DEBT AND FINANCIAL PERFORMANCE OF COMPANIES LISTED AT THE UGANDA SECURITIES EXCHANGE

BY

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DECLARATION

I **Umar Lwere** declare that this research report is my original work and has not been published or submitted to any university or institution of higher learning for any award.

Sign..... Date..08/07/2024.....

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APPROVAL

This work has been done under our supervision and has met the research requirements of Kyambogo University and is now ready for submission.

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DEDICATION

To my mum Ms. Zawedde Sarah and my daughters Raylee Lwere and Nabbanja Inaaya-Tahirah Nababi.

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LIST OF ABBREVIATIONS/ ACRONYMS

CMA	Capital Market Authority
CS	Capital Structure
ROA	Return on Assets
ROE	Return on Equity
STATA	Statistical software
USE	Uganda Securities Exchange

ABSTRACT

This study was set to investigate the effect of debt on the financial performance of listed companies at the Uganda Securities Exchange for the period of 2013-2018. Specifically, the study examined the effect of short-term debt on financial performance, the effect of long-term debt on financial performance and the moderating effect of firm size on the relationship between debt and financial performance of listed non-financial firms at the Uganda Securities Exchange for the period of 2013-2018. The study utilized panel data generated for 6 years (2013- 2018) among 8 non-financial firms. Random Effect (RE) panel econometric analysis was used to analyze the effects of debt on financial performance of 8 non-financial firms listed at the Uganda Securities Exchange between 2013 and 2018. Empirical results showed that short-term debt has negative and insignificant effects on ROA (Beta = -0.0854, p value =0.571) and ROE (Beta = -0.37981, p value =0.564) while long-term debt has negative and statistically significant effects on ROA (Beta = -0.3833, p value =0.002) and ROE (Beta = -0.7908, p value =0.004). Firm size was found not to have a statistically significant influence on the effect of short-term debt and ROA (Interaction STD*Fsize =0.0322, p value =0.221) and ROE (Interaction STD*Fsize =0.02175, p value =0.331) while a statistically significant influence was found on long-term debt on ROA (Interaction LTD*Fsize = -0.0193, p value =0.000) and ROE (Interaction LTD*Fsize =0.01441, p value =0.000). The study, therefore, concludes that with firms of large asset base, long-term debt accumulation is beneficial. Also, the findings reinforce the need to consider other forms of capital than borrowing to impact profitability levels.

Key Words: Short-term debt, Long-term debt, Return on Assets, Return on Equity

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter presents the background to the study, the statement of the problem, the purpose of the study, the objectives of the study, research questions, scope of the study, the significance of the study, and definitions of operational terms and concepts.

1.1 Background of the study

Debt financing which is a key element in a firm's choice of its capital structure refers to the act of borrowing funds from companies and investors through the use of bonds, banks, or financial institutions, in order to support a business's operations (Kljucnikov & Belas, 2016; Kraemer-Eis, & Lang, 2017) and its origin dates back as far as the middle age when money lending services were made accessible to traders in the city of Venice (Sluga, 2017). The lender of such fund is repaid the total amount borrowed, plus the interest accumulated on it, at a later point in time (Bratton, 2016).

Debt financing ensures that the business owner is constantly conscious of running the business well so as to be able to pay back such debts (Ding et al., 2017). Also, it can be less costly as interest paid on money borrowed for business activities are tax deductible (De Mooij & Keen, 2016; Collard et al., 2017). In contrast, there are some challenges associated with debt financing such as obligations to make payment even if your business fails, high-interest rate which will vary with macroeconomic conditions, history with the banks, business credit rating and your personal credit history and collateral (Allen, 2018). Secondly, there are risks associated with debt financing such as country's stability, concession period of the funds and financial crisis (De Marco & Mangano, 2017). In addition, there is the challenge of government policies (monetary

policies), and the capital market (Massa & Zhang, 2013; Du et al., 2017).

Financing decision acts as a basis of investment decision and a company's financial performance is extensively influenced by the proposition of mix financing (Liaqat et al., 2017).The choice of the appropriate mix of different sources of short and long term funds is one of the critical decision needs that have to be taken by a central body of an organization (Liaqat et al., 2017). Depending on the deal negotiated, these loans are normally secured (collateralized by assets) and guaranteed by the entrepreneurs. Rates and terms on long-term loans vary greatly based on the lending institution's policies and the business's age and financial status (Bichsel & Blum, 2004).

Harelimana (2018) argue that in the field of finance, how debt financing and financial performance affect each other is a matter of contention. Various studies done on debt financing and financial performance have resulted to inconsistent and clashing findings. In essence, Mitnick (2011), outlined that the more a firm chooses debt as its financing option the higher the likelihood of positive firm performance. Hadlock & James (2002) highly support Mitnick in their research about undervalued firms in that they also concluded that the use of debt finance and firm financial performance are directly proportional. However, according to Fama & French (1998), the relationship between debt financing and financial performance is indefinite due to lack of tax advantage of debt as a result of agency problems. Cheng & Tzeng (2011) conducted research on listed companies in Taiwan and concluded that debt financing and operating performance are not directly proportional. In Pakistan, Tauseef, Lohano, & Khan (2015) studied the effect of debt financing on a firm's financial performance, measured as return on equity, using panel data of 95 textile companies in Pakistan from 2002-03 to 2007-08. Empirical results show a nonlinear relationship between return on equity and debt-to-asset ratio. As the debt-to-asset ratio increases, initially, the return on equity increases until an optimal debt level is reached, after that it starts

decreasing. The optimal debt-to-asset ratio for Pakistan's textile firms is estimated at 56 percent. In Kenya, Shibanda & Damianus (2015) evaluated the relationship between financial leverage and performance of non-financial companies listed on the Nairobi Securities Exchange (NSE), Kenya for a 6-year study period (2007-2012). The result showed that ROA is significant with long-term debt at a 95% confidence interval.

In Uganda, Sekabira (2013) studied Capital Structure and Its Role on Performance of Microfinance Institutions in Uganda using Panel data for five years of 14 MFIs obtained from financial and income statements. Econometric analysis using STATA indicated that Debt and grants lent out were negatively correlated to operational and financial sustainability. When sustainability was more constricted to financial sustainability, debt and share capital remained noteworthy. Other than grants, debt was paid back on competitive market interest rates most especially debts from money lenders, whereas share capital fetched in revenues to the MFIs at market interest rates from the borrowers. Grants and debt had a substantial damaging consequence on MFI performance. Capital structure was essential in MFIs' sustainability.

Also, Mutyaba (2015) studied the effect of capital structure on the tariff of electricity generation projects in Uganda after controlling for other factors such as operation and maintenance costs, technology used for generation, project development costs, and installed capacity of generation plants on the generation tariffs. Using cross-sectional data from 29 electricity generation companies as at September 2014, a bootstrap linear regression analysis was used for estimation and results indicated that the higher the debt portion in the capital structure, the lower the generation tariff. However, the impact of debt in the capital structure was not statistically significant.

1.1.1 Theoretical background

The study was underpinned on two theories that are relevant to capital structure and financial performance. These theories were Trade-off Theory and Pecking Order Theory. The Trade-off Theory (TOT) argues that firms maximize their value through a trade-off between the benefits and costs of debt and equity financing- and reach an optimal capital structure even with the market imperfections such as taxes, bankruptcy costs, and agency costs(Glover & Hambusch, 2014). According to the TOT, profitable firms can borrow more up to a certain level, because after that the profitability and the value of the firm will decrease due to interaction of bankruptcy costs and agency costs (Adair & Adaskou, 2015). The Pecking order theory states that "firms prefer using internal sources of financing first, then debt and finally external equity obtained through shares' (Shyam-sunder & Myers, 1999).

Within the logic of these theories, debt will be investigated to find out its effect on the financial performance of companies listed on the Uganda Securities Exchange for the period of 2013-2018.

1.1.2 Conceptual Background

In this study, the main concepts are debt and financial performance. Each of these concepts has been conceptualized differently by different authors and they have specific application contexts in the study.

Debt is a conceptualization that is used to refer to the acquisition of capital from a particular lender to run a business and repay it back within a specified period of time with interest (Hussain, Millman, & Matlay, 2006). Debt is aimed at improving the business earnings, first to recover its cost, then benefit the proprietors, and retain the surplus (Mackenzie et al., 2009). Debt

is utilized by both startups, and existing enterprises to expand and get out of tough economic conditions (Waqar-ul-Hassan, Zubair, Hasnain, & Hussain, 2017).

Furthermore, Achieng, Muturi, & Wanjare (2018) defines debt as an instrument of filling the firm's budget deficits both in the private and public sector and plays a pivotal role in the success of both large and small businesses since it affects their profitability and solvency. In his study, debt financing was operationalized as short-term debt, long-term debt and total debt. For the purposes of this study, this operationalization will be adopted.

Financial performance is the ability of firms to operate efficiently, generate effective income, survive, and expand by observing environmental opportunities and threats (Turyahebwa et al., 2013). In the study of effects of debt on businesses firm's financial performance in Kenya by Onchong'a et al., (2016), financial performance was conceptualized as profitability, revenues, cash flows and return on assets.

According to Achieng et al. (2018), the financial performance of a firm is a mathematical measure that evaluates how well it is using available resources to make a profit. In this study, where he was investigating the effect of debt on financial performance of firms listed at the Nairobi's securities exchange, Kenya, Financial Performance was conceptualized as Return on Assets which refers to the ratio of Ratio of Total Profits before Tax to Total Assets and Return on Equity which refers to the Ratio of Total Profits before Tax to Total Equity. For purposes of this study, the conceptualization of Onchong'a et al., (2016) was adopted.

1.1.3 Contextual Background

The Uganda Securities Exchange (USE) was licensed to operate as an approved Stock Exchange in June 1997 by the Capital Markets Authority of Uganda and began formal trading operations in

January 1998. The Exchange is governed by a Governing Council whose membership includes a licensed broker or dealer firms, investment advisors, a representative of investors and a representative of issuers. Trading on the exchange is facilitated by 8 licensed brokers firms and 4 custodians. There are 16 listed companies, with a total market capitalization of approximately Ushs 20 trillion (US$ 5.7 billion) (www.use.or.ug). These listed companies are classified according to their respective sectors i.e., financial sector, Consumer goods sector, Health care sector, Consumer services sector, Industrial sector and Utility sector (www.african-markets.com). Financial firms were excluded because their financial statements differed substantially from those of other firms (Al-Najjar & Hussainey, 2011; Drobetz, Pensa, & Wöhle, 2006). In particular, the financial statements of firms in these sectors did not record short-term and long-term liabilities but rather recorded only total liabilities yet analyzing the effect of both short-term and long-term debt was an area of interest in this study.

