

# Debt Financing and Financial Efficacy of Listed Manufacturing Companies in Kenya

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## Abstract

The main objective of this study was to determine the relationship of financial leverage on financial efficacy of the Kenya manufacturing companies listed in Nairobi securities exchange over a period of seven (7) years (2011 – 2017). Specifically the study sought to examine the effect of debt financing on financial efficacy of listed manufacturing companies in Kenya and to investigate the effect of firm's size as a moderating variable on the relationship between financial leverage and Financial efficacy of manufacturing firms in Kenya. The study was based on Modigliani and Miller Proposition I and II, the trade-off theory, pecking order theory and the agency theory. The research adopted a descriptive research design. The target population for the study werestaff members of the listed manufacturing firms in Kenya. The target constituted respondents from, accounting department, finance department, Auditing and Assurance Department and Monitoring and Evaluation Department of listed manufacturing firms in Nairobi securities exchange in Kenya. A sample of 106 respondents were selected by use of stratified random sampling. Data was collected through a structured questionnaire. Both descriptive and inferential statistics were used to analyze the data. Data presentation was done by the use of charts and tables for ease of understanding and interpretation. Both primary and secondary data were used. Pilot study was conducted by the researcher taking some questionnaires to the listed manufacturing firms head offices in Kenya. From this pilot study, the researcher was able to detect questions that need editing and those that will be ambiguous. The study usedCronbach (Alpha –  $\alpha$ ) model to test the internal consistency with the alpha coefficient of above 0.7 being considered reliable. To establish the validity of the research instrument the research pursued the opinions of experts in the survey of study especially the researcher's supervisors. Quantitative and qualitative data that were collected using questionnaires and the questionnaires were inspected for errors and gaps before issuing to the respondents. The findings revealed that debt financing, equity financing and retained earning positively and significantly influenced financial efficiacy among the listed manufacturing firms. As well, firm size positively moderated the relationship between financial leverage (debt financing, equity financing and retained earnings) and financial efficacy of the manufacturing firms. The study recommended for firms to put in place modalities for determining and evaluating the optimal sources of business finance. Once this is done, the purpose of borrowing funds needs to be defined at the onset and a scoring system should be in place for evaluating the viability of the sources of debt for firms. Also, emphasis needs to be on ensuring that equity financing is in line with the objectives of the firm. Finally, there is need for firms to only retain earning on occasions when there are investment projects that are likely to enhance financial efficacy.

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## 1.0 INTRODUCTION

### 1.1Background of the Study

According to Syed et al, (2013)Financial leverage can described as the extent to which a business or investor is using the borrowed money. Financial leverage is a measure of how much firm uses equity and debt to finance its assets. As debt increases, financial leverage increases. It has been seen in different studies that financial leverage has therelationship with financial efficacy.

According to Zhao Bei, et al (2012) the capital is an important resource in the firm's financial decision marking.The capital can be basically classified as ownership or non-ownership capital in corporate financial aspect. These two usually represent equity and debt capital. The combinations of equity and debt capital are known as FL. It is dynamic position and varies under different conditions like, cost of capital, capital market, manager's perception, organizational strategies, firm size, growth etc. CS is the composition of debt and equity capital that is required for a firm to finance its assets. The choice of amount of debt and equity capital is determined after comparison of internal and external factor related to the each firm operations environment and certain characteristic of source of fund that can affect the firm. Financial leverage

Hussain et al (2016) The amount of debt used by the company to finance its assets is knownas financial leverage. Financial leverage is way of enhancing estimated return in an entity whereas at the same time it's also threat to the shareholderinterest because it creates problems to repay the debts. Financial leverage can be measured by dividing a firm total debt to its total assets.

In Pakistan, Zahoor et al (2015),found out the effect of leverage on efficiency of firms in textile sector. The Results indicated that total debt and long term debt are negatively related to return on asset and return on equity.

The negative relationship is steady with the results of pecking order theory. The results suggest that firms tend to borrow less because firms maintain the sufficient amount of funds internally. The firms which have larger size, they achieve economies of scale, get new technology and obtain funds at lower costs. Big companies have higher benefit as compared to small companies. Al-Taani, (2013) carried out a study on how financial leverage measures firms use of debt and equity to finance firm assets and its operations. A firm can fund its investments portfolio through debt and equity. A company can also employ preference capital as another form of capital. The company's rate of return on assets is fixed regardless of the rate of interest on debt. The financial leverage used by companies is meant to earn more funds on their fixed charges than operation cost. As debt increases, financial leverage increases. The increased financial leverage means an increase in the company's capacity and thus, enhances its capacity of making many profits.

