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IMPACT OF CAPITAL STRUCTURE ON PROFITABILITY OF SMES IN GHANA

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CANDIDATE'S DECLARATION

I, the undersigned do hereby declare that this Research is the result of my own original research and that no part of it has been presented for another Degree in any University. However, all sources of borrowed materials have been duly acknowledged.

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SUPERVISOR'S DECLARATION

I declare that the preparation and the presentation of this Research followed the guidelines on supervision of Research laid down by the University of Ghana.

Sign .....

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Date 13/12/22

DEDICATION

This research is dedicated to my Family for their unwavering love and unconditional support through this journey of MBA acquisition even in the darkest moments of doubt and uncertainty of the future.

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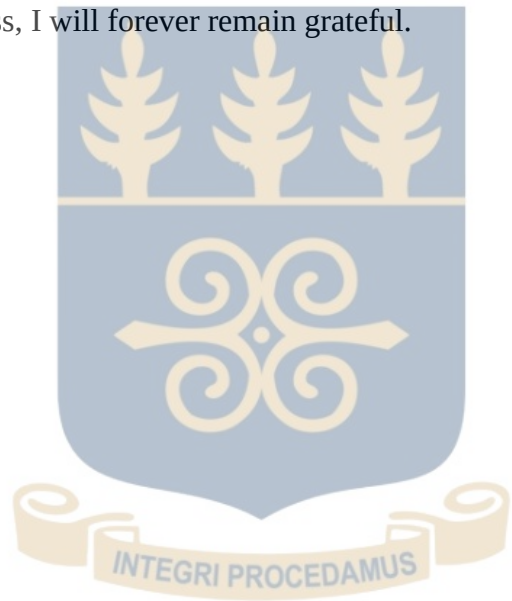

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ABSTRACT

The study evaluated the influence of capital structure over a ten (10) year period (between 2010 - 2019) in order to ascertain its effect on profitability for some selected subsets of SMEs in Ghana. Specifically, the research examined the effect the debt/equity ratio has on an SMEs profitability, the impact asset tangibility has on the productivity of these SMEs, the bearing of corporate tax on the productivity of the SMEs, and the consequence of the size of a business on the productivity of SMEs in Ghana. The methodology adopted for conducting this study was quantitative. Secondary data was used for the research. A sample of seven (7) SMEs in Ghana were sampled for the research. The multiple regression method was employed to ascertain the effects of the identified explanatory variables on the dependent variable. The results of the study revealed that the debt/equity ratio, asset tangibility, corporate tax, and business size were statistically important in predicting the profitability of the sampled SMEs in Ghana over the study period. The age of the SME (AGE) was the only insignificant predictor of profitability. The study recommends that all SMEs in Ghana should improve their overall information content to improve their capital structure decisions. Future research should consider the effects of risk management on the capital structure of SMEs in Ghana.

CHAPTER ONE

INTRODUCTION

1.1 Background of study

Several factors underlie the importance of promoting the growth of small and medium businesses (SMEs), including the reality that they make up the backbone of the financial system, are a major source of job creation, and contribute to GDP growth (GDP) (Martinez, Scherger & Guercio, 2019). The research on capital structure looks to appreciate the methods firms use to fund actual investment with a blend of securities and funding sources. A substantial percentage of research on the structure of capital has focused mainly on the debt-to-equity ratios observable on the credit side of companies' statements of financial position (Myers, 2001). Market factors, financial choices made by businesses, and credit rationing all have an impact on capital structure. In contemporary years, research on the financial structure of small and medium businesses (SMEs) has gained interest among scholars (Kumar, Sureka & Colombage, 2019). The structure of capital in a business is described as the ratio: its debt to its capital, as represented in end-of-year financial statements of the companies (Hirdinis, 2019).

The capital structure of a company is primarily involved with how the company funds its general operations and advancement by using various sources of funding. To put it another way, a firm's capital structure is the outcome of a collection of circumstances that include entrepreneur financing decisions, credit rationing by fund providers, and market circumstances. These are influenced by the phenomenon of unequal knowledge. Access to external funding, particularly for SMEs, has long been a subject of much interest in the financial world (Martinez et al., 2019).

Finding the ideal financing structure is crucial for small and medium-sized firms, or SMEs. A strong capital structure supports the national economy and helps SMEs survive in a cutthroat market. The capital structure proposal describes how firms intend to finance their endeavours to meet their primary

goal of maximizing profits. The right capital structure is essential for raising productivity and enhancing business performance (Hirdinis, 2019).

Small and medium-sized businesses (SMEs) perform a critical role in the economy. Small and medium-sized businesses (SMEs) are mainly the reason for a significant share of economic activity and serve as one of the very significant growth generators in any economy (Rao, Kumar & Madhavan, 2019). As said factually above, they contribute significantly to the national development of a country as a whole and serve as the backbone of the economy of Ghana and most well-developed European economies. Hence, it is considered a necessity to study the nature of the capital structures of these SMEs. Even though SMEs are the most generic form of company in the majority of industrialised nations, they have typically received less attention in financial studies relative to large, publicly traded corporations. (Di Pietro, Palacín, Sánchez & Roldán, 2018). Additionally, the extant literature shows that not so many studies have been conducted on how credit risk plays a role in the development of SMEs. It is worth mentioning that the influence the capital structure of SMEs has on their performance, which in turn has an impact on taxation and profitability, has not been exhaustively examined (Rao et al., 2019). Roa et al. (2019) also emphasised that, because large businesses have easier access to financial resources than small enterprises, SMEs' financing decisions are primarily different from those of large firms. This is due to information openness and strong market credibility. Financial access is one of the most significant hurdles to SMEs' development and growth. Many studies have reported that small businesses have bigger barriers to external funding than large businesses, and that these barriers are mostly due to knowledge gap between borrowers and lenders. As a result, it is critical to investigate the financial choices of SMEs in Ghana, particularly their capital structure, in the face of financial restrictions (Martinez et al., 2019).

Di Pietro et al. (2018), in their research, argued that the analysis of the elements of the capital structure of small and medium-sized firms is one of the numerous identified fields of research in corporate finance. According to this line of study, a variety of factors relating to the firm's qualities, the features of the

business division, and the institutional properties of the geographical region in which the company conducts business appear to impact financing decisions. The researchers emphasised that the mainstream of empirical lessons has fixated on the significance of firm features on business structure of capital and that there exists a wide-ranging agreement pertaining to firm factors that demonstrate a substantial affiliation with the degree of the firm's debt; for example, size of SME, assembly of assets, profitability, development, and age of the business all have an impact on the success of the firm. The outcomes are clearly depicted for SMEs in empirical findings. According to Martinez et al. (2019), SMEs are particularly important because of the roles they play in socio-economic development of countries. For instance, SMEs positively affect the growth of GDP and reinforce the social influence produced through job creation. In effect, SMEs play a crucial role in raising the educational level of the people and, ultimately, the quality of human resources, the latter being a focal aim of socio-economic strategies. Due to the essence of SMEs in the socio-economic development of the country, it has become important that the serious issues that confront these firms be recognised and examined.

According to capital structure theory, a business' policy of finance in defining the structure of capital (mix of debt and equity) strives to amplify the business' worth (value of the business). Managers should pick a structure of capital that they feel is likely to have a profound impact on the firm's value, since it would benefit the firm's stockholders the most. One disadvantage is that if the firm is going through a rough patch and operating profit is not enough to pay the cost of financing, the stockholders are compelled to make up the difference. In the event that these ways of financing are not adequate, the firm becomes insolvent (Hirdinis, 2019). According to a 2012 annual report on EU SMEs, the 20 million European SMEs contribute significantly to the European economy, supplying 86.8 million jobs. Despite the importance of SMEs in the economy, there are a lot of asymmetries in information between small businesses and their lenders, which means that SMEs face a lot of risks. The SMEs are highly susceptible to risk, and this makes it difficult for them to get external funding. According to the report, European SMEs, particularly in Eastern Europe, employ very little direct external borrowing from the financial

sector. The relatively high hurdles SMEs face in accessing external funding limit their growth and development, which tends to increase their risk of failure. Efficient financial decision-making, such as structure of capital decisions, benefits SMEs and allows them to make better use of their limited resources, resulting in sustainable growth and development. This eventually leads to the overall economic growth of the country (Li, Niskanen & Niskanen, 2019).