This study thus focused on non-financial companies listed on the USE so as fully investigate the effect of debt on their financial performance for the period between 2013-2018.

1.2 Statement of the Problem

A high number of listed companies at the Uganda Securities' exchange have registered losses and declining financial performance contrary to the stakeholder's expectations (BoUFSR, 2018). Poor financial performance can have a considerable national effect given their contribution to the economy as it has resulted in the closure of some business operations by some companies (Gathara, Kilika, & Maingi, 2019). For example, in 2015 Uchumi closed due to consistently registering losses year after year (Daily monitor, 2015) though it posted an improved loss position for the year ending 30th June 2017 by 39% from Ksh 2.8bn to Ksh 1.7bn (*Uchumi supermarket annual report*, 2017). Kenya Airways also failed to register any profit for the last

four years (2015-2019). New Vision Group had its net profit margin decreased from 5.1% in 2015 to 0.02% in 2017 while National Media groups' net profits have tremendously declined from Ugx 2,533.2 million in 2013 to Ugx 1,056.7 million in 2018. Uganda Clays was facing financial difficulties for the last couple of years, registering a loss of Ugx 407m in 2018 despite registering a profit of Ugx 21m in financial year 2017. Umeme's profit after tax reduced by 24.8% from year 2016 to the year 2017 (www.use.or.ug).

Amidst these financial performance challenges, a thorough analysis of the statement of financial position of a number of listed firms under study reveals that the proportion of funds borrowed was progressively increasing between 2013- 2018 (USE Annual reports, 2013 to 2018). Additionally, abundant literature is available on the link between debt and firm's financial performance in developed economies but for developing economies the exploration is still limited (Akram Naseem, Zhang, Malik, & Ramiz-Ur-Rehman, 2017).

Therefore, it is in light of the above, that this research intends to investigate the effect of debt on the financial performance of listed companies at the USE for the period of 2013-2018.

1.3 Purpose of the study

To establish the effect of debt on the financial performance of companies listed at the Uganda Securities Exchange for the period of 2013-2018.

1.4 Research objectives

To examine the effect of short-term debt on the financial performance of companies listed on the Uganda Securities Exchange for the period of 2013-2018.

To examine the effect of Long term-term debt on the financial performance of companies listed

on the Uganda Securities Exchange for the period of 2013-2018.

To examine the moderating effect of firm size on the relationship between short-term debt and financial performance of companies listed on the Uganda Securities Exchange for the period of 2013-2018.

To examine the moderating effect of firm size on the relationship between Long-term debt and financial performance of companies listed on the Uganda Securities Exchange for the period of 2013-2018

1.5 Research Hypotheses

The following hypotheses are postulated in relation to the effects of short-term debt and long-term debt on the firm's financial performance measured by Return on Equity and Return on Assets.

Null hypotheses

H_1: Short-term debt has no effect on financial performance among firms listed on the Uganda Securities Exchange.

H_2: Long-term debt has no effect on financial performance among firms listed on the Uganda Securities Exchange.

H_3: Firm size has no effect on relationship between type of debt and financial performance among firms listed on the Uganda Securities Exchange

Alternative hypotheses

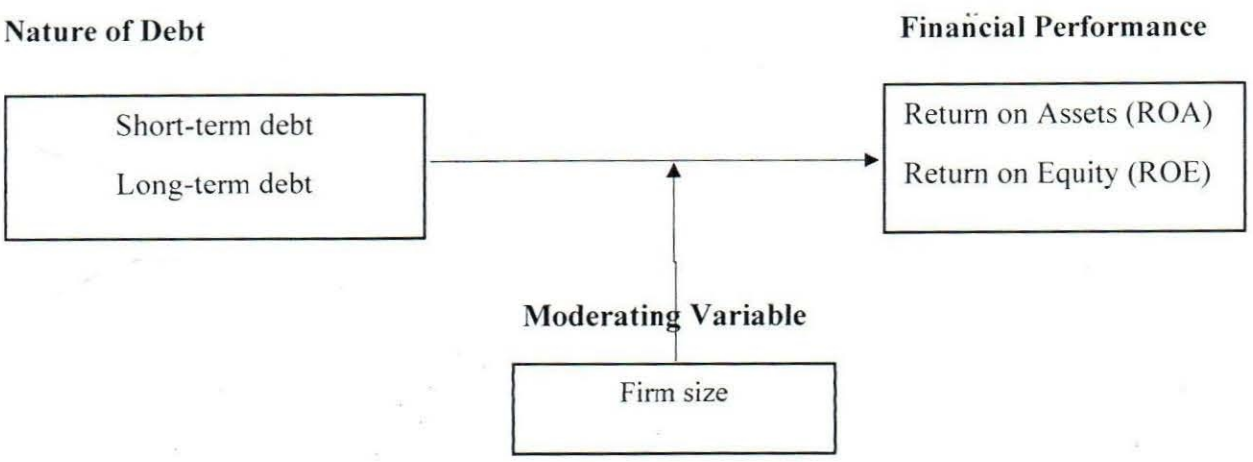
H_a: Short-term debt affects financial performance among firms listed on the Uganda Securities Exchange.

H_b: Long-term debt affects financial performance among firms listed on the Uganda Securities Exchange.

H_c: Firm size affects the relationship between type of debt and financial performance among firms listed on the Uganda Securities Exchange

1.6 Conceptual Framework

The study sought to establish the effect of debt on the financial performance of companies listed at the Uganda Securities Exchange for the period of 2013-2018. Debt which is the independent variable was operationalized as; Short-term Debt and Long-term Debt while Financial performance which is the dependent variable was operationalized as Return on Assets (ROA) and Return on Equity (ROE). The conceptual framework can be summarized in Figure 1.1 below.



Source: Adapted from Onchong'a et al (2016)

Figure 1. 1: Conceptual Framework

1.7 Scope of the study

1.7.1 Content scope

The focus of the study was on establishing the effect of debt on the financial performance of companies listed at the Uganda Securities Exchange for the period of 2013-2018. The study was

limited to companies listed at the Uganda Securities Exchange (USE). Debt was operationalized as Short-term debt and Long-term debt, Financial Performance as ROA and ROA while Firm size as natural logarithms of assets as adopted from previous researchers.

1.7.2 Time scope

The study analyzed financial statements of companies listed at the Uganda Securities Exchange for the period of 2013-2018. This studied period was preferred during this time because the studied firms' financial performance greatly dwindled, as well as availability of published books of accounts during the period.

1.7.3 Geographical Scope

The study was carried out in Uganda for companies listed at the Uganda Securities Exchange for the period of 2013-2018.

1.8 Significance of the study

The current study benefits the regulatory agencies and policymakers from which they will identify the areas where listed companies are falling short of the expected level of performance and in return the level of investors' return will be increased, hence improved financial performance.

The results will also add to the existing body of knowledge concerning the financial market in Uganda by reviewing the literature and further reference as a starting point to carry out similar research on the topic. They can also extend their efforts in the areas which have not been covered by the study.

1.9 Justification of the Study

With the decline in the financial performance of listed companies on the Uganda Securities Exchange and the rising trend of corporate failure in both global and local perspectives, Stakeholders are increasingly becoming more concerned about the financial performance of their firms. Uchumi Supermarkets Limited closed operations in Uganda in 2015, a good number of companies made losses between 2014 and 2018 while some reported falling after-tax profits in the same period. This research study is necessary to assess if the available debt options are impacting positively on the financial performance of these companies, and if not, what can be remedied can be employed to ensure the challenges are addressed.

1.10 Operational Definitions

Financial performance: This is a measure of how well a firm can use assets from its primary mode of business and generate revenues. There are many different ways to measure financial performance, for example, revenue from operations, operating income or cash flow from operations can be used, as well as total unit sales (Ongore & Kusa, 2013)

Return on assets (ROA): Ratio of Total Profits before Tax to Total Assets

Return on equity (ROE): Ratio of Total Profits before Tax to Total Equity

Debt: Is a resource borrowed with the expectation of paying back after a specified period of time interest (Hussain et al., 2006)

Short-term debt: refers to any financial obligation that is either due within a 12- month period or due within the current fiscal year.

Long-term debt: consists of loans and financial obligations lasting over one year. Long-term debt includes any financing or leasing obligations that are to come due in a greater than 12-month period.

Firm size: This refers to change in firms' total assets measured as the natural logarithm of assets (Pervan & Višić, 2012).

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews the literature relating to the effect of debt on financial performance. The theoretical literature, conceptual literature, and empirical literature shall be reviewed.

2.1 Theoretical review

2.1.1 The Trade-off Theory

This study was guided by the Tradeoff theory. The tradeoff theory equates the returns and the cost of debt, whereby the equilibrium point is referred to as the optimal capital structure (Obuya, 2017). According to the tradeoff theory, firms select the supreme financial structure by matching the tax benefits of debt, to finance cost including agency and bankruptcy costs (Ahmeti & Prenaj, 2015). So optimal leverage minimizes the cost of capital and maximizes firm value. This infers that profitable enterprises rely on debt financing options because of tax advantages (Mainelli & Giffords, 2010). This because interest on the debt is deducted from income before tax in the income statement, leading to tremendous tax-saving resulting in increased profits (Iqbal, 2012).

Despite having advance defined optimal capital structures; there are some constraints that hinder firms from getting there, such as dearer transaction costs and negligence on the side of the managers to implement the capital structure as advocated by static tradeoff theory (Shyam-sunder & Myers, 1999;López-Gracia & Sogorb-Mira, 2008). If the relationship between profitability and leverage is negative, then such a relationship defeats the static tradeoff theory argument of equating the cost of debt to benefits of using it, such as tax advantage at the corporate level is canceled by tax disadvantage at the personal level (Fama & French, 2005; Obuya, 2017). The TOT predicts that firms with more tangible assets and more taxable income

to shield should have high debt ratios (Serrasqueiro & Caetano, 2015). Firms with more intangible assets, whose value will disappear in case of liquidation, should rely more on equity financing. In terms of profitability, the trade-off theory predicts that more profitable firms should mean more debt-serving capacity and more taxable income to shield, thus a higher debt ratio will be anticipated. Under the trade-off theory, firms with high growth opportunities should borrow less because they are more likely to lose value in financial distress.