In Sri Lanka, Zhao Bei et al (2012) stated that Financing decision is one of the important basic function more than the other functions of corporate financing decision making which helps financial manager to decide when, where and how to acquire funds to meet the firm's investment needs. The choice of debt and equity capital of a firm is to consider the longer funds from three sources reported the three sources influencing the long-term funds; such as retained earnings, long term debts, and issues of new equity. It has been proved that the growth is no longer in the firm due to the relative financial unhealthy of a firm. The performance of a business enterprise is based on the number of factors, one of the main factors is firm financial strength FS and it directly affects the firms' growth ability.

In Ethiopia capital to be well structured and effectively utilized, a business firm must be able to devise various ways for selecting the best components of its capital which would be used in the company's operation to raise its productivity and or achieve performance (Uremandu, 2012). For the most part, a firm can choose any capital structure that it wants. If management so desired, a firm could issue some bonds and use the proceeds to buy back some stock, thereby increasing the debt-equity ratio. Alternatively, it could issue stock and use the money to pay off some debt, thereby reducing the debt-equity ratio. (Allen, 2011)

In Kenya, Maina et al, (2013) investigated the effect of debt-equity ratio performance of firms listed at the Nairobi Securities exchange and found a significant negative relationship between capital structure and all measures of performance. Otieno, (2013) explored the financial structure of listed financial firms in Kenya based on a sample of 29 nonfinancial firms listed on the Nairobi Securities Exchange during the period 2004-2012 and revealed that firm specific factors affecting the capital structure of listed firms in Kenya are asset tangibility, firm's profitability, size of the firm, firm's growth opportunities and finally liquidity of a firm's assets while the macroeconomic factors are economic growth and corporate tax rate.

## 1.2 Statement of The Problem

Most manufacturing firms in Kenya are facing financial challenges (Jennifer et al, 2017). Consequently According to 2017 Kenya manufacturers Association Annual Report and Financial statements of most manufacturing firms in Kenya, the directors indicated that "Due to the challenging performance in the period under review, the Directors do not recommend payment of dividends". Giving a clear indication that the company financial efficacy was at stake due to financial leverage (debt to equity ratios) (Banafa et al, 2015).

Despite the theoretical appeal of financial leverage, researchers in capital structure have not found the optimal capital structure of firms and various studies have been made in different countries to examine the relationship between financial leverage and firm's financial efficacy. However the result documented are contradictory and mixed (Shibanda et al, 2015)

According to Shibanda et al, (2015), There is a statistical relationships between Financial Leverage and Performance of Non-Financial Companies in Nairobi Securities Exchange in Kenya. This study did not check on the effect of retained earnings, firm's size as a moderating variable on financial efficacy of listed manufacturing firms in Kenya.

In the light of above studies, there is little empirical studies in Kenya concerning the relationship of financial leverage and Financial efficacy in the context of listed Manufacturing firms in Kenya, which motivated the researcher to put her own contribution on the relationship of financial leverage and Financial efficacy of listed manufacturing firms in Kenya.

## 1.3 OBJECTIVES

### 1.3.1 General Objective:

### 1.3.2 Specific Objectives:

- i. To examine the effect of debt financing on Financial efficacy of listed manufacturing companies in Kenya
- ii. To investigate the effect of firm's size as a moderating variable on the relationship between financial leverage and Financial efficacy of manufacturing firms in Kenya.

