ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF ACCOUNTING & FINANCE

EFFECTS OF DEBT FINANCING ON THE FINANCIAL PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN ADDIS ABABA.

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A THESIS SUBMITTED TO ADDIS ABABA UNVERSITY THE SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS SUBMITTED FOR PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE MASTER OF SCIENCE IN ACCOUNTING AND FINANCE.

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June, 2023

Addis Ababa Ethiopia

Declaration

I declare that this research paper entitled the effect of debt financing on the financial performance of small and medium enterprises is my original work conducted by me which has not been submitted by any one partially or in full to any educational institutions to get a degree or diploma. And I also confirm that all material sources are cited and acknowledged.

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This is to certify that this study has conducted by Gulilat Lemi Woldemariam, entitled: "EFFECT OF DEBT FINANCING ON THE FINANCIAL PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES" and submitted for partial fulfillment of the requirements for the Degree Master of Science in Accounting and Finance and complies with the regulations of the college and meets the standards with respect to originality and quality.

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ACRONYMS AND ABBREVIATIONS

SME **Small and Medium Enterprise**

ROA **Return on Asset**

TDTA **Total Debt to Total Asset**

LDTA **Long term Debt Total Asset**

SDTA **Short Term Debt to Total Asset**

TA **Total Asset**

FE **Fixed Effect Model**

ACKNOWLEDGEMENTS

First of all, my sincere gratitude goes to God for his support on my way from the beginning to the end of my study. Secondly I would like to thank my Advisor Dr. Abebaw Gualu for His valuable comments and mentorship to achieve this research paper. I also express my special thanks to my family and friends for their support and appreciation to accomplish this research paper.

ABSTRACT

This study was conducted to examine the effect of debt financing on the financial performance of small and medium enterprises. The study employed explanatory and descriptive research designs in combination and used statistical sampling method to determine the size of the sample and selected sample through convenient sampling method. The study has used return on assets as a dependent variable and independent variables are total debt, long term debt, short term debt, firm size and firm age. Forty six small and medium enterprises selected from Kirkos sub city and five year data collected from SME development office, trade office and revenue office of the sub city. The fixed effect linear regression model was applied to identify the effect of debt financing on the financial performance of SMEs. The result of the study indicates that total debt has positive effect on the financial performance of small and medium enterprises, furthermore the research identified that long term debt has positive effect on the financial performance of small and medium enterprises, in contrast short term debt has negative effect on the financial performance of SMEs. In addition the study also examined that firm size and firm age has a positive effect on the financial performance of SMEs. Finally, the research recommends that SMEs should employ debt financing, specifically long term debts as source of their capital mix, and government and other stakeholders should facilitate access to debt finance sources.

Key words: Small and medium enterprises (SME), return on asset (ROA), Debt financing.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

The business performance provides information about firms' achievement of its objective and it indicates the operation result in terms of financial and nonfinancial measures within a specific period of time (Lebans and Euske, 2006). Financial performance is a process that measures the results of a firm's operations in monetary terms (Erasmus, 2008). Financial performance as a measure of how well a firm uses its available resources in the generation of revenues and provides a guideline that gives a way for future decisions relating to business developments, assets acquisitions and managerial control (Tehrani, 2006).

Financial performance indicates what has been achieved by the firm in monetary terms over a specific period of time and can be used in making comparisons of firms in the same industry (Samson, 2017). The Information obtained from financial results of the firm is useful to predict the future capacity of the enterprise and to analyze its performance against the set specific objectives (Levasseur, 2002).

The major financial measures which are used to measure the performance of the business enterprises including SMEs are Return on equity, Return on assets, profitability growth, and sales growth (Crabtree and Debusk ,2008). In addition to investment and dividend policy, The Choice of Capital structure is one the major and critical decisions made by organizations that determine the source of funds, their amount and application in the operation. And the objective of capital structure decisions is to maximize the value of the firm and wealth of shareholders (Karadeniz, et. al., 2012).

The main objective of Firm managers is to maximize the value of the firm by developing optimal capital structure through determining how much funds should be raised from the internal source from the owners which is equity and how much should be raised from external borrowing. In making decisions on the capital structure of the firm the benefit and costs associated with each source of finance is taken into consideration in order to have optimal financial structure,

otherwise sub-optimal capital structure may lead the firm into financial distress which is unable to meet financial obligations to fund providers (Sheikh and Wang, 2011).

The Financial performance of a firm is influenced by the chosen capital structure of an organization (Samson,2017). Huang and Vuthi (2003) discussed the three main financing sources of a firm to fund selected investment among alternative investment opportunities are retained earnings, new stock (Equity) and loan from lenders. The indicated source of finance shows the firm capital and ownership structure.

The agency theory as developed by Jensen and Meckling (1976) is the turning point of modern corporate finance theory. Since corporate organizations have Managers who are responsible to lead the company and to make decisions and the shareholders of the company. The basis of agency theory is that managers try to satisfy their best interest at the expense of shareholders.

In addition there will be a conflict of interest between equity investors and debt- holders where the risk of default is very high (Jensen and Meckling, 1976). Further Agency theory proposes that as a firm's leverage is augmented, the agency cost which indicates that conflict between equity holders and debt owners augments because shareholders are likely to employ riskier investments to the detriment of debt financiers this implies that a higher the debt level, the higher leverage is negatively related to the performance of a firm (Soumadi and Hayajneh, 2012). Nevertheless, from a counter view, debt can positively affect the firms' performance. In this case, as further debts lead to increased interest expense, the risk of bankruptcy is increased. Therefore, a firm's capital structure choice is crucial for any working ground since a balance must be ensured between generating the highest return to the stakeholders on one hand and also following the implications of the chosen capital structure on the firm's ability to compete sustainably.

The Tradeoff theory by Myers (1984) discusses that the choice of financing structure by the firm affects its performance. Both debt and equity have associated benefits and costs, due to this the best capital structure is the one that mixes both Debt and Equity financial sources in a manner that tradeoff or offset the costs in one financing source by the benefits of the other. For instance using debt has its advantage by providing that shield through the deductible interest expense cost; however if it is not properly managed it may result in financial distress and Bankruptcy.

Stewart Myers and Nicolas Majluf (1984) the pecking order theory discusses how firms try to satisfy their financial needs. As this theory describes, there is a hierarchy or an order of choice of financial sources that firm management should demand its financial resource primarily from internal source which is Retained Earnings, then as a secondary choice the firm should satisfy its financial need from Debaters and finally by issuing new stock as a last resort.

The primary reason to put firms' financial source hierarchically is due to their associated cost of capital. Based on the pecking order theory internal sources are cheapest and convenient source of financing, the using Debt and finally issuing new stock. These theory further explain why the cost of capital to different sources of finance is not the same, information asymmetry between firm managers and the lenders and investors is the primary reason, since managers have more better information about how the company is performing now and what future opportunities and challenges the company may have and face than external fund providers, this increases as a result to offset this information risk Creditors and Investors ask for higher return to their investment. But such problems are eliminated when using internal sources which do not result in any information failure problems. However, the cost of capital for debt financing is lower than that of equity. The main reason for this is the right to claim the company asset in case of bankruptcy gives creditors priority to recover their loan before equity holders.

In addition to this the chosen financing sources used as an indicator to the financial performance of the firm, issuing debt rather than equity indicates that the firm management believes that the company stock is undervalued and has a good perspective about the future performance of the company. Contrarily, when an a business entity issues new stock, it is because its equity stock is expensive.

The usage of debt by SMEs has considerably unfavorable consequences on their financial performance, which is assessed by the liquidation ratio, Return on Asset ROA, Return on Equity ROE, and profit margin. Debt financing has an impact on the financial performance of SMEs. Through refusing to take loans from borrower firms illuminate Borrowing cost (Interest), loan processing time cost (Amantaw ,2021).

The research work entitled to determine the effect of access to Debt finance and the Performance of SMEs done by Lwidiko (2021) indicates that the effect of access to debt on the performance

of SMEs' existed, however its effect is statistically insignificant. The financial performance of SMEs' not only affected because of the level of leverages, but rather than the maturity structure of the Debt. The impact of long-term debt and short-term debt on SMEs' financial performance are completely opposite, (Hayam,2017). It's better to use short term debt to minimize the cost of debt however depending more on short-term debt may limit the SMEs ability to choose and invest in long-term business projects with high return (Titman and Wessels, 1988).

In order to determine whether employing debt financing boosts or hurts the financial performance of small and medium enterprises the level of indebtedness is crucial, because there is non-monotonic association between firms indebtedness and its performance Murino, (2005). The Small and Medium Enterprises (SME) sector in a country has shown to be a critical section, particularly for developing economies such as Ethiopia. In Ethiopia the major economic activities are largely dominated by SME's Woldetsadik et.al (2018). Recent studies have shown a strong correlation between the development of SMEs and the economic growth and development of several countries. In his study Getachew (2020) found that high interest rates, absence of collateral and clear financial information brought a challenge to get debt from financial institutions.

In the previous studies, Woldetsadik (2018) discovered that one of the main issues affecting SMEs' performance is access to capital. In addition to the studies mentioned above, there has also been research on the variables influencing the profitability of small and medium-sized businesses. According to Gebre (2018), the Debt Ratio has a minimally negative impact on profitability. Abebe (2021) found that interest rate, tangibility variables, growth opportunity, profitability, and age are the most significant factors that affect SMEs' decisions about capital structure as measured by leverage in a different recent study on the Determinants of Capital Structure of Small and Medium Enterprises.

According to Asrat (2016), the capital structure decision has a strong correlation with the financial performance of Ethiopian cement share businesses. The majority of research in Ethiopia focuses on the broad elements that influence the performance of small and medium-sized businesses, while the other studies look at the relationship that already exists between capital structure and large-scale firm performance.

Debt financing can have either a positive or negative effect on the performance of Small and Medium Enterprises, according to the studies on debt financing and company performance discussed above. The studies' methodologies, tactics, and goals vary though. There are numerous research studies on the effectiveness of SMEs that concentrate on identifying and discussing the general internal as well as external variables that influence their effectiveness. However, there is also a dearth of research on the connection between loan finance and performance, particularly for SMEs, particularly in Ethiopia.