2.1.2 Pecking Order Theory

Pecking order theory of capital structure by Myers (2001) states that firms have a preferred hierarchy for financing decisions. Firms will borrow instead of issuing equity when internal cash flow is not sufficient to fund capital expenditure. The highest preference is to use internal financing before resorting to any form of external funds. Internal funds incur no floatation costs and require no additional disclosure of financial information that may lead to a possible loss of competitive advantage. If a firm must use external funds, the preference is to follow a certain order of financing sources: debt, convertible securities, preferred stock, and common stock (Miller, 1977). This order reflects the motivations of the financial manager to retain control of the firm, reduce the agency costs of equity, and avoid negative market reaction to an announcement of a new equity issue. The amount of debt will reflect the firms' cumulative need for external funds. The theory has two key assumptions about financial managers. The first of these is the likelihood that a firm's managers know more about the company's current earnings and future growth opportunities than outside investors. There is a strong desire to keep such information proprietary. The use of internal funds prevents managers from having to make public disclosures about the company's investment opportunities and potential profits to be realized from investing in them.

The second assumption is that managers will act in the best interests of the company's existing shareholders. The managers may even forgo a positive-NPV project if it would require the issue of new equity since this would give much of the project's value to new shareholders at the expense of the old (Syed et al., 2012). However, the theory has some limitations since it does not explain the influence of taxes, financial distress, security issuance costs, agency costs, or the set of investment opportunities available to a firm upon that firm's actual capital structure. It ignores the problems that can arise when a firm's managers accumulate so much financial slack that they become immune to market discipline. As such the theory is offered as a complement to, rather than a substitution for, the traditional trade-off model.

2.2 Conceptual review

Financial performance is the dependent variable and using the tradeoff theory, it is conceptualized to be predicted by Debt. From the proceeding sections, the key aspects derived for empirical investigation are short-term debt, long-term debt, and financial performance. In this section, these concepts are explained and their link is highlighted.

2.2.1 Financial performance

Financial performance is an essential measure of a firm's overall financial status over a given period of time and can be used to compare similar firms across the same industry or to compare industries or sectors in totality (Kakanda et al., 2016). Financial performance is a subjective measure of how well a firm can use its' assets from its' primary business to generate revenues (Marn & Romuald, 2012;Yasser, 2013). Although there are a number of measurements for financial performance, this study considered ROA and ROE, because according to Hutchinson & Gul(2004); Mashayekhi & Bazaz (2008), accounting-based performance measures present the management decision's end results and are hence preferred over market-based measures in this

study. The advantage of these measurements is their general availability since every profit-oriented organization produces these figures for their yearly financial reporting (Chenhall & Langfield-Smith, 2007).

ROA is an accounting-based measurement that gauges the operating and financial performance of the firm. It is a measure of how the board and management have utilized assets under their stewardship to deliver value to the shareholders. Higher ROA reflects the company's effective use of its assets in serving the economic interests of its shareholders (Haslindar & Samad, 2011). Analysts use ROA to assess a firm's operating performance relative to investments made without considering whether the firm used debt or equity capital to finance the investments. The ratio measures the relationship between the amount of profit before interest and tax, and the total assets number expressed as a percentage. Although ROA shows how productive the firm's total assets are in producing a profit, it ignores the means and costs of financing the assets (i.e. the proportion of debt versus equity financing, and the cost of those forms of capital).

ROE relates to the return made by a firm for its shareholders with the finance made available to the firm by the shareholders. In other words, it indicates the management's success or failure at maximizing the return to stockholders based on their investment in the firm (Alexander & Nobes, 2001). Return on Equity is an indication of the amount of income returned as a percentage of shareholders equity. Investors are more interested in ROE and its changes because it provides an indication of the firm's efficiency.

2.2.2 Debt

Debt is a resource borrowed with the expectation of paying back after a specified period of time (Hussain et al., 2006). If the specified time spread over a period of one year then it becomes long-term debt and if the expected payment period is less than or equal to one it becomes a short-term debt (Obuya, 2017). Debt sources are majorly financial institutions such as commercial banks, money lenders, micro-finance institutions and SACCOs. Through debt, firms that lack enough internal revenues to finance their operations are able to fill up the fiscal deficits. Firms usually prefer debt because it is relatively cheaper (Graham, 2000; Berger & Udell, 2005). Undoubtedly, debt is essential for the growth and profitability of firms. Debt acts as a tax shield to a firm. This is because the interest payable on the debt is an allowable deduction as an expense in the computation of the tax liability of the firm and thus debt can ultimately increase the value of the firm (Damodaran, 1999).

2.2.2.1 Short-term debt

Short-term debt operationalized as short-term debt ratio is the ratio of current liabilities to total assets measures how relative current liabilities to the total asset of a firm are to be repaid within an accounting period and represents the financial position of the company's ability to meet its current financial requirements (Akinyomi& Adebayo, 2013). Some scholars argued that the shorter the debt the better the firm is in improving its performance. A lower debt ratio usually implies a more stable business with the potential of longevity because a company with a lower ratio also has short term debt. The short-term debt ratio is a measure of the financial leverage of the company and it tells what percentage of the assets is financed by short term debt. Short term debt is a debt due for repayment within or less than 12 months and is not included in the long term liabilities figure on the statement of financial position and includes creditors and accruals

(Akinyomi& Adebayo, 2013).

2.2.2.2 Long-term debt

Long-term debt operationalized as long-term debt ratio is the ratio of Non-current liabilities to total assets measures the relative weight of long-term debt to the capital structure of a firm's long-term debt to- total assets (Muhammad, Shah, & Islam, 2014). Long term debt ratio represents the financial position of the company's ability to meet its financial requirements (Lancett, 2008). As this ratio is calculated yearly, a decrease in the ratio would denote that the company is faring well, and is less dependent on debts for their business needs (Wanjuki et al., 2014). The higher the level of long-term debt, the more important it is for a company to have positive revenue and steady cash flow. It is very helpful for management to check its debt structure and determine its debt capacity (Akinsulire, 2014).Long term debt is a debt due for repayment in over 12 months and is not included in the current liabilities figure on the balance sheet. It includes mortgages and long term leases, but not general trading liabilities (Akinyomi& Adebayo, 2013). A high ratio usually indicates a higher degree of business risk because the company must meet principal and interest obligations. Potential creditors are reluctant to give financing to a company with a high debt position. However, the magnitude of debt depends on the type of business. For example, a bank may have a high debt ratio but its assets are generally liquid. A utility can afford a higher ratio than a manufacturer because its earnings are more stable (Khalaf, 2014)

2.2.3 Firm size

This is defined as the logarithm of total assets and the logarithm of sales (Pervan & Višić, 2012). Most studies have found a positive relationship between size and firm leverage (Deesomsak, Paudyal, & Pescetto, 2004; Rajan & Zingales, 1995). This is consistent with the trade-off theory

(TOT) whereby larger firms have a higher tendency to use more debt. Boyd & Runkle (1993)argue that a larger firm is more cost-efficient and less likely to fail. Larger institutions are believed to have more profitable investment opportunities, higher efficiency, more diversification and a lower risk level (Akbas & Karaduman, 2012). As pointed out by Mainelli & Giffords (2010), firms larger in size can enjoy economies of scale and scope and also pass an important criterion to enable them to compete globally. However, Chen (2004) and Ooi (1999) argue that there is an inverse relationship between size and firm leverage. This is because smaller firms have limited access to equity capital and are more likely to use bank loans.

2.3 Empirical Literature

Under empirical literature, the section has been structured in accordance with the objectives of the study, that is, the effect of short-term debt on the financial performance of companies listed at the USE for the period of 2013-2018, the effect of long-term debt on the financial performance of companies listed at the USE for the period of 2013-2018 and the moderating effect of firm size on the financial performance of companies listed at the USE for the period of 2013-2018.

2.3.1 Short-term Debt and Financial Performance

Different scholars have conducted empirical studies on short-term debt and the firm's financial performance. For example, El-Abiad & El-Chaarani (2019) studied the effect of capital structure and the performance of the banking sector in Middle East countries during a period of 6 years (between 2011 and 2016). By using 143 banks and 723 observations, the study showed that the capital structure of the banking sector was very volatile during the studied period due to the economic conditions of the region. The results also reveal the existence of the positive and significant effect of short-term debt on the return on equity of the banking sector in the Middle East region and negative significant effect of short-term debt on the return on assets (ROA).

Asare & Angmor (2015) studied the effect of debt finance on the profitability of SMEs within the Accra Metropolis in Ghana. The study used secondary data collected from 50 SMEs in the Metropolis covering the period from 2004-2013. Profit margin ratio and return on assets were used as a measurement of profitability while trade credit, short-term loan ratio, and long-term loan ratio were used to represent debt finance. The study found a short-term loan ratio to have a significant negative relationship with both profit margin ratio and return on assets.

Achieng et al., (2018) conducted a study to examine the effects of debt configurations namely short-term, long-term and total debt on firm financial performance measured as return on assets and return on equity of listed firms in-Kenya using firm size as a control variable. The study utilized panel econometric techniques named pooled ordinary least squares (OLS), fixed effects (FE) and random effects (RE) to analyze the effects of debt on the financial performance of 40 non-financial firms listed on the Nairobi Securities Exchange between 2009 and 2015. Empirical results showed that short-term debt had negative and statistically significant effects on returns on assets across OLS and RE but no significant effects on ROE across the three different estimation techniques.

Jan Habib et al., (2016)conducted a study on the impact of debt on the profitability of firms. Different sets of variables were used to investigate the relationship between debt and profitability of firms with empirical evidence from the non-financial sector of Pakistan; using panel data of 10 years, ranging between 2003- 2012. Results indicated a significant but negative relationship between STDA and ROA.