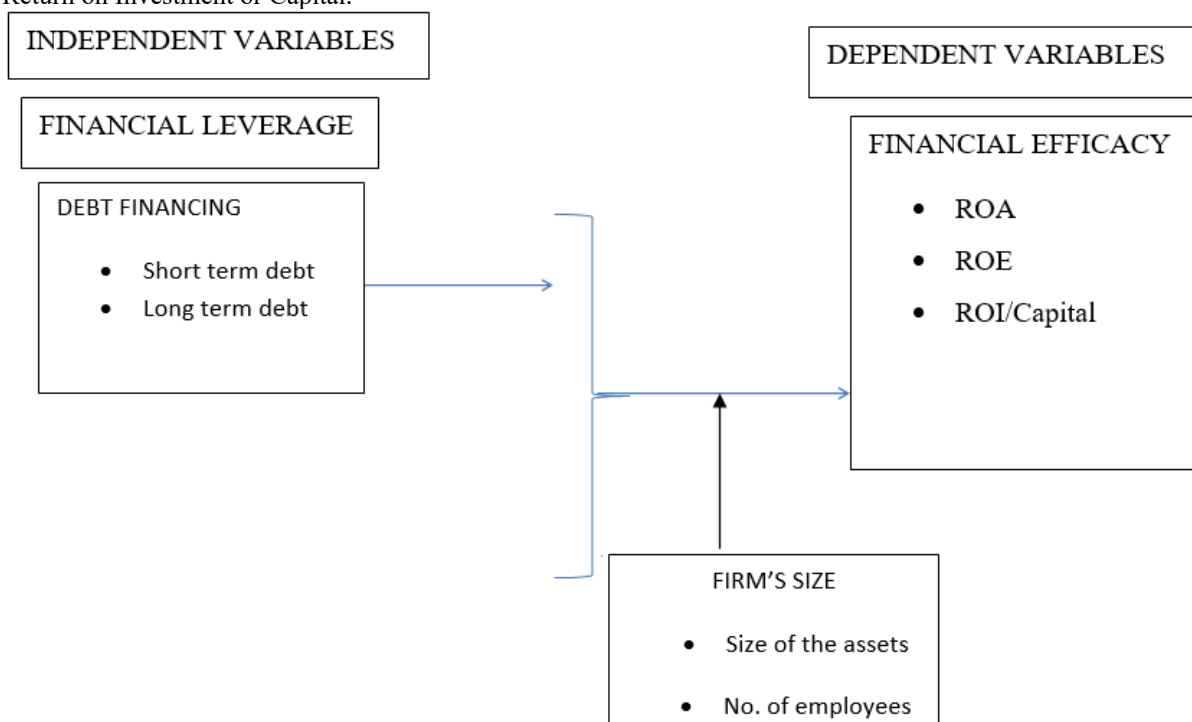
### 1.3.3 Research Hypothesis

- i.  $H_{01}$  : There is no significance relationship between debt financing and Financial efficacy of listed

- manufacturing companies in Kenya
- ii. H<sub>02</sub>: There is no significance relationship between the firm's size as a moderating variable between financial leverage and financial efficacy of manufacturing firms in Kenya.

### 1.4 Conceptual Framework

Conceptual model below was used to examine the relationship between financial leverage and Financial efficacy of listed manufacturing companies in Kenya. The independent variable was financial leverage which constituted debt financing, equity financing, and retained earnings. The firm size acted as a moderating variable to influence the dependent variable which is financial efficacy and can be measured using Return on Assets, Return on Equity, Return on Investment or Capital.



**Table 1.8 Conceptual framework**  
 Source: researcher (2018)

## 2.0 LITERATURE REVIEW

### 2.1 THEORETICAL FRAMEWORK

The study sought to review four theories, the irrelevancy theory by Modigliani Miller on capital structure, trade-off theory that evaluates the various costs and benefits of alternative leverage plans. Often it is assumed that an interior solution is obtained so that marginal costs and marginal benefits are balanced, the pecking order theory does not take an optimal capital structure as a starting point, but instead asserts the empirical fact that firms show a distinct preference for using internal finance (as retained earnings or excess liquid assets) over external finance. If internal funds are not enough to finance investment opportunities, firms may or may not acquire external financing, and if they do, they will choose among the different external finance sources in such a way as to minimize additional costs of asymmetric information, The market timing theory of capital structure argues that firms time their equity issues in the sense that they issue new stock when the stock price is perceived to be overvalued, and buy back own shares when there is undervaluation.

#### 2.2.1 Modigliani and Miller Proposition I and II.

According to Modigliani and Miller (1958) capital structure irrelevance theorem, capital structure decisions would have no impact on the value of the firm. The MM proposition I, is also known as “pie model” because no matter the capital structure a firm chooses, the value of the firm will remain the same.

$$V_L = V_U$$

Where  $V_L$  is the value of a levered firm

$V_U$  is the value of an unlevered firm

Modigliani and Miller (1958) capital structure irrelevance theory only holds under the assumption of perfect capital markets.