Recent research findings try to explain the structure of capital decisions by European SMEs. These research works also try to explain the issues and inadequate knowledge in SME financing. For example, it is well reported that SMEs require a different financing structure than bigger companies in order to avoid agency issues. Existing research has gone on to illustrate how financial institutions might use various lending technologies to address information irregularities when supplying loans to small businesses. Likewise, it has been reported in the literature about the mechanism by which the various financing methods tend to support SMEs. Research findings further prove how SMEs' prospects are dependent on the development of financial institutions (Cathcart, Dufour, Rossi & Varotto, 2018). The problem of optimal structure of capital and the financial steadiness of assets is one of the main problems of business presence in market economies. Choosing the optimal structure for capital is a crucial managerial choice. When deciding on an organization's capital structure, numerous criteria must be considered, including the company's cost of capital, ownership structure, and business sector, among others. Because the owner's risk is larger than the lender's, equity charges are often higher than foreign capital costs for the firm. The business owner invests funds in a firm for a set length of time, without a definite guarantee of any return on the investment; the owner carries all of the business risks and may lose his money in the event of insolvency. The creditor delivers the loan for a specific time and buys the already agreed-upon interest. The loan repayment is generally protected by the debtor's assets, respectively by the third-party guarantee (Belas, Gavurova & Toth, 2018). Some businesses also use trade credit to help them develop, especially in the early years of their existence. However, businesses may not be able to obtain the quantity of trade credit they want. Supplier competitiveness, negotiating

strength, product market power and supplier-customer relationships have an impact on trade credit supply (Cathcart et al, 2018). The Global Financial Crisis (GFC) highlighted a lot of issues about how financial and macroeconomic volatility might damage a company's structure of capital. How exactly did structures of capital change after the start of the Great Recession in 2008? Did structures of capital alter just in nations that went through a banking crisis, or did they shift across the board, depending on institutional, financial, and macroeconomic traits? Were all businesses affected in the same way? Or did the size of the company and its market access play a role? An emphasis appears to be on the need to distinguish between publicly traded and non-traded companies, as the former is expected to have improved accessibility to markets for capital funding than the latter. Crucially, having a publicly traded company supplies wider access to information, which may help reduce the decrease of bank loans in the course of a crunch. Non-listed businesses' and, certain small/medium enterprises (SMEs) accessibility to external finance, on the other hand, is more likely to rely on precise banking connections than alternative businesses; thus, due to their inherent opaqueness, these firms could be additionally cruelly impacted by negative bank loan supply shocks (Demirgüç-Kunt, Martinez Peria & Tressel, 2020). Added credit availability, quantity, and origination analyses, according to Roman (2020), further support our earlier conclusions and indication that Enforcement Actions (EAs) increase credit availability to hefty borrowers, but lessening supply of credit to small business borrowers, indicating that big companies rather than small business debtors could benefit from EAs.

Given that small firms are credit constrained and dependent on banks, their negative effects could have a large negative impact on the home economies that these borrowers work. Due to data constraints, we are unable to properly analyse these actual economic effects. To flourish today, businesses must be prepared to compete in ever sophisticated and changing business contexts. This is a problem that businesses must deal with in order to carry out their daily operations. As a result, to compete with other businesses, corporations must be able to manage their financial resources properly. Companies are financed by two types of capital: their own funds and foreign funds. Companies can supply capital in

the form of retained earnings, as well as foreign funding gained through debt. The corporate capital structure, as previously shown, may be utilized as a metric for making sound financial decisions. In general, structure of capital is a comparison of debt and capital used to fund a company. The ideal structure of capital is achieved by effectively combining capital resources so that the firm may carry out its operational activities while generating maximum profit. According to the literature, a good structure of capital is the one that causes values to rise as a result of the structure of capital. In fact, excessive bankruptcy is financial phenomenon whereby a business venture is inability to pay its obligations, resulting in insolvency (Dewi & Fachrurrozie, 2021).

From the foregoing, we can see how historical literature supports the necessity and influence of structure of capital, as well as how credit risks affect acquiring and executing the intended structure. The influence it has on the firm's profitability and performance, in particular, makes it necessary and worthwhile for research to be carried out so that the situation may be fully understood. The study therefore looks to address the geographical, knowledge, and application gaps concerning the relationship between capital structure availability and implementation, and SMEs' profitability and performance in emerging countries, particularly Ghana.

1.2 Statement of the Problem

It has become necessary that a study be done to critically examine SMEs' financial choices, particularly their structure of capital, especially in light of the numerous financial limitations they are confronted with. The factors influencing capital structure decisions are shown to have a variety of correlations in the literature. As the type of debt changes, so does the correlation; nevertheless, for some parameters, the association stays consistent across all models. It is obvious that both the strong and delicate character of structure of capital drivers of SMEs exist in emerging nations, including India (Rao et al, 2019). Compelling evidence suggests that non-listed companies, especially SMEs, deleveraged and reduced

their debt maturities to a greater extent in nations with less developed banking and bond markets, bankruptcy laws, investor protection laws, investor transparency standards and bank entry limitations. Publicly listed corporations, which are often larger than smaller enterprises and presumably profit from "extra tire" of easier accessibility to markets of capital financing, show less indication of a substantial decrease in leverage and balance due maturity (Demirgüç-Kunt et al., 2020).

Profitability and liquidity have a strong negative association with capital structure, with liquidity mitigated by firm size, both of which have been shown to have an impact on capital structure (Dewi & Fachrurrozie, 2021). Cathcart et al. (2018) investigated the function of financial leverage and the noted impact on possibility of SMEs and large businesses defaulting. The findings of the research showed that leverage and its modules, for instance trade finance, short-term, and long-term obligations, were found to have a favourable effect on risks of default. This effect is greater for SMEs, notably in relation to short-term financing. The researchers then concluded that the SMEs, to a greater extent, are more likely to default than larger corporations due to the threat of rollover associated with short-term borrowing as well as restricted accessibility to alternative sources of debt funding. Short-term debt accounts for a sizable percentage of total debt held by Ghanaian SMEs. This amounts to a little more than 36% of total funding. Ghanaian SMEs may usually get short-term financing to help them fund their operations. This is due to the fact that short-term debt has a lesser interest rate than long-term debt. Another probable explanation is that, due to the underdeveloped structure of Ghana's long-term financing market, small SMEs often have little choice but to rely heavily on short-term borrowing. Due to their inability to generate the requisite security, SMEs with smaller fixed asset percentages in their total assets are more likely to have problems obtaining long-term financing capital. As a result, in Ghana, the capacity to offer collateral is still a decisive factor for SMEs seeking long-term loans (Abor & Biekpe, 2009). In his research, Abor (2007) saw that agricultural SMEs had the greatest structure of capital and composition of asset or value of collateral, whereas wholesale and retail trade SMEs have the lowest debt ratio and asset structure. Agriculture, pharmaceutical, and medical businesses are more reliant on long- and short-

term debt than the industrial sector, according to the findings. The information and communication industries, as well as wholesale and retail commerce, are more inclined than the manufacturing industry to employ short-term loans. The findings also reveal that the construction and mining industries are seemingly unlikely to rely on short-term debt, whereas the hotel and hospitality industries rely on long-term debt rather than short-term debt. The findings clearly show that the industry impact is crucial in understanding the capital structure of SMEs and that capital structure varies between sectors. Except for board size, all corporate governance factors show a positive association. The connection between structure of ownership and structure of capital is shown to be favourable as well as large. The indicators suggested by control variables are those that are consistent with earlier capital structure research. In Ghana, proprietorship and corporate governance are proven to have an impact on the funding mix of SMEs (Ahmed, 2019).

