THE EFFECT OF DEBT FINANCING ON PROFITABILITY OF LISTED NON FINANCIAL FIRMS IN KENYA

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DECLARATION

This research project is my original work and has not been presented for a degree in any other university.

Signature.. Date................................

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D61/10671/2018

This research project has been submitted for examinations with my approval as the university supervisor.

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DEDICATION

I dedicate this Project to my wife Becky and to my daughter Sweeney for their understanding and unconditional support during the study period.

ABSTRACT

The investigation aimed at establishing the the bearing of debt financing on profitability of registered non-financial establishments in Kenya. Quantitative research methodology was adopted. The target population that was used in the investigation was all the registered establishments at the NSE. The NSE has 39 listed non-financial establishments. The investigation used secondary sources to collect data. The investigation used the financial statement that covers a period of 7 years from the years 2011 to 2018. The method of data analysis employed was descriptive statistics and inferential statistics. The investigation findings show that R square was 0.426. This meant that 42.6% of profitability is determined by the predictor variables: short-term debt, long-term debt, total assets and capital adequacy. This points out that 57.4% of the variation in profitability of non-financial listed establishments was attributed to the measurements of error and other factors not encompassed in the investigation. The significance of the analytical model was measured by the F test which was found to be 0.000 which is less than 0.05. This points out that the analytical model is substantial and fit to predict the dependent variable. The investigation concludes that the profitability of non-listed financial establishments is affected by the predictor variables that were captured by the investigation. This is evidenced by the fact that the log of STD had a positive beta coefficient of and therefore had a positive bearing on the profitability. In addition a unit surge in the log of the STD resulted to a surge in the profitability of listed non-financial establishments. This was also evidenced by a unit surge in the log of LTD, the log of total assets and capital adequacy whose unit surge led to an overall surge in the profitability of the establishment. Therefore, the findings of the investigation reveals that there is positive correlation between ROA and log of STD and the log of log of total assets thus when they surged there was an overall surge in the ROA. The investigation therefore recommends that non-listed financial establishments should work towards increasing the return on assets in a bid to surge their capacity to distribute STDs without causing financial losses to the company. The surge in the rate of STD uptake would bring about the surge of the profitability of the establishment thus beneficial to the company. The STD correlated negatively with the log of LTD thus non-listed financial companies are recommended to maximize on STD financing which has a lower risk as compared to LTD thus less negative effect on the profitability of the company. The investigation recommends the formation of favorable policies by non-listed financial establishments that would aim at regulating the log of LTD since from the findings, the log of LTD negatively correlated with ROA, log of STD, capital adequacy and log of total assets and the decrease in the log of STD, capital adequacy, log of total assets and ROA resulted into a decrease in the log of the LTD. Regulating the log of LTD would therefore help to reduce the risks that the company handles and as a result the non-listed financial establishments would be more profitable.

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ABBREVIATION AND ACRONYMS

ANOVA   Analysis of Variances

CS   Capital Structure

NSE   Nairobi Securities Exchange

SD   Standard Deviation

STD   Long-Term Debt

STD   Short-Term Debt

SMEs   Small Medium Enterprises

TA   Total Assets

VIF   Variance of Inflation Factor

WACC   Weighted Average Cost of Capital

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Investigation

Contemporary corporate financial managers locally, regionally, and globally often face the challenge of unstable profits within their firms in an effort directed towards establishing an optimum business finance method. However, these managers often grapple with the demands emerging regarding the creation of wealth for their investors while equally sustaining a business's operations to contribute to the growth of an economy. Other than equity, debts are therefore considered as the second most important forms of an entities CS that affects an establishment's FP and profitability. Debts, therefore, involve the financing of an establishment's asset and operations through the issuance of financial instruments that include payable long term debts (LTDs) and short term debts (STDs), debentures, stocks, and bonds. Debt finance structure mainly comprises of the LTDs and the STDs of an establishment (Titman & Wessels, 2018).

The link between debt finance and profitability was supported by a theoretical analysis. The traditional theory of capital structure (CS) formulated by Modigliani and Miller (1950) note that CS was irrelevant from the company value and debt does not influence any benefits to the company (Brusov et al., 2018). Pecking order theory as established by Donaldson (1961), whereby it stated that a company follows a hierarchy when considering the financing sources. A decrease in debt is mentioned to increase the capital cost and decrease the firm value. It was relevant in explaining why some establishments prefer finance investment projects (Bhama et al., 2016). Market timing theory formulated by Baker and Wurgler (2002) argued that a decrease in debt is mentioned to increase the

capital cost and decrease the firm value. It was relevant in explaining why some establishments prefer finance investment projects. (Asif et al., 2018).

The trading in stocks as well as shares in Kenya begun in 1920 when the nation was still under the British colonies. However, during this time, the market was treated as informal since there were no regulatory measures that were used in governing the stock broking practices and activities. In other words, trading took course of what was known as a gentleman's agreement (Ouma & Kihiu, 2018). The Nairobi Securities Exchange (NSE) was then instituted in 1954 and is considered one of the most vibrant security markets in the Easter and Central African region. Given this, it is essential to note that the listed entities under the NSE continue to accrue debts in an effort directed towards financing their operations as well as in the implementation of new business ventures. Reports therefore reveals that close to $988 million have been raised through the rights issues by the entities that are listed by NSE from 2004 to 2014.

This investigation was mainly driven for the reason that a corporates decision to go the debt way in financing its operations remains a pervasive decision of the firm's Board or analysts who hold on to the belief that debts are often prized by the shareholders in the event that the proceeds are spent in an establishment s operations and if a markets rate is favourable (Ouma & Kihiu, 2018). This review, therefore, sought to conduct a research on the effects of debt funding on profitability of listed non-financial establishments in Kenya. To effectively conduct this investigation, a number of the listed non-financial establishments within a similar industry in Kenya will be considered.

1.1.1 Debt Financing

Debt financing alleged in the views of Ross (2016) occurs when an establishment raises its financial resources or rather capital expenditures through the sales of debt instruments to establishments, individuals, and investors. In response, the shareholders, entities, and establishments turn out to be creditors to the establishment and get a promise that their principal interests regarding the issued debts are paid. Contrariwise, Whited (2016) considers DF as financial instruments that establishments borrow to pay back in the future with interest. Contrary to the views above, Su and Vo (2017) defines DF as a time-bound activity that allows an establishment to borrow and relay its loans along with the stated interests at the end of a given period.

As established, establishments that resort to the raising of funds through the DF method have a number of different options and choices to make given the fact that there are several alternatives regarding the financing of an establishments operations through debts. However, the two broad categories of DF mainly include the long term DF as well as the STD financing. However, other examples mainly include secured/unsecured business loans and asset loans that come under the LTD financing method (Su & VO, 2017). This therefore, revealed that the long term financing instruments mainly require establishments to provide security or assets in an effort directed towards borrowing the loans.

1.1.2 Profitability

Profitability according to Scherr (2018) is an establishment's ability to utilize its resources in revenues generation that supersedes its expenses. In other words, this mainly

entails an establishment's ability to generate profits mainly from its operations. Contrariwise, Tharmila and Arulvel (2015) defines profitability as one of the building blocks used in the analysis of an establishments financial statement in an effort directed towards determining its performance. Smith and Warner (2015) equally establishes that profitability is the core aim of each and every enterprise. Deprived of profitability, an establishment is not in a position to survive. This therefore detailed that measuring an entities past as well as present profitability remains key.