Modigliani and Miller (1963) modified their original theory to MM II by dropping the zero tax assumption, stating that levered firms will be more valued than the unlevered firms due to the fact that interest is a tax deductible expense but the cost of equity increases due to high debt since shareholders bear higher business risk due possibility of bankruptcy, hence no much difference between levered and unlevered firms, although levered firms are expected to have the tax advantage. In supporting MM II, Dasgupta and Sengupta (2003) showed that there is a positive correlation between leverage and firm profits. MM11, theory is relevant to this study since it gives an insight on the difference between levered and unlevered firms. Levered firms get tax advantage, thus helping finance managers to make right financial leverage decisions.

## **2.3 EMPIRICAL REVIEW OF LITERATURE**

### **2.3.1 Debt financing**

Karuma (2018) examined the effect of debt financing on financial performance of manufacturing firms in Nairobi securities exchange. The study concluded that capital used in financing a business is made up of funding from owners and funding from lenders. Combining the two sources of funding creates the capital structure of a firm. Capital structure can therefore be defined as a mix of firm's long term debt, short term debt, common equity and preferred equity. This is how a firm funds its whole operations and growth using different sources of financing. This is made up of equity, rights issue, and debt financing, credit market. This research sought to investigate the effect of short-term debt, long-term debt, interest rates and corporation tax rates on the financial performance of manufacturing firms listed in Nairobi Securities Exchange during a five year period of 2013-2017. The study employed multiple linear regression models because it considered the relationship between one dependent variable and more than one independent variable. Descriptive statistics, correlation and regression analysis were used to analyze the data. Statistical Package for the Social Sciences (SPSS) software was used to analyze the data. Accounts payable was found to be significant to ROA with a significance level of 0.00 which was less than 0.05. Bank overdraft was found not to be significant to ROA with significance level of 0.132 which is greater than 0.05 while debentures was found to be significant to ROA with a significance level of 0.016 which was less than 0.05. Bank loan and interest payments were found not to be significant to ROA with significance levels of 0.957 and 0.726 respectively which were both greater than 0.05. Interest on tax was found to be significant to ROA with a significance level of 0.014 which was less than 0.05 while Expenses deductibles were found not to be significant to ROA with a significance level of 0.480 which was greater than 0.05.

### **2.3.4 Firms size as a moderating factor**

Halima s. omar (2015), sought to determine the relationship between firm size and financial performance of microfinance banks in Kenya. The study used a descriptive survey. The study carried out a census survey of nine (9) microfinance banks that had been in operation for five years (2010-2014). The study used secondary sources of data that was obtained from central bank of Kenya audited reports of the nine microfinance banks. Data analysis involved descriptive statistics, correlation analysis and regression analysis. The study found that most microfinance banks are small in size and however most of them have experienced high growth over the years in terms of customer deposits and operating efficiency. This could be attributable to improved financial performance and growth in asset base in the period of study. Pearson's correlation results found that there was no correlation between asset quality, log of assets and customer deposits with financial performance of microfinance banks in Kenya apart from operating efficiency and financial performance which was found to have a strong correlation. The study indicated that a larger firm is open to many opportunities: the top management can consider opening new branches to increase their sales, outreach, and increase their capacity and profitability. This acts as a proxy for improved growth and financial efficacy or performance of the firm. It accrues a number of benefits for instance it enables the firm to easily qualify for credit facilities, gain trust from its suppliers, and thus improve financial efficacy or performance.

Kale (2014) examined the impact of financial leverage on firm performance: the case of non financial firms in Kenya. This study set out to investigate the impact of financial leverage on firm performance of the non-financial blue chip companies listed under the NSE 20 share index. it took performance measures in a wider perspective using ROA, roe and Tobin's Q. in addition to financial leverage the study expanded its explanatory variables by controlling for liquidity, firm size and firm age. the study analyzed the data from the three models using random effect model after the Housman test results preferred the random effect model while Levinlinchu test results for unit roots indicated that the data was stationary. The results revealed that there is a significant negative relationship between leverage and return on assets. the result is also buttressing that profitable firms uses pecking order theory in its financing, the more profitable a firm is, the more likely they are going to reduce its debts hence internal financing is preferred. Findings from the Tobin's Q model indicated that large firms have a positive insignificant relationship between financial leverage and firm performance while the older firms showed an increase in its market value; this is an indication of investors' confidence on the older firms who have built their reputation over a long period.