Access to credit is a key difficulty for most firms in Ghana, particularly SMEs, which struggle to fulfil financial institution requirements. Access to capital has also been a big difficulty for SMEs in developing nations, particularly Ghana, and as a result, economic management practices and profitability might suffer as a result. Regardless, working capital management is a vital decision and one of the most significant economic management choices since it has a substantial effect on a company's financial achievement. As a result, it is critical for SMEs to examine how they handle their capital structure in order to alleviate the strain on their cash flows. Firms in their early phases, it is believed, do not require as much loan capital because this will put a significant strain on their cash flow, perhaps resulting in liquidation issues. (Musah, Gakpetor & Pomaa, 2018). According to research conducted by ELbekpashy and ELgiziry (2017), management ownership is adversely connected with borrowing on the near-term, but ownership interest in a block is favourably associated with leverage, both overall and in the medium term. Furthermore, this industry has a strong connection to the structure of capital. According to research, the pecking order hypothesis is the best justification for SMEs' conduct in Egypt. There are several causes and conditions that affect distinct sorts of organizations, according to existing research.

Large organizations, both listed and unlisted, and then Small/Medium Scale Enterprises, is the subject of this study. It does not, however, go into depth on the variables that led to the use of current capital structures and how those factors continue to affect these capital structures. Capital by equity as a part of a business's structure of capital is significant to the worth of a corporation in an emerging country like Ghana, according to the study. Long-term debt was also found to be a key predictor of a firm's worth. Corresponding to the suppositions of this study, corporate financial decision-makers should take advantage of long-term debt instead of equity to finance their activities, since it has a greater influence on a firm's worth (Antwi, Atta Mills & Zhao, 2012). There is arguably a lack of depth in terms of knowledge about the numerous industries, including commerce and retail, where SMEs operate within Ghana. There is limited research on how financing affects the profitability of SMEs in Ghana's trading and retail sectors, and what factors influence debt financing availability. Credit risk, financial and even fundamental education, or the riskiness of trading as a commercial activity?

1.3 The Aim of the Research

The primary goal of this research is to understand the influence of Ghanaian SMEs' capital structures, notably in Greater Accra, as well as other principal factors such as the asset tangibility and ages on their profits. The study looks at how easy it is for SMEs to access debt financing, as well as how leveraged SMEs' profitability is affected when compared to unleveraged SMEs.

1.4 Research Objectives

The objectives of the study are

i. To investigate how the debt-to-equity ratio affects the success of SMEs in Ghana.
ii. To analyse the impact of asset tangibility on the profitability of SMEs in Ghana.
iii. Analyse how corporate tax affects SMEs' profitability in Ghana.
iv. To analyse the effect of firm size on the profitability of SMEs in Ghana.
v. To evaluate the effect of age on the profitability of SMEs in Ghana.

1.5 Research Questions

i. What impact does the debt-to-equity ratio have on the success of SMEs in Ghana?
ii. What impact does asset tangibility have on the financial success of SMEs in Ghana?
iii. What impact does corporation tax have on the profitability of Ghanaian SMEs?
iv. What is the effect of firm size on the profitability of SMEs in Ghana?
v. What is the effect of age on the profitability of SMEs in Ghana?

1.6 Importance of the Research

The capital structure of a company, whether large or small (SME), financial or non-financial, manufacturing or retail, is one of the most critical management decisions that has a direct influence on profitability. The mix of various sorts of funding sources that a company keeps as a result of its funding decisions is indicated as its capital structure (Li, Niskanen & Niskanen, 2019). That is a combination of loan and equity to fund the business' activities. This research work aims at shedding light on the context of SMEs and contributes to existing literature which lacks the available information in this context in terms of academia. For the sake of the various industries to which the various SMEs belong, the current study looks to generate enough evidence to form the basis for or a guide on how upcoming SMEs can

structure their financing to efficiently and effectively generate maximum profits in their operations. In all these areas, the current study becomes important as its findings look to fill the gap in the literature in this regard.

1.7 Limitations of Research

This research focuses on finding the capital structures adopted by SMEs located in Accra, the difficulty in obtaining these structures considering factors such as credit risk and the impact of these capital structures have on their performance and profitability when they are obtained. There is a limited amount of time to carry out the research, and several follow-ups are required before acquiring access to the financial accounts of these SMEs. Due to a lack of trust among company owners, there is a general hesitation and fear of disclosing information about their enterprises. Difficulty in obtaining any essential follow-up questions required to fully understand the financial statement judgments and being allowed an interview affected the study. Additionally, the majority of Ghanaian SME owners are unwilling to give business information to researchers, and this also affected the findings of the research. The failure to achieve a fair distribution of surveys might be a stumbling barrier in the country's desire for primary data from these SME enterprises. In terms of secondary data, it is difficult to collect historical SME financial statements for study.

1.8 Organization of the Study

The research is divided into five sections. The opening chapter covers the introduction, the study's background, the problem statement, the purpose of the study, the aims of the research, the research questions, the significance of the research and the organization of the study. The following chapter

delves into the definitions of essential terminology, concepts and theories that are related to the current study. Specifically, the second chapter discusses the extant literature within the context of the current study's aims. The method of the study is covered in Chapter Three. The chapter explains in detail how the study was carried out. The chapter presents a discussion on issues about the study's methodology, including the adopted instruments, the research population and sample strategies used. The fourth chapter delves into the specifics of the data collection presentations, analyses, and conversations. The summary, conclusion, and suggestions that are principally centred on the research's discoveries are presented in Chapter Five.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

An analysis of earlier similar studies is provided in this chapter. It carries out this by concentrating on theoretical reflections of the issue at hand, evaluating the major issues influencing the capital structure of SMEs, and conducting an empirical analysis of the literature on the effects of structure of capital on the profitability of SMEs in Ghana.

2.2 Overview of SMEs

Small and medium-sized businesses (SMEs) are defined differently by international organizations, national legislation, and industries. As a result, SMEs do not have a single definition (Berisha & Shiroka Pula, 2015). Yet, the term "SMEs" refers to the categorization of businesses using standards that do not fit the bill for major corporations. To characterize SMEs, a variety of factors often divided into qualitative and quantitative categories are employed. The terms "small firms" and "micro small and medium enterprises" are sometimes used interchangeably with "SMEs."

A number of issues, including the number of employees, the value of fixed assets, and the annual rate of turnover, are used to evaluate the definitions of SME today. Nevertheless, the number of employees is the widely accepted criterion across all countries; yet this classification has varying viewpoints on the actual number of employees to be used (Ayagari et al., 2007). An international definition states that a small business employs no more than fifty people, has annual sales of no more than $3 million, and has total assets of no more than $15 million. A medium-sized business

employs no more than three hundred people, has annual sales of no more than $15 million, and has no more than fifty employees (World Bank, 2013). The value of all fixed assets and the number of employees is used as criteria by the Ghana Statistical Service (GSS) and National Board for Small Scale Industries (NBSSI) to describe SMEs in Ghana.

Most company owners in Ghana create SMEs because they have a feeling of realistic hopefulness and are motivated by the conviction that starting a small business is an effective means of escaping poverty and achieving self-sufficiency. Entrepreneurship is a high-risk endeavour that calls for both market entry into untapped areas and the creation of novel goods and services. To put it another way, the cognitive adaptability of an entrepreneur reveals how adaptable, dynamic, and autonomous they are, as well as how much attention they pay to processing and perceiving deviations in their environment and how many different decision-making frameworks they produce (Hisrich, Peters & Shepherd, 2013).

Size is the most widely utilized sign when using quantitative criteria. The quantity of personnel, yearly turnover (sales), and assets are used to measure this. According to the number of workers and assets, Table 1 illustrates the size criteria for Ghana. Based on the NBSSI's classification of SMEs, this study only looks at companies with six or more workers and fewer than one hundred.