2.3.2 Long-term debt and Financial Performance

Different scholars have conducted empirical studies on Long-term debt and the firm's financial

performance. For example, Borges et al. (2017), conducted a study aimed at examining the relationship between long-term debt and performance of Brazilian and Latin American companies, encompassing the previous economic scenario, during and after the global crisis of 2008. The study considered accounting data from public companies listed in stock exchanges of Brazil, Chile, Argentina, Colombia, Mexico and Peru within the period of 2007 to 2015. Multiple linear regression model with panel data based on the literature of the subject was used and results indicated that for companies from Latin America, except Brazilians, there is a negative relationship between long-term debt and performance.

Ikapel & Kajirwa (2017) analyzed the effect of long-term debt on the financial performance of state-owned Sugar Firms in Kenya. The study used a retrospective research design. A simple linear regression model was used to identify significant predictors of ROA controlling for confounders. The results are that there is a significant negative relationship between long term debt and financial performance ROA. Long term debt negatively affects ROA although not statistically significant. The conclusions of the study are that Long term debt negatively affects financial performance. Long term debt is strongly negatively related to financial performance as measured by ROA.

Shibanda & Damianus (2015), studied the relationship between financial leverage and performance of non-financial companies of the Nairobi Securities Exchange (NSE), Kenya. The study was a census of all 61 firms listed on the NSE for the 6-year study period (2007-2012). The regression analysis model was used to investigate the relationship of financial leverage on dependent variables and results indicated that ROA is significant with long-term debt.

Yapa Abeywardhana & Magoro (2017), studied the effect of debt capital and financial

performance of the listed companies in the wholesale and retail sector of South Africa. The study used a panel data sample of 25 South African wholesale and retail sector companies to examine the effect of debt capital on the financial performance of companies over the 2011-2015 period. The fixed-effects (within) regression model was used on the accounting-based-measures of profitability and financial performance. Results showed that debt capital, in terms of Long-term debt and Short-term debt, had a negative effect on the financial performance of wholesale and retail sector companies of South Africa.

Ndirangu & Ochiri (2018), conducted a study on the effects of financial structure on the performance of listed investment firms in Kenya. The study employed descriptive research design with secondary data from the financial statements of 3 investment firms which was retrieved from the securities exchange's handbooks for the period 2006-2016. The study findings revealed that long term debt had a significant positive relationship with ROA. Long term debt was found to be positively and significantly related to ROE of listed investment firms.

2.3.3 Firm Size and Financial Performance

Different scholars have conducted empirical studies on firm size and firm's financial performance. For example, Oyelade (2019), examined the impact of firm size on firm's performance of selected firms in the building industry in Nigeria using annual data from 2004 to 2017. The technique used in the research work was panel analysis. Based on the financial measurement of performance using both return on assets (ROA) and return on equity (ROE), two out of the four variables used as an indicator of size were statistically significant in determining return on assets which are total sales and age of firm since incorporated and total sale has positive effect on return on assets while age of firm since incorporated has a negative effect on return on assets. Based on productivity measurement of performance of the selected firms in the

building industry in Nigeria using both outputs per labor and output per capita, also two out of the four variables used as an indicator of size were statistically significant in determining output per labor which are total sales and age of firm since incorporated and both have positive effect output per labor and total number of employee and leverage has a negative significant impact on output per labor. Also, only age of firm since incorporated as a measure of size that was significant in determine output per capital out of the four measurements of size and liquidity ratio has a positive significant effect on output per capita

Doğan (2013), studied the effect of firm size on profitability. In this study, data of 200 companies that were active in the Istanbul Stock Exchange (ISE) between the years 2008-2011 has been used. Return on Assets (ROA) has been used as indicators of firm profitability and total assets, total sales and number of employees have been used as indicators of size. Multiple regression and correlation methods were used in empirical analyses. Results indicated a positive relation between size indicators (total assets, total sales, and number of employees) and the profitability of the firms in all three models. Correlation analysis showed negative and statistically significant at 1% relations between the size indicators of the firm which are total assets and total sales, and asset profitability of the firm (ROA). Also, negative and statistically significant at 5% relations have been observed between number of employees, the other size indicator, and ROA. Relations which are positive and statistically significant at 1% have been observed between liquidity ratio and ROA of the firms. On the other hand, relations that are negative and statistically significant were between leverage ratio and ROA.

Rizky, Nur, & Siti(2017), reported a positive significant effect of firm size on Tobin's Q after conducting a study of 30 companies listed on the Indonesian Stock Exchange (IDX) for a period of five years. Similarly, Missy, Yuanita, Budiyanto, & Riyadi (2016) reported a positive

significant effect of firm size on Tobin's Q as a result of a study conducted of companies listed on Indonesia Stock Exchange from 2010-2014. In the same vein, Vintilă, Nenu, & Gherghina (2014) conducted a study on the factors influencing corporate financial performance of 40 companies listed on the Bucharest Stock Exchange over a period of 3 years (2010-2012). The study reports positive significant effect of firm size and Tobin's Q. Odongo, Thabang, and Leonard (2014) reported a positive significant impact of firm size on Tobin's Q.

Vintilă et al., (2014) studied the effects of firm size on the profitability of quoted manufacturing firms in Sri Lanka. In this study, data of 15 companies that were active in Colombo Stock Exchange (CSE) between the years 2008 to 2012 has been used. As indicators of firm profitability, Return on Assets and Net Profit were used whereas Total Assets and Total Sales have been utilized as indicators of firm size. Correlation and regression methods were used in the empirical analysis. Results showed no indicative relationship between firm size and profitability of listed manufacturing firms, the findings reveal. In addition, the results showed that firm size has no profound effect on the profitability of the listed manufacturing firms in Sri Lanka.

2.4 Summary of literature review and Literature gap

In summary, while the reviewed empirical studies conducted world over showed that the relationship between debt and different firm financial performance measures are mixed, a large part of the available literature favor significant effects of debt, generally, on ROA and ROE

In Uganda, few studies were conducted relating to the effect of debt on performance. These were mostly in microfinance institutions (Sekabira, 2013), electricity generation projects (Mutyaba, 2015) but limited research has been done on companies listed. In view of the foregoing, this study, therefore, tried to address this gap.

This study, therefore, sought to bridge this gap and investigate the effect of debt on firm performance of companies listed at the Uganda Securities Exchange.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter focuses on the description of the research methods that were used in carrying out the study. It describes the research design, study population, sampling method, data sources and collection instruments, research variables and their measurement, and data analysis. The chapter ends with a review of the limitations during the execution of the study

3.1 Research Design

The study adopted a longitudinal survey design, employing secondary quantitative data for six years (2013-2018). With this research design, data are collected on one or more variables for two or more periods, thus allowing at least measurement of change and possible explanation of change (Kerlinger & Lee, 2000).

3.2 Study Population

The USE comprises 17 listed firms and this constituted my target population for the period 2013-2018. Financial firms were excluded because their financial statements differed substantially from those of other firms (Al-Najjar & Hussainey, 2011;Pandey, 2004). In particular, the financial statements of firms in these sectors did not record short-term and long-term liabilities but rather recorded only total liabilities yet analyzing the effect of both short-term and long-term in addition to total liabilities was an area of interest in this study.

3.3 Sample Technique

Purposive sampling was used to select the 9 non-financial listed firms and this constituted my sample population. A census study was then carried out on these firms. Census is the study of

whole population and as such, it enhances validity of the data and results by including all information for all the elements in the study (Saunders, Lewis, & Thornhill, 2009) and also eliminates sampling error (Watson, 2011). Uchumi closed business in Uganda in 2015 due to a lack of profitability and was thus not studied.

Table 3. 1: Distribution by Sector of Listed Firms at the USE

Name of the company	Sector
British American Tobacco Uganda	Consumer goods
East African Breweries Limited	Consumer goods
Kenya Airways	Consumer services
Nation Media group	Consumer services
New Vision Printing and Publishing Company Ltd	Consumer services
Uganda Clays Limited	Industrials
Cipla Quality chemicals industries limited	Health care
UMEME ltd	Utilities

*Source : (**http://www.african-markets.com**)*

3.4 Data Collection and Source of Data

Secondary data that is quantitative in nature was collected. It consisted of time series (years 2013 to 2018) and cross-sections (companies) and was collected from published books of accounts of these firms using a checklist. 8 companies were studied for 6years yielding 48 observations.

3.5 Measurement of Variables

In this study, debt measured named as short-term debt and long-term debt were used as the independent variable while the dependent variable which is Firm financial Performance was

measured as return on assets and return on equity using a checklist to collect panel data for six years from 2013-2018. In addition, Firm size was used as a moderating variable that may affect firm financial performance.

3.6 Panel Data Analysis

Normality of the data was tested using the Shapiro – Wilk test, Kolmogorov – Smirnov test and test of skewness and kurtosis (Shapiro & Wilk, (1965); Curran, West, & Finch, (1996). Research using Monte Carlo simulations indicate that significant problems tend to arise when skewness is greater than 2.00 and kurtosis exceeds 7.00 (Curran, West, & Finch, 1996). For the Shapiro Wilk test the significance values should be greater than 0.05 to reveal that data is normally distributed (Shapiro & Wilk, 1965).

The study utilized descriptive statistics, inferential analysis, and panel linear multiple regression analysis with the aid of Stata 14. Regression coefficients were tested for significance using a t-statistic at 5 percent level of significance and conclusions are drawn. Before conducting inferential statistics, a number of diagnostic tests were conducted to assess whether Fixed Effects or Random Effects model will be the appropriate model estimation. This was established using a Hausman specification test and Breusch-Pagan Lagrange multiplier (LM).

To conduct quantitative data analysis, a multivariate regression analysis on panel data was used to test the study null hypotheses which were;

H_1: Short-term debt has no effect on financial performance among firms listed on the Uganda Securities Exchange.

H_2: Long-term debt has no effect on financial performance among firms listed on the Uganda Securities Exchange.

H_3: Firm size has no effect the relationship between debt and financial performance among firms listed on the Uganda Securities Exchange

Using combinations of variables, four linear regression equations were estimated for Debt and four regression equations for financial performance as follows:

Short-term debt and financial performance estimated regression equations;

$$ROA_{it} = \beta_0 + \beta_1 S_{it} + \beta_2 X_{it} + \varepsilon_{it} \quad \ldots\ldots (1)$$

$$ROE_{it} = \beta_0 + \beta_1 S_{it} + \beta_2 X_{it} + \varepsilon_{it} \quad \ldots\ldots (2)$$

$$ROA_{it} = \beta_0 + \beta_1 S_{it} + \beta_2 X_{it} + \beta_2 SF_{it} + \varepsilon_{it} \quad \ldots\ldots (3)$$

$$ROE_{it} = \beta_0 + \beta_1 S_{it} + \beta_2 X_{it} + \beta_2 SF_{it} + \varepsilon_{it} \quad \ldots\ldots (4)$$

Where;

i is an individual company, t is time

ROA and ROE are dependent variables that represent the financial performance of listed companies

S represents the vector of short-term debt

X represents the unobserved firm-specific effect

SF represents the moderating effect of firm size and was captured by the interaction between short -term debt and firm size.

