0.544

Source: Field data, 2019

38

Table 14: Logistic Regression Output of Impact of External Finance on Growth

	Exp (B)	S.E	Sig	95% C.I for EXP (B)	
				Lower	Upper
Sizecat(1)	1.023	1.005	0.982	0.143	7.338
Agecat			0.173		
agecatA	0.178	0.939	0.066	0.028	1.122
agecatM	0.389	0.968	0.330	0.058	2.597
BF			0.384		
BFP	6.687	1.380	0.169	0.447	99.964
BFLL	1.838	0.898	0.498	0.316	10.692
Gc			0.005		
Gcmidmkt	0.408	1.240	0.470	0.036	4.637
Gchigh	0.045	1.284	0.015	0.004	0.551
Sec			0.654		
secM	0.560	1.269	0.648	0.047	6.736
secC	1.989	1.074	0.522	0.242	16.329
secW	3.245	1.056	0.265	0.410	25.713
Exfin(1)	0.163	0.946	0.380	0.025	1.038
Constant	28.130	2.035	0.101		

N	-2 Log Likelihood	Cox & Snell R Square	Nagel kerke R Square
84	68.500*	0.266	0.394

Source: Field data, 2019

39

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the researcher presents a summary of the findings, draw conclusions and make necessary recommendations.

5.2 Summary of the Study

This study examined the influence of firm characteristics, owner characteristics and control mechanisms for information asymmetry on the SMEs' external financing preference and how this preference together with other firm determinants impacts the growth of firms. This research was a cross-sectional study which solely used primary data collected through questionnaires that were administered to the selected Greater Accra regional-based small and medium scale firms within the AGI database. A binary logistic regression was used to analyze the data for purposes of achieving the objectives that were outlined initially.

The empirical results in this study suggested that some factors mostly comprising firm attributes can positively or negatively influence SMEs' preference to use external debt. Firstly, the most influential factor that positively affected firms' preference for debt was the sector of operation. The study revealed that the SMEs in the wholesale and retail trade sectors odds of preferring debt to equity was about fifteen (15.32) times more than that of firms in the other service sectors. The firm characteristics that positively influence SMEs for external debt were the incorporation status and age of the firms. The researcher found out that incorporated firms' odds of preferring debt to equity was about six (5.62) times more than firms that had not been incorporated. In addition, as

40

SMEs grow in age, the odds of the firm preferring debt to equity increase by fifty-two (52%). On the other hand, the length of relationship between SMEs and financiers negatively influenced the firms' preference for debt. The odds of firms' preference for debt decreased by three point seven five percent (3.75%) as the length of relationship between SMEs and financiers increased.

The empirical results also revealed that three factors had an impact on the growth of firms. SMEs who had the preference for external debt finance had a negative impact on growth as they recorded an odds ratio of 0.163. This implied that the odds of growth in SMEs that prefer debt-type contracts are about eighty-four percent (83.7%) less likely than firms which prefer equity-type contracts. Also adult firms and high growth had negative impact on the growth firms. The latter odds ratio of 0.178 implied that adult firms' odds of growth is about eighty-two percent (82.2%) less likely than young firms. Lastly, high growth firms' odds of growth is about ninety-six percent (95.5%) less likely than lifestyle firms.

5.3 Conclusions

This paper presented a study to examine the influence of firm characteristics, owner characteristics and control mechanisms on the SMEs' external financing preference and how this preference together with other firm determinants impact the growth of firms. The study showed that SMEs included in the study preferred external debt financing to equity. Out of the three categories of influences on this preference, the firm characteristic was the most influential factor. The owner characteristics did not play any role in influencing SMEs' preference for debt. This might suggest that financiers/investors place emphases on the firm characteristics than the owner characteristics (Cassar, 2004). Also the control mechanism for information asymmetry (in

particular length relationship with financiers/investors) had a positive influence on SMEs' preference for debt. Aside these characteristics, the sector of operation of a firm plays a very important role in firms' preference for debt. Firms in the wholesale and retail trade sector greatly influenced firms' preference for debt which might possibly be the capital intensity of these sectors compared to other service sectors. Finally, the most important firm determinant of growth was the SMEs' preference for debt.

5.4 Recommendations

As observed from the findings, older firms tend to employ more debt in financing their operations than relatively younger firms. A cautionary position that SMEs who employ more debt should note, is the increasing likelihood of liquidity risk exposures which result in the firms being unable to meet their debt obligations when they fall due. As such, managers of SMEs are advised to keep a consistent open eye through laid down policies and proper monitoring mechanisms (such as auditing of financial information) in order to identify and address any issue of liquidity.

Again the SMEs must be mindful of the adverse implications such as bankruptcy cost and financial risk associated with external financing. These firms must strategically come up with safeguards to deal with the downside effect of debt financing. In addition, organizations like AGI and NBSSI should implement and run financial management programs and sessions to better equip managers with skills to deal with implications of debt financing.