Table 1: Ghanaian classification of SMEs established according to size

	Quantity of Workers	(Assets) Non-Current
Micro	1 to 5	USD 10,000
Small	6 to 29	USD 100,000
Medium	30 to 99	USD 1,000,000

SMEs are categorized substantively depending on the traits of the companies. Entrepreneurs occupy a significant ownership and managerial role in SMEs, and they heavily rely on internal resources and loans. These companies operate with larger levels of volatility, potential operational flexibility, and information disparities between insiders as well as outsiders (Pettit & Singer, 1985; Berger & Udell, 1998).

Most businesses worldwide are SMEs, which make up almost ninety-five percent (95%) of all businesses (O.E.C.D, 2000). These also have the most businesses and organisations, which are important for economic growth. According to the phase 1 report of Ghana's 2014 Integrated Business Establishment Survey, 99.7% of all firms in the nation are classified as small and medium enterprises (Ghana Statistical Service, 2015). According to studies, these small and medium-sized enterprises (SMEs) are held by Ghanaians for the most part, and they often take the form of sole proprietorships, partnerships or limited liability corporations. They have a primary concentration in the Greater Accra Region and exert an overwhelming amount of influence in the service industries, most notably the wholesale and retail trade arenas.

2.2.1 Features of Small and Medium Enterprises

Small and Medium Enterprises often pose distinctive characteristics that might influence finance and investment decisions. In contrast to enormous companies, where the concept of administration and proprietorship separation is required, small and medium-sized enterprises often have management teams that are controlled by a single person who is the principal investor. Due to this, the personality of the founder is essential to the decision-making process in SMEs. SMEs also have distinct, firm-specific characteristics that may influence their choices regarding finance and investments. Finally, SMEs use strategies to lessen the information issues they encounter in order to increase their ability to acquire outside funding. The three major groups of traits are covered in depth in the following subsections.

2.2.2 Personality Traits of the Owner

The fact that SMEs often have a single owner-manager demonstrates that the managers usually make large expenditures in both people and financial resources (Pettit & Singer, 1985). This substantial investment is bolstered by other investors, all of whom view commitment of management as an assurance that the manager will always look out for their best interests. As a result of this, the bulk of rich owner-managers' financial portfolios are too reliant on the businesses that they themselves control (Pettit & Singer, 1985). The owner's preferences for risk-return and diversity in managers really dictate the selection of investment and financing choices. These preferences are influenced by the education level of the owner, the amount of experience of the management and the gender of the manager. The personality qualities of owners and managers

usually influence the owners' and managers' capacities to get the necessary funds (Fluck, et al, 1998).

2.3 Theoretical Literature

The contemporary theoretical principles underlying the sources of the capital structure of SMEs can be illustrated in terms of four key philosophies. These include Market Timing theory, the Pecking Order theory, the Modigliani-Miller theory, and the Trade-off theory.

2.3.1 The Market Timing Theory

According to Graham and Harveys (2011) Market Timing philosophy of capital structure, companies time their equity issues by releasing new stock when the stock price is thought to be overvalued and repurchasing their own shares when there is undervaluation. As a result, changes in stock prices influence the capital structure of the company. Managers acknowledge trying to time the equity market in a study by Chen (2014), and the bulk of those who had thought about issuing common stock state that "the amount by which the stock is undervalued or overvalued" was a key factor.

2.3.2 The Pecking Order Theory

Asymmetric information serves as the cornerstone of the funding strategy used by the Pecking Order Hypothesis, which was created by Myers and Majluf in 1984. This theory states that enterprises empirically demonstrate a clear preference for employing internal finance (as retained earnings or extra liquid assets) over external finance, rather than starting from an ideal capital

structure (Cebenoyan & Strahan, 2014). Firms may or may not obtain external funding to finance investment possibilities when internal resources are insufficient, and if they do, they will select the external financing sources carefully to avoid the additional costs associated with asymmetric knowledge (Borgia & Yan, 2013).

2.3.3 The Modigliani-Miller Theory

The capital structure irrelevance hypothesis by Modigliani and Miller (1958) is the basis of modern-day business finance theory. There was no widely acknowledged capital structure theory prior to that. Beginning with the presumption that the business has a specific set of anticipated cash flows, Modigliani and Miller (1958) proceed. The only thing the company does when deciding how to finance its assets is allocate the cash flows between the investors. Since investors and businesses are expected to have even access to financial markets, leverage can be created at home. Following their article, there was both clarity and controversy (Akintoye, 2008). The irrelevant nature of capital structures can theoretically be demonstrated in a variety of situations. As a result, both the theory of Trade-off and the theory of Pecking Order drew inspiration from this theory in their pilot stages of development.

2.3.4 The Trade-Off Theory

According to Haugen and Senbet's (1998) Trade-off theory, an organization's optimal structure of capital could be established by stabilising the effects of corporation and individual taxes, bankruptcy costs, and agency expenses (Abor, 2009). The Modigliani-Miller theorem controversy gave rise to the initial iteration of the Trade-off theory. This created a gain for debt in that it served to shield earnings from taxes when the corporate income tax was added to the initial irrelevance.

2.4 Factors Affecting SME Capital Structure

Numerous empirical studies have found firm-level traits that influence SMEs, as well as the capital structure of enterprises in general (Amidu, 2007; Tornyeva, 2013). Age, size, asset tangibility, corporate tax, ownership structure, and profitability are a few of these characteristics.

2.4.1 Age of the firm

In capital structure models, reputation is typically measured using age. Age is positively correlated with debt for the reason that as a business runs for a longer period of time, it establishes itself as an ongoing business, and can consequently take on more debt (Abor, 2008).

2.4.2 Size of the firm

A firm's size has been considered a major determinant of its capital structure. Larger companies can tolerate higher debt ratios because they are more diversified and therefore have lower earnings variance. Smaller businesses, on the other hand, might realize it is more expensive to address information gaps with lenders, resulting in lower debt ratios (Cebenoyan & Strahan, 2014). Agency costs related to debt are decreased because lenders to larger companies are more likely to be paid back for the loans given out than lenders to smaller companies. As a result, larger businesses tend to have more debt. Another justification for why smaller businesses have lower debt ratios is that the relative cost of bankruptcy is inversely correlated with business size (Akintoye, 2008).

2.4.3 Asset Tangibility

A company's asset structure has an enormous impact on how much financial leverage it has. The amount of tangible assets in the company should translate into a higher liquidation value for the company (Armen, Gayne, & Hassan, 2014). In line with Cebenoyan et al. (2014), businesses that invest significantly in tangible assets also have higher financial leverage since they can borrow money at cheaper rates of interest if their assets are used as collateral for the loans. It is believed that if there are lasting assets available to use as collateral, debt may be incurred easily (Abor, 2008). Adverse selection and moral hazard costs are decreased by using the firm's assets as collateral. This leads to firms with assets that have a higher liquidation value having relatively easier access to financing at lower costs, which ultimately causes their capital structure to have a higher debt or outside financing.

2.4.4 Profitability

The Pecking Order theory can be used to describe how a firm's capital structure and profitability are associated. According to this notion, businesses favour internal finance sources over external ones. Because of the irregular exchange of information between company insiders and less informed market participants, preferences tend to run from the least sensitive (and riskiest) to the most sensitive (and dangerous) (Armen, Gayne, & Hassan, 2014). This means that successful businesses with access to retained revenues can rely on them rather than on other sources (debt). According to Fosu (2013), retentions are the main sources of funding. Boateng (2014) and Armen et al. (2014) concur that businesses with high profits would, on average, maintain relatively lower debt ratios because they have the internal resources to do so.