ε_{it} is error term

β_0 and β_1- β_2 Are model intercepts and slope coefficients

Long-term debt and financial performance estimated regression equations;

$$ROA_{it} = \beta_0 + \beta_1 L_{it} + \beta_2 X_{it} + \varepsilon_{it} \quad \ldots\ldots (5)$$

$$ROE_{it} = \beta_0 + \beta_1 L_{it} + \beta_2 X_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (6)$$

$$ROA_{it} = \beta_0 + \beta_1 L_{it} + \beta_2 X_{it} + \beta_2 LF_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (7)$$

$$ROE_{it} = \beta_0 + \beta_1 L_{it} + \beta_2 X_{it} + \beta_2 LF_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (8)$$

Where;

i is an individual company, t is time

ROA and ROE are dependent variables that represent the financial performance of listed companies

L represents the vector of long-term debt

X represents the unobserved firm-specific effect

LF represents the moderating effect of firm size and was captured by the interaction between long -term debt and firm size

ε_{it} is error term

β_0 and β_1- β_2 Are model intercepts and slope coefficients

3.7 Model Estimation Approach

Hausman specification test was used to choose between the fixed effects model and the random-effects model. The null hypothesis of the Hausman test is that the preferred model is Random Effects vs. the alternative the Fixed Effects (Torres-Reyna, 2014). It basically tests whether the unique errors (ui) are correlated with the regressors, the null hypothesis is they are not. The rule of thumb is that if the probability value of chi2 is less than 0.05 at 95% level of significance, fixed effects is preferred otherwise random-effects model. In the study, the Hausman test results (p-value) were greater than 0.05 for all specifications and therefore the random-effects model was estimated for all the eight model specifications. Breusch-Pagan Lagrange multiplier (LM)

was also estimated to check for the panel effect since the Hausman specification test favors the random. Using the xttset0 Stata command, the results LM test were statistically significant (p-value <0.05) rejecting the null and conclude that random effects are the appropriate model estimation approach over the pooled Ordinary Least square method. Hierarchical regression was used for estimation of all the models.

3.8 Limitations of the study

The study employed secondary data retrieved from audited annual financial statements. Although, the quality of these reports is reliable and expected to meet International Financial Reporting Standards requirements, there are chances of undetected errors which may lead to inherited limitations in case of error of original entries.

Secondly, the study draws its firms from those listed in Uganda; where firms cross-link. This implies data collected was from un-similar currencies which required conversion into singular currencies which may not be very accurate especially when conversion rates are not available. Currency conversion was done using standard exchange rates obtained from the Uganda Revenue Authority for the period under study.

CHAPTER FOUR

PRESENTATION, ANALYSIS, AND INTERPRETATION OF FINDINGS

4.0 Introduction

This chapter presents the findings obtained from the data. The first section of the chapter presents the descriptive statistics of the variables used in the analysis. The second part of the chapter presents the regression analysis organized per specific objective.

4.1 Tests of Normality

Normality of the data was tested using the Shapiro – Wilk test, Kolmogorov – Smirnov test and test of skewness and kurtosis (Shapiro & Wilk, (1965); Curran, West, & Finch, (1996). The results testing for normality are indicated in table 4.1 below;

Table 4. 1: Tests for normality of study variables

Variable	*Statistics*	*df*	*Sig.*
Firme size			
Kolmogorov-Smirov	.110	90	.10
Shapiro-Wilk	.630	90	.124
Skewness	1.427		
Kurtosis	0.132		
Long-term debt			
Kolmogorov-Smirov	.154	90	.16
Shapiro-Wilk	.820	90	.154
Skewness	1.697		
Kurtosis	2.152		
ROA			
Kolmogorov-Smirov	.0230	90	.200
Shapiro-Wilk	.862	90	.314
Skewness	1.089		
Kurtosis	.536		
F*ROE*			
Kolmogorov-Smirov	513	90	.014
Shapiro-Wilk	.913	90	.008
Skewness	.114		
Kurtosis	1.730		

Source: Primary data 2019

N=48, ***p<0.000, *p<0.01, *<0.05

From the Table above, a Shapiro-Wilk test had insignificant values (*p>0.05) and a visual inspection of their histograms, normal Q-Plots and box plots showed that the variables were approximately normally distributed. In addition, all the skewness values were less than 2.00 and

kurtosis was less than 7.00 implying that data was normally distributed.

4.2 Sample Characteristics of Selected Listed Companies in Uganda

The study covered 8 listed companies at the Uganda Securities Exchange for a period of six years: 2013 to 2018. This implied that the eight company's performance and debt indicators were observed for six consequent years creating panel data set with 48 observations. The results in the figures below present the behavior of the listed companies with respect to financial performance indicators, and company debt structure.

4.2.1 Financial Performance of Listed Companies included in the Study

4.2.1.1 Return on assets.

Table 4.2 below, presents summary of ROA figures of the studied firms for the period between 2013 and 2018.

Table 4. 2: Return on Assets of Listed Companies in the Study

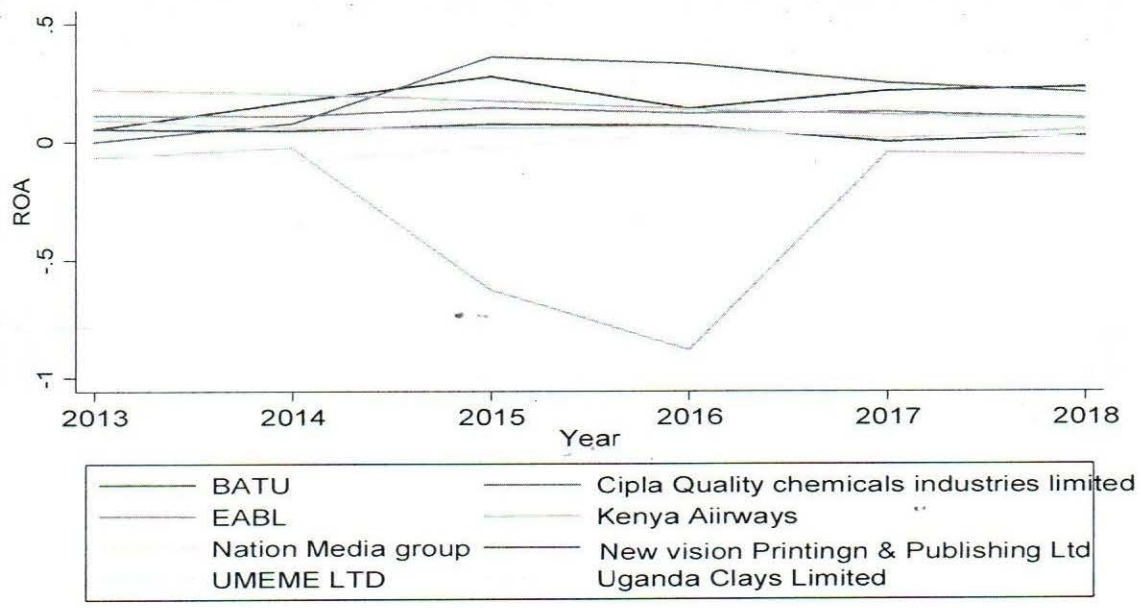
Company	2013	2014	2015	2016	2017	2018
British American Tobacco Uganda	0.054	0.169	0.279	0.142	0.220	0.234
East African Breweries Limited	0.113	0.109	0.146	0.122	0.128	0.102
Kenya Airways	(0.064)	(0.023)	(0.627)	(0.883)	(0.043)	(0.055)
Nation Media group	0.221	0.206	0.175	0.139	0.116	0.100
New Vision Printing and Publishing Company Ltd	0.054	0.046	0.076	0.070	0.000	0.026
Uganda Clays Limited	(0.046)	(0.080)	(0.019)	0.036	0.036	0.018
Cipla Quality chemicals industries limited	0.078	0.078	0.361	0.332	0.250	0.213
Umeme ltd	0.094	0.058	0.060	0.062	0.015	0.054

Source: Primary data, 2020

Return on assets (ROA) is a profitability ratio that provides how much profit a company is able to generate from its assets. It is usually used to measure how efficient a company's management is in generating earnings from its economic resources or assets on its balance sheet. The results presented in Figure 4.1 below show that of the eight companies studied for the period between 2013 and 2018, some companies were able to achieve a positive return on assets hence making profit while another negative. It is evident in the graph that Kenyan Airways has registered negative ROA for studied period with significant fall in ROA between 2014 and 2016. Overall, the ROA has not been smooth across all the studied listed companies for period between 2103

and 2016. Below is a graphical representation of the ROA of the studied firms for the period between 2013 and 2018.

Figure 4. 1: Graph showing Return on Assets of Listed Companies in the Study



Source: Primary data, 2020

4.2.1.2 Return on Equity

Table 4.3 below, presents summary of ROE figures of the studied firms for the period between 2013 and 2018.