1.2 Statement of the Problem

Small and Medium enterprises are the main drive for the economic growth of both developed and developing Nations. Among the major sources of financing, Debt financing is mostly used as a source of finance in enhancing a firm's growth. The available researches on debt financing and performance of SMEs such Konjit Debela, 2011, (Gebre,2018), (Abebe,2021), (Woldetsadik,2018), (Getachew,2020), (Murino, 2005), Amantaw (2021), Hayam(2017), Stewart Myers and Nicolas Majluf (1984), Soumadi and Hayajneh, (2012) reveals mixed results, but generally agrees that debt has positive or negative effect on the performance of SMEs.

Debt financing may result in financial difficulties to a firm when the debt is not managed in an effective and efficient way Mushipe2017). The determination of optimal mix of debt and equity financing employed by the firm is the common task to all firms. Having optimal capital structure which is maximum returns realized with the minimum cost of capital requires critical analysis and considerations of firm's management (Abor, 2005)

There are many Research studies done on the effect of Debt financing on the financial performance of SMEs in many developed countries and in very few research works done in some developing nations. Mushipe (2017), Amankwah (2021), Hayam (2013), Lwidiko (2021), Magot (2018), Abor(2005) and Samson (2017). In Ethiopia most research works focuses on identifying the relationship between choice of capital structure and performance of large scale firms such as Manufacturing S.Co by Saied (2019) and Asrat (2016) on cement industry.

As many research works have been conducted on the effects of debt financing on the financial performance mostly in corporate organizations and big manufacturing firms, and there is no

sufficient research is conducted in its focusing on Small and medium enterprises, since Small and medium enterprises are the major source of employment and are the base for the growing economy of developing countries such as Ethiopia, and to establish the effect of debt financing on the financial performance of small and medium enterprises in Ethiopia Thus this study investigated the effect of Debt financing on the financial performance of SMEs in Addis Ababa.

1.3 Objective of the study

The main objective of the study is to establish the effect of debt financing on the financial performance of small and medium enterprises in Ethiopia.

1.3.1 Specific objectives

1. To examine the effect of total debt financing on the financial performance of small and medium enterprises in Ethiopia.

2. To determine whether short term debt has a significant positive effect on the financial performance of small and medium enterprises in Ethiopia.

3. To determine whether long term debt has a significant positive effect on the financial performance of SME in Ethiopia.

In addition the research examines the effect of firm size and firm age on the financial performance of small and medium enterprises.

1.3.2. Research Hypotheses

A prediction that relates an independent variable to a dependent variable is known as a research hypothesis. At least one dependent and one independent variable must be included in the study hypothesis (Kothari, 2004). After conducting theoretical and empirical research, the researcher created the following working hypothesis, which will be tested using an econometric model to determine the impact, correlations, and level of significance of various explanatory variables on the financial performance of SMEs in Ethiopia. In this study, a dependent variable called return on asset (ROA) will be employed as a measure of financial performance.

Many studies findings indicate there is a positive relationship between debt financing and the financial performance of firms. (Getachew, Mekuria, 2020), Samson, 2017, (Weill, 2008), Abor (2009), Adekmule (2012), Musah, 2017), Lwidiko Badi1*Esther Ishengoma, 2021), the researchers also discussed Medium-sized enterprises have more chance of accessing debt financing than small firms. By standing on the study results of previous studies the researcher expects there is a positive and significant relationship between debt financing and the financial performance of small and medium enterprises and accordingly the research hypothesis formulated as follows:

Ha1. Total debt has a significant and positive effect on the financial performance of SMEs.

In his study finding Abore, (2019) indicated that there is a significantly positive relation between the ratio of short term debt to total assets and ROA. Analysis between Short term Debt and return on Asset revealed that there was a significant moderate positive relationship between short term debt and return on Asset (Samson, 2017). The study conducted by Githire and Muturi (2015), findings showed that short term debt has negative and statistically insignificant effect on the financial performance of SMEs. Hence the finding results of previous studies shows mixed results, the researcher expects that short term debt has positive effect on the financial performance of SMEs,

Ha2. Total short-term debt has a significant and positive effect on the financial performance of SMEs.

Long-term debt can be advantageous if a company anticipates strong growth and sufficient profits to allow on-time debt repayment Adam,(2021). Long-term debt allows SMEs to take advantage of a variety of opportunities. It is likely to be an effective mechanism for reigning in managerial discretion (Stulz, 1990). Long term debt has a positive impact on firm value because it reduces the firm's expected tax liabilities (Brennan et al (1985).

Ha3. Total long-term debt has a significant and positive effect on the financial performance of SMEs.

According to Okiro, (2015) there is a positive association between capital structure and firm size. Alghusin (2015) found that large firms had an advantage when rising outside funds from the capital markets, which may be attributed to their capability to securitize the borrowed funds. In

addition in there research Rajan and Zingales (1995) found that capital structure is optimistically associated with size of the firm. Standing from the findings of (Rajan and Zingales, 1995), (Okiro, 2015) and (Alghusin ,2015) the researcher anticipates the effect of firm size on the financial performance of small and medium enterprises is posetive and statistically significant.

Ha4. Firm size has a significant and positive effect on the financial performance of SMEs.

Managerial capabilities, business experience, and knowledge are relatively low in young firms, which may increase the level of uncertainty in their operations and adversely affect their performance (Coad, Segarra, and Teruel 2016)? Furthermore aged businesses typically have an accumulation of experience and managerial skills and knowledge, which enhances their ability to handle uncertain situations for survival and to take opportunity, arises as a result of changing business environments to improve their performance, (Ahinful 2017). Based on the study finding of(Achinful, 2017) , and (Coad, Segarra, and Teruel 2016) the researchers expects that firm age has positive and significant effect on the financial performance of small and medium enterprises.

Ha5. Firm age has a significant and positive effect on the financial performance of SMEs.

1.4 Significance of the study

When the research is completed, the researcher hopes that its findings will be a very valuable contribution in helping to design an economic strategy that is the basic road map that supports SMEs performance and secures their support for the economic growth of the country.

Since the government (ministry of finance, Minister of Industry, Minister of Revenues, Minister of Planning and Development, Ministry of Labour and Skills Development) and many other stakeholders such as Financial Institutions, Investors and non-government organizations whose work in the area of small and Medium Enterprises designs and implement different project and programs to enhance the performance of SMEs, the finding of In order to improve the efficacy and efficiency of SMEs, which will result in strong financial performance, the study will highlight the role of the government in the decision of financial structure.

In addition to this, the major beneficiaries of this research work are the managers of SMEs, who are helped to employ appropriate debt financing practices in order to enhance their financial performance and ensure their business development.

To academicians and other researchers, the result and the limitations of this study will be used as a basis for further studies that will develop new concepts in the area of debt financing and the financial performance of SMEs.

1.5 Scope of the study

This research work focuses on the effect of debt financing on the financial performance of selected small and medium enterprises operating in the manufacturing and service sectors in Addis Ababa city administration and Kirkos sub-city.

The main reasons for selecting Kirkos as a sub-city are that the availability of data is better than in other sub-cities; there are SMEs that operate in manufacturing and also in the service sector; in addition to this, the location is very near and on the same continent as the researcher's address; and previously, the researcher contacted officials and confirmed their collaboration.

The variables to be used in this research are total debt to determine how much debt financing is employed by SMEs to finance their businesses, total short-term debt, and total long-term debt to analyze whether both short- and long-term debt have similar effect on the financial performance of SMEs enterprises. The researcher will utilize ROA (return on assets) on total assets as an indication of financial success, and the other controlling variable are the firm's size as the total asset and age of the firm. This research covers the last four years of data that will be collected from Kirkos's small and medium enterprise development office.

1.6 Limitations of the study

There are many small and medium enterprises throughout the country; however, due to time constraints, financial constraints, and the scarcity of formally documented data, this study has limited toonly 46 small and medium enterprises found in Addis Ababa Kirkos sub city and employed only only five year secondary data collected from Kirkos sub city. furthermore even if there are many factors that have effect on the financial performance of of SMEs, these research considers total debt, long term debt, short term debt, firm size and firm age as independent variables and ROA as independent variables. The data analysis is furthermore, the researcher's capacity to review and find further holes in the issue is limited by a lack of previous research studies on the topic and local literature on loan financing and the financial performance of SMEs.

1.7 Organization of the study

This study contains five chapters, in chapter one background of the study, problem statement, and objective of the study, significance of the study, scope of the study and limitation of the study. In chapter two theoretical and empirical literatures review presented. In the third chapter the research methodology applied in the study presented. The fourth chapter presented discussion of results of the data analysis and in the fifth chapter finding, conclusion and recommendation of the study presented.

CHAPTER TWO:
LITERATURE REVIEW

2.1. Introduction

In this chapter, the study describes further research on the financial performance of SMEs, carried out in different contexts. The main sections covered in this chapter include: theoretical framework, empirical verification and a conceptual framework.

2.2. Definition and Concept of SME

Depending on the nation and the source of the SME statistics, the term "SME" can refer to a wide range of definitions and metrics. Common determining factors include the number of employees, overall net worth, sales, and investment level. However, the most common definitional basis is employment, and there are other ways to specify the maximum and minimum size restrictions for a SME. Despite these variations, numerous authors (Meghana Ayyagari, Thorsten Beck, and Aslh Demirgu,-Kunt, 2003) define a SME as having a cut-off range of 0-250 employees.

It has proven to be incredibly challenging to determine the number of SMEs and evaluate their influence on various nations due to the lack of a standardized or universally applicable definition., despite the fact that most governments make such definitions and categorizations primarily for functional and promotional purposes in order to achieve the desired level of development in the SMEs sectors (Admasu, 2012).

In Ethiopia, the working definition for categorizing private enterprise is based on capital and labor or employment, according to Ethiopia's new Small and Micro Enterprise Development Strategy (published in 2011). Using the labor definition, the researcher divides private businesses into four categories: micro enterprises (1-4), small enterprises (5-19), medium enterprises (20-99), and large enterprises (+100).