2.4.5 Other Elements/factors

It is thought that certain heterodox factors that are frequently excluded from conventional financial models also have an impact on how firms' capital structures are streamlined. They include managerial ownership, taxation, firm risk, and corporate growth. For the objectives of this study, the researcher is particularly interested in five key capital structure factors and how they generally affect SMEs' profitability in Ghana. They consist of the debt-to-equity ratio, the tangibleness of the assets, the corporate tax, the firm's size, and its age.

2.5 Empirical Literature Review

There have been empirical investigations into how a firm's capital structure affects its profitability. Numerous studies have discovered key firm-level traits that influence enterprises' capital structures (Abor, 2009). Additionally, a variety of factors, including the capital structure chosen and the term structure of the debt, continue to influence organizational success (Amidu, 2007). Debt maturity also affects the company's investment decision-making (Armen, Gayne, & Hassan, 2014).

The performance sensitivity of selected Nigerian companies' capital structures was the subject of a thesis by Akintoye (2008). The degree of operating leverage (DOL) and degree of capital structure (DFL) were employed as measures of leverage in the thesis. Earnings before Interest and Taxes (EBIT), Earnings per Share (EPS), and Dividend per Share (DPS) were utilized as performance indicators. The debt-to-equity ratio, asset tangibility and corporate tax all exhibited positive correlations with financial performance when the regression equation was estimated using

the ordinary least squares method, while company growth, risk, firm size and age consistently correlated with the debt ratio.

Borgia and Newman, (2012) investigated the impact of managerial factors on small- and medium-sized enterprises' capital structures as well as the link between capital structure and corporate performance of firms prior to and during the 2007 financial crisis. From 2005 to 2008, 49 construction firms in total were sampled from Malaysia. These forty-nine businesses were split up into three categories: small, medium, and large or enormous size. Long-term debt to equity (LDE), debt to capital (DC), debt to asset (DA), debt to equity market value (DEMV), debt to common equity (DCE), and other variables were used as independent variables in their research (Corporate performance). Return on capital (ROC), Return on Equity (ROE), Return on Asset (ROA), Earnings Per Share (EPS), Operating Margin (OM), and Net Margin were the dependent variables (NM). The impact of capital structure on the performance of the company was then investigated using the Pooling Regression Model. The findings indicated that capital structure and corporate performance are positively correlated. Although the Return on capital (ROC) and the Debt Equity to Market Value (DEMV) were the most correlated, indicating the strongest relationship among all the variables examined. The Return on capital (ROC) and the Earnings per share (EPS) had a significant positive relationship with the capital structure for the large construction companies.

Fosu (2013) investigated the financial structures, product market competitiveness, and firm performances of South African enterprises from 1997 to 2005. The thesis' primary objective was to investigate the link between South African listed companies' financial performance and their level of debt. The study indicated that short-term debt (STD) and total debt (TD) have a negative

and significant effect on financial performance as measured by return on asset (ROA), but there is no significant association between long-term debt (LTD) and the measurement of financial performance. The researcher employed three accounting-based performance measures: (ROA) return on assets, (ROE) return on equity, and gross profit margin. Furthermore, he claimed that debt (TD, STD, and LTD) have minimal influence on the firms' financial performance as measured by their gross margins of profit and return on equity. The results also revealed that controlled variable, business size, had no discernible influence on the firm's operation. In this study, the least squares regression model was used to assess company performance.

Mwangi, Makau and Kosimbei (2014) examined the relationship between operating performance of Malaysian enterprises and the impact of capital structure on company performance. Their research focused on the consumer and industrial sectors, which together make up the two main pillars of the Malaysian economy. With a total of 358 observations for the years 2005 to 2010, 58 companies were sampled using two primary general pooled regression models. The results of the study confirmed that the structure of capital indicators and return on equity (ROE) have substantial relationships, whereas short-term debt (STD) and total debt (TD) had strong relationships with return on asset (ROA). The results of the study reveal that there is a substantial correlation between overall debt, long-term debt, and short-term debt and the ROE (Abor 2005; Marina & Ismail, 2014). The findings of Kyereboah-Coleman (2007) are likewise consistent with the long-term debt and Return on Assets (ROA) strong positive association. According to the information above, higher debt levels in a company's capital structure are related to higher performance levels, and vice versa.

Tornyeva (2013), examined the drivers of the structure of capital of in insurance businesses in Ghana. In order to analyse the structure of capital of insurance businesses in Ghana using financial statements from twelve insurance companies covering the years 2002–2007; the study used the panel regression model. The findings demonstrate the importance of both the static trade-off and pecking order theories in understanding the capital structure of Ghanaian insurance businesses. In relation to leverage, firm size, profitability, tangibility, growth, and corporate tax were statistically significant. The fact that firm size and leverage have a positive relationship suggests that large businesses typically use more debt in their capital structure. This is a result of their increased diversification and decreased risk of bankruptcy. Profitable insurance businesses prefer internal sources of funding over external sources, as evidenced by the negative link between profitability and leverage, and hence have less debt in their capital structures. The fact that there is a correlation between growth, asset tangibleness, and leverage, shows that expanding insurance companies rely increasingly on debt to finance their expansion.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter introduces the methodology of the research. The term methodology refers to the theory of how research should be undertaken. To answer the research questions and realize the study objectives, this chapter examines in-depth the research methodology, research method, philosophical presumptions, data collection techniques, ethical issues, and data analysis procedure. As a result, this chapter outlines the research strategy and design, source of data, sampling techniques, procedures and sample size, the data collection instrument/techniques, ethical considerations, among others.

The capital structure and its impact on the financial performance of SMEs in Ghana are the main topics of this study. Once more, it is conceivable that the right information is gathered for research, as this enables one to comprehend the purpose of the study and draw appropriate inferences from it.

The financial statements from seven SMEs over a ten-year period were used as data source for the study. The sampled SMEs were considered trustworthy enough to make their financial statements available for analysis.

3.2 Design of the Study

In a cross-sectional descriptive study, the data was gathered and examined using quantitative methods. Since cross-sectional studies are descriptive rather than causal or relational in character,

and are observational in nature, they cannot be utilized to determine the cause of a condition (Saunders et al., 2013).

The goal of the study is to comprehend how the capital structures of SMEs in Ghana, particularly those in the Greater Accra region, affect the earnings of the SMEs. Therefore, the fundamental presumptions that support the investigation are presented in this section, along with the particular research strategy and approach used. One of the study's key goals is to establish correlations between debt ratios and the performance of SMEs in Accra.

3.3 Population and Sampling

Only businesses with six or more but fewer than one hundred employees were analysed in this study because that is how the NBSSI's updated definition of SMEs captured it. A straightforward random sampling was determined to be the most effective method to use given the study's objective, which needed a statistical assessment of the population's qualities. The best sample frame had to be chosen by the researcher because simple random sampling was used. After confirming that the sample frame was appropriate for the investigation and analysis required per the research objectives and requirements, the researcher had a list of 7 SMEs (with a period of 10 years' worth of financial statements for analysis).

3.4 Study Area

The research focused mainly on SME companies in Ghana, particularly those in the Greater Accra region.

3.5 Sources of Data

The sources of data refer to where raw facts related to the topic are gathered or collected. Secondary sources were used because of the goals, objectives, questions and priority of the research.

3.6 Secondary Sources

Secondary sources are those sources of data that can be found in other related research works which are inculcated into this research. The most common sources are articles from journals, books, and online databases. Desk reviews may be used as part of the data collection process. For this research, secondary data was used, mainly financial statements of SMEs that were trustworthy enough to make their financial information available for analysis.

3.7 Techniques for Sampling

Probability sampling is the sampling strategy used. Thus, simple random sampling was utilized due to the social constraint of a lack of trust from business owners to willingly give out information in the form of financial statements, questionnaires, or interviews.

3.8 Quality Assurance

As part of the process to guarantee quality control, the respondents were chosen via random sampling. This was deployed to ensure that all respondents had the same opportunity to be selected. The data for the study were cleaned and checked for internal validity.