Given that external debt financing negatively impact the growth of firms, SMEs must perform a cost-benefits analysis of the external debt finance they employ in order not to escalate the negative impact on growth causing these firms to struggle with survival. More importantly, as external finance provides a negative externality to SMEs, SME management ought to maintain proper records of their financial transactions and structure, to create confidence in their shareholders and other strong financial institutions to help in financing their businesses.

Lastly, the Securities and Exchange Commission (SEC), in collaboration with the AGI or NBSSI or any other related institutions, should organize a campaign to educate the public on the Ghana Alternative market so as to induce the use of external equity financing as excessive use of debt might be detrimental to growth and survival of SMEs. If possible, SEC should consider revising the listing requirement for the GAX that is tailored made to suit SMEs in Ghana and provide exit strategies from the market.

References

Abor, J., & Biekpe, N. (2006). Small business financing initiatives in Ghana. *Problems and Perspectives in Management*, *4*(3), 69-77.

Abor, J., & Biekpe, N. (2007). Small business reliance on bank financing in Ghana. *Emerging Markets Finance and Trade*, *43*(4), 93-102.

Abor, J., & Biekpe, N. (2009). How do we explain the capital structure of SMEs in sub-Saharan Africa? Evidence from Ghana. *Journal of Economic Studies*, *36*(1), 83-97.

Barnea, A., Haugen, R. A., & Senbet, L. W. (1981). Market imperfections, agency problems, and capital structure: a review. *Financial management*, 7-22.

Becchetti, L., & Trovato, G. (2002). The determinants of growth for small and medium sized firms. The role of the availability of external finance. *Small Business Economics*, *19*(4), 291-306.

Beck, T., Demirgüç-Kunt, A., & Maksimovic, V. (2008). Financing patterns around the world: Are small firms different?. *Journal of Financial Economics*, *89*(3), 467-487.

Berger, A. N., & Udell, G. F. (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. *Journal of banking & finance*, *22*(6-8), 613-673.

Berisha, G., & Shiroka Pula, J. (2015). Defining Small and Medium Enterprises: a critical review.

Cassar, G. (2004). The financing of business start-ups. *Journal of business venturing*, *19*(2), 261-283.

Chittenden, F., Hall, G., & Hutchinson, P. (1996). Small firm growth, access to capital markets and financial structure: Review of issues and an empirical investigation. *Small business economics*, *8*(1), 59-67.

De Bettignies, J. E. (2008). Financing the entrepreneurial venture. *Management Science*, *54*(1), 151-166.

Domenichelli, O. (2008). The pecking order theory in the context of small and medium-sized enterprises: a note. *Piccola Impresa/Small Business*, (2).

Fadahunsi, A. (2012). The growth of small businesses: Towards a research agenda. *American Journal of Economics and Business Administration*, *4*(1), 105-115.

Fluck, Z., Holtz-Eakin, D., & Rosen, H. (1998). Where does the money come from? The financing of small entrepreneurial enterprises.

Ghana Statistical Service. (2015). *Integrated Business Establishment Report; Summary Report. Accra*

Gregory, B. T., Rutherford, M. W., Oswald, S., & Gardiner, L. (2005). An empirical investigation of the growth cycle theory of small firm financing. *Journal of Small Business Management*, *43*(4), 382-392.

Gudov, A. (2013). Combining formal and informal financial sources: Russian early entrepreneurs' and established firms' structure of external financing. *Journal of Chinese Entrepreneurship*, *5*(1), 39-60.

Hamilton, R. T., & Fox, M. A. (1998). The financing preferences of small firm owners. *International Journal of Entrepreneurial Behavior & Research*, *4*(3), 239-248.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, *3*(4), 305-360.

Mac an Bhaird, C., & Lucey, B. (2011). An empirical investigation of the financial growth lifecycle. *Journal of Small Business and Enterprise Development*, *18*(4), 715-731.

Mateev, M., & Ivanov, K. (2011). How SME uniqueness affects capital structure: Evidence from Central and Eastern Europe panel data. *Quarterly Journal of Finance & Accounting*, 115-143.

Michaelas, N., Chittenden, F., & Poutziouris, P. (1999). Financial policy and capital structure choice in UK SMEs: Empirical evidence from company panel data. *Small business economics*, *12*(2), 113-130.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of financial economics*, *13*(2), 187-221.

O. E. C. D. (2000). Small & Medium-sized Enterprises. Local Strength, Global Reach. *OECDpolicy brief, June*.

Pettit, R. R., & Singer, R. F. (1985). Small business finance: a research agenda. *Financial management*, 47-60.

Ross, S. A., Westerfield, R., Jordan, B. D., & Firer, C. (2000). *Fundamentals of corporate finance*. Boston, MA: Irwin/McGraw-Hill.