A profitable financial institution is in a position to withstand all the negative shocks that come through while contrariwise contribute to its stability as well as that of the financial system. However, significant changes within an establishments operating environment, with precision to credit risks are likely to have an impact of a financial establishment's profitability. Empirical findings have revealed that there are several macroeconomic factors that play a vital role as determinants to a financial establishment's profitability. According to Smith and Warner (2015), there are a number of variables that are used in determining the profitability of a financial institution. Among them include the return on the establishment's assets, its net profit margins, and the return on the firm's equity. However, other procedures can equally be used in the evaluation of a financial establishment's performance such as the ratio analysis. This approach mainly enables the financial establishment's analyst to conduct an evaluation on the magnitude and the source of the firm's profitability as relative to the risks taken.

1.1.3 Debt Financing and Profitability

As established, contemporary corporate financial managers locally, regionally, and globally often face the challenge of poor FP within their firms in an effort directed towards establishing an optimum business finance method. The significance of an establishment's debt in ascertaining its profitability remains one of the fundamental aspects of researchers (Pervin & Nowreen, 2018). However, these managers often grapple with the demands emerging regarding the creation of wealth for their investors while equally sustaining a business's operations to contribute to the growth of an economy.

Research has therefore, revealed that an establishment's debt ratio can play a vital role in underpinning its optimal performance. Precisely, an establishment's ideal debt ratio plays a vital role in minimizing its cost of capital while contrariwise maximizing an establishment's value. This hence reveals that the debt ratio of a financial institution plays a vital role in maximizing its profitability. Previous research studies reveal that debt mainly affects a financial establishments cost of capital, an aspect that additionally influences the profitability of the firm as well as its stock prices (Agnihotri, 2015). Although a number of theories as well as empirical findings regarding DF have been designed, it is essential to note that there is not a single unified theory that explains this concept. However, past research studies on DF have pointed out that a connection exists between DF and the profitability of an institution.

1.1.4 Nairobi Securities Exchange

The Nairobi Securities Exchange (NSE) was then instituted in 1954 and is considered one of the most vibrant security markets in the Easter and Central African region. In Kenya, the dealing in stocks and shares begun in 1920 when the nation was still under the British colonies. However, during this time, the market was treated as informal since there were no regulatory measures that were used in governing the stock broking practices and activities. In other words, trading took course of what was known as a gentleman's agreement. Normal charges were therefore put on customers who were required to keep their obligations to contract the agreements through the settling of relevant costs (Ouma & Kihiu, 2018). During this period, stock broking was considered as a side-line business that was left only for the auctioneers, accountants, lawyers, and exchange agents who regularly had meetings to exchange stocks of a cup of tea.

The NSE therefore, acts as an intermediary between or intermediary, the buyers of stocks and the sellers hence opening doors for the increments and maximization of investments at considerable costs in the Kenyan economy. The government therefore holds the largest share in the regulation and control of the NSE. In this regard, it is evident that the NSE is essential to the Kenyan economic growth through financial intermediations. The NSE as established is therefore made of close to 65 listed companies thus establishing the rationale behind the consideration of the NSE as the backbone of the economy (Ouma & Kihiu, 2018). The NSE therefore serves two important functions. Firstly, the NSE provides a direct link to establishments that are in need of funds to expand their businesses or their operations with an access to investors who have the required funds to

put into such establishments. Contrariwise, the NSE provides and establishes a regulated market for the purchasing and sales of shares at prices that are determined by the demand and supply mechanism as well as other macroeconomic factors that include inflation rates.

1.2 Research Problem

Current corporate financial managers locally, regionally, and globally often face the challenge of poor FP within their firms in an effort directed towards establishing an optimum business finance method. However, these managers often grapple with the demands emerging regarding the creation of wealth for their investors while equally sustaining a business's operations to contribute to the growth of an economy (Mallick & Yang, 2019).

As revealed earlier, this investigation is mainly driven for the reason that a corporates decision to go the debt way in financing its operations remains a pervasive decision of the firm's Board or analysts who hold on to the belief that debts are often prized by the shareholders in the event that the proceeds are spent in an establishment s operations and if a markets rate is favourable. Given this, it is evident that the effects of DF on an establishments profitability remains important to several establishments (Agnihotri, 2015). However, the focus of several studies relating to the financial structure of an establishment are mainly focused on CS and not on the debt structure of an establishment. Besides this, there are no theories that explain the effects of an establishment's debt funding on its financial performance (FP), thus resulting in the yield of unforeseen consequences for the establishments.

Non-financial establishments registered at the NSE play a major role in Kenya's Economy. These firms fall in sectors such as Agriculture sector, Commercial and Services, Automobile and Accessories, Construction and Allied, Energy and Petroleum, Telecommunication and Technology, Manufacturing and Allied and Investment. The effects of these non-financial establishments include growth of Gross Domestic Income, creation of employment, mobilizing savings for investment, facilitating acquisitions, and profit sharing through dividends and raising capital for business (Tauseef & Lohano, 2017). Therefore, with the kind of role that the non-financial establishments play, there is need to ensure their well-being in terms of financial health. Financial health can be measured through profitability (Ouma & Kihiu, 2018). This investigation excludes the financial establishments as they have been having growth for the last decade.

A review of global studies clearly revealed that there exists an adverse effects of DF on an establishments profitability. According to the outcomes of the studies undertook by Panda & Nanda (2018) in an investigation on working capital (WC) funding and profitability of Indian manufacturing establishments and Mallick & Yang (2019) on financing mechanisms, effectiveness and profitability: first evidence from matched firms, the researchers revealed that there are significantly adverse bearings of debts to the FP of financial establishments performance. Contrariwise, Pandey & Sahu (2019) in an investigation on debt financing (DF), agency cost and firm performance: evidence from India revealed that there exists a positive link between DF and the profitability of financial establishments, citing the significant changes within an establishments operating

environment, with precision to credit risks are likely to have an impact of a establishments profitability.

Locally, Lishenga (2015) undertook an examination on the determinants of an establishment's debt maturity structure and it's FP. The investigation considered a sample population of 30 financial institution in Kenya since 1998-2002. The outcomes of pointed out that establishments face significant growth limited their LTD as evident in their CSs. Maina (2006) in an investigation on capital standards based on risk and the riskiness of Kenyan bank portfolio revealed that the stability of an establishments cash flows remains evident as well as its interest within an economy as established in the structure of the establishment in the reliance of lenders towards the provision of debt equity ratios. Omondi (2016) undertook an investigation on the WC management and performance of manufacturing establishments on the NSE. The investigation other hand found that mean debt equity ratios are often significant to an establishment while Langat *et al*. (2015) in an investigation on the bearing of DF on the profitability of Kenya Tea Development Authority processing factories in an attempt directed towards underpinning the CSs of quoted entities established differences in the CSs of several industries. This investigation hence aimed at answering the listed research question. Was there a bearing on the DF on the profitability of a listed non-financial establishments in Kenya?

1.3 Research Objective

The investigation aimed to verify the the bearing of debt financing on profitability of listed non-financial establishments in Kenya.

1.4 Value of Study

This investigation would be valuable to the financial establishments' administrators seeking to increase their profitability in Kenya as they would be in a position to underscore the measures that need to be employed to arrive at the effective CSs that would yield profits.

Secondly, scholars would be in a position to make use of the outcomes of the investigation in filling the void academic gaps that no significant studies have undertaken, efforts that would significantly increase their knowledge. Contrariwise, it is essential to note that academically, the investigation would make contributions to the current body of literature within the discpline of investment procedures while equally stimulating more studies in the field that would benefit establishments seeking to broaden the scope of their profits through DF.