However, different definitions of Medium, Small and Micro enterprises exist; this study will use the Ethiopian government's revised definition of MSEs. As a result, MSEs are defined by their employment and assets (FDRE, 2011).

Table.1.1 levels of SMEs Based on Number of Employees and size of capital

Enterprise indicator	Sector	Labor	Capital level
Micro	Manufacturing	≤ 5	≤ 100,000.00 Birr
	Service	≤ 5	≤50,000.00
Small	Manufacturing	6 to 30	≤ 1,500.000.00
	Service	6 to 30	≤ 500,000.000
Medium	Manufacturing	31 to 100	1,500,001 to Birr 20,000,000
	Service	31 to 100	≥500,000.00 to 3,000.000.00

Source, FeMSEDA, 2011

2.3. Theoretical literature review

There are several theories that have attempted to advance the rationale for corporate financing choices, although the concept of a corporate financing structure is still an enigma that has yet to be determined. The various theories are advocated to facilitate informed decision-making. Therefore, the financing decision is very important, especially in relation to a company's performance as measured by the profitability and value of the company (Awunyo, 2012). Agency theory, pecking order theory, and trade-off theory are the ideas most applicable to this study.

2.3.1. Agency Theory

Agency theory, developed by (Jensen & Meckling, 1976), is most commonly used to explain the relationship between financial performance and the firm's capital structure. The proponents of this theory contend that when a company's owners and managers are separate legal entities, their interests are not aligned because managers, who serve as the principal decision-makers, will priorities their own utility over those of the company's shareholders and other key stakeholders.

(Muritala, 2012) points out that one of the ways to reduce agency costs is to use more leverage in corporate financing. Conversely, this means that there is less equity capital required to finance the business activities of a company and thus lower agency costs. However, using excessive debt also has the potential effect of incurring even more agency costs as the likelihood of financial distress increases. As the amount of leverage employed increases, funding costs from subsequent lenders increase due to the company's increased risk profile, resulting in reduced returns for shareholders

When there are no suitable investment options, business owners typically endeavor to guarantee management provides them with cash flows (in the form of dividends). This tendency for managers to closely monitor the execution of managerial decisions leads to increased agency costs. Since the owners typically handle the cash and decide on dividend payments, the conflict of representation with regard to the misappropriation of freely flowing funds is minimal for SMEs.

By employing more leverage to finance operations, managers can be made to operate their companies more effectively (Lubatkin and Chatterjee, 2004). According to these authors, managers would need to use greater caution when managing and allocating finances if they had unpaid debt service commitments. Additionally, managers will adopt a pragmatic approach to their investment decisions, preferring to invest in investments that offer high shareholder returns over doing so in projects with low NPVs or high levels of risk (Onaolapo and Kajola, 2010). Pressure on management to cover interest expenses makes this conceivable.

The interest expense and principal repayment enforces managers to commit funds only to activities that guarantee firms' ability to meet their debt obligation. Therefore, high leverage leaves managers with little money to spend on non-value-added discretionary spending.

2.3.2 Pecking Order Theory

Donaldson developed the pecking order theory in 1961, which was later expanded upon by Myers and Majluf in 1984. The developers of this theory state that firms develop a hierarchy of preferences in the components of capital raising sources (from internal financing to equity). A company raises funds from various sources based on the preference. There is a hierarchy of

preferences since the corporation would use up the easily available supply before moving on to the next. Traditionally, retained earnings are given first choice, followed by leverage or external loan and finally issuance of new equity (Myers, 2001).

Equity is not a preferred method of capital raising, according to Myers (1984), since investors believe that management would only choose to issue shares if the company's shares are deemed to be overpriced by the market. Therefore, investors tend to bid a lower price than the issuing price of new shares. However Most SMEs did not accumulate much internal financing during the growth phase and will therefore choose to use debt financing for their operations, in contrast to SMEs that have operated for a longer period and have maintained adequate internal financing (Awunyo,2012).

When it comes to corporate finance, these theories argue that firms obey the chain of command. Financing from retained earnings takes precedence in this situation. When internal finances are depleted, debt is the next best choice, with equity funding being used only as a last resort. As a result, the type of debt a company chooses to incur is added to its need for leverage.

In summary, pecking order theory, also known as information asymmetry theory, argues that firms would prefer to fund their investments from internally available funds (retained earnings) because they are easily accessible. After internal funds are exhausted, the company will opt for the next readily available option, debt financing. Eventually, the company would opt for equity financing after exhausting the other sources available. The ranking is based on the ease of accessibility for each source and the degree of information asymmetry created by each source.

It is exceedingly expensive to obtain capital through the issuance of additional equity since there is asymmetry of information between the entity issuing the equity and those who invest. Therefore, based on the highlighted hierarchical considerations of the sources of funds, the ideal capital structure should be constructed.

2.3.3. Trade-off Theory

This theory was advanced by Myers in 1984. According to this theory, both debt and equity have benefits and costs associated with them. The best capital structure is the one that mixes debt and

equity in a way that optimally balances benefits and costs and results in high return to the firm (Margaritis & Psilaki, 2009).

The theory suggests that the tax protection benefit is the greatest benefit derived from using debt for financing. However, there are also costs associated with debt, including the existence of financial distress and bankruptcy costs. Therefore, the best financing approach is the one that accounts for both ends of this double-edged sword and therefore settles for the most optimal level of debt. Myers (1984) notes that as leverage decreases, marginal utility increases as marginal cost increases, and therefore, to achieve optimal value maximization, when examining the total amount of debt relative to the selected Company vs. utilizing a lot of stock, a corporation should evaluate the cost-benefit trade-off. However, according to Margaritis and Psilaki (2009), from an empirical standpoint, this hypothesis can only explain the existence of disparities in leverage ratios within industries, but it cannot explain differences in this ratio between enterprises within the same industry. Therefore, a company will only use debt when there is residual financing, using retained earnings first, followed by equity and debt as the final resting place.

This therefore implies that there is no clear optimal financing mix for SMEs. Two types of equity are emphasized in this theory, the first of which is retained earnings, which is given preference over all others, while the other is new stocks, which are given least preference (Myers, 1984). Therefore, its use becomes mandatory in the context of this study as the paper focuses on trend analysis of SME financial performance.

The company's leverage, liquidity and cash flow position, as well as its ability to meet loan obligations is affected by the financial structure of the company. The debt to equity ratio, debt to total assets ratio, and interest income ratio are only some of the indicators used to assess a company's financial structure, sometimes referred to as leverage. Liquidity is the company's ability to convert its assets into cash. And this can be measured using liquidity metrics such as electricity ratio, endurance test ratio and interval measure. The cash flow statement of the corporation depicts the source and usage of cash over a given time period.

2.4 Measure of financial performance.

Financial performance describes a company's ability to manage and control its resources. The financial performance of an organization during a specific time period, including the amount of income generated and expenses incurred, is evaluated using a range of indicators, including the capital adequacy ratio, liquidity, leverage, solvency, and profitability (IAI, 2016).

The performance of a corporation is influenced by the mix and source of financing decisions made. According to Jensen and Meckling (1976), high capital structure debt has the advantage of solving conflicts of agency between shareholders and managers because it restricts management to refrain from misusing funds due to ongoing obligations, like interest and principal payments on debt. This will lead to a more cautious management of the company's operations. Corresponding to this, based on Jensen (1989), managers might decide to switch from equity to debt in the face of leveraged acquisitions in order to speed up free cash flows.

According to Capon et al. (1996: 7), there are many criteria for measuring financial success. Financial performance indicators can be absolute (sales, profit), return-based (profit/sales, profit/capital, profit/equity), internal (profit/sales), external (market value of the company), at a level for a short time (one year), a mean or a growth rate over several years, or a variability (e.g. standard deviation) about a mean or a trend.

The ratio of a company's assets to its earnings during a specific time period is its return on assets (ROA). The effectiveness with which assets are used to produce profits is gauged by the metric known as return on assets (ROA). Large investments might not always result in large profits. (2020) Kusuma.

The return on assets is critical, and it is a simple approach to assess profitability. On the balance sheet, it connects net profit to total assets. The ratio is typically shown as a percentage utilising the company's net income and total assets. The company's ability to use its assets, which are comprised of its equity and debt, more effectively and efficiently is shown by the higher return on assets. A lower ROA, on the other hand, implies the need for development Marshall (2022).

ROA (Return on Asset) = Net profit/Total asset.

2.5 Determinants of Financial Performance

2.5.1. Debt financing (leverage)

The effect of debt on financial performance can be positive or negative. Tudose, (2012). When a company chooses to use debt financing for its operations, it takes on financial risk and is referred to as a levered company. Debt financing may be advantageous or disadvantageous to the firm in respect to the resulting costs and the ROI of the projects it caters for (Harelimana, 2017). According to Adekunle and Sunday (2010), there are two forms of debt: short-term debt that must be repaid within a year and long-term debt that must be paid back over a longer period of time.

Debt financing can be measured by analyzing a number of financial measures, such as long-term debt, short-term debt, or a combination of the two that results in the firm's total debt. These indicators are described as a proportion of the total assets of the company. If the return on investment overcomes the cost of capital borrowed, performance will be increased if the company employs debt to finance its operations (Githaigo & Kabiru, 2015).

Total-debt-to-total-assets, a measure of leverage, shows how much debt a business has in comparison to its assets. Analysts can compare the leverage of one company to that of other companies in the same industry using this metric. This data may reveal a company's level of financial stability. The ratio increases with the degree of leverage (DoL), which raises the risk of investing in that company, Adam (2023).

Total debt =total debt/total asset

2.5.2. Short term debt

A company's responsibility to repay short-term debt, commonly referred to as current obligations, is anticipated to be paid off within a year or within twelve months. On a company's balance sheet, short-term debt is shown in the total liabilities column under current liabilities.

Two categories of short-term debt, or liabilities, are commonly incurred by businesses: operating and financing. The former comes from obtaining money that must be repaid within a year for the operation and expansion of the business, whilst the latter comes through regular business

operations and interactions with other parties. The short-term debt account's value is crucial in assessing a company's performance. Simply, the more issues with the company's liquidity there are, the higher the debt-to-asset ratio. The company is in bad financial condition and lacks sufficient cash to satisfy its forthcoming obligations if the account exceeds its cash and cash equivalents. (Khadija, 2020).