3.9 Ethical Consideration

Various ethical issues were considered. The study did not intend to collect personal data from employees or owners of these selected SME companies. However, considering circumstances surrounding ethical issues, the following were addressed: the study was explained to all participants; participation was by informed written or oral consent; participants might opt out of the research at any time and without reason. (i.e., request the non-use of their financial statements provided). Ethical approval from the University of Ghana Business School's Finance department was obtained prior to the commencement of the data collection process.

3.10 Variable Definition and Model Specification

The study's goal is to evaluate how capital structure affects SMEs' profitability in Ghana. Profitability can be measured in many different ways, and different studies on how capital structure affects profitability have used various metrics, including (ROE) which is the Return on Equity, the (ROI) the Return on Investment, and lastly the (ROA) being Return on Assets. To quantify profitability of the sampled SMEs, the Return on Asset (ROA) was used in this study as the primary dependent variable. Because it is a crucial accounting-based and widely used indicator of profitability or financial performance, the Return on Asset (ROA) was also chosen to assess the profitability of the selected SMEs. In addition, regardless of the financing source, ROA can be seen as a gauge of management's effectiveness in using all the assets under its control.

3.10.1 Justification of the Dependent and Independent Variables

As utilized in the study, return on assets (ROA) of the sampled SMEs is used as the dependent variable. The sampled SMEs' profitability is gauged by their Return on Assets (ROA). It is the dependent, explained, or endogenous variable. It is calculated by dividing the profit after tax by the total value of the assets.

In the literature studied for this study, the return on assets (ROA) is frequently employed as a gauge of profitability or financial performance. The return on assets (ROA) metric measures how well a company manages its assets to produce revenue. The difficulty though with the return on assets (ROA) is that it removes from the total assets off-balance sheet items (for instance, assets obtained through a lease), hence underestimating the value of assets. However, it has always been an exceptionally good measure of financial performance or profitability. Eventually, this can lead to a positive bias where the return on assets (ROA) is overstated in the evaluation of financial performance.

3.10.2 The Explanatory (Independent) Variables

The considerations that influence the performance of SMEs in Ghana, can be classified as firm-specific or inner factors and exterior factors. The internal/firm-specific factors are those factors mainly caused by the management decisions and policy objectives of the SMEs. These internal factors include the debt/equity (D/E) ratio, asset tangibility (TANG), corporate tax (TAX), size of the SME (SIZE) and age of the SME (AGE). On the other hand, there might be other external

factors that can affect the operations of SMEs in terms of their capital structure decisions. These factors include rate of interest (INT), rate of inflation (INF), and the gross domestic product (GDP).

Debt / Equity (D/E) Ratio: This is computed as the ratio of total debt to total equity. It is an independent variable**.**

Asset Tangibility (TANG): This is computed as the ratio of tangible fixed assets to total assets. It is an independent variable.

Corporate Tax (TAX).: This is determined as the ratio of total tax paid to the net operating income of the sampled SMEs, as used in the study. It is an independent variable

Firm Size (SIZE): This is estimated as the natural logarithm of the total assets of the sampled SMEs, as used in the study. It is an independent variable.

Age of Firm (AGE): This is established as the natural logarithm of the number of years in operation of the sampled SMEs, as used in the study. It is an explanatory variable.

3.10.3 The Model Specification

The study employs a multiple regression analysis in a panel series setting. This is because the data set consists of observations of multiple variables over a specific time period of ten years (Babbie, 2015). The panel series data enabled the researcher to have more information on the study variables. The general form of the panel series data is as specified below in equation one (1).

$$\boldsymbol{Y_{it} = \beta_0 + \beta' X_{it} + \varepsilon_{it} \ldots (1)}$$

The subscript ***t*** in equation (1) denotes the time-series dimension, representing the number of years. The left-hand variable, ***Y*** is the dependent variable. It is the variable that the researcher is attempting to predict. It symbolizes the profitability of the sampled SMEs as used in the study in time ***i*t.** ***X*** is a vector of the explanatory variables for the sampled SMEs. $\boldsymbol{\beta_0}$**,** is the constant, and $\boldsymbol{\beta'}$ are the coefficients of independent variables, representing the slope or gradient of the linear regression. $\boldsymbol{\varepsilon_{it}}$ is the idiosyncratic term. The above equation can be further expressed as:

$$\boldsymbol{ROA_{it} = \beta_0 + \beta_1 D/E_{it} + \beta_2 TANG_{it} + \beta_3 TAX_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \varepsilon_{it}} \ldots (\mathbf{2})$$

From equation (2), the independent variables include the debt-equity (D/E) ratio, the asset tangibility (TANG), the corporate tax (TAX), the size of the SME (SIZE), and the number of years the SME has been in operation (AGE). In equation (2), the return on assets (ROA), which is a measure of profitability, becomes the dependent variable.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

The outcomes and explanations of the regression model mentioned in chapter three are presented in this chapter. Regression analysis, descriptive statistics of the variables, and correlational analysis are the three elements that make up the chapter. The evaluation of the results and the dialogue surrounding the hypotheses relating to the impact of structures of capital on the profitability of small and medium-sized enterprises (SMEs) in Ghana are going to be the primary focuses of this research. The return on assets (ROA) is used as the reliant variable to determine profitability. The closing section, which uses regression analysis, presents the estimates, and discusses the findings regarding the impact of structure of capital on the profitability of SMEs over a ten (10) year study period. This chapter also covers the main conclusions, their ramifications, and the interpretation of the evidence. The goals of the research, which may be summarized as follows, served as the foundation for each level's set of analyses.

- To investigate how the debt-to-equity ratio affects the success of SMEs in Ghana.
- To investigate how asset tangibility affects the success of SMEs in Ghana.
- To analyse how corporate tax affects SMEs' profitability in Ghana.
- To examine how business size affects SMEs' profitability in Ghana.
- To assess how age affects the success of SMEs in Ghana.

4.2 Descriptive Statistics of Variables

Table 2: Descriptive Statistics of the Endogenous and Exogenous Variables

	Observations	Minimum	Maximum	Mean	Standard Deviation
ROA	70	-2.01	0.90	0.0699	0.31964
D/E	70	0.02	1.17	0.6664	0.19251
TANG	70	-2.01	1.00	0.4241	0.39907
TAX	70	0.00	0.92	0.2917	0.24906
SIZE	70	0.04	19.99	14.3533	3.83718
AGE	70	3.18	4.53	3.7614	0.41180
Number of observations	70				

Source: Annual Reports of SMEs, 2010 to 2019

The descriptive statistics for the dependent variable and the other explanatory variables that were included in the regression model are summarized in Table 4.2. It displays the typical indicators of the computed variables taken from the sampled SMEs' financial statements and used in the study. In total, seventy data entry points were used for each variable (7 selected SMEs x 10 years), where the mean values of the variables represent the average observations of the variables for all the sampled SMEs for each year, and the standard deviation represents the degree of dispersion of the observations for each variable.

The return on assets (ROA), a measure of profitability that also highlights the ability of the management of the sampled SMEs to generate adequate revenue from the total assets of the SMEs, has a mean score of 0.069 with minimum and highest values of -2.1 and 0.90, respectively. The

difference between the measured minimum and highest values was explained by the standard deviation of 0.32. This indicates that the tested SMEs experienced an average profit on total assets of about 7% during a ten (10) year period, from 2010 to 2019, with the lowest returns of -2.1% and the highest record of 0.90. The ten (10) year study period reveals that the performance of the SMEs varied widely, as indicated by the standard deviation of 32%. The contribution of net income per Ghana Cedi (local currency) invested in total assets by the management of the sampled SMEs in Ghana is measured by return on assets (ROA), a proxy for profitability.

The debt/equity ratio is a gauge of the sampled SMEs' leverage. Its minimum and maximum values were 0.02 and 1.17, respectively, with a mean value of 0.66. The difference between the previously mentioned minimum and maximum values was explained by the standard deviation of 0.19. The sampled SMEs' average score of 0.66 indicates that debt rather than equity financing accounts for approximately 66% of total funding.