Table 4. 3: Return on Equity of Listed Companies in the Study

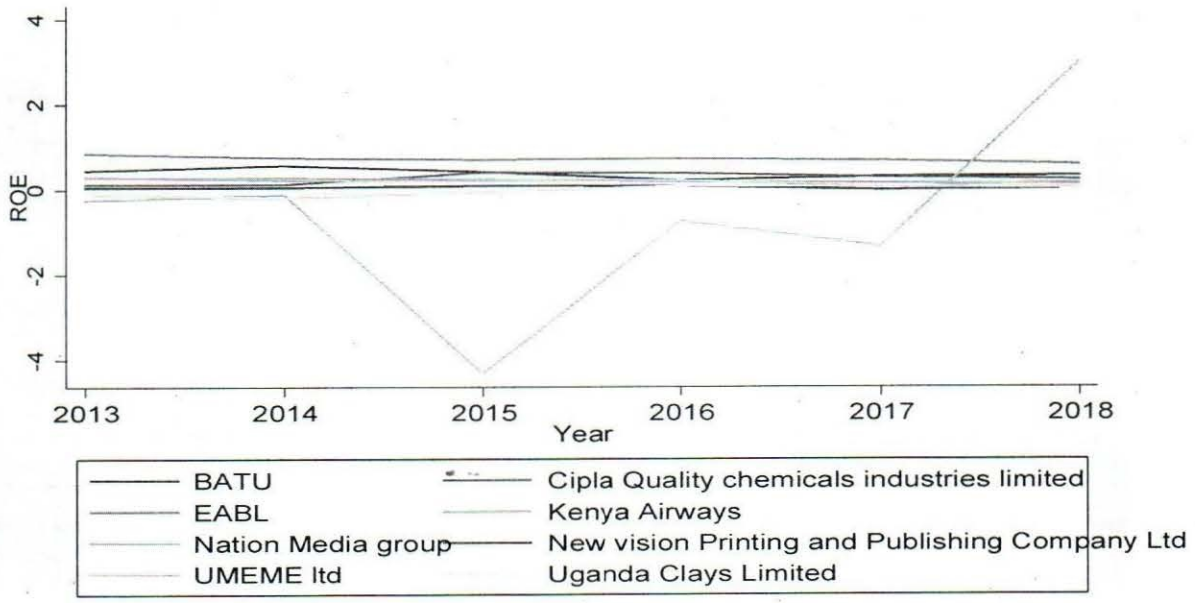
Company	2013	2014	2015	2016	2017	2018
British American Tobacco Uganda	0.455	0.578	0.431	0.225	0.310	0.339
East African Breweries Limited	0.858	0.754	0.714	0.738	0.710	0.623
Kenya Airways	(0.252)	(0.120)	(4.317)	(0.735)	(1.321)	3.037
Nation Media group	0.307	0.281	0.248	0.194	0.161	0.142
New Vision Printing and Publishing Company Ltd	0.068	0.059	0.095	0.085	0.000	0.033
Uganda Clays Limited	(0.103)	(0.193)	(0.047)	0.085	0.077	0.040
Cipla Quality chemicals industries limited	0.119	0.119	0.418	0.396	0.300	0.256
Umeme ltd	0.293	0.225	0.210	0.222	0.057	0.184

Source: Primary data, 2020

Return of equity (ROE) signifies how good the company is in generating returns on the investment it received from its shareholders. The results presented in Figure 4.2 show that most companies obtained a positive return on equity and relatively constant across the studied period with exception of Kenya Airways which failed to generate returns on investment between 2013 and 2017. However, past 2017, its ROE is gained momentum outperforming the rest of the companies.

Below is a graphical representation of the ROE of the studied firms for the period between 2013 and 2018.

Figure 4. 2: Graph showing Return on Equity of Listed Companies in the Study



Source: Primary data, 2020

4.2.2 Debt Structure of Listed Companies included in the Study

4.2.2.1 Short-term Debt Ratio

Table 4.5 below, presents summary STD figures for the studied firms for the period between 2013 and 2018

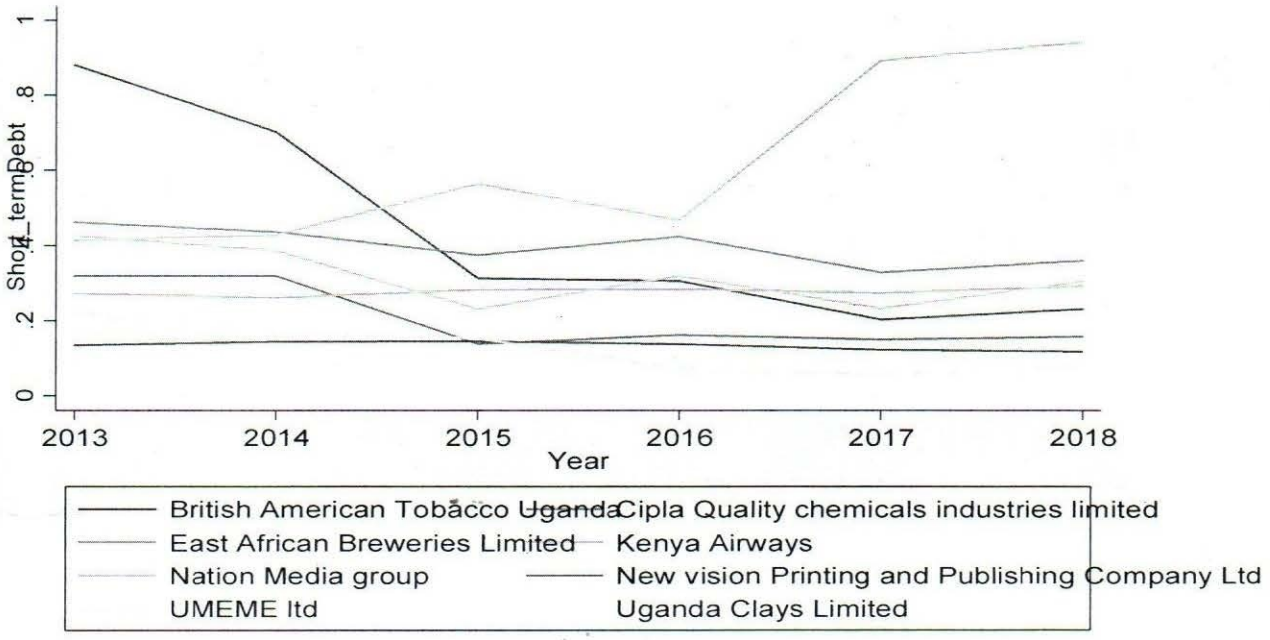
Table 4. 4: Short-term Debt Ratio of Listed Companies in the Study

Company	2013	2014	2015	2016	2017	2018
British American Tobacco Uganda	0.8805	0.7029	0.3124	0.3070	0.2031	0.2318
East African Breweries Limited	0.4610	0.4368	0.3757	0.4258	0.3298	0.3619
Kenya Airways	0.4144	0.4289	0.5663	0.4685	0.8971	0.9479
Nation Media group	0.2723	0.2611	0.2828	0.2839	0.2757	0.2938
New Vision Printing and Publishing Company Ltd	0.1345	0.1442	0.1456	0.1379	0.1215	0.1180
Uganda Clays Limited	0.2202	0.1703	0.1532	0.0715	0.0537	0.0752
Cipla Quality chemicals industries limited	0.3195	0.3195	0.1369	0.1621	0.1494	0.1566
Umeme ltd	0.4271	0.3874	0.2313	0.3212	0.2325	0.3067

Source: Primary data, 2020

From Table 4.4 above, it is evident in the figures that the short-term debt figures of the listed companies are low and not uniform. All studied firms have short-term debt ratios less than one percent of the total assets, implying that they do not borrow much to finance their capital assets. However, the STD ratios are higher than the LTD ratios. This implies that the studied firms borrow more of short-term debts than long-term debts. Below is a graphical representation of the STD ratios of the studied firms for the period between 2013 and 2018.

Figure 4. 3: Graph showing Short-term Debt Ratio of Companies included in the Study



Source: Primary data, 2020

4.2.2.2 Long-term Debt Ratio

Table 4.5 below, presents summary LTD figures for the studied firms for the period between 2013 and 2018.

Table 4. 5: Long-term Debt Ratio of Listed Companies in the Study

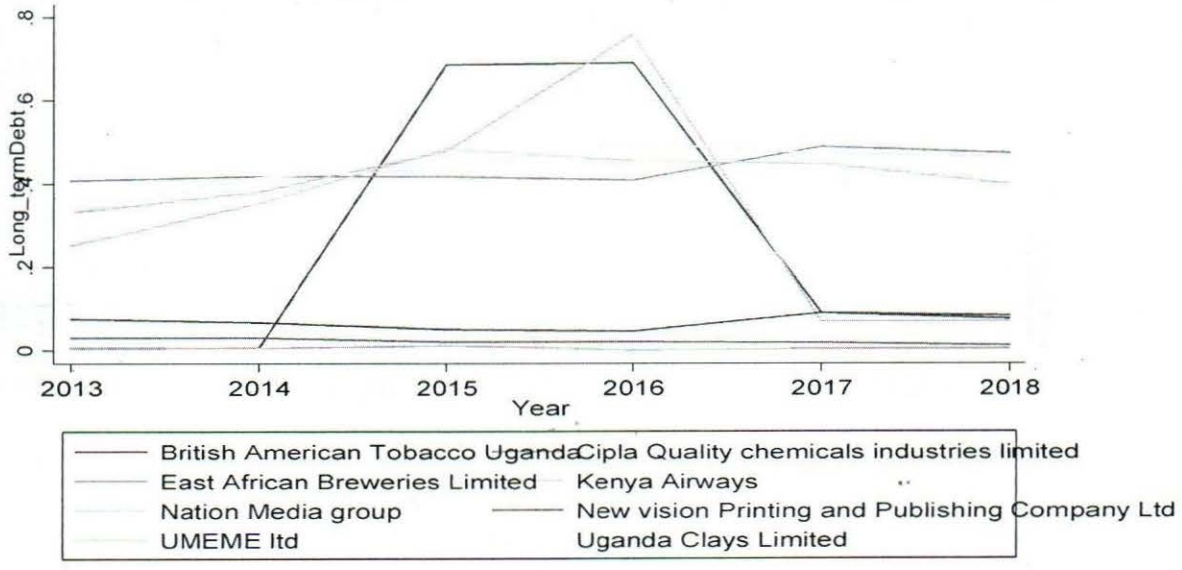
Company	2013	2014	2015	2016	2017	2018
British American Tobacco Uganda	-	0.0057	0.6876	0.6930	0.0895	0.0763
East African Breweries Limited	0.4074	0.4184	0.4194	0.4087	0.4904	0.4746
Kenya Airways	0.3313	0.3812	0.4789	0.7606	0.0700	0.0703
Nation Media group	0.0074	0.0048	0.0120	0.0012	0.0029	0.0027
New Vision Printing and Publishing Company Ltd	0.0750	0.0660	0.0501	0.0460	0.0891	0.0832
Uganda Clays Limited	0.3323	0.4164	0.4379	0.4989	0.4740	0.4645
Cipla Quality chemicals industries limited	0.0304	0.0304	-	-	0.0182	0.0116
Umeme ltd	0.2514	0.3538	0.4849	0.4568	0.4493	0.4002

Source: Primary data, 2020

From Table 4.5 above, it is evident in the figures that the long-term debt figures of the listed companies are low and not uniform. All studied firms have long-term debt ratios less than one percent of the total assets, implying that they do not borrow much to finance their capital assets.