Employing more short-term debt may limit the SMEs' capacity to implement long-term projects that may result in higher returns, Banga et al. (2003(and it may increase the possibility of being affected by short-term economic downturns, Titman (1988), and reduce the opportunity for adopting modern machinery.(Caprio, et.al,(1998). In addition, it causes flotation costs and opportunity costs. Management time expenditures associated with dealing with more frequent debt concerns, reinvestment risk, and potential liquidity expenses (Barclay and Smith, 1995).Furthermore, short-term debt raises the likelihood of financial trouble. Alesina and colleagues (1990).

STDTA=Short term debt/total asset

2.5.3. Long term debt

Long-term debt is part of the total debt of the company with the loan repayment period is greater than one fiscal year. Firms choose to take long-term debt for many reasons, the most important of which is the timeframe for repayment and the amount of interest to be paid.

Long-term debt can be advantageous if a company anticipates strong growth and sufficient profits to allow on-time debt repayment Adam,(2021). Long-term debt allows SMEs to take advantage of a variety of opportunities. It is likely to be an effective mechanism for reigning in managerial discretion. Stulz, (1990). Long term debt has a positive impact on firm value because it reduces the firm's expected tax liabilities (Brennan et al (1985).

When compared to comparable businesses with lower ratios, a company with a high long-term debt ratio typically has superior long-term financial standing. adam, (2023).

Long term Debt (LTD)= long term debt/Total asset

2.5.4. Firm Size

The firm size can be determined in a number of ways, including through sales, workforce members, possessions, or value-added characteristics, according to Alireza (2014). According to Okiro et al. (2015), there is a positive association between capital structure and firm size. Total assets, sales, or firm capital can all be used to calculate a company's size. Large total asset companies are seen as having good prospects compared to businesses with little total assets because they have a larger market and therefore more opportunity to make significant profits; large firms face more competition than small businesses, according to Meiryani et al (2020).

Larger firms have more benefits compared to small ones such as economies of scale, larger market power as well as competitiveness ability hence this warrants them higher profits. Alghusin (2015) found that large firms had an advantage when raising outside funds from the capital markets, which may be attributed to their capability to securitize the borrowed funds. Also, large firms have very minimal dependence on internally raised funds, enabling them to profit more than the smaller firms. Rajan and Zingales (1995) found that capital structure is optimistically associated with size of the firm. Scholars have found varied conclusion in relation to the size of the firm and ROA and therefore, more research is necessary.

2.5.7. Firm age

The firm age is the time between the initial creation or going public of a firm and the present time (in years).Toms and Wright (2006). It is believed that a firm's age, experience and knowledge of the business environment are related. The benefits of learning effects that have a positive impact on a company's routines and capabilities and lead to improved financial performance increase as a company gets older.

The business environment can be difficult since it is continuously changing. On the other hand, aged businesses typically have an accumulation of experience and managerial skills and knowledge, which enhances their ability to handle uncertain situations for survival and to take opportunity arises as a result of changing business environments to improve their performance, (Ahinful 2017).

Robert and Rabih (2017) found that as a firm ages, the corporate charter and management composition have a higher impact on the firm's capital structure than when the firm is younger. Their research focused on firm age, corporate governance, and capital structure decisions. Based on their findings, they concluded that firm age is negatively correlated with the amount of debt financing used by a firm. Managerial capabilities, business experience, and knowledge are relatively low in young firms, which may increase the level of uncertainty in their operations and adversely affect their performance (Coad, Segarra, and Teruel 2016).

In many aspects, older organizations are expected to outperform younger firms since they have established networks and track records. Credit histories that make it relatively easy for lenders to assess their creditworthiness. It is suggested that as firms age, they may develop a reputation in the market facilitating their networks and connections with suppliers, customers, and other stakeholders,(Musamali and Tarus 2013).

Older age, on the other hand, is connected with inflexibility and red tapeIt is commonly claimed that older organizations are usually dogmatic, which limits their ability to identify viable and new business opportunities arising from market-driven developments. Because greater employment does not result in higher productivity, sales, or profit growth, this entrenchment in routines has an impact on sales, profitability, firm growth, and productivity. Yazdanfar (2013) (2013).

2.6 Empirical review on the effect of debt financing on financial performance of SME

The study of a firm's capital structures has attracted the attention of researchers both at local and globally. The findings from the studies have been mixed in terms of the firm's financial performance and structure, industry, and the economy as a whole.

"The Challenges of Financing on small and medium-sized businesses (SMEs)" is the topic of Getachew, Mekuria's (2020) research. The study is mainly concerned with SMEs in Addis Abeba and the difficulties they encounter in securing finance. Based on his study, the city has over 5178 registered SMEs, of which 152 were chosen for research purposes. The total number of finance sector officers chosen from both populations was 35. The research's conclusions showed that a company's features, ability to repay loans, and financial information all had an impact on how

difficult it was for SMEs to obtain financing. Based on data analysis the final findings of the study concluded that medium enterprises had more financial access than small enterprises. Furthermore, he magnified that, the financial sectors such as microfinance institutions and lease finance prefer to finance or lend to established (firm age) businesses rather than new SMEs.

In order to determine the variables influencing the profitability and expansion of Small and Medium Enterprises (SMEs) in Woreta town, Gebrie (2018) conducted a study. As a metric of profitability, the researcher employed Return on Asset, with firm size, its current ratio, cost ratio for income, turnover of fixed assets ratio, and debt ratio as independent factors. Regression analysis was used to analyze data from 12 small and medium-sized firms. In contrast to business size, current rate of return, debt ratio, and cost-income ratio, which had negative effects on SME profitability, his research Gebrie (2018) indicated the permanent asset turnover ratio has a significant positive influence. This study shows that a company's financial performance declines as debt increases.

Deesomsak, et al. (2008) found that excessive capital structure debt has a detrimental effect on financial performance as evaluated by gross profit margin levels in their research of Malaysian manufacturing enterprises. The researchers employed chi-square to analyse longitudinal data, and they gathered information from Singapore, Taiwan, and Australia. The study's findings showed a negative correlation between high debt capital structure and company performance. Furthermore, they found that the size of the firm has a good effect on the leverage, with the exception of Singapore, which they attributed to the fact that Singaporean enterprises receive government aid and are not consequently facing financial hardship.

(Weill, 2008) looked at how financial leverage affected corporate performance across seven different European nations. As study finding there is a positive and strong associations between financial leverage and company performance in Spain and Italy, but a negative and significant relationship in Germany, France, Belgium, and Norway, and a negligible relationship in Portugal.

On 650 Chinese companies between 2001 and 2006, (Cheng, Y., Liu, Y., and Chien, 2007) implemented a threshold regression model. The research result depicted a positive correlation between debt ratio and firm valuation between (53.97% and 70.48%), but a negative correlation

when it exceeds 70.48%. Furthermore, (Li, H., Meng, L., Wang, Q., and Zhou, 2008) shown that financial leverage has a favourable link with return on equity but a negative relationship with return on asset.

Abor (2009) assesses the financial structure and profitability of the company in Ghana. The researcher used firms registered in Ghana exchange market. The results of the research show that the ratio of total assets to short-term debt has a beneficial effect on the earnings of an organization. Abor (2009), came to the conclusion that the positive benefits of the high short-term loan to overall asset ratio are caused by interest rates that are low. According to the researcher, short-term debt, which accounts for 85% of all debt employed by the firms, is primarily used to finance Ghanaian businesses. It was discovered that it had a negative impact on the return on equity in the case of long-term financing. Noticed that the most profitable companies accumulated higher debt. He has finally come to the conclusion that the total debt had a favorable effect on the company's profitability.

Li Meng et al. (2010) discovered in a related study that while debt levels have a negative influence on return on assets, they have a good effect on return on equity. The analysis revealed that there was a poor association between performance and capital structure. In this study, the rates of return on assets in financial performance and equity were used as a measuring agent. Pratheepkanth (2013) found comparable results in a study done in Sri Lanka from 2005 to 2009 with ten enterprises over a2001 to 2009. He calculates performance as a quadratic function, with performance being a nonlinear indicator of capital structure as proxy by the amount of leverage ratio.

Adekmule (2012) conducted a study in Kenya with a focus on the pharmaceutical sector in order to assess the impact of capital structure on financial performance. The debt ratio was used as a proxy to measure the firm's capital structure, while the rate of return on equity and assets were used as a proxy to measure performance. The method of OLS was used to assess the association. The study discovered that a company's debt ratio had a detrimental effect on its financial success. In his study Musah,(2017) tried to figure out factors that affect the financial source of SMEs. The finding of his study revealed that the nature and operations of SMEs make debt financing difficult to obtain. Small and medium-sized enterprises (SMEs) do not record their business

transactions in their operations As a result of these difficulties, financial institutions have loan provision to SMEs, claiming that they are more risky and credit-worthy.

In their research entitled access to debt and performance of SME (Lwidiko Badi1*, Esther Ishengoma, 2021) found that there is a direct relationship between the performance of the medium and medium enterprises. they have taken ROA return on asset, Gross profit margin and Return on equity as indicators of the SME performance, to determine the effect the researchers had collected from 121 respondents, from 152 selected samples who responded to the questionnaire. However the sample collected only from specific zones which are part of the Private Agricultural Sector Support (PASS) in Tanzania program in Tanzania that excludes SME which are not part of Private Agricultural Sector Support program.

Samson, (2017) conducted the research to determine the effect of short-term debt financing on the financial performance of SME in Bondo sub-county Kenya. The data collected from 400 business owners by stratifying sampling method. The predictble variables are short term loanes and Account Payable and the dependent variables are return on equity, return on asset. The data analyzed by employing correlation and regression methods. The finding of study revealed there is a significant moderate relationship between short term debt and the financial performance of SME. As a result, researchers recommend that SME should take more short-term debt to enhance their financial performance.