The research investigation would equally benefit the Kenyan non-financial establishments since they would be in a position to access resources needed in making the investment strategies in Kenya. Other sectors from different industries would equally find this investigation's outcomes valuable since they would gain insight of the measures that need to be undertaken in the selection of the right CSs for their companies.

Lastly, this investigation's outcomes will be valuable to decision makers and the government since it will provide guidelines that may be used in the design and in informing policy makers on measures that might be used in enhancing sectorial trade

besides the inclusion of governance structures that guide the process of trade in foreign markets.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This part entailed an explanation of theoretical contribution concerning the research topic from varied authors. It involved an empirical review of different research studies carried out on the subject of discussion, determinants of profitability and later provided a summary of the collected works.

2.2 Theoretical Review

This part helped establish the current concepts in the prohibition of interest and the link between them. It consisted of a description of how Traditional approach on CS, pecking order theory and market timing theory on how they support the thesis.

2.2.1 Modigliani and Miller Theory

It was formulated by Modigliani and Miller in 1950s whereby it points out that when the Weighted Average Cost of Capital (WACC) is at minimal, and there is maximization of assets' market value, an ideal CS exists (Brusov et al., 2018). The theory means that the

financial structure (ignoring tax) has no bearing on the value and cost of capital. It said that when the company uses its debt on capital, there is no reduction in WACC. It meant that CS was irrelevant from the company's value and debt did not influence any benefits to the company.

One of the limitations of this paradigm is the suggestion of company perpetuity. The theory was not applicable at the moment and has been modified by BFO theory which described the companies of arbitrary age is contradictory to the perpetuity of this concept (Brusov et al., 2018).

2.2.2 Pecking Order Theory

It was put forward by Donaldson in 1961, whereby it states that a company follows a hierarchy when considering the financing sources (Bhama et al., 2016). It suggested that firm raise funds in a pattern which follows: retained earnings, debt and equity. A decrease in debt is mentioned to increase the capital cost and decrease the firm value. It had been modified to justify the investment opportunity through external financing, whereby there are higher returns, and the cost of debt is lowered.

It was relevant in explaining why some establishments prefer finance investment projects. The paradigm is a modification of the TOT by Miller and Modigliani. The paradigm could be used by investors in analyzing their decisions in the CS. The theory limitation was that it did not provide any quantitative measure on how the financing cost is affected by information flow, limited in determining the variables that affect the financing costs and cannot be useful in making practical application has it has a theoretical nature(Martinez et al., 2019).

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2.2.3 Market Timing Theory

It was a theory formulated by Baker and Wurgler (2002) who aim that (MTT) is the first-order element of a establishment's CS usage of equity and debt (Asif et al., 2018). It meant that the firm chose a form of financing based on the financial markets rather than caring on the forms of financing. According to the MTT of CS.

Publicly-traded establishments finance a much bigger percentage of their financing shortfall with net external equity when the required equity risk premium is lower, and the first-day returns of IPO are greater (Allini et al., 2018). However, the market timing theory challenges the pecking order theory. Establishments finance a great percentage of their funding shortfall with external equity when the equity cost is low, and finance a great percentage of their funding shortfall with debt with a high cost of equity.

2.3 Determinant of Profitability

The motive behind every investment is to earn a profit. The firms aim at maximizing the wealth of the shareholders to generate more profit to run the business even in the future. Different factors affect the performance of an establishment which includes both internal and external factors.

2.3.1 Debt Financing

It is similarly called financial leverage which is the act of acquiring an asset by the use of debt. It allows the existing shareholders to continue holding an ownership percentage because a new stock is not issued (Cole & Sokolyk, 2018). It refers to when substantial funds for capital expenditures through trade of individual investors, bills, notes and

bonds. The investors receive promises and become creditors rather than lending money, thus receiving back the interest and amount of debt.

Debt funding allowed higher returns on equity investors as it is a cheaper source of funds whereby the money is used to acquire assets. Equilibrium ought to be established between debt and equity to minimize the average capital costs. However, equity has higher prices than mortgages because debt tax benefits limited upside and limited obligation to lenders. DF has a positive bearing on establishment's profitability as it allows the companies to use the existing funds, thus allowing a rapid expansion.

2.3.2 Ownership Structure

It is equity distribution concerning capital, votes, or identity from equity owners. It is vital in corporate governance as it dictates the economic efficiencies and incentives of different corporations. It entails the internal establishment of an establishment entity, including the rights and duties of individuals holding the equitable and legal interest of the firm (Aguilera & Crespi-Cladera, 2016).

Firms with high ownership concentration get a high return on assets, higher recurring earning power, and higher net interest margin. Ownership concentration influences corporate performance and strategic behavior. The agency theory explains the link between business principles and their agents which is the case with ownership concentration. A high ownership concentration increased profitability due to the redistribution of profit when transferring financial resources to less profitable firms which is evident on the predictions of urgency theory.

2.3.3 Corporate Governance

It is a way by which companies are controlled and directed. It is the responsibilities of the directors to govern the companies whereby they are appointed by the shareholders. It contains processes, rules, and practices of the firm. Failures if corporates in both domestic and global arena have resulted in financial distress, thus a need to employ measure that will help in achieving stability in this sector (Tricker & Tricker, 2015).

Corporate governance has a substantial bearing on corporate profitability of the business and vice versa. Corporate governance relies upon the integrity of the management, frequency of board meetings, and quality of quality reporting, board committee and participation of stakeholders in management, among others. A robust corporate governance results in higher profitability.

2.3.4 Risk Management

It is the classification, evaluating, and adjusting the risks to the earnings and capital of an establishment. The risks are resulting from various sources such as financial risk, strategic management of mistakes, legal obligations as well as natural disasters. Profitability is an indicator of the extent at which an establishment copes with the risks whereby credit risk is among the common uncertainties in commercial firms due to the nature of its activities (Alshatti, 2015). Managing the exposure of an establishment to risk, support the profitability of the business, thus contributing to the stability and allocation of capital. Proper management of risks results in the profitability of a company.

2.4 Empirical Review

Pradhan and Nitesh (2017) undertook an investigation on how Nepalese commercial banks DF impinged on the establishment's profitability. It objective is examining how Nepalese commercial banks DF impinged on the establishment's profitability. The investigation utilized data from 2008-2014, which resulted from one hundred and forty-eight observations from twenty-two Nepalese commercial banks. The research was qualitative and quantitative, whereby three variables were employed in the investigation, which includes ROA, net interest margin and ROE to determine the banks' profitability. The data are collected from various sources such as the Supervision Report of the banks published by Bank Banking and Financial Statistics, and annual reports of selected commercial banks. The research establishes that among the debt variables of Nepalese commercial banks, there is a significant variable that has a positively affected the profitability of Napalese banks' such as debt: equity, LTD to TA, interest coverage and total debt to total assets (TA).

Doha and Kamaluga (2017) researched on the bearing of DF on Profitability of Listed Nigeria Agricultural Companies. The investigation aimed at examining DF effect on the FP of listed agricultural firms in Nigeria. The investigation used a sample of 4 listed agriculture companies in Nigeria. Multivariate regression analysis was the model for data analysis. The results point out that LTD finance had a significant adverse effect on the profitability of listed Nigeria agricultural companies. The investigation recommended that agricultural companies ought to be mindful of the level of debt they incur into their businesses.