### 2.3.5 Financial efficacy/performance

Vincent et al, (2013) on determinants of Financial Performance of Commercial Banks in Kenya. The study used linear multiple regression model and Generalized Least Square on panel data to estimate the parameters. The findings showed that bank specific factors significantly affect the performance of commercial banks in Kenya, except for liquidity variable. But the overall effect of macroeconomic variables was inconclusive at 5% significance level. The moderating role of ownership identity on the financial performance of commercial banks was insignificant. Thus, study concluded that the financial performance of commercial banks in Kenya is driven mainly by board and management decisions, while macroeconomic factors have insignificant contribution.

### 2.3.6 Financial Leverage

Maghanga et al, (2012) studied the impact of leverage on performance of the Kenya power and lighting company. The study used a sample of 55 respondents and structured questionnaires to collect primary data and secondary data was obtained from firm's annual reports. The study concluded that leverage has a great impact on performance as far as financing is concerned. Thus, the study revealed that an optimal debt financing is crucial in ensuring that companies realize improved financial efficacy. The study recommended that companies should work on reducing some operational costs by going for relative cheaper sources of financing so as to improve greatly on their financial efficacy.

Raza (2013) examined effect leverage on company's performance from Karachi Stock Exchange. Panel data methodology was used for companies listed at Karachi Stock Exchange for the year 2004-2009. The study finding established a negative relation between performances and leverages hence a conclusion that long-term debt was more expensive thus utilization of debt in a high level results in a low profitability.

Taani (2012) study indicated that the firm's working capital management policy, financial leverage and size have significant relationship to the net income, ROE, and ROA.

Banafa et al (2015), examined impacts of leverage on Financial efficacy of listed Kenyan non-financial firms. The study employed a causal research design and to examined the effect of leverage of the 42 listed non - financial firms at NSE. Secondary data from firms' financial statements was used for a period of five years from the year 2009-2013. The study used the regression model to analyze the collected data. The study revealed that leverage had a negative and significant impact on corporate financial efficacy.

## 2.4 RESEARCH GAP

The size of a firm possess challenges to the firm especially when it grows to a large scale firm, management issues arises which causes the financial managers to make wrong financial and non-financial decisions which in turn affects the value of the firm or the Financial efficacy of the firms (Halima s. omar, 2015) and (MesutDoğan, 2016). Thus this study seeks to close this gap by studying the effects of retained earnings and the effects of the size of the firm on financial leverage and how they affect the firm's Financial efficacy. The study further seeks to examine how the size of the manufacturing firms affects the Financial efficacy of listed manufacturing firms in Kenya. The study considered debt financing, equity financing, retained earnings, the size of the firm as part of independent variables influencing the company's Financial efficacy that is ROA, ROE, and ROI.

Further-more, the research by Mule et al (2015), in Kenya on Financial leverage and performance of listed firms in a frontier market: panel evidence from Kenya, used panel procedures in their study which gives room for manipulation of data. Thus this study therefore seeks to seal this gap by using a descriptive research design, regression analysis to seal the gap.

## 3.0 RESEARCH METHODOLOGY

### 3.1 Research Design

This study employed descriptive survey designs to collect and analyze data. Saunders and Thornhill, (2009) defines research design as an overall plan for research undertaking. The study used a descriptive survey design. According to Oso and Onen, (2009), descriptive survey design is an oriented methodology used to investigate populations by selecting samples to analyze and discover occurrences. This design was appropriate since it was easier to sample a part of the population to gather data that can be generalized on the entire study population on financial leverage and Financial efficacy of listed manufacturing firms in Kenya. The research design was used because of its relative cost effectiveness and the ability to bring an understanding of the entire population from the sample.

Descriptive research design is a more conventional approach to studying capital structure considerations. Correlation study allows researcher to determine the relationship between the independent and dependent variables associated (Kothari, 2010).

This research design also examined the causal association between variables under the study with aim to explain the relationship between two or more quantitative variables. Quantitative data relating to the indicators of financial performance and financial leverage of manufacturing companies listed in Nairobi Securities Exchange was collected over a period past seven years from 2011 to 2017 annual reports and correlated with debt ratios of the same firms over time.