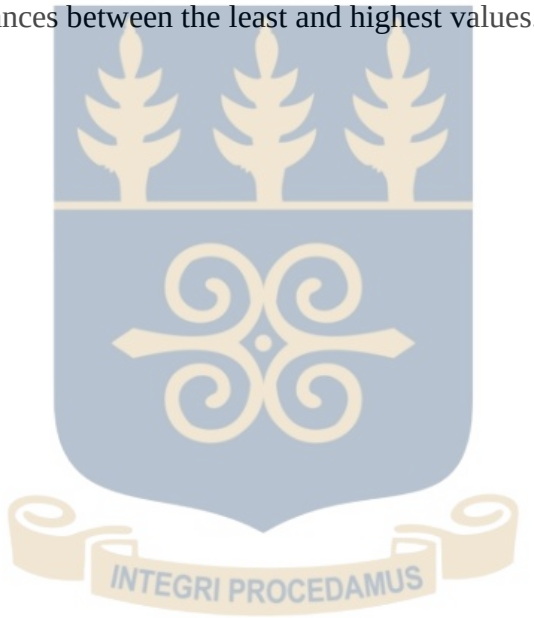
The tangibility of a firm plays a substantial role in discovering its structure of capital (Abor, 2005). The amount to which a business's assets are tangible should result in a higher liquidation value for the firm. (Borgia & Yan, 2013). The sampled SMEs' mean score for tangibility was 0.42, with the lowest and highest values of -2.01 and 1.00, respectively. The standard deviation of 0.39 accounted for the variance between the minimum and maximum values stated earlier. The mean score of 0.42 shows that more than 40% of the sampled SMEs' total assets are in tangible fixed assets.

The minimum and maximum values for corporate tax were 0.00 and 0.92, respectively, with a mean score of 0.29. The variations between the minimum and maximum values were accounted for by the standard deviation of 0.25. The median figure of 0.29 indicates that, on average, for the

period under consideration, the government of Ghana received corporate tax payments equal to nearly 29% of the net operating revenues of the sampled SMEs.

The sampled SMEs' average firm size was 14.35, with a range of 3.82, a minimum and maximum of 0.04 and 19.99, respectively.

The average age of the sampled SMEs was 3.76, with a standard deviation of 0.41, and minimum and maximum values of 3.18 and 4.53, respectively. This suggests that, when it comes to the number of years that the sampled SMEs in Ghana had been in business, the standard deviation of 0.41 accounted for the variances between the least and highest values.



4.3 Correlational Analysis

Table 3: Correlation Matrix

		ROA	D/E	TANG	TAX	SIZE	AGE
ROA	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	70					
D/E	Pearson Correlation	-0.337**	1				
	Sig. (2-tailed)	0.004					
	N	70	70				
TANG	Pearson Correlation	0.448**	0.447**	1			
	Sig. (2-tailed)	0.000	0.000				
	N	70	70	70			
TAX	Pearson Correlation	0.306*	-0.602**	-0.542**	1		
	Sig. (2-tailed)	0.010	0.000	0.000			
	N	70	70	70	70		
SIZE	Pearson Correlation	-0.092	0.560**	0.125	-0.246*	1	
	Sig. (2-tailed)	0.447	0.000	0.303	0.040		
	N	70	70	70	70	70	
AGE	Pearson Correlation	0.203	0.000	0.181	-0.187	0.357**	1
	Sig. (2-tailed)	0.092	0.997	0.134	0.121	0.002	
	N	70	70	70	70	70	70

. Correlation is significant at the 0.01 level (2-tailed).

. Correlation is significant at the 0.05 level (2-tailed).

Source: Annual Reports of SMEs, 2010 to 2019

In essence, the analysis from the correlational study summarizes the direction and strength of the association amid the research variables. However, it does not demonstrate the interactions between the factors. While the degree of the link is established by an absolute value, the sign indicates the

direction of the relationship. The coefficient of correlation indicates the degree and direction of the link between endogenic and exogenic variables.

The correlation matrix between the various study variables is displayed in Table 4.2. It displays the bivariate correlational analysis of the study's variables. The table also shows the Pearson correlation, which is employed to test whether the variables used to accomplish the specified goals are collinear. Therefore, the direction of the relationship can be determined by the sign of the coefficient. The magnitude is also indicated by the coefficient's absolute value.

Out of the explanatory variables, the debt/equity (D/E) ratio had a significant negative relationship with profitability, ROA (r=-0.34, p=0.004) at a 1% level of significance, according to the output in the correlation matrix above in Table 4.2. The implication is that the debt/equity ratios of the sampled SMEs in Ghana are significant in predicting their profitability. Regarding the relationship between tangibility and profitability, the study found that the management of the sampled SMEs was quite efficient in managing their tangible fixed assets for the period under discussion. The profitability of the sampled SMEs in Ghana is positively and significantly correlated with tangibility, ROA (r=0.448, p=0.000), at the 1% level of significance. The implication is that tangible factors are crucial in figuring out how profitable the sampled SMEs in Ghana will be. The profitability of the sampled SMEs is positively and significantly correlated with corporate tax, ROA (r=0.306, p=0.010) at the 5% level of significance. The implication is that for the time period under consideration; the corporate tax rate was positively correlated with the profitability of particular SMEs. The profitability of the sampled SMEs used in the study is thus significantly influenced by the corporate tax rate.

4.4 Regression Analysis

In equations (1) and (2), the empirical regression model is displayed (2). In essence, the model is a statistical tool used to assess the strength of the association between a dependent variable and a number of other dynamic variables (also known as independent variables).

Table 4: Model Summary of Regression Statistics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.881	0.776	0.759	0.15702

Predictors: (Constant), AGE, D/E, TANG, TAX, SIZE

Source: Annual Reports of SMEs, 2010 to 2019

The regression results between the dependent variable (profitability) and the other explanatory variables are shown in the table above (Table 4.3). The R-squared value gauges how effectively the regression model accounts for the endogenous variable's real changes (Babbie, 2015). The regression's result, as seen in the table above, is 0.776 (77.6%). How many of the explanatory variables in the equation above adequately describe the dependent variable is determined by the R-square (profitability). According to the statistics above, the debt/equity ratio, asset tangibility, corporate tax, company size, and age of the firm are the elements of capital structure that can account for around 77.6% of the variation in profitability among the tested SMEs in Ghana. The corrected R-squared value in the table above shows that the factors in the model explained 75.9% of the total variability of the profitability of the SMEs. The Analysis of Variance (ANOVA) table is in Table 4.4.

Table 5: Analysis of Variance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.472	5	1.094	44.389	0.000
	Residual	1.578	64	0.025		
	Total	7.050	69			

Dependent Variable: ROA (Profitability)

Predictors: (Constant), AGE, D/E, TANG, TAX, SIZE

The model that the researcher employed for the analysis had a high predictive power of 0.000 (i.e., p=0.000001), as seen on the ANOVA table (Table 4.4). The F-test results for the regression model's significance level are displayed in the table. The aforementioned ANOVA table is statistically significant at a 99% level of confidence (1% level of significance) (p = 0.000–0.01). This demonstrates that we have greater than 99% confidence that our model is statistically sound because it uses the return on assets (ROA) as its dependent variable. Therefore, it may be concluded that the model's independent variables were successful in explaining the fluctuations in the dependent variable. As a result, when the explanatory factors are combined, they effectively explain the dependent variable. To quantify the impact of capital structure factors on the profitability of certain SMEs, this approach can therefore be applied to studies of a similar nature.