However, the LTD ratios are slightly less than the STD ratios. This implies that the studied firms borrow less of long-term debts than short-term debts. Below is a graphical representation of the LTD ratios of the studied firms for the period between 2013 and 2018.

Figure 4. 4: Graph showing Long-term Debt Ration of Companies included in the study



Source: Primary data, 2020

4.3 Descriptive Analysis

The summary descriptive statistics of all the variables used in this study are presented in Table 4.6 below.

Table 4. 6: Descriptive Statistics of the Selected Variables

Variable Description	Obs	Mean	Std. Dev.	Min	Max
Return on Assets	48	0.059901	0.20109	-0.8827	0.36115
Return on Equity	48	0.1533	0.85711	-4.317	3.037
Firm size	48	12.776	1.567	10.912	15.461
Short-term debt	48	0.31494	0.20528	0.05367	0.94788
Long-term debt	48	0.24709	0.22834	0.00125	0.7606

Source: Primary data, 2020

Overall, the average ratio of short-term debt (STD) was relatively higher at 31.5% (ranging from 5.37% to 94.79%) when compared with the average ratio of Long-term debt (LTD) which stood at 24.71% (ranging from 0.13% o 76.06%). This implies that approximately 31.5% of the total assets of the studied listed companies are represented by short-term debts while 24.71% by Long-term debts.

In terms of firm financial performance, the overall mean Return on asset (ROA) for the full sample was 6% while the average Return on equity (ROE) was 15.33%. Values of ROA ranged from -0.8827 to 0.36115 while ROE ranged from -4.317 to 3.037, indicating high variability in performance among Uganda's listed firms. This is particularly so given that the standard deviations for ROA and ROE were 0.20 and 0.86 respectively suggesting that the highest variability in performance measures was with respect to ROE. Generally, these statistical results of firm performance suggest that Uganda's listed firms posted poor performance over the sample period from 2013 to 2018. With regard to firm size, another variable likely to affect firm financial performance as measured in this study, the value ranged from a minimum value of 10.912 to a maximum of 15.461, with the average size of sample firms being 12.776 and

standard deviation of 1.567.

4.4 Regression Analysis

This section presents the analysis of data to address the three specific objectives which included; (i) To examine the effect of short-term debt on financial performance of companies listed on the Uganda Securities Exchange for the period of 2013-2018, (ii) To examine the effect of Long term-term debt on financial performance of companies listed on the Uganda Securities Exchange for the period of 2013-2018 and (iii) To examine the moderating effect of firm size on debt and financial performance of companies listed on the Uganda Securities Exchange for the period of 2013-2018. As a result, the following null hypotheses were tested:

H_1: Short-term debt has no effect on financial performance among firms listed on the Uganda Securities Exchange.

H_2: Long-term debt has no effect on financial performance among firms listed on the Uganda Securities Exchange.

H_3: Firm size has no effect on the relationship between debt and financial performance among firms listed on the Uganda Securities Exchange

4.4.1 Short-term Debt and Financial Performance

Table 4.7 below presents the regression results for the relationship between financial performance and short-term debt (STD) within non-financial firms listed at the USE. The table also presents the validity and reliability tests (i.e., R^2 and (F) for the models. The table presents the financial performance (ROA and ROE) under the Random Effects panel regression model 95% confidence level.

Table 4. 7: Regression Results on Financial Performance and Short-term Debts

Model 1: Return on Assets					Model 2: Return on Equity			
Variable	Coef.	Std. Err.	z	P>|z|	Coef.	Std. Err.	z	P>|z|
Short-term debt	-0.0854	0.15057	-0.57	0.571	-0.37981	0.65838	-0.58	0.564
Constant	0.08678	0.07107	1.22	0.222	0.03369	0.25283	0.13	0.894
Adjusted R-sq	0.0728				0.0023			
Number of observations	48				48			
F-statistic	10.39	0.000			7.38	0.001		

Source: Primary data, 2020

From Table 4.7 above, in model 1, the co-efficient of STD (short term debt ratio) has a negative slope (Beta= -0.0854) and it is statistically insignificant at 5% level of significance. This means that there is a negative but statistically insignificant effect of STD (short term debt ratio) on ROA (return on assets) at P> 0.05. This also implies that a unit increase in STD (short term debt ratio) will result to 0.0854 decrease in ROA and a unit decrease in in STD (short term debt ratio) will result to 0.0854 increase in ROA. The adjusted R-sq. value of 0.0728 shows that the model's explanatory power explains 7.28% of the total variations in the ROA. The prob (F-statistic) is statistically significant as it is less than 5% which means the model has high goodness of fit.

From model 2, the co-efficient of STD (short term debt ratio) also has a negative slope (Beta= -0.37981) and it is statistically insignificant at 5% level of significance. This means that there is a

negative but statistically insignificant effect of STD (short term debt ratio) on ROE (return on equity) at P> 0.05. This also implies that a unit increase in STD (short term debt ratio) will result to 0.37981 decrease in ROE and a unit decrease in in STD (short term debt ratio) will result to 0.37981 increase in ROE. The adjusted R-sq. value of 0.0023 shows that the model's explanatory power explains 0.23% of the total variations in the ROE. The prob (F-statistic) is statistically significant as it is less than 5% which means the model has high goodness of fit.

Basing on such findings, the researcher, therefore, concludes that Short-term debt insignificantly affects both ROA and ROE. Thus, we can accept the null hypothesis that Short-term debt has no significant effect on the financial performance of studied listed companies in Uganda.

4.4.2 Long-term Debt and Financial Performance

Table 4.8 below presents the regression results for the relationship between financial performance and long-term debt (LTD) within non-financial firms listed at the USE. The table also presents the validity and reliability tests (i.e., R^2 and (F) for the models. The table presents the financial performance (ROA and ROE) under the Random Effects panel regression model 95% confidence level.

Table 4. 8: Regression Results on Financial Performance and Long- term Debts

Model 3: Return on Assets					Model 4: Return on Equity			
Variable	Coef.	Std. Err.	Z	P>|z|	Coef.	Std. Err.	Z	P>|z|
Long _term debt	-0.3833	0.12469	-3.07	0.002	-0.7908	0.5937	-1.33	0.004
Constant	0.15462	0.0616	2.51	0.012	0.34869	0.20865	1.67	0.095
Adjusted R-sq	0.1792				0.0285			
Number of observations	48				48			
F-statistic	9.45	0.0021			1.77	0.004		

Source: Primary data, 2020

From Table 4.8 above, in model 3, the co-efficient of LTD (long term debt ratio) has a negative slope (Beta= -0.3833) and it is statistically significant at 5% level of significance. This means that there is a negative but statistically significant effect of LTD (long term debt ratio) on ROA (return on assets) at P< 0.05. This also implies that a unit increase in LTD (long term debt ratio) will result to 0.3833decrease in ROA and a unit decrease in in LTD (short term debt ratio) will result to 0.3833increase in ROA. The adjusted R-sq. value of 0.1792 shows that the model's explanatory power explains 17.92% of the total variations in the ROA. The prob (F-statistic) is statistically significant as it is less than 5%, which means the model has high goodness of fit.

From model 4, the co-efficient of LTD (long term debt ratio) has a negative slope (Beta= -0.7908) and it is statistically significant at 5% level of significance. This means that there is a negative but statistically significant effect of LTD (long term debt ratio) on ROE (return on equity) at P< 0.05. This also implies that a unit increase in LTD (long term debt ratio) will result to 0.7908decrease in ROE and a unit decrease in in LTD (short term debt ratio) will result to

0.7908increase in ROE. The adjusted R-sq. value of 0.0285 shows that the model's explanatory power explains 2.85% of the total variations in the ROA. The prob (F-statistic) is statistically significant as it is less than 5%, which means the model has high goodness of fit.

Basing on such findings, the researcher, therefore, concludes that Long-term debt significantly affects both ROA and ROE. Thus, we can reject the null hypothesis that Long-term debt has no significant effect on the financial performance of studied listed companies in Uganda.

4.4.3 Moderating Effect of Firm Size on the relationship between Debt and Financial Performance

This section presents the regression results for the moderating effect of firm size on the relationship between debt (short-term debt and long-term debt) and financial performance within non-financial firms listed at the USE. The table also presents the validity and reliability tests (i.e., R^2 and (F) for the models. The table presents the financial performance (ROA and ROE) under the Random Effects panel regression model 95% confidence level.

Table 4. 9: Moderating Effect of Firm Size on the relationship between Short-term Debt and Financial performance

Model 5: Return on Assets					Model 6: Return on Equity			
Variable	Coef.	Std. Err.	z	P>|z|	Coef.	Std. Err.	z	P>|z|
Short-term Debt	-0.25793	0.08282	-3.11	0.102	-0.3717	0.73254	2.77	0.261
Firm_size	0.00498	0.01705	0.89	0.771	0.05661	0.08327	0.68	0.497
Interaction (STD*Fsize)	0.0322	0.00239	13.45	0.221	-0.1071	0.02175	-4.92	0.331
Constant	0.08254	0.20983	0.39	0.694	-0.6514	0.96561	-0.67	0.5
Adjusted R-sq	0.7626				0.3566			
No of observations	48				48			
F-statistics	188.94	0.000			24.39	0.000		

Source: Primary data, 2020

From Table 4.9 above, in model 5, the co-efficient of the interaction term for STD (short term debt ratio) and ROA (return on assets) is not statistically significant at 5% level of significance since p-value is greater than 0.05 at 95% significance level. Also, from model 6, the co-efficient of the interaction term for STD (short term debt ratio) and ROE (return on equity) is not statistically significant at 5% level of significance since p-value is greater than 0.05 at 95%

significance level.

Therefore, firm size of the list of companies does not moderate the effect of short-term debt on financial performance. Basing on such findings, we can accept the null hypothesis that firm size has no moderating effect on short-term debt and financial performance of studied listed companies in Uganda.