Sanders, M., & Lewis, P. Thornhill., (2009). Research Methods for Business Students. *Edinbrough: Pearson Education*.

Scholtens, B. (1999). Analytical issues in external financing alternatives for SBEs. *Small Business Economics*, *12*(2), 137-148.

Sogorb-Mira, F. (2005). How SME uniqueness affects capital structure: Evidence from a 1994–1998 Spanish data panel. *Small business economics*, *25*(5), 447-457.

Tucker, J., & Lean, J. (2003). Small firm finance and public policy. *Journal of Small Business and Enterprise Development*, *10*(1), 50-61.

Walker, D. A. (1989). Financing the small firm. *Small Business Economics*, *1*(4), 285-296.

Zhou, H., & de Wit, G. (2009). Determinants and dimensions of firm growth

Zoppa, A., & McMahon, R. G. (2002). Pecking order theory and the financial structure of manufacturing SMEs from Australia's business longitudinal survey. *Small Enterprise Research*, *10*(2), 23-41.

APPENDIX: QUESTIONNAIRE

Dear Sir/ Madam
I am ………., a final-year …………. student at the University of Ghana, Legon. I am currently working on my research entitled: SMEs' External Financing choice and its impact on growth. Kindly give me some time to complete this questionnaire for me. The data collected would be strictly confidential and solely used for academic purposes. You are kindly requested to give your candid answers to the questions below:

Instructions: Please check the appropriate box or write in the space provided

SECTION A- FIRM DEMOGRAPHICS

1. What is the core activity of your firm?
[ ] Manufacturing   [ ] Human Health & Social Work
[ ] Transport and Storage   [ ] Water Supply, Sewage & Waste Management
[ ] Building and Construction   [ ] Electricity & Gas
[ ] Financial and Insurance   [ ] Mining & Quarrying
[ ] Wholesale or Retail Trade   [ ] Toiletries & Cosmetics
[ ] Arts, Entertainment & Recreation   [ ] Pharmaceuticals & Herbal Medicine
[ ] Accommodation   [ ] Stationery & Packaging
[ ] Agriculture   [ ] Real Estate
 Other; please specify…………...............….

2. How many employees are currently employed in your firm (Both full time and part time)?
1-5 [ ]   6-29 [ ]   30-99 [ ]   100+ [ ]

3. How many years have you been in business?
Below 1 year [ ]   1-3 years [ ]   4-6 years [ ]   7 years + [ ]

4. What is the legal status of your organization?
[ ] Sole Proprietorship   [ ] Public Limited Company
[ ] Partnership   [ ] Non-Governmental Organization
[ ] Private Limited Company   [ ] Privately Owned Establishment

5. What is the stage of development of your business?
[ ] Start-up (the business is starting commercialization)
[ ] Fast growth (the business growing at a rate much faster than the economy)
[ ] Slow growth (Sales are slowly increasing)
[ ] Maturity (Sales have stopped growing)
[ ] Decline (Sales have started to decrease)

6. Does your firm prepare financial statements periodically?
[ ] Yes   [ ] No (Go to question 8)

7. Are these financial statements audited?   [ ] Yes   [ ] No

48

SECTION B - FIRM'S OWNERSHIP AND MANAGEMENT

8. Who are the owners of your firm? **(Select all that apply)**

[ ] One owner only   [ ] Business Angels
[ ] Entrepreneurs   [ ] Public Shareholders
[ ] Family   [ ] Private Shareholders
[ ] Venture Capital   [ ] Other enterprise or business associates
Other; please specify…………..................….

9. Who owns the largest stake in your organization? **(Select only one except there is equal holding then Select all that apply)**

[ ] One owner only   [ ] Business Angels
[ ] Entrepreneurs   [ ] Public Shareholders
[ ] Family   [ ] Private Shareholders
[ ] Venture Capitalist   [ ] Other Enterprise or Business Associates
Other; please specify…………..................….

10. What is the percentage of the largest stake of ownership in your organization?
    …………………………………………………………………………………….

11. How did the owner(s) with the largest stake (aside venture capitalist and shareholders) take possession of the business?

[ ] Started from scratch   [ ] Inherited the business
[ ] Acquired from origin owners   Other; please specify…………..................….

12. How many managers does your business have? ……………………………….

13. The management team is made up of   [ ] Males   [ ] Females

14. Do any of the managers have an ownership stake in the business?

[ ] Yes   [ ] No (Go to question 17)

15. If yes, what are their managerial positions? **(Select all that apply)**

[ ] CEO   [ ] Executive Director
[ ] Senior Manager   [ ] Managing Director
[ ] General Manager   Other; please specify…………..................….