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4.5 Regression Variable Outputs and Coefficients

Table 4.5 Regression Variable Outputs and Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
Variables	B	Std. Error	Beta	T	Sig.
(Constant)	-0.423	0.246		-1.722	0.090
D/E	-0.909	0.165	-0.548	-5.509	0.023
TANG	0.767	0.059	0.958	12.970	0.034
TAX	0.716	0.106	0.558	6.734	0.000
SIZE	0.018	0.007	0.211	2.513	0.015
AGE	0.045	0.055	0.058	.814	0.419

Dependent Variable: ROA

Source: Annual Reports of SMEs, 2010 to 2019

The outputs and coefficients of the regression variable are shown in Table 4.5. According to the table, four (4) of the five (5) independent factors were statistically significant (at a 5% level of significance, or at a 95% confidence interval level) in predicting the dependent variable (ROA) of the sampled SMEs in Ghana. The debt/equity ratio (= -0.909; p=0.0230, 05), asset tangibility (= 0.767; p=0.0340, 05), corporate tax (= 0.716; p=0.0000, 05), and business size (= 0.018; p=0.0150, 05) are the four explanatory factors. On the other hand, the age of the company had no statistically significant impact on forecasting the profitability of the sampled, chosen SMEs in Ghana (= 0.045; p=0.419>0.05).

4.6 The Predictive Power of the Regression Model

Econometrically, a regression model is strong and has a high predictive power when the overall significance level is between 0 and 0.05, indicating that significant findings will be obtained when applied in subsequent studies. The model employed for the analysis, as shown in Table 4.5, had a high predictive power of 0.000 (i.e., p=0.0000, 05). As a result, when the explanatory factors are combined, they effectively explain the dependent variable. The impact of capital structure on the profitability of SMEs can thus be estimated by applying this model to studies of a similar nature.

4.7 Discussion of Findings

According to the study's findings, variations in the debt/equity ratio, asset tangibility, corporation tax, company size, and age could explain 75.9% of the variability in the profitability of the studied SMEs in Ghana. The research discovered a noteworthy correlation amid the study variables, with a correlation coefficient of 88.1%. According to the ANOVA results, the model had a significance level of 0.000 (p=0.0000, 05), as revealed in the study. This degree of significance suggests that the data is excellent for generating inferences about the population's parameter, as the value of significance (p-value) is less than 5%. The study also found that the debt/equity ratio, asset tangibility, corporation tax, size of firms and ages of firms greatly affected and impacted the profitability of the sampled SMEs as used in Ghana, over the ten-year (10) period of 2010 to 2019.

The outcomes of the study are compatible with similar studies done by Tornyeva (2013) in Ghana but contradict the works of Akintoye (2008) in Nigeria. The conclusions of the aforementioned research indicate a noteworthy inverse association amongst the profitability of the sampled SMEs in Ghana and their debt/equity ratio. Leverage and profitability have a strong negative association

in research of a similar nature by Tornyeva (2013). The negative link between the debt/equity ratios (leverage) and profitability (profitability) in both studies was an indication that profitable SMEs in Ghana, prefer internal sources of financing to external sources of financing, hence less debt in their capital structure. On the other side, Akintoye (2008) found connections between profitability and the debt/equity ratio that were favourable. In Akintoye's (2008) study, the debt-to-equity ratio and profitability were found to have a positive correlation. The regression equation was estimated using the ordinary least squares method.

The results of our study agree once more with studies conducted by Mwangi, Makau and Kosimbei (2014), and Borgia and Newman (2012), although they disagree with those of Fosu (2013), who conducted research in South Africa. Mwangi, Makau and Kosimbei (2014) examined the relationship between operating performance of Malaysian enterprises and the impact of structure of capital on company performance. The outcome of the research confirmed that the structure of capital indicators and return on equity (ROE) had substantial relationships, whereas short-term debt (STD) and total debt (TD) had strong relationships with return on asset (ROA). Their findings again demonstrated that corporate tax and business size had strong positive associations with profitability. The positive relationship between firm size and profitability was an indication that, large companies tend to employ more debt in their capital structure. This is a result of their increased diversification and decreased risk of bankruptcy. The fact that there is a correlation between growth, asset tangibleness, and leverage suggests that growing sampled SMEs are more dependent on debt to finance their expansion.

The aforementioned study's findings once more demonstrate a strong correlation between the tangibility and profitability of the sampled SMEs in Ghana. This result is similar with the findings of Akintoye (2008) who conducted a study on the sensitivity of profitability to the funding of chosen companies listed on the Nigerian Stock Exchange (NSE). The results of the study indicated strong favourable connections between corporate tax tangibility and profitability of SMEs in Ghana. The findings generally suggest the usefulness of corporation tax in securing long-term loans, particularly among large enterprises as indicated by the direct association with profitability. The conclusion is again consistent with comparable research done by Maina and Ishmail (2018).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The research comes to a conclusion with this very final chapter. This study's results, findings and suggestions are all summed up and presented in this chapter. This chapter also discusses and exposes the limits of the study, as well as makes recommendations for subsequent investigations, with the goal of assisting future researchers in contributing meaningfully to both the current body of scholarly work and the practices of industry.

5.2 Summary

The study's objective was to look at how the capital structure of a sample of Ghanaian SMEs affected their profitability over a ten-year period (2011 to 2020). The study specifically examined the impact of asset tangibility, debt/equity ratio, corporate tax, and firm size on the profitability of SMEs in Ghana. It also examined the impact of asset tangibility on the profitability of SMEs in Ghana. A quantitative methodological research strategy was utilized to accomplish the study. The researcher employed secondary data for the study. A panel of seven (7) SMEs in Ghana were sampled for the study. To ascertain how the explanatory variables affected the dependent variable, the multiple regression method was employed.

The study discovered that four (4) out of the five (5) explanatory variables were statistically significant in determining the profitability of SMEs in Ghana. These key components of the capital

structure of SMEs in Ghana are the debt/equity ratio, asset tangibility, corporate tax, firm size, and age of the firm. Their overall impact on the profitability of the sampled SMEs in Ghana was also ascertained. At the 5% level of significance, the debt/equity ratio had a detrimental and statistically significant impact on the profitability (ROA) of the sampled SMEs. On the other hand, there were significant positive associations between the profitability of the SMEs and asset tangibility, corporate tax, and firm size.

5.3 Conclusions

The results of the aforementioned research work have provided some information about how capital structure affects the profitability of particular SMEs in Ghana. The issue of capital structure is, consequently, a crucial strategic finance decision that SMEs in Ghana must undertake.

According to the study's findings, the researcher draws the following conclusions:

- The profitability of SMEs in Ghana was significantly impacted negatively by the debt/equity ratio.
- Asset tangibility had a significant positive impact on the productivity of SMEs in Ghana.
- Corporate tax had major positive effect on the profitability of SMEs in Ghana.
- Firm size has a considerable positive impact on the productivity of SMEs in Ghana.
- The age of the SMEs was however inconsequential in affecting the profitability of SMEs over the study period of ten (10) years.

5.4 Recommendations

Built on the discoveries of the research, the researcher humbly desires to make the following recommendations.

- The pecking order and market timing theories appear to dominate the capital structure determinants of SMEs in Ghana. It is therefore vital for policy to be directed at improving the information content environment of SMEs in Ghana.

- The sampled SMEs were quite profitable over the study period of 2010 to 2019. Such performances should be maintained if not improved to ensure their viability and sustainability in the Ghanaian economy.

- Policy makers must place importance on the enablement of equity capital for SMEs in Ghana.

5.5 Recommendations for Upcoming Research

The study was limited to only seven (7), out of the numerous and uncountable SMEs in the country. This limitation was due to the extreme difficulty in accessing data from majority of the SMEs, and the unwillingness of some of them to provide adequate data for the research purpose above. The study could have been extended to include many more SMEs in Ghana, but time constrains, and the unavailability of adequate data limited the effort of the researcher.

Upcoming research ought to attempt to widen their space of the research topic to consist of SMEs in entirely the sixteen (16) regions of Ghana, so as to generate discoveries that are considerably more reliable and generalizable. Future studies ought to look at how risk management affects the capital structure of SMEs in Ghana.

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