Table 4. 10: Moderating Effect of Firm Size on the relationship between Long-term Debt and Financial performance

Model 7: Return on Assets					Model 8: Return on Equity			
ROA	Coef.	Std. Err.	Z	P>|z|	Coef.	Std. Err.	Z	P>|z|
Long-term debt	0.24844	0.08313	2.99	0.003	0.80289	0.59575	1.35	0.178
Firm size	-0.0162	0.01576	-1.03	0.304	0.08531	0.07086	1.2	0.229
Interaction (LTD*Fsize)	-0.0193	0.00166	-11.62	0.000	-0.0625	0.01441	-4.33	0.000
_cons	0.29904	0.20476	1.46	0.144	-0.8334	0.89075	-0.94	0.349
Adjusted R-sq	0.7418				0.3235			
No. Obs	48				48			
F-statistic	173.44	0.000			21.04	0.0001		

Source: Primary data, 2020

From table 4.10 above, in model 7, the regression co-efficient of the interaction term for LTD (long term debt ratio) and ROA (return on assets) is statistically significant at 5% level of significance since p-value is less than 0.05 at 95% significance level. Also, from model 7, the co-efficient of the interaction term for LTD (long term debt ratio) and ROE (return on equity) is statistically significant at 5% level of significance since p-value is less than 0.05 at 95% significance level.

This implies that firm size moderates the long-term debt and financial performance relation. Indeed, inclusion of the interaction term of firm size and long-term debt modified the long-term debt effect on financial performance from negative (model results 3 & 4) to positive. Basing on such findings, we can reject the null hypothesis that firm size has no moderating effect on long-term debt and financial performance of studied listed companies in Uganda.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary of findings, discussion of findings of the study in relation to the objectives, conclusion, and recommendations deduced from the study findings.

5.1 Discussion of findings

In earlier chapters, short-term debt, long-term debt and firm size, as well as financial performance levels, were reported. Therefore, in this chapter, the discussion of these findings is given. The first section provides a discussion about the first objective of the study, followed by the second and third objectives.

5.1.1 Short-term Debt and Financial Performance of Listed Companies

Objective one of this study sought to examine the effect of short-term debt on the financial performance of companies listed at the USE for the period of 2013-2018, a regression analysis was performed to determine how short-term debt affects financial performance. The study revealed that short-term debt has a negative and statistically insignificant effect on ROA and ROE. This implies that as short-term debts of a firm increase, financial performance decreases. These findings concur with the pecking order theory. It, therefore, implies that more profitable firms generate higher earnings that can be used for self-financing, enabling them to opt less for short-term debt financing. The study reveals that with adjusted R^2 values of 0.0728 and 0.0023, short-term debt explains 7.28% and 0.23% variations in ROA and ROE respectively of the studied listed companies and effect is not significant at $P>0.05$.

The findings concur with Hasan et al. (2014) reportage of a statistically non-significant effect between capital structure and firm performance as measured by Tobin's Q. The absence of a statistically significant effect of debt on ROE in this study is also in conformity with Ebaid's (2008) finding that capital structure (STD, LTD, and TD) has no significant impact on firm's performance measured by ROE among listed firms in Egypt. On the other hand, the results of the current study contradict with numerous studies in Africa and Middle East Region who have found divergent findings of effect of short-term debt on financial performance of listed companies (El-Abiad & El-Chaarani, 2019; Asare & Angmor, 2015; Achieng et al., 2018; Jan Habib, Khan, & Imran Wazir, 2016). For instance, Asare & Angmor (2015) in Ghana found out that short-term loan ratio had a significant negative relationship with both profit margin ratio and return on assets. In Kenya, Achieng et al., (2018) study that analyzed the effects of debt on the financial performance of 40 non-financial firms listed on the Nairobi Securities Exchange between 2009 and 2015, found out that short-term debt had negative and statistically significant effects on returns on assets but no significant effects on ROE.

5.1.2 Long-term Debt and Financial Performance of Listed Companies

The second objective of the study sought to examine the effect of long-term debt on the financial performance of companies listed at the USE for the period of 2013-2018. To achieve this, a regression analysis was carried out to determine the magnitude and existence of effect between the variables. The study revealed that Long-term debt has a negative and statistically significant effects on financial performance. This implies that as long-term debts of a firm increase, financial performance decreases. This is because interest on debt is a permanent burden to a firm, since the firm has to pay the interest to bondholders or creditors at fixed rate whether it earns a profit or not. Also, the company must pay interest and principal at the specified time as non-

payment of interest and principal on time may take the company into bankruptcy. Alternatively, as long-term debts of a firm decrease, financial performance increases. This is because interest expense helps bring down the taxable income and hence the company to pay less tax.

With adjusted R^2 values of 0.1792 and 0.0285, it implies that Long-term debt alone explains 17.92% and 2.85% variations in ROA and ROE respectively of the studied listed companies and effect is significant at $P < 0.05$. These findings are consistent with proposition of the pecking order theory and with conclusions of previous studies by Borges Junior et al., (2017)in Brazil, Chile, Argentina, Colombia, Mexico and Peru; Ikapel & Kajirwa, (2017)in Kenya; and Yapa Abeywardhana & Magoro, (2017) in South Africa. For instance, Ikapel & Kajirwa's study in Kenya on effect of long-term debt on the financial performance of state-owned Sugar Firms revealed that Long term debt negatively affects financial performance. In South Africa, Yapa Abeywardhana & Magoro, (2017)study among listed companies in the wholesale and retail sector found out that long-term debt negatively affects the financial performance of wholesale and retail sector companies of South Africa. According to the pecking order theory, more profitable firms generate higher earnings that can be used for self-financing, enabling them to opt less for long-term debt financing (Lemmon & Zender, 2010).

5.1.3 Moderating Effect of Firm Size on Debt and Financial Performance.

The third objective of the study sought to examine the moderating effect of firm size on debt and financial performance of companies listed on the Uganda Securities Exchange for the period of 2013-2018.To achieve this, a regression analysis was also carried out to determine the magnitude and existence of the effect between the variables. The study findings on the moderating effect of firm size revealed that for short term debts, firm size does not significantly affect the debt and financial performance. This result is consistent with the conclusions of previous studies by

Achieng et al., (2018) who studied Effect of Debt Financing Options on Financial Performance of Firms Listed at the Nairobi Securities Exchange, Kenya for the period of 2009-2015.However, for long term debt, the moderating effect is significant and changes the effect of long-term debt from negative to positive. This implies that as firms increase in size in form of their asset base, they can easily obtain long-term debts because they can be used as collateral security which would not be the case for smaller firms, because with a smaller asset base, they cannot get more of long-term debts that can be used as collateral security. These findings concur with numerous studies that found out that the effect of debt on financial performance of listed companies respond to size of the firm (Achieng et al., 2018; Oyesola, 2007) and is consistent with propositions of the trade-off theory.

5.2 Conclusions

This study established the effect of debt on the financial performance of companies listed at the Uganda Securities Exchange for the period of 2013-2018. Specifically, the study examined the effect of short-term debt on financial performance of companies listed at the Uganda Securities Exchange for the period of 2013-2018; the effect of Long term-term debt on financial performance of companies listed at the Uganda Securities Exchange for the period of 2013-2018; and the moderating effect of firm size on debt and financial performance of companies listed at the Uganda Securities Exchange for the period of 2013-2018. The analysis was done using the panel data. The findings from the study further confirm the prior study findings that to large extent and show that short-term debt doesn't significantly affect the financial performance of the studied listed companies while long-term debt has a negative and statistically significantly effect on financial performance of the studied listed companies. However, the findings also show that when firm size is moderated for, the effect of Long-term debt turns out to be positive, while

effects of short-term debt remain negative. These findings are consistent with findings of Onaolapo & Kajola, (2010), Becker-Blease et al., (2010), Akbas & Karaduman, (2012), Kipesha & Moshi, (2014) and Ehi-Oshio et al., (2013) and supports the argument that larger firms have a greater possibility of taking advantage of economies of scale by exploiting experience curve effects and setting prices above the competitive level (Hardwick & Adams, 2002) and those firms have the chance of capital cost savings with the economies of scale. This implies that for firms with larger asset base can benefit from long-term borrowing.

5.3 Recommendations

From the findings of this study, it was observed that short-term debt doesn't significantly affect financial performance of the studied listed companies at the USE, Long-term debt negatively and significantly affects financial performance of the studied listed companies at the USE while firm size had no moderating effect on short-term debt and financial performance of the studied listed companies at the USE but had a moderating effect on Long-term debt and financial performance. Based on the above findings, the following recommendations are put forward;

Firms with a large asset base that can be used as collateral security should go in for long term debts.

Firms should borrow long-term debts in moderate amounts because when taken in high amounts, it reduces their financial performance.

5.4 Suggestions for further research

Basing on the findings of this study, research in the following areas is proposed;

Similar study can be done on non-financial firms listed at the USE.

Also, the study may be expanded by making comparative analysis with other countries.

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APPENDIX I: CHECKLIST

CHECKLIST							
S/N		2013	2014	2015	2016	2017	2018
1	Total Assets						
2	Total Owners' Equity						
3	Current Liabilities						
4	Non-Current Liabilities						
5	Profit After Tax						
6	Return on Asset (ROA) = profit after tax/total assets						
7	Return on Equity (ROE) = profit after tax/total equity						
8	Short term debt Ratio = Current Liabilities/Total assets						
9	Long term debt Ratio = Non-Current Liabilities/Total assets						
10	Firm size = (ln Total assets)						

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22nd May 2020

To Whom It May Concern

RE: LETTER OF INTRODUCTION

Dear Sir/Madam,

This is to introduce **Mr. Umar Lwere** Registration Number **17/U/14440/GMBA/PE** who is a student of Kyambogo University pursuing a Masters Degree of Business Administration.

He has completed and submitted the Research Proposal and he now intends to carry out research on **"Debt and Financial Performance of Companies Listed at the Uganda Securities Exchange."** as partial fulfillment of the requirements for the award of the Master of Business Administration.

Because the study uses secondary data, we therefore grant him permission to proceed and carry out his study.

Any assistance accorded to him will be highly appreciated.

Yours sincerely,

Assoc. Prof. Muhamud N. Wambede
DEAN, GRADUATE SCHOOL

KYAMBOGO UNIVERSITY
22 MAY 2020
OFFICE OF THE DEAN GRADUATE SCHOOL