Based on a study conducted by (Fatoki et al, 2010), the impact of debt usage on the profitability of small medium enterprises in the Buffalo city of SA was analyzed using an estimated multiple regression results, which revealed that debt utilization has a significantly negative effect on the profitability of SMEs. The researcher also discovered that the most profitable businesses used more debt. Abor's study focused on large manufacturing firms that are listed on the GSE and have their books audited by reputable firms, as opposed to small and medium-sized businesses that may struggle to keep proper books. In his study, Hayam (2013) found that there is a strong negative relationship between short-term debt and long-term debt, but a strong positive relationship with long-term debt

In his study, Hayam (2013) found that there is a strong negative relationship between short-term debt and long-term debt, but a strong positive relationship with long debt.

Ophelia, George, and Justice, (2021) examined impact of debt financing on the financial performance of small and medium business entities at Ghana. Accordingly, the study shows that SMEs financial performance in Ghana has been impacted by their debt financing. The study's finding indicates that the use of debt has a statistically significant negative association with performance metrics, including liquidity, profit margin, and return on assets. The finding concludes that both short- and long-term loans have a detrimental impact on SMEs' finances.

In his study on the effect of capital mix on the financial performance of cement companies, Asrat (2016) took ROA and ROE as proxy measures of financial performance and the long-term debt to equity ratio as a predictive variable, in addition to firm size, tangibility, growth opportunity, capital adequacy, and business risk as control variables, based on cement companies financial data from 2010-2014. The findings of the study show that a high level of debt decreases the financial performance of the business.

2.7. Summary of literature review

In the literature review part the researcher reviewed the most prominent capital structures that are; Agency theory, developed by (Jensen & Meckling, 1976), Pecking order theory developed by Donaldson in 1961 before being later developed further by Myers and Majluf, in 1984 and Trade-off Theory Myers in 1984. Since capital structure is an irrelevant theory published by Modgliani, F., and Miller, M., (1958). The modern capital structure theory is more developed. On their theory, Modgliani, F., and Miller, M. (1958) argue that firms donot increase the value of their stock by changing the mix of its capital structure level. In addition, they have concluded that in the tax-free world, the value of the firm and the overall costs of capital incurred by the firm were independent of capital structure choice. In 1963, M&M included tax and concluded that the overall cost of capital is reduced to the point where interest is tax deductible. Numerous investigations have been done using various hypotheses that were appropriate for the situation. A number of hypotheses that contradict the capital structure theory proposed by Modigliani and Miller are based on empirical evidence, including the trade-off theory, pecking order theory, agency theory, and others.

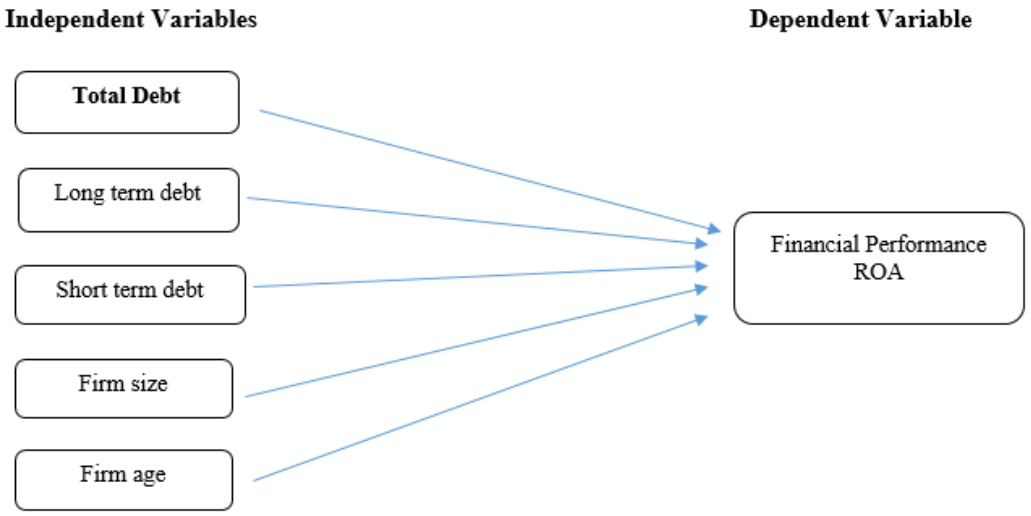
The empirical studies review included studies in a variety of fields pertaining to the impact of debt financing on the performance of SMEs. Empirical studies on the relationship between

leverage and financial performance in large firms yield mixed and conflicting results. Some studies findings indicate there is a positive relationship between debt financing and the financial performance of firms. (Getachew, Mekuria, 2020), Samson, 2017, (Weill, 2008), Abor (2009), Adekmule (2012), Musah, 2017), Lwidiko Badi1*Esther Ishengoma, 2021), the researchers also discussed Medium-sized enterprises have more chance of accessing debt financing than small firms, however; high interest rates, absences of collateral, and lack of financial information are some barriers that SME face.

Other research, on the other hand, examined the effect of debt financing on business financial results and identified a negative association between debt financing and performance indicated by financial terms f, with high interest rates, a lack of managerial skill, and a lack of better government support cited as key reasons for the adverse effect on SME profitability. (Obert and Loadable, 2010), Gebrie, (2018), (Deesomsak et al.,2008), (Huang and Song, 2009), (Li Meng,2010).

2.8 Conceptual framework

An explanation of a research problem can be provided by a conceptual framework, which is a group of connected concepts. The researcher has created a conceptual framework to explain the connection between loan financing and the financial performance of SMEs after carefully studying theoretical and empirical literature. The dependent variable or the explained variable is Financial performance is the dependent variable in this study and is calculated as return on total assets. The firm's debt financing (total debt, short-term debt, and long-term debt, firm size and age) is an independent variable that will provide more information on financial performance.



CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

To achieve the objective of the research and fulfill the identified gaps the research methodologies employed throughout the research are discussed here below:

3.2. Research Approach

A research approach is a strategy that includes both general hypotheses and specific methods for gathering, analyzing, and interpreting data. Qualitative, quantitative, and mixed approaches are the three types of research methodology. Investigating and understanding the significance that people or groups attached to a social or human situation is done through qualitative research.

Investigating the relationship between variables is how quantitative research tests objective theories. A form of study known as mixed methods entails collecting both quantitative and qualitative data, combining the two types of data, and using various designs that may include theoretical frame works and philosophical suppositions. The main premise of this type of research is that combining qualitative and quantitative approaches yields a more complete understanding of a research problem than or only the approach.

By examining the link between dependent and independent variables, the researcher has utilized a quantitative research approach to examine the theoretical foundations of these studies and determine the impact of debt financing on the financial performance of SME.

3.3. Research Design

Research designs are modes of inquiry within qualitative, quantitative, and mixed methodologies approaches that provide clear guidance for the methods in a study design. They've been referred to by others as research tactics (Denzin & Lincoln, 2011). Research investigations that test hypotheses of causal correlations between variables are also referred to as explanatory or experimental studies. The study's purpose affects the choice of the best research design (Njana,

2009). The researcher has intended to employ a descriptive and explanatory study design in order to precisely identify and describe the impact of debt financing on performance of SMEs.

A descriptive research design allows researchers to collect the necessary data input for the study without modifying or affecting the environmental setting of the research area. Further more Descriptive research design helps to objectively measure and present the results to understand the existing relationship in the absence of deliberate manipulation of variables (Cooper and Scindler, 2007). In order to identify the type of relationship, explain the complex association of multiple factors, and predict an outcome from one or more predictors, it is essential to use an explanatory research design (Creswell, 2005). By employing an explanatory research design, the researcher has investigated the effect of debt financing on the financial performance of selected small and medium in Addis Ababa.

3.4. Population

The population is a clearly established or set of examined individuals, services, elements, events, groups of things, or houses. According to Mugenda and Mugenda (2003), the desired target group should have observable variables or traits that the researcher can utilise to generalize the study results.

According to the data originated from Kirkos Sub city Enterprise and industry development office there are 738 registered Micro, small and medium enterprises currently found in sub city of Kirkos. According to the Small & Micro Enterprises Development Strategy of Ethiopia published 2011 the working definition of MSEs is based on capital and Labor. Definition of MSEs in Ethiopia by R. No. 201/2011 is described in the below table

Total numbers of Enterprises located in Kirkos Sub-City are micro, 130 are small, and the remaining 25 are medium. Furthermore, the most (190) of the enterprises are in the manufacturing sector. There are 155 small and medium-sized businesses in total, with 112 (72.2%) in the manufacturing sector and the rest 37 (27.8%) in the service industry.

The data indicated that the enterprises created job opportunities to 1,144 males and to 858 women in 2002. Based on the above data this research targeted small and medium enterprises that engaged in manufacturing sector and service sector since small and medium enterprises have

larger initial capital than macro enterprises the research has taken them to examine the effect of debt financing on the financial performance of small and medium enterprises.

3.4.1. Sampling Unit

The sampling unit of this research is the individual firm that is either Small or medium level business enterprise operate in kirkos sub city Addis Ababa Ethiopia.

3.4.2 Sampling Technique

There are various sampling techniques that are probabilistic and non-probabilistic are available to employ as the nature of the study. Since there are 155 small and medium enterprises operating in the sub city, the researcher planned to use a convenient sampling technique to select the sample that allows the researcher to easily collect necessary data from accessible and located sources.

Since convenient sampling helps collect the necessary data easily with less time and cost, is efficient and simple to implement, and helps take a sample from the total population, the research result researcher will select the sample from the data provided by the SME development office of Kirkos sub city.

3.4.3. Sampling size

To determine the sample size the researcher employed statistical sampling design, the result of the statistical calculation presented as follows:

$$n = N \times \frac{\frac{Z^2 \times p \times (1-p)}{e^2}}{\left[N - 1 + \frac{Z^2 \times p \times (1-p)}{e^2}\right]}$$

Where,

N = Population size,

Z = Critical value of the normal distribution at the required confidence level,

p = Sample proportion,

e = Margin of error

Source: CFA Institute (2023)

Based on our data taken from Kirkos sub-city small and medium enterprise development office total population of the research is 155.