16. How long has the top manager been in his/her managerial position? ....

17. Did the top manager have any managerial experience prior to joining the firm?
[ ] Yes   [ ] No (Go to question 19)

18. If yes, for how many years did he/she manage the other business(es)? ....
19. What is the highest educational qualification of the top manager? ....

49

SECTION C: FIRM'S EXTERNAL FINANCING

20. Which source(s) of external financing has your firm used before? (**Select all that apply**)

[   ] Accrued expenses   [   ] Financing schemes
[   ] Trade Credit   [   ] Debt securities issued
[   ] Bank overdraft   [   ] Venture Capital
[   ] Bank loans   [   ] Business Angels
[   ] Microcredit   [   ] Leasing or hire purchase
[   ] Equity securities issued   [   ] No external finance
[   ] Family and friends   [   ] Grant
Other; please specify…………...................……

21. What is your firm's preferred choice of external financing? (**Select only one)**

[   ] Accrued expenses   [   ] Financing schemes
[   ] Trade Credit   [   ] Debt securities issued
[   ] Bank overdraft   [   ] Venture Capital
[   ] Bank loans   [   ] Business Angels
[   ] Microcredit   [   ] Leasing or hire purchase
[   ] Equity securities issued   [   ] No external finance
[   ] Family and friends   [   ] Grant
Other; please specify…………...................……

22. Your firm has this preference because... (**Select all that apply**)
[   ] it is the only source you know of
[   ] it is easy to access
[   ] the owners do not want to relinquish ownership or control
[   ] it is the cheapest source of finance
Other; please specify…………...................……

23. How often does your firm get access to its preferred choice of external finance?
[   ] Always
[   ] Sometimes
[   ] Never

24. Your firm had to change its preferred choice because... (**Select all that apply**)
[   ] that particular choice wasn't available
[   ] your firm didn't meet the criteria
[   ] the process was too cumbersome
[   ] the term of the contract didn't favour your firm
[   ] your firm lacked securable assets
[   ] your firm lacked financial performance track record
[   ] the cost was high
[   ] the owners did not want to relinquish control or ownership
Other please specify…………...................……

25. Which of the following is/are limiting factor {s) to your firm's access to external financing? (**Select all that apply**)
[ ] There are no obstacles
[ ] Insufficient collateral or guarantee
[ ] Interest rates or prices are too high
[ ] Reduced control or ownership over the firm
[ ] Financing is not available at all
[ ] Harsh and unfavourable contract terms
[ ] Little knowledge on external financing alternatives
[ ] Unwillingness to give out vital information about the firm

26. What were the external funds obtained by your firm invested in? (**Select all that apply**)
[ ] New project
[ ] Working capital
[ ] Plant, property and equipment
[ ] Research and development or intellectual property
[ ] Promotion of products and services
[ ] Staff training
[ ] Buying another business
Other; please specify……………..................……

27. Has your firm ever invested any external funds obtained in a project different from its intended use?
[ ] Yes
[ ] No (Go to question 31)

28. Did your firm communicate the change in the use of the external funds to the providers of the funds?
[ ] Yes
[ ] No

29. Which of the following type of finance is the most important to your firm? (**Select only one**)

[ ] Accrued expenses   [ ] Financing schemes
[ ] Trade credit   [ ] Debt securities issued
[ ] Bank overdraft   [ ] Venture Capital
[ ] Bank loans   [ ] Business Angels
[ ] Microcredit   [ ] Leasing or hire purchase
[ ] Equity securities issued   [ ] No external finance
[ ] Family and friends   [ ] Grant
Other; please specify……………..................……

30. How many years has your firm been in a relationship with the providers of your most important source of external finance?..

51

SECTION D: FIRM'S GROWTH AND GROWTH PROSPECTS

31. During the past 12 months has your firm...

	Yes	No
Introduced a new good or service or significantly improved its product or service?	[ ]	[ ]
Introduced a new production process or significantly increased its production level?	[ ]	[ ]
Opened a new location or significantly improved its current location?	[ ]	[ ]

32. During the next 3 years, does your firm intend to...

	Yes	No
Introduce a new good or service or significantly improved its product or service?	[ ]	[ ]
Introduce a new production process or significantly increased its production level?	[ ]	[ ]
Open a new location or significantly improved its current location?	[ ]	[ ]

33. On average, how have the following indicators of income generation changed in your firm?

	Increased	Remained Unchanged	Decreased
Sales/Revenue	[ ]	[ ]	[ ]
Net Income	[ ]	[ ]	[ ]
Non-Current Asset	[ ]	[ ]	[ ]

34. How will you categorize your firm's growth prospects over the next three years?
[ ] Stay the same
[ ] Grow slowly (below 20% per year in revenue)
[ ] Grow moderately (above 20% and below 50% per year in revenue)
[ ] Grow substantially (over 50% per year in revenue)

Thank you for participating in this survey.