Abbass and Aziz (2019) undertook an investigation on the DF effects on the performance if non-financial establishments in Pakistan. The objective of the research was to determine how DF is associated with non-financial firm's performance. Data used was from fourteen different areas in Pakistan Stock Exchange, for duration of 9 years (2006 to 2014). Panel least square as well as Hausman test were the models used in testing the fixed effects. The results of the investigation indicated use of debt in funding has negative and substantial bearing on performance of firms in Pakistan. The investigation findings recommended the use of an internal source of funding as it is reliable and cheap to the companies based in Pakistan.

Herelimana undertook a comparative investigation in 2017 on how DF affected the performance of businesses by comparing two banks in Rwanda: I&M bank and Bank of Kigali. The research is a comparative investigation that compares the two banks using data collected for a period of 6yeras to determine how using debt in financing affects bank performance. It is correlative and descriptive in nature. The results got from the investigation stated to be a positive connection between debt level and the FP of the banks. The sustainability, profit, and liquid of the overall bank performance is found to be improving from 2010-2015. The investigation suggests that in the future, research ought to be undertook on industry pricing, CS and their effect on firm performance because CS results from industry valuation.

Githaiga and Kabiru (2015) did a survey on how the small and medium-sized enterprises were affected by DF as well as their FP published in 2015. The objective of the investigation was determining the short-term and long-term loans effects in small and medium enterprise business performance. 4122 SMEs were sample involved, which were

based Eldoret town. Stratified sampling selected a sample size of 50 SMEs to be used in the investigation. Quantitative data was used in the research, whereby it was derived from financial statements of three consecutive years from 2011 to 2013. The hypothesis of the investigation was tested by the use of multiple regression analysis. Cronbach Alpha was employed to test the validity and reliability of the data used in the investigation. According to the investigation, long term and short term loans reduced the SMEs FP. It recommended the SMEs to train their staffs regularly and use of auditors to boost the control systems of the firms.

Muchugia (2014) undertook a research on how commercial banks profitability in Kenya was affected by DF published in 2014. The objective was establishing the effects of DF on the subject of the investigation. It was descriptive in nature, using data from forty-three commercial banks in the country covering five years from 2008 to 2012. Multiple linear regression analysis and Pearson Correlation Analyses was employed in examining the link between variables: profitability and capital of the banks. The investigation implies that STD positively affected profitability because it is cheap, and low-interest rates can be used to increase it, thus resulting in improved performance due to the surge in profit margins. Banks are recommended to use short term loans rather than long term ones.

Karuma et al. undertook an investigation in 2018 on DF effect on the FP of manufacturing establishments in Nairobi. The research objective was investigating the impact of interest rates, short-term and LTD as well as corporation tax rates on FP for a period of five years from 2013 to 2017. Multiple linear regression, correlation, and descriptive statistics were the models used in considering the link between variables

while SPSS software was used in data analysis. The investigation found out that the listed manufacturing companies cannot rely on interest or tax as a DF approach. The research recommended that manufacturing establishments listed at the NSE ought to continuously formulate measures that sustain their accounts payables because this will lead to increased returns on assets.

Njeru et al. undertook an investigation in 2018 on commercial debt effect on the profitability of petroleum companies in the country. The investigation aimed at assessing the impact of commercial on the FP of the petroleum marketing firms in the country. Thirty-five firms were used as the sample size of the investigation, which was arrived at by the use of criterion sampling. A cross-section survey design was used for the research whereby data was acquired by the use of questionnaires and collection sheet in secondary data. The investigation points out that the use of commercial debt as a financing method affected profitability negatively, which was accounted for to be 5%. It recommended the establishment of regulatory mechanisms to protect investors from making loses, which makes them be confident in investment by using competitive financing that ensures profitability.

2.5 Conceptual Framework

The link between DF and profitability is shown in the figure 2.1: conceptual framework. The independent factor was represented by short-term finance and long-term finance, while the output variable is represented by return on assets.

Independent variables   Dependent variable

Debt Finance
Short-term Finance
Long- term Finance

Profitability
Return on Assets

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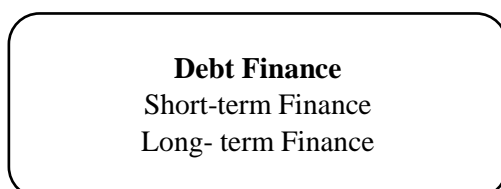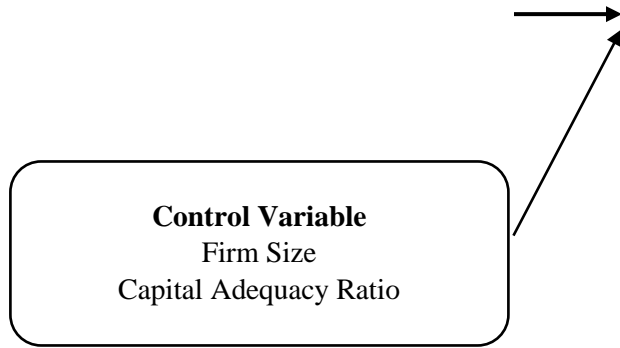
Figure 2.1: Conceptual Framework

2.6 Summary of Literature and Research Gap

The investigation can be related to the empirical literature by presenting evidence on how the use of DF affects profitability. The investigation comprised a detailed analysis of empirical studies on the topic to enhance a deeper understanding of the subject. There are different theories that supported the thesis of the investigation. They highlight how debt affects the profitability of a business. It was evident in empirical studies that there was a standard agreement on what makes up an optimal debt structure, thus a need to explore how debt structure affects the profitability of an establishment .

Many past studies have been focusing on investigating financial establishments in developing countries. Njeru et al. (2019) examined the debt structure effects on petroleum companies in Kenya, whereby it showed a negative impact on profitability. Muchugia (2014) found out an existing relationship and profitability. The analysis of non-financial establishments is not conventional; thereby, the investigation aims at exploring more on the current literature on DF effect on the profitability of listed non-financial establishments in the country. It aims at increasing knowledge on decision

making, particularly in non-financial establishments. Different similar studies ought to be carried out in the future to obtain more findings on DF effects on FP.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

In this chapter the researcher briefly discussed the methods and procedures that guided the investigation. The different segments in this chapter encompassed the research design, the population being studied, the procedures employed during the process of data collection and data analysis.

3.2 Research Design

A research design is the procedural plan normally adopted by a researcher to answer questions in a valid, objective and accurate manner. It is similarly through a research design that a researcher determines the type of analysis strategy that he needs to adopt to acquire the desired results (Nassaji, 2015).

The research design adopted by this investigation was quantitative research methodology. A quantitative research method involves the quantification and analysis of variables in a

bid to get results. A quantitative research utilizes the analysis of numerical data through the use of specific statistical techniques. In addition, a quantitative research method explains a phenomenon in numerical form through mathematical methods.

3.3 Population of Study

According to Murphy (2016) an investigation population is the group from which the investigation details was derived. It was an aggregate of a set of subjects that was made to conform to a set of expectations to derive meaningful data. In this investigation the target population was Small and medium enterprise accountants.

The target population that was used in the investigation was all the listed firms at the NSE. The NSE has 39 listed non-financial establishments (Appendix) and this population was investigatedthrough secondary sources and the subsequent data tabulated according to the objectives of the investigation.

3.4 Data Collection

The investigation used secondary sources to collect data. Secondary data was data collected by someone else in the past. The secondary information comprised of value of STD, value of LTD and return on assets.

For this investigation, data was collected from the company's published financial statements. The investigation used the financial statement that covers a period of 7 years from the years 2011 to 2018. The comparison of this data over these years give the researcher the data that required as secondary data for the investigation.