Population size, N = 155

Critical value at 95% confidence level, Z = 1.96

Margin of error, e = 5% or 0.05

= (155* (1.96 2)*0.5*(1-0.5)/(0.05 2)/(155 – 1+((1.96 2)* 0.5*(1-0.5)/(0.05 2)

= (384.16/535.16)*155=111

Based on our sample size calculation result suggested to take 111 samples from the total population of 155. However the researcher has found full five year data from 46 small and medium enterprises out of 46 SMEs, 31 are engaged in the manufacturing sector and the rest are in service sector. Thus it is appropriate to examine the effect of debt financing on the financial performance of small medium enterprises by gathering five year secondary data of each enterprise.

3.5. Source of data

Data gathered from a secondary source were used by the researcher to fulfil the main goal of this study report. The information was gathered from the financial information of SMES that was gathered from the Kirkos Sub-City Micro Small and Medium Enterprise Development Office, Trade Office, and Revenue Office.

3.5.1 Methods of Data Collection

Secondary data is gathered from the enterprises' Five-year financial reports which are for year data reviewed from the financial statement reports corresponding to 2017/18 to 2021-22 the main

reason to use only five year data is due to the small and medium enterprise development office has only have five year financial report data well collected from of the small and medium enterprises works in the sub city responsible offices.

3.6. Method of Data Analysis and Interpretation

To analyze the collected data, the researcher has used both descriptive and inferential analysis with the aid of STATA software. By employing descriptive analysis, the researcher has analyzed the mean, standard deviation, maximum, and minimum, while, panel regression model is applied to identify the effect of debt SMEs in AA. In addition to this, the researcher applied diagnostics tests to comply with different assumptions, such as heteroscedasticity, multicollinearity, normality, and autocorrelation tests, to make sure the model is correct.

3.7. Analytical Model

A multiple linear regression model used to examine the debt financing and financial performance (ROA) relationship. The Response variable was the financial performance while the predictor variables were debt financing, firm size, firm liquidity and asset tangibility.

$$y = \alpha + \beta 1 x1 + \beta 2\ x2 + \beta 3\ x3 + \beta 4\ x4 + \beta 5 x5 + €$$

Where;

y= Financial performance measured by ROA

α = constant, y intercept that is the value of y when x is zero.

β1*x1*= TDTA, total debt divided by Total Asset

β2 *x2*= STDA, short term debt divided by total asset

β3 *x3*= LDTA, Long Term debt divided by total asset

B4*x4* = Firm size, measured by log of Total Asset.

B5*x5* =Firm age measured as the natural log of the number of years in operation

3.7.1. Description of Variables

3.7.2.1 Dependent Variable

The dependent variable of this research work is the financial Performance of the SME which is measured by ROA (Return on Asset). ROA is a better indicator of small medium-level enterprise profitability than other measures because it shows how well the enterprise converts assets into net earnings (Malik, 2011).

3.7.2.2 Independent variables

The independent variables are total debt which is the collection of all short term and long term debts, Short term loan indicates total loans taken by the SME which are due within one year and long term shows loans taken by the SMEs which are payable in more than a year in addition firm size means the total asset of the business enterprise which is all of the equity and total debt whereas firm age shows the age of the business from its introduction until the year the research has taken (2022).

3.9. Ethical Considerations

To address the ethical concerns raised by the use of secondary data, the researcher will obtain the necessary relevant data from the Kirkos Sub-city Small and Medium Enterprise Development Office, Trade office and Revenue office of the subcity. Furthermore, the researcher has carefully collected, input, and processed the collected data using STATA software.

CHAPTER FOUR

RESULTS AND DISCUSSION

To Examine the debt financing effect on the finance performance (Return on asset) of small and medium (SME)-sized businesses in Ethiopia is the main goal of this research project. by using five consecutive years of panel data from selected small and medium enterprises, whereas the study variables are analyzed using a fixed effect panel data regression model. Thus, the results of the study are discussed in this chapter.

4.1. Descriptive Statistics Results

The results of descriptive statistics analysis such as mean, standard deviation, mini and maxi values of dependent and independent variables collected for the period of 2018 to 2022 are presented and discussed. The study's dependent variable is return on asset (ROA), and the independent or predictor variables are total debt, long-term debt, short-term debt level, firm sizeof SMEs, firm age selected SMEs, and fixed assets of small and medium enterprises (SME).

Table 4.1: Summary of Descriptive statistical analysis result

No	VARIABLES	No. of Observation	Mean	Standa.	Minimum	Maximum
1	Return on ROA	230	0.112	0.151	0.002	0.566
2	Total Debt (TDTA)	230	0.392	0.729	0.025	0.282
3	Long Term debt (LDTA)	230	0.247	0.479	0.013	0.694
4	Short term Debt (SDTA)	230	0.138	0.189	0.001	0.208
5	Firm Size (TA)	230	5.907	0.391	5.004	6.58
6	Firm age (years)	230	5.15	2.085	1	10

Source STATA -14 analysis result, 2023

Based on Table 4.1, in order to examine the effect of debt financing on the financial performance of SME, the researcher has used 230 observations from 47 SMEs five-year data.

To measure the financial performance, the researcher has used return on asset, and the mean value of ROA of small and medium enterprises earning for the last five consecutive years is 11.2%, with the minimum value of return on asset being 2% of the total asset and the maximum percentage of return on asset being 1.06%. The standardization value of return on assets for small and medium enterprises is 0.151, which shows there is a potential difference between small and medium enterprises return on assets. Based on the result of the study of Okiro et al., (2015) and Meiryani et al (2020) the financial

performance of enterprises is positively related with the firm size or the total asset, Since, according to Ethiopia's new Small and Micro Enterprise Development Strategy (published in 2011), the capital of small enterprises capital vary from 100,000.00 up to 1.5 Million Ethiopian Birr and for medium level enterprises the capital range is from 1.5 million up to Twenty Million Ethiopian birr, this great range of capital scale results the potential of difference for among small and medium enterprises. The variation of return on asset on asset may result from the amount of capital, capital mix and the sector SMEs operate in.

The mean value for total debt over asset is 0.392 which show on average small and medium enterprises finance 39.2% of their total asset by loan. The standardization value of TDTA total debt over total asset is 0.729 which shows that there is very high variation on the amount of debt financing of their operation among small and medium enterprises. In addition the minimum value of the total debt over total asset is 0.025 and the maximum value is 0.282.

The low level of variation on the amount of total debt over total asset indicates that most of small and medium enterprises debt finance has little difference, since most of the time SMEs take loans and advances from government sponsored financing programs which supply funds in common ratios and other similar measurements may result little variation on the percentage of debt financing over the total asset of small and medium enterprises.

The mean value of long term debt over total asset (LDTA) is 0.247, the standardization is 0.479, the standardization is 0.013 and the maximum value is 0.694. The value shows small and medium enterprises finance 24.7% of their total assets by long term debt. The standardization

value (0.479) shows that there is a potential variation among SMEs' level of employing long term debt.

As the standardization value shows, there is significant variation on the level long term debt financing among SMEs, since in Ethiopia loan provision is related with the loan acquirable asset especially long term debt, and the existence of potential difference on the amount of total asset the considerable variation on the amount of long term debt financing is expectable. In addition the as result of the descriptive STATA analysis shows the difference between the minimum and the maximum value indicates that some SMEs have very limited amount of long term debt and others have acquired significant amount of long term debt, the potential reason for this is variation in the amount of total asset and the size of business operation of SMEs.

In addition, the descriptive analysis of SMES shows that the mean value for short term debt over total assets is 0.138, the standard deviation 0.189, the minimum value 0.001 and the maximum value is 1.208. The result shows that on average within five years small and medium enterprises acquire 13.8% short term debt of their total asset. Whereas the standardization value (0.189) shows that there is significant variation between SMEs in employing short term loans. Based on the result, the minimum value for five consecutive years of employing short term debt is 1% and the maximum value is 1.208 which shows there is significant variation.

As the descriptive statistical analysis of STATA shows, moderate variation on the amount of short term debt over asset among SMEs and the mean value indicates, since short term debts are a collection of business payables and advances matures within one year, most of small and medium enterprises acquire limited amount of debt financing, the limited size of business operation in size of market and supply of goods and services results moderate level of short term debt financing.

As the values for the minimum and the maximum age small and medium enterprises indicates, some of SMEs have started their business in 2018, which are not much experienced in the sector, on the other hand some SMEs age is reached 10 by the year 2022.

As the study result of Toms and Wright (2006) shows aged firms become benefited from having much experience and knowledge about the business environment they operate in and gain public reputation that lead to improved financial performance, it is expected that aged SMEs enterprises may have better financial performance through proper utilization of their financial assets.

The analysis for firm size shows that the mean value is 5.907, the standard deviation is 0.391, the minimum value is 5.004, and the maximum value is 6.58. Finally, the descriptive of SMES age shows that the mean value is 5.15, the standard deviation is 2.085, the minimum value is 1, and the maximum value is 10. The result shows that the average age of 46 SMEs selected for this research paper is 5.2 years, and the standardization is 0.391, which shows that there is significant variation from the mean value, indicating that some enterprises have a higher age and the others are older than the mean value. The minimum value for the enterprises age is 1 year in the fiscal year 2018, and the maximum age of the enterprises in 2022 is 10.

4.2. Pairwise Correlation Analysis

The association between the variables is measured through correlations. The correlation coefficient lies between +1 and -1. A perfect positive relationship is described by a correlation coefficient of 1, a perfect negative relationship is described by a correlation of -1, and a situation in which a change in one variable is not related with any specific change in the other variable is described by a correlation of 0 (Gujarati, 2004).

In order to examine the correlation between the dependent variable "financial performance of small and medium enterprises (SMEs), which is evaluated by return on assets," and the independent variables, a pairwise correlation measure was applied. The result of the analysis is indicated in the below table.

Table 4.2: Pairwise Correlation

	roa	tdta	ldta	sdta	ta	Age
roa	1.00					
	230					
tdta	0.60	1.00				
	230	230				
ldta	0.572	0.9128	1.00			
	230	230	230			
sdta	0.509	0.8649	0.6834	1.00		
	230	230	230	230		
ta	0.339	0.7225	0.6462	0.8195	1.00	
	230	230	230	230	230	
Age	0.4948	0.426	0.3543	0.4731	0.395	1.00
	230	230	230	230	230	230

Source: *STATA 14 analysis result, 2023*

Description: **roa**=Return on asset, **tdta**=total debt over total asset, **ltdta**= long term debt over total asset, **sdta=** short term debt over total asset and **ta=**total asset.