### 3.2 Study Population

According to Gaurav, (2014), a research population is generally a large collection of individuals or objects that is the main focus of a scientific query/investigation. The study was conducted in only listed manufacturing companies in NSE. There are nine(9) companies listed on the NSE by 04/05/ 2018. All the nine listed companies were considered for study. The study considered interviewing only financial managers, accounting officers, auditing and assurance officers, monitoring and evaluation officers of these listed manufacturing companies in Kenya because financial managers have an in depth knowledge on Financial efficacy of the company, they advise on the sources of funds companies can resort to, monitor the risks associated with leveraging, advise which projects the company should invest, prepare the financial statements of the company etc thus they are the most suitable respondents to answer questions pertaining financial leverage and Financial efficacy of listed manufacturing companies in Kenya.

**Table 3.1 Target Population**

Manufacturing firms	Finance Department	Accounting Department	Audit & Assurance Department	Monitoring & Evaluation Department	Total Population	
B.O.C Kenya Ltd	120	84	36	12	252	
BAT Kenya Ltd	136	92	44	05	277	
Carbacid Investments Ltd	76	32	24	11	143	
East African Breweries Ltd	174	86	53	15	328	
Mumias Sugar Co. Ltd	115	96	77	34	322	
Unga Group Ltd	125	112	85	44	366	
Eveready East Africa Ltd	97	66	33	10	206	
Kenya Orchards Ltd	146	102	2426	298		
Flame Tree Group Holdings Ltd	95	55	36	17	203	
<b>Total</b>		1084	725	412	174	2598

Source: Researcher 2018

### 3.3 Sampling Technique and sample size

#### 3.3.1 Sampling Technique

The researcher used purposive sampling technique in the study. Financial managers, Accounting officers, Auditing and Assurance officers and Monitoring and Evaluation officers were chosen since they have informed knowledge in financial leverage and financial efficacy of the mentioned manufacturing companies listed in NSE. Purposive sampling technique helped to identify the population of the study among the selected firms listed on NSE. The entire unit of the population was chosen for the study. The descriptive survey was preferred for the study because the population of the study was small and to ensure that all members participate in the study.

#### 3.3.2 Sample Size

A sample size refers to the total number of items constituted from an aggregate group to develop a sample for the study. A sample size is effective in lowering the implied costs, promotes the generation of accurate results and enhances the speed of data collection (Kothari,2010). For this study, purposive sampling technique was used in selecting finance managers, accounting officers, auditing and assurance officers and monitoring and evaluation officers due to the virtue of their position in their manufacturing firms and the level of knowledge they have on financial leverage and financial efficacy of those listed manufacturing firms. This study included human population which constituted listed manufacturing firms employees from the head offices. The sample size of the number of respondents were obtained using the formula by Nassiuma (2000) as indicated below;

$$n = \frac{Nc^2}{C^2 + (N-1)e^2}$$

Where n= sample size, N=population size, c=coefficient of variation and e=error margin (2%. In this study c was taken as 21% and e to be 2%. Applying the formula

$$n = \frac{2598(.21)^2}{(.21)^2 + (2598-1)(0.02)^2}$$

The sample size of the study were 106 respondents

If 106 sample size represents a target population of 2598 what about 322 employees of Mumias Sugar Co. Ltd  $(322 \times 105) / 2598 = 13$

A sample size of 13 represents 322 employees of Mumias Sugar co. ltd. If 322 employees of Mumias Sugar Co. Ltd is represented by a sample size 13 what about 115 employees of Mumias Sugar Co. Ltd in Finance department?

Finance Department :  $(13 \times 115) / 322 = 5$

Accounting Department:  $(13 \times 96) / 322 = 4$

### 3.4 Data collection instruments:

Mugenda, (2003), describes data collection as a systematic approach to gathering and measuring information from a variety of sources to get a complete and accurate picture of an area of interest. Data collection assisted the researcher to answer relevant questions, evaluate outcomes and make predictions about future probabilities and trends. The data collection instrument in this study was questionnaire. According to Gaurav,(2014), a questionnaire is defined as an instrument of data collection in which a respondent is asked to respond to some set of questions in a predetermined order. A questionnaire provides an effective way of collecting responses from a sample before a quantitative analysis. The research instrument was conveyed to the respondents through the drop and pick technique.

### 3.5 Data Analysis and Presentation

The study employed discriminant analysis descriptive and correlation statistics with the aid of SPSS programme to investigate relationship between financial leverage and the financial efficacy of listed manufacturing firms. The data for analysis was gathered from annual financial reports