3.5 Diagnostic Tests

The key tests that shall be undertaken covered normality tests, testing for presence of autocorrelation, multicollinearity, Heteroscedasticity as well as linearity. Normality was measured by mean and standard deviation (SD). Where mean and deviation values are believed to be 0 and 1 respectively (Kang, Laing, Hong & Xie, 2017). In testing for normality, Skewness as well as kurtosis statistics was applied. The rule thumb usually was that these values ought to range between +2 and -2 for the conclusion of presence of normality to hold (Wallentin, Olsson & Jöreskog, 2016).

Whenever a situation arises where one variable of the investigation has strong correlation with another, this was seen as multicollinearity (Strijov & Katrutsa, 2017). In essence, no variable ought to be correlated with another one in conducting regression. In this regard, Variance of Inflation Factor (VIF) shall be leveraged on in testing for multicollinearity. The general rule was that when the values of VIF are within the range of 1 all through 10, then it meant there is such symptom of multicollinearity (Rahbar, McCormick, Lee, & Vatcheva, 2016).

3.6 Data Analysis

The method of data analysis employed was descriptive statistics and inferential statistics. Descriptive statistics involved the quantitative description of the main features collected in the data. In addition, descriptive statistics helped in summarizing the characteristics of the sample being studied. The descriptive statistics was analyzed via mean, SD and pie charts.

Inferential statistics was used to draw conclusions from different data sets and the researcher similarly used inferential statistics to make predictions and generalizations from the data collected. Inferential statistics was presented via Multivariate regression model.

The regression model is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Whereby: β_0 is the regression.n intercept; $\beta 1-.\beta 3$ are the regression coefficients;

Y was the predicted variable (Profitability); measured using ROA

X_1 = Total STD: evaluated as a natural log of annual STD;

X_2 = Total LTD: evaluated as a natural log of annual LTD:

X_3 = Firm Size: evaluated as a natural log of annual TA:

X_4 = Capital Adequacy Ratio: evaluated as a Core capital /Total Risk Weighted Assets:

ε = Error term

3.7 Tests of Significance

Correlation was used to test the link of the variables in the investigation. The investigation similarly used ANOVA (model goodness of fit) to measure the significance of the factors in under investigation in satisfying the set purpose, which was calculated using SPSS software.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The objective of the investigation was to find out the bearing of DF on the profitability of listed Non-financial establishments in Kenya. This chapters' major focus was on data analysis, interpretation, and presentation of the research findings in relation to the topic being studied. The chapter similarly highlighted the results of the different tests that was used to test the variables of the investigation and discuss them in relation to the aim of the investigation. The part similarly centered on the discussion of diagnostic tests, normality tests, autocorrelation analysis, multicollinearity and descriptive statistics. Under descriptive statistics, the linearity test, regression analysis, coefficient, model summary and Anova was discussed in relation to the topic of investigation

4.2 Diagnostic Test

The investigation used diagnostic tests in a bid to measure the different aspects of the data sets that was used to analyze and make inferences about the investigation. The key tests that covered normality tests, testing for presence of autocorrelation, multicollinearity as well as linearity.

In testing for normality, Skewness as well as kurtosis statistics was applied. Variance of Inflation Factor (VIF) and tolerance was leveraged on in testing for multicollinearity. Autocorrelation was tested by Durbin-Watson whereas Linearity was measured by the scatterplot.

4.2.1 Normality Test

The normality test was measured by skewness and kurtosis in a bid to measure the distribution of data. For skewness, the rule of thumb that was used was that if skewness is less than -1 or greater than 1 then the distribution was highly skewed, if skewness was between -1 and -0.5 then the distribution portrayed a skew value that was moderate in nature while a distribution that was between -1 and 0.5 was approximately symmetric in nature. The Kurtosis measure was categorized into three the mesokurtic, leptokurtic and platykurtic.

A mesokurtic distribution was projected when values were equal to 3 and this was equated to a normal distribution while Leptokurtic kurtosis was when the categories were greater than 3 and therefore connoting that the variables portray a distribution that has longer tails that are fatter with higher peaks sharper than mesokurtic. In addition when

the kurtosis is less than three the distribution is usually shorter with tails thinner than the normal distribution and this is referred to as platykurtic.

Table 4.1: Normality Test

	Skewness		Kurtosis	
	Statistic	**Std. Error**	**Statistic**	**Std. Error**
(Constant)	1.551	0.164	2.634	0.326
Log of STD	6.527	0.164	44.358	0.326
Log of LTD	0.051	0.164	-1.586	0.326
Log of TA	0.376	0.164	-1.758	0.326
Capital Adequacy Ratio	3.165	0.164	8.171	0.326

The outcomes from table 4.1 above points out that the log of STD (6.527) and capital adequacy ratio (3.165) were >1 and this pointed out that they were highly skewed. The log of LTD (0.051) and the log of TA (0.376) were moderately skewed.

The outcomes for kurtosis were such that the log of LTD (-1.586) and the log of TA (-1.758) were platykurtic to mean that they showed a distribution were shorter with tails thinner than the normal distribution. The log of STD (44.358) had a kurtosis value that was greater than three this meant that the log of STD had a distribution that had longer tails that were fatter with higher peaks. The capital adequacy ratio (8.171) had a kurtosis value greater than three and therefore it was similarly leptokurtic

4.2.2 Autocorrelation

In this investigation, the Durbin-Watson test was used to measure for autocorrelation and the thumb rule applied is that if the Durbin-Watson statistic is greater than 4 then there negative autocorrelation while if the Dublin Watson is less than 4 then there is no autocorrelation and when the values=4 then the test is considered inconclusive.

Table 4.2: Durbin Watson

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.426[a]	0.182	.167	7.15001	2.182

The outcomes from the Durbin Watson test streamed the value of 2.182 and this was a Durbin Watson value that was lesser than 4 and therefore the investigation establishes that there was no autolink between the variables because from the rule of thumb, variables with values less than four were interpreted as to have no autocorrelation.

4.2.3 Multicollinearity

VIF and tolerance will be employed to measure for multicollinearity among the variables. In most cases the test for multicollinearity uses regression analysis to analyze whether there is a high link between variables and determine the extent to which the predictor variables are predictors of the output variables. As a result the variables relate such that when there is high variance between predictor coefficients then multicollinearity exists and when the variance between predictor coefficients is low then there is no existence of multicollinearity.

The rule of thumb applied to measure VIF will be that when VIF is equivalent to 1 then there is no correlation however when the VIF is less than one or less than or equal to 5 there will be a moderated correlation and when the VIF is greater than 5 there will be a high correlation.

Table 4.3: Multicollinearity

	Tolerance	VIF
(Constant)		
Log of STD	0.999	1.001
Log of LTD	0.400	2.499
Log of TA	0.415	2.411
Capital Adequacy Ratio	0.898	1.113

The log of STD (1.001) and the capital adequacy ratio (1.113) streamed values that were almost equivalent to one and therefore there was no correlation. The log of TA (2.411) and log of LTD (2.499) streamed values that were less than or equal five this pointed out that there was moderate link between the predictor variables and the predictor variables.