The correlation analysis result shows that total debt, long-term debt, and short-term debt have a positive and significant correlation with the financial performance of small and medium enterprises at a 5% degree of significance. This indicates that debt financing is positively related to financial performance, which is measured by return on assets. As a result, an increase in loan financing results in an increase in the return on assets for enterprises. Furthermore, the result shows that the correlation between total assets and the age of the enterprise is positive but not strong.

This indicates that the particular growth in firm size and age does not result in much improvement in the financial performance of SMEs since efficient and effective utilization of firm assets, including business environment experience, knowledge, and reputation, by S&M Enterprises is key to achieving good financial performance. However, as the finding of Atalel (2017) shows, most S&M enterprise owners do not have sufficient management skills due to a lack of education. Since effective management of the business asset is very essential for business enterprises, such factors can be the major reason for the weaker effect of firm size and firm age on the financial performance of small and medium enterprises.

4.3. Model Specification Test

In order to select the correct panel data analysis model, model specification is critical. The random effects model is justified by the fact that, unlike the fixed effects model, variation between entities is believed to be random and uncorrelated with the predictor or independent variables included in the model. If changes across entities have an effect on your dependent variable but are unrelated to the predictors, you might consider using random effects. Random effects have the advantage of allowing you to include time-invariant variables (such as gender). The intercept absorbs these variables in the fixed effects model (Oscar, 2007).

To select the model between random and fixed effect regression, the Hausman-test was applied to identify whether the individual characteristics are correlated with the regressors. The null hypothesis for the Hausman test is that the individual characteristics are not correlated (random

effects).

```
. estimates store fixed

. hausman fixed random, sigmamore

                 ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |     fixed        random       Difference          S.E.
-------------+------------------------------------------------------------
        tdta |    .3891585     .3112483        .0779102        .0726875
        ldta |    .2265539     .2997194       -.0731655         .043217
        sdta |   -.4646329     .0987908       -.5634238        .1789541
          ta |    .9372532    -.0194535        .9567067        .2967442
         age |    .0858564      .103956       -.0180995        .0145208
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test:  Ho:  difference in coefficients not systematic

             chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                     =       27.79
           Prob>chi2 =      0.0000
```

Source, STATA result,2023

Therefore, Based on the result of the test the p>chi2 value is less than 0.05, we have to apply the fixed effect linear regression model to examine the effect of debt financing on the financial performance of small and medium enterprises.

4.4. Post-Estimation Assumption Test

To comply with classical linear regression model assumption it is essential to test post estimation measures, such as multicollinearity, normality heteroscedasticity and autocorrelation. Thus the results for the above mentioned assumptions discussed as follows:

Table 4.3: Multicollinearity test

```
. vif

    Variable |       VIF       1/VIF
-------------+----------------------
        tdta |     18.85    0.053050
        ldta |      9.29    0.107630
        sdta |      9.20    0.108738
          ta |      3.46    0.289190
         age |      1.29    0.774296
-------------+----------------------
    Mean VIF |      8.42
```

Source, STATA analysis output 2023.

In technical terms multicollinearity is the existence of many correlated independent variables in statistical models. The presence of multicollinearity results in non or less reliable results of the statistical analysis, Addam,https://www.investopiedia.com/(2023). In order to check whether multicollinearity exists in the statistical model, VIF (variance inflation factor) test applied, Gujjarati (2004). The decision rule for VIF results states that multicollinearity problems exist when the value for VIF is greater than 10.

As indicated in table 4.4, the value for VIF result is 8.42 which is less than 10, as a result we can conclude that the multicollinearity is not a problem in the stated model.

```
g gulilat   Saturday May 20 16:28:29 2023   Page 8

Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
     F(  1,       45) =      0.144
               Prob > F =      0.7061
```

Table 4.4: Heteroscedasticity test

```
. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of roa

         chi2(1)      =     2.52
         Prob > chi2  =   0.1122
```

Source: STATA analysis result, 2023.

Heteroscedasticity is the presence of non-constant standardization of the independent variables. To test heteroscedasticity, Breusch-Pagan / Cook-Weisberg test for heteroskedasticity was applied. As presented in table 4.5 the value for Prob > chi2 = 0.1122, which > 5%. As a result we accept the null hypothesis that constant variance exists between the standardization of independent variables.

Table 4.5: Normality test

```
. sktest res

                    Skewness/Kurtosis tests for Normality
                                                      ------ joint ------
    Variable |        Obs  Pr(Skewness)  Pr(Kurtosis) adj chi2(2)   Prob>chi2
-------------+-------------------------------------------------------------
         res |        230     0.4767        0.0904        3.40         0.1824
```

Normal distribution is a probability distribution the most or the frequent occurrence of the value of the collected data of the variables that are symmetric or near to the mean value. (SK test) Sleekness and Kurtosis test applied to test the normality, and the value is 0.1824 >5% the study accepts the null hypothesis.

4.5. Result of fixed effect Regression Mode

Fixed effect linear regression model used to examine the effect of debt financing on the financial performance of small and medium enterprises. Return on asset(ROA) used as a measure of

financial performance which is the dependent variable of the study, the independent or the controlling variables of the study are short term debt, long term debt, total debt, firm size and firm age.. To analyze the result of the collected data, STATA 14 statistical software used at 5% significance level. Thus the estimation output of the fixed effect linear regression model result is discussed in the below table:

Table 4.7 the result of fixed effect linear regression model.

```
. xtreg roa tdta ldta sdta ta age, fe

Fixed-effects (within) regression               Number of obs      =       230
Group variable: smenum                          Number of groups   =        46

R-sq:                                           Obs per group:
     within  = 0.7151                                         min =         5
     between = 0.0404                                         avg =       5.0
     overall = 0.2735                                         max =         5

                                                F(5,179)           =     89.84
corr(u_i, Xb)  = -0.4122                        Prob > F           =    0.0000

------------------------------------------------------------------------------
         roa |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tdta |   .3891585   .1972879     1.97   0.050    -.0001507    .7784678
        ldta |   .2265539   .1226458     1.85   0.066    -.0154637    .4685715
        sdta |  -.4646329   .2238411    -2.08   0.039    -.9063398   -.0229261
          ta |   .9372532   .3374319     2.78   0.006     .2713971    1.603109
         age |   .0858564   .0223989     3.83   0.000     .0416566    .1300563
       _cons |  -.0604021   .0780491    -0.77   0.440    -.2144167    .0936126
-------------+----------------------------------------------------------------
     sigma_u |   .0647674
     sigma_e |  .03318925
         rho |   .7920213   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0: F(45, 179) = 10.43                     Prob > F = 0.0000
```

Source: STATA analysis result, 2023.

Based on the above result table the following equation is derived

ROA= -0.0604+0.389tdta+0.226ldta-0.464sdta+0.937ta+0.085age.

As shown in the above table, the model, If the fixed effect linear regression model employed, Xtreg, obtained its estimates by performing OLS on 3.so its reported R^2 within is an ordinary R^2, *(xtreg — Fixed-, between-, and random-effects and population-averaged linear models,stata.com).* As indicated in table 4.6, the overall model fit as explained by the value *(within)r^2* value is 0.715 shows that the model is good fit, that total debt, long term debt, short term debt, firm size and firm age explains 71.5% of the variation in the ROA (return on asset). The unexplained 28.5% of return on assets is affected by other factors not added in this study model.

In addition the ANOVA output indicates that F-statics = 10.43 at 5% significance level, indicating that the independent variables of the model jointly explain the dependent variable Return on asset.

Furthermore the fixed effect linear regression result shows that excluding short term debt all other independent variables (total debt, long term debt, firm age and firm size) statistically significantly predict the independent variable at five percent significance level, however long term debt is not statistically significant (insignificant). Subsequently the explanation of each variable effect on return on asset discussed as follows:

The coefficient value for TDTA (total debt to total asset ratio) is positive and statistically significant at the 5% level of significance; as a result, the study failed to reject the null hypothesis. The p value is 0.05 and the coefficient value is 0.3891, indicating that, among other things, a constant increasing level of debt financing results in an increase in return on assets, which is the measure of financial performance of small and medium enterprises.

As shown by the study findings, small and medium enterprises should employ debt financing as part of their capital mix to improve their financial performance (ROA). When compared with large firms, the financial capacity, especially owner equity, of SMEs is very small. As a result, debt financing is very essential and demanding for small and medium enterprises to operate their businesses and finance their business projects. The positive effect of total debt financing on the financial performance of SMEs is consistent with other researchers findings, such as (Getachew,2020); (Samson, 2017); (Weill, 2008); (Abor 2009); Adekmule (2012); (Musah,2017), (Lwidiko, 2021).

Long-term debt is a loan borrowed from an external party whose payback period is greater than one year. The p value for ldta (long-term debt to total asset ratio) is 0.06, and the value for the coefficient is 0.22. Thus, the statistical effect of ldta on the financial performance (ROA) of small and medium enterprises is insignificant. Even if its effect is insignificant, it has a positive effect on the financial performance. A 1% increase in long-term debt results in a 6% increase in the financial performance of small and medium enterprises. Due to this, the study rejects the null hypothesis. The result is similar to Adam's (2023) research, which concluded that a high long-term debt ratio is usually good as it means the company is usually in better long-term financial condition compared to other companies with lower ratios. Due to sufficient time for planning, implementing, and monitoring the business operation financed by a loan, it results in improved financial performance.

The other predictor variable included in the model is short-term debt to total assets. Short-term debt is a loan or payable whose maturity date is within one year. The p value of the variable is 0.039, which is statistically significant at the 5 percent level of significance, whereas the coefficient value is -0.464, indicating that having short-term debt as finance has a negative effect on the financial performance of SMEs. Based on the result, adding short-term debt reduces the financial performance (ROA) of SMEs. Thus, based on the 1% increase in the short-term debt results and the result of the regression, the study rejects the null hypothesis.