For tolerance, the guiding factor was that a high tolerance meant signified low multicollinearity whereas low tolerance signified a high multicollinearity. The tolerance Level <0.10 reflects multicollinearity. As per the tolerance levels, all the output variables (Log of STD(0.999), log of LTD (0.400), log of TA (0.415) and capital adequacy ratio (0.898) have tolerance levels that are greater than 0.10 and this led to the conclusion that there was no multicollinearity between the independent and the output variables

4.2.4 Heteroscedasticity

The investigation findings pointed out that all the data sets were heteroscadistic due to the fact that the standard errors between the variables varied widely. Heteroscedasticity was checked via scatter plot.
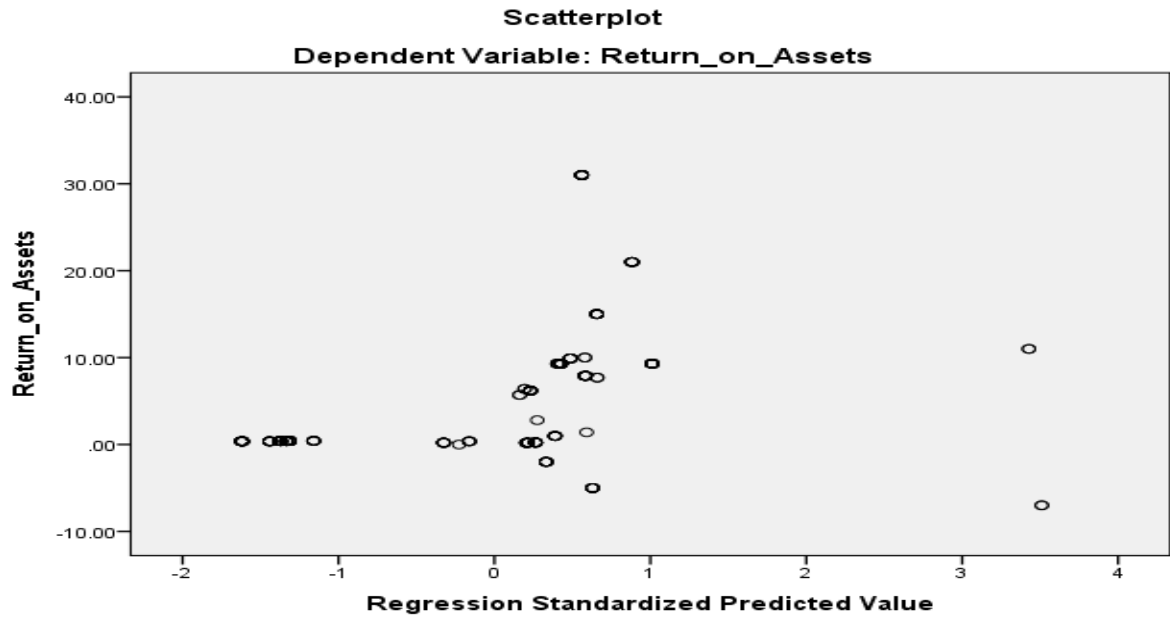
Figure 4.1: Scatter Plot

The outcomes on figure 4.4 shows the data set displayed plotted points that were distributed to the left and when the dataset is distributed on the extreme left or extreme of the scatter plot, which connotes heteroscadasticity.

4.3 Descriptive Statistics

The mean and SD of the variables were similarly tested and the inferences derived were such that data sets with a high numerical value were interpreted to have a higher influence on the constant and the mean values. The mean values derived were a representation of the average values while at the centre of the numerical data set, the

values were set to show variability around a single value. The mean column was used to represent the average values for each of the variable being used in the investigation. SD, contrariwise, was used as an indication of how far the numerical values are distributed from the mean. The rule applied in this case was that the further the numerical value was from the mean, then the higher the volatility displayed.

Table 4.4: Descriptive Statistics

	Minimum	**Maximum**	**Mean**	**Std. Deviation**
	Statistic	**Statistic**	**Statistic**	**Statistic**
Return on Assets	-7.00	31.00	5.4935	7.83270
Log of STD	7.99	88.00	13.0429	10.56267
Log of LTD	.00	15.75	7.3153	6.38292
Log of TA	8.99	14.78	11.4943	2.33788
Capital Adequacy Ratio	.00	14.37	1.5413	3.72238

From the mean and SD, the outcomes point out that ROA had a mean of 5.4935 and a SD of 7.83270 this did not have a big range between thus there was moderate volatility. The log of STD had a mean of 13.0429 and a SD of 10.56267 this similarly signified moderate volatility in addition; the log of STD had the highest mean and this pointed out that it had the highest influence on the profitability of listed non-financial establishments.

From the outcomes, the log of LTD had a mean of 7.3153 and a SD of 6.38292, the log of total asset had a mean 11.494 and a SD of 2.33788. The standard log of TA had a big range from the mean and thereby displayed a higher volatility. The outcomes similarly

point out that capital adequacy had a mean of 1.5413 and a SD of 3.72238. Capital adequacy had the lowest mean and this therefore it was the least volatile and had the least influence on the profitability of the non-financial listed firms.

4.4 Correlation Analysis

To measure the link between the variables and to determine the strength of relation between the variables, the investigation employed the use of Pearson's coefficient of correlation in a bid to measure any linear association that existed between variables. Pearson's coefficient of correlation measures was denoted by r and it was measured to range between the value range of (-1 and 1). The values that were greater than 0 were used to indicate that a positive link existed between the two variables thereby implying that as the value of one variable surges the other variable increases as well.

In addition, variables that streamed a value of 0 were used to indicate that there was no association between variables while values that were less than 0 indicated that there was a adverse link. Therefore when the value was less than 0 thus negative, as one variable increased the other decreased. The correlation values for the variables in this investigation are as pointed out in table 4.5.

Table 4.5: Correlation Analysis

	Return on Assets	Log of STD	Log of LTD	Log of TA	Capital Adequacy Ratio
Return on Assets	1.000	0.072	-0.012	0.273	0.101
Log of STD	0.072	1.000	-0.020	0.007	0.005
Log of LTD	-0.012	-0.020	1.000	-0.765	-0.317

Log of TA	0.273	0.007	-0.765	1.000	0.261
Capital Adequacy Ratio	0.101	0.005	-0.317	0.261	1.000

The Return on Assets (ROA) correlated positively with the log of STD (r=0.072) to mean that when ROA increased there was an overall surge in the log of STD. ROA correlated negatively with the log of LTD (r= -0.012) thus a decrease in ROA resulted in a decrease in log of LTD. ROA correlated positively with both the log of assets (r=0.273) and capital adequacy (0.101) thereby an surge in ROA resulted to a positive surge in them.

From the outcomes, the Log of STD correlated positively with ROA (0.072), log of TA (0.007) and capital adequacy (0.005) and therefore a positive increase on this variables resulted to a positive increase on the log of STD. The log of STD had a adverse link with the log of LTD (-0.020) thus a decrease in the log of STD results to a decrease in the log of LTD.

The outcomes similarly point out that log of LTD had a adverse link with ROA (r=-0.012), log of STD (r=-0.020), capital adequacy(r=-0.317) and log of TA (r=0.765) this therefore was interpreted to mean that a decrease in the log of STD, capital adequacy, log of TA and ROA resulted into a decrease in the log of the LTD.

Findings from the investigation similarly indicate that the log of TA had a positive link with ROA (r=-0.273), log of STD (r= 0.007) and capital adequacy (r=0.261) to mean that an surge in the log of TA resulted in the increase of the log of STD, capital adequacy and ROA. The log of TA however had a adverse link with the log of LTD (r=-0.765)

therefore a decrease in the log of the TA resulted to an overall decrease in the overall log of LTD.

The outcomes reveal that capital adequacy had a positive link with ROA (0.101), log of STD (r=0.05) and log of TA (r= 0.261) and this was interpreted to mean that an surge in capital adequacy resulted to an overall surge in the log of STD, ROA and the log of TA. Capital adequacy had a adverse link with the log of LTD (r=-0.317) thus a decrease in capital adequacy resulted into the decrease in the log of LTD.

4.5 Regression Analysis

The investigation undertook a regression analysis to help establish whether the Return on Assets (RoA), Log of short term and LTD, log of TA and capital adequacy had a bearing on the DF of listed non-financial establishments. Regression analysis was presented through the tables of model summary; Anova and Regression Output present the outcomes from the data.

Table 4.6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.426[a]	.182	.167	7.15001	2.182

The model summary points out that the coefficient of determination R square to be 0.426. This means that 42.6% of the variation as per the outcomes of the investigation is due to the predictor variables captured in the investigation whereas 48.4% of the variation in profitability of non-financial listed firms was attributed to the measurements of error and other factors not encompassed in the investigation.

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Table 4.7: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2454.773	4	613.693	12.004	.000[b]
Residual	11042.476	216	51.123		
Total	13497.248	220			

The significance value from the Anova model was 0.000 which is less than 0.05. This points out that the analytical model is substantial and fit to predict the output variable.

Table 4.8: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-24.44	4.452		-5.489	0.000
Log of STD	0.057	0.046	0.077	1.254	0.211
Log of LTD	0.617	0.119	0.503	5.172	0.000
Log of TA	2.119	0.320	0.633	6.620	0.000
Capital Adequacy Ratio	0.201	0.137	0.095	1.470	0.143

The outcomes point out that the log of STD had a beta coefficient of (0.057) and therefore had a positive impact on the profitability of listed non-financial establishments thus a unit surge in the log of STD resulted into an surge in profitability of the firm. From the outcomes, the log of LTD had a beta coefficient of (0.617) to mean that a unit surge in the log of LTD resulted into a unit surge in the profitability of the firm.

The log of TA as per the outcomes had the highest beta coefficient of (2.119) and this had a positive effect on listed non-financial establishments such that for every unit surge in the log of TA, profitability increased. In addition, the capital adequacy ratio (0.201) similarly had a positive effect on the profitability of the firms such that an surge in capital adequacy resulted to the overall surge in the profitability of the firm.

Table 4.8 similarly shows the significance value of each of the variable and from the outcomes, the log of STD had a significance of 0.211 > P value 0.05 (insignificant). The log of LTD and the log of TA both had a significance of 0.00 < P value 0.05 while the capital adequacy ratio had the significance value 0.143 > P value of 0.05.

4.6 Discussion of the outcomes

This section was a discussion of the descriptive and inferential statistics output as per the objective of the investigation which was to determine the bearing of DF on the profitability of listed non-financial establishments in Kenya. The investigation findings portray that the variables capital adequacy ratio and the log of STD were highly skewed while the rest of the variables were, the log of LTD and TA were moderately skewed. The outcomes similarly point out that the log of long term and the log of TA had tails thinner than the normal distribution thus platykurtic in nature while capital adequacy was leptokurtic.

The investigation found that there was no autolink between variables because the Durbin Watson test findings projected the value of 2.182 which was lesser than 4. For correlation, the outcomes point out that the log of STD and the capital adequacy ratio had no correlation while the log of TA and log of LTD moderately correlated. Further the

results from the measure of VIF and tolerance pointed out that all the output variables (Log of STD, log of LTD, log of TA and capital adequacy ratio) had tolerance levels that were greater than 0.10 and this led to conclusion that there was no multicollinearity between the independent and the output variables.

From the outcomes, the linearity test that was measured through a scatter plot revealed that the data sets were heteroscadistic in nature alluded to the fact that standard errors between the variables varied widely and similarly because the plotted data sets were distributed on the extreme left of the graph. Further results from the investigation on the mean and SD pointed out that ROA and the log of STD were moderately volatile; the log of long term assets had a high volatility while the capital adequacy ratio was least volatile. The investigation findings similarly show capital adequacy had the lowest mean and to mean that it least volatile thus had the least influence on the profitability of the non-financial listed firms while the log of STD had the highest mean and this pointed out that it had the highest influence on the profitability of listed non-financial establishments. The outcomes further reveal that capital adequacy had a positive link with ROA thus an surge in capital adequacy resulted to an overall surge in the log of STD, ROA and the log of TA while a decrease in capital adequacy resulted into the decrease in the log of LTD since they correlated negatively

The investigation similarly revealed that there was a positive link between ROA and log of STD and the log of log of TA thus when they increased there was an overall surge in the ROA however the outcomes point out that there was a negative link between the log of LTD and ROA thus a decrease in ROA resulted in a decrease in log of LTD. The investigation similarly points out that the Log of STD had a positive link with the log of

TA and capital adequacy and therefore a positive increase on these variables resulted to a positive increase on the log of STD. From the outcomes the log of STD however adversely linked with the log of LTD and therefore a decrease in the log of STD resulted to a decrease in the log of LTD.

The outcomes similarly point out that log of LTD adversely linked with ROA, log of STD, capital adequacy and log of TA and therefore this meant that a decrease in the log of STD, capital adequacy, log of TA and ROA resulted into a decrease in the log of the LTD. Further, the outcomes indicate that the log of TA had a positive link with ROA, log of STD and capital adequacy thus an surge in the log of TA resulted in the increase of the log of STD, capital adequacy and ROA however there was a negative link between the log of total and the log of LTD therefore a decrease in the log of the TA resulted to an overall decrease in the overall log of LTD.

From the investigation findings, the model summary projected the coefficient of determination R square to be 0.426. This means that 42.6% of the variation as per the outcomes of the investigation was due to the predictor variables captured in the investigation whereas 48.4% of the variation in DF of non-financial listed firms was attributed to the measurements of error and other factors that could have had a bearing on the profitability. For the beta coefficient, the log of STD had a beta coefficient of (0.057) and therefore had a positive impact on the profitability of listed non-financial establishments. The positive effect was similarly exhibited by the log of LTD, log of TA and capital adequacy thus a unit surge in these variables results into an surge in the profitability of the firm.

The outcomes as per the model summary points out that 42.6% of profitability is determined by the predictor variables: STD, LTD, TA and capital adequacy. This points out that 57.4% of the variation in profitability of non-financial listed firms was attributed to the measurements of error and other factors not encompassed in the investigation. The significance of the analytical model was measured by the F test which was found to be 0.000 which is less than 0.05. This points out that the analytical model is substantial and fit to predict the output variable.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter was a summary of the outcomes of the investigation with respect to the previous section. The chapter similarly derived the conclusion, recommendations and the limitations that surround the investigation. The outcomes were summarized in line with the objective of the research which was to establish the bearing of DF on the profitability of listed non-financial establishments in Kenya. In addition the chapter similarly highlighted on recommendations for more investigation

5.2 Summary of the outcomes

The investigation used secondary sources to collect data. The secondary data was collected form financial statements from the period of 2011 to 2018 through descriptive statistics, inferential statistics and diagnostic tests with the aim of establishing whether DF had a bearing on listed non-financial establishments. The outcomes from the investigation in summary reveal that the variables used in the investigation had a substantial bearing on the profitability of non-listed financial establishments since there was a positive link between ROA and log of STD, log of TA, and capital adequacy. This meant that an surge in ROA led to a positive surge in the predictor variables thus positively affecting the profitability of non-listed financial establishments.

The outcomes further reveal that there was similarly a negative link between the log of LTD and ROA thus a decrease in ROA resulted in a decrease in log of LTD. Adverse link was similarly projected between the log of TA and the log of LTD therefore a decrease in the log of the TA resulted to an overall decrease in the overall log of LTD. The Durbin

test streamed a value of 2.182 and therefore derived the fact that there was no autolink between the variables.

The results of the investigation from the scatter plot pointed out that variables were heteroscadistic in nature because there was a big variation in the SD values as a result the plotted data sets were found to be on the left part of the graph. From the outcomes, the Log of STD and ROA were moderately volatile while the log of long term assets had a high volatility. In addition, capital adequacy ratio was least volatile since it projected the lowest mean. This meant that capital adequacy had the least influence on the profitability if non-listed firms while the log of STD which had the highest mean of all the variables had the most influence on the profitability.

The coefficient determination of R square projected a value of 0.426 which meant that the variation examined in the investigation was attributable to the predictor variables that were captured in the investigation in addition the 48.4% of the variation in DF of non-financial listed firms was attributed to the measurements of error and other factors that could have had a bearing on the profitability. The significance value from the Anova model was 0.000 this pointed out that all the predictor variables except the log of TA streamed a value less than 0.005 and therefore they were significant for use in the investigation.

The regression output as per the outcomes from the investigation showed the significance value of each variable. The result was that log of STD had a significance of 0.211 > P value 0.05. The log of LTD and the log of TA both had a significance of 0.00 < P value

0.05 while the capital adequacy ratio had the significance value 0.143 > P value of 0.05. This meant that the log of TA which was more than 0.05 was insignificant

5.3 Conclusion

The investigation establishes that the profitability of non-listed financial establishments is affected by the predictor variables that were captured by the investigation. This is evidenced by the fact that the log of STD had a positive beta coefficient of and therefore had a positive impact on the profitability. In addition a unit surge in the log of the STD resulted to an surge in the profitability of listed non-financial establishments. This was similarly evidenced by a unit surge in the log of LTD, the log of TA and capital adequacy whose unit increase led to an overall surge in the profitability of the firm.

From the Anova value of 0.000 the outcomes from the investigation lead to the conclusion that all the variables significantly had a bearing on the profitability of non-listed financial establishments the investigation findings on the model summary projected that 42.6% was due to the predictor variables captured in the investigation whereas 57.4% of the variation in DF of non-financial listed firms was attributed to the measurements of error and other factors that could have had a bearing on the profitability. This therefore meant that the error of measurement was higher and that some of the variables that were not captured by the investigation similarly had a bearing on the profitability of non-listed financial establishments.

In conclusion, the investigation reveals that there is a negative link between the log of LTD and the log of TA and ROA as a result a unit decrease in the log of LTD has a adverse bearing on the log of TA and ROA thus the profitability of listed non-financial establishments are negatively affected.

5.4 Recommendation

The outcomes of the investigation reveals that there is positive link between ROA and log of STD and the log of log of TA thus when they increased there was an overall surge in the ROA. The investigation therefore proposes that non-listed financial establishments ought to work towards increasing the return on assets in a bid to increase their capacity to distribute STD without causing financial losses to the company.

The surge in the rate of STD uptake would result in the increase of the profitability of the firm thus beneficial to the company. The STD correlated negatively with the log of LTD thus non-listed financial companies are recommended to maximize on short term DF which has a lower risk as compared to LTD thus less adverse bearing on the profitability of the company.

The investigation proposes the formation of favorable policies by non-listed financial establishments that would aim at regulating the log of LTD since from the outcomes, the log of LTD adversely linked with ROA, log of STD, capital adequacy and log of TA and the decrease in the log of STD, capital adequacy, log of TA and ROA resulted into a decrease in the log of the LTD. Regulating the log of LTD would therefore help to reduce the risks that the company handles and as a result the non-listed financial establishments would be more profitable.

5.5 Limitations of the Investigation

The research utilized secondary data from the years 2011 to 2018 this projects the assumptions of the facts as accurate even though the accurate measure of the data would have been guaranteed more through primary data which portray firsthand information as

opposed to the sources that have been shared without the assurance of the accurate measure being factored in.

The sources and measurement of error projected a percentage of 48.4 this pointed out that the investigation was limited since the variables that were not captured by the investigation similarly had a significant amount of influence on the profitability of the non-listed financial establishments however this was attributed to the limited data availability thereby not all factors that affect the profitability of non-listed financial establishments were captured by the investigation

The investigation was similarly limited by the amount of data that was available on the public domain in relation to the variables that were captured in the investigation. Some of the values were not clearly highlighted by the secondary sources and that presented a challenge for the researcher thus not all the variables were captured in the investigation only those whose full data was accessible from the public domain.

5.6 Suggestions for further Research

Findings from the investigation reveal that the profitability of non-listed firms are influenced by the log of TA, log of short term and LTD as well as the capital adequacy ratio. The researcher suggests that aside from measuring the effects of these variables on profitability alone, an investigation ought to be undertaken to increase the efficiency of each of the variables and their individual statistic measured to understand the rate at which each of them influences the profitability of non-listed financial establishments.

The investigation similarly proposes that a comparative investigation ought to be undertaken to capture the bearing of these variables on the profitability of all the listed

financial establishments and the concluding outcomes compared in a bid to understand whether they project the same behavior or there is an existing relationship in how both affect the topic under investigation. In addition all the variables that were not captured in the investigation and result in the measurement of error can similarly be captured in more investigation that will target the listed financial establishments as well.

The investigation similarly utilized secondary sources of data from the year 2011 to 2018 the investigation proposes that more investigation can be undertaken on the bearing of the variables from previous years especially to understand how the variables impact on profitability has been changing over the years in which the non-listed financial establishments were in operation so at to enable the analysis of the change in trends over the years.

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APPENDIX: List of Listed Non-Financial Institutions In Kenya

Company		Sector
ARM Cement	ARM	Industrials
B O C Kenya	BOC	Basic Materials
Bamburi Cement	BAMB	Industrials
BAT Kenya	BATK	Consumer Goods
Car & General (K)	CG	Consumer Services
Carbacid Investments	CARB	Basic Materials
Crown Paints Kenya	BERG	Basic Materials
Deacons (East Africa)	DCON	Consumer Services
Eaagads	EGAD	Consumer Goods
East African Breweries	EABL	Consumer Goods
East African Cables	CABL	Industrials
East African Portland Cement	EAPC	Industrials
Eveready East Africa	EVRD	Consumer Goods
Express Kenya	XPRS	Consumer Services
Flame Tree Group Holdings	FTGH	Basic Materials
Kakuzi	KUKZ	Consumer Goods
Kapchorua Tea Kenya	KAPC	Consumer Goods
KenGen Company	KEGN	Utilities
Kenya Airways	KQ	Consumer Services
Kenya Orchards	ORCH	Consumer Goods
Kenya Power & Lighting	KPLC	Utilities
Limuru Tea	LIMT	Consumer Goods
Longhorn Publishers	LKL	Consumer Services

Mumias Sugar Co	MSC	Consumer Goods
Nairobi Business Ventures	NBV	Consumer Services
Nation Media Group	NMG	Consumer Services
Olympia Capital Holdings	OCH	Industrials
Safaricom	SCOM	Telecommunications
Sameer Africa	FIRE	Consumer Goods
Sasini	SASN	Consumer Goods
Standard Group	SGL	Consumer Services
Total Kenya	TOTL	Oil & Gas
TPS Eastern Africa	TPSE	Consumer Services
TransCentury	TCL	Industrials
Uchumi Supermarkets	UCHM	Consumer Services
Umeme	UMME	Utilities
Unga Group	UNGA	Consumer Goods
Williamson Tea Kenya	WTK	Consumer Goods
WPP Scangroup	SCAN	Consumer Services