The result of the analysis indicates that S&M enterprises should take care when using short-term debts that may affect their financial performance. The possible reason for such a negative effect is that, by nature, the capital cost of short-term debts is expensive. In addition, managing such debts requires additional time for proper management, which may scramble the time used to plan and run the business.

The research findings that identified the negative effect of short-term debt on the financial performance of small and medium enterprises (Hayam ,2017) concluded in his study that short-term and long-term debt have opposite effects on the financial performance of SMEs. Titman and Wessels, (1988), study findings also revealed that short-term debt may limit SMEs ability to choose and invest in long-term projects with high returns.

The fourth predictor variable included in the statistical regression model is the total asset of the firm (ta), which indicates the size of the firm. The coefficient value for log of total assets is 0.937, which indicates a strong effect of firm size on the financial performance of small and medium enterprises, and the p value is 0.006, which is statistically significant at the five percent level of significance.

Based on the value, we can infer that as the size of the firm increases, the financial performance of SMEs (ROA) will increase proportionally. This implies that small and medium enterprises should be optimistic about increasing their firm size, which will result in growth in the size of their business operations and better financial performance (ROA) resulting from economies of scale and the capacity to expand their market share, to support their business process with technological advancements. In relation to the effect of firm size on the financial performance of SMEs (ROA) other researchers identified similar results such as Okiro et al., (2015), and Meiryani et al (2020), concluded that Large total asset firms are considered as having better prospects than small total asset companies since they have a broader market and hence more possibility to achieve considerable profits.

The last but not the least independent variable in the model is age of the firm, which indicates the total year of operation of the business, starting from the initial starting until 2022 GC. The coefficient value of age is 0.08 and the p value is 0.000 which is statistically significant at five percent level of significant. these shows as the age of the enterprise increases their financial performance improves, since the gathered experience and knowledge about the business environment provides aged business advantage to better plan business strategies, to get reputation and build strong brand through better innovation new product ideas and customer relationship.

Based on the coefficient value of the variable we can conclude that firm age has a statistically significant positive effect on the financial performance of SMEs. However the effect is not strong since the coefficient value is 0.08 which approaches zero.

In summary, based on the statistical fixed effect regression, firm size (total asset) is the most positively affecting variable, total debt also has a significant positive effect, short-term debt also

has a significant negative effect, and other long-term debt and age have a positive but not significant and significant but not strong effect proportionally.

Thus, the summary of the findings of the study indicates that small and medium enterprises should utilise the available debt finance resources, especially long-term debts. In addition, as having debt financing increases the size of the firm, and such growth in the size of the firm has a positive impact on the ROA (financial performance) of S&M enterprises, they should be motivated and optimistic to finance their business operations by loan. Even though debt financing has a positive effect on financial performance (ROA), S&M enterprises should carefully examine the terms and conditions of loans and advances, conduct serious analysis of the business environment, and follow up and monitor their business performance to ensure they are on the right path to using the debt finance resource in an efficient and effective way.

The result is similar with the findings of (Musamali and Tarus 2013), which concluded that Firms may establish a reputation in the market as they mature, facilitating their networks and connections with suppliers, consumers, and other stakeholders, which boosts profitability.

Chapter Five

Finding Summary, Conclusions and Recommendation

In this chapter the summary of research findings discussed and the final conclusion of the study presented based on the findings of the study, finally considering the conclusions the appropriate recommendation of the study will be presented.

5.1 Findings summary of the study

Based on the interpretation of the regression analysis results the major findings of the study presented as follows:

- Total debt has a strong positive and significant effect on the financial performance (ROA) of small and medium enterprises at five percent significance level.
- Long Term debt has a positive effect on the financial performance of small and medium enterprises that is measured by Return on asset; however since the p value is 0.06 which is greater than 0.05, statistically its effect is not significant.
- Short term debt in contrast with total debt and long term debt has a negative effect on the financial performance of small and medium enterprises in Addis Ababa.
- Firm size has a strong and positive financial effect on the financial performance of small and medium enterprises.
- Firm age has a low level positive impact on the financial performance of small and medium enterprises.

5.2 Conclusion of the study

The good financial performance of business firms is the most crucial part of any business's operations. A firm's financial success has a significant impact on the development of a nation's economy. The interest in conducting research in the area of financial performance is increasing from time to time.

This research study was conducted to examine the effect of debt financing on the financial performance of small and medium enterprises in Addis Ababa. The research specifically conducted in Kirkos sub-city focused on small and medium enterprises financial information from the micro, small, and medium enterprise development office, trade office, and revenue office of the sub-city from 2018 to 2022 GC. To measure financial performance, the study employed return on assets as a measure of financial performance as dependent variables, and

independent variables were total debt of SMEs, long-term debt of SMEs, short-term debt, firm size of the enterprise, and firm age of SMES.

The analysis of the research indicated that total debt has positive and statistically significant effect on the financial performance of the study, since total debt is a sum of long term debt and short term debt, the study examined the effect of long term debt and short term debt independently, and the finding of the study found that long term debt has positive effect on the financial performance of small and medium enterprise whereas in contrast short term debt has negative effect on the financial performance of small and medium enterprises (ROA). In addition the descriptive analysis indicates that small and medium enterprises in Addis Ababa employed more long term debt than short term debts.

The analysis results of the study also showed that both firm size and firm age has statistically significant and positive effect on the financial performance (ROA) of small and medium enterprise, since the size of the firm measured by the total asset of the enterprises, thus according to study result as the size of the firm increases it improves the financial performance of enterprises by increasing their access to get debt financing since their risk observing capacity increases and they may have capacity to operate in large scale.

5.3. Recommendations

According to the research findings and conclusions, the recommendations of the study are as follows:

As the research conclusion indicates that, having debt financing has positive effect on the financial performance of small and medium enterprises, thus these research recommended SMEs to employ debt financing as a major part of their capital mix, however small and medium enterprises should be curious when taking short term debt, based on result of the study short term debt has negative effect on the financial performance of small and medium enterprises , this may be due to that short term debt financing has high interest rate expense and it limits the utilization of such finance as a resource for profitable long term projects and since short term debt it matures within a year, it may hinder small and medium enterprises to finance their long term business projects. As a result, this research recommended that small and medium

enterprises access more long-term debt than short-term debt through developing viable business project and providing necessary information to lenders.

In addition, since the findings of the study indicate firm size and firm age have a positive effect on the financial performance of the enterprises, the research recommends that small and medium enterprises be optimistic in expanding their firm size through deb financing, which improves their capacity to increase the size of their business operations and gives them the economics of scale advantage to increase their financial performance.

Furthermore, small and medium enterprises have a key role in the economic development of the nation, especially in developing countries like Ethiopia. As a result, the government and financial institutions should consider facilitating access to debt finance to small and medium enterprise, specifically long-term finance, which will improve the capacity of small and medium enterprises to plan and engage in long-term projects and expand their business operations.

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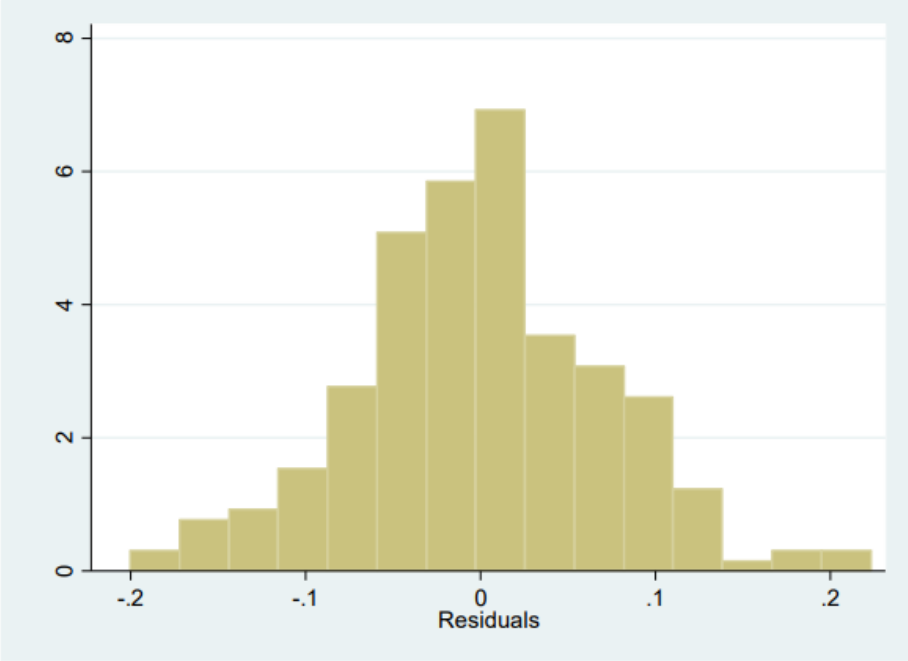
APPENDIX

ANNEX 1.1: DESCRIPTIVE RESULT

```
. sum roa tdta ldta sdta ta age

    Variable |        Obs        Mean    Std. Dev.       Min        Max
-------------+---------------------------------------------------------
         roa |        230    .1126348    .1516779        .002      1.066
        tdta |        230    .3924739    .7297713        .025      6.282
        ldta |        230    .2478261    .4793422        .013      3.694
        sdta |        230       .1383    .1896439        .001      1.208
          ta |        230    5.907909    .3917309       5.004       6.58
-------------+---------------------------------------------------------
         age |        230    5.156522    2.085891           1         10
```

ANNEX 1.2: NORMALITY TEST RESULT



ANNEX 1.3: HAUSMAN TEST

```
. hausman fixed random, sigmamore

                ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |     fixed        random       Difference          S.E.
-------------+------------------------------------------------------------
        tdta |    .3891585     .3112483        .0779102        .0726875
        ldta |    .2265539     .2997194       -.0731655         .043217
        sdta |   -.4646329     .0987908       -.5634238        .1789541
          ta |    .9372532    -.0194535        .9567067        .2967442
         age |    .0858564      .103956       -.0180995        .0145208
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg
Test:  Ho:  difference in coefficients not systematic

              chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                      =       27.79
            Prob>chi2 =      0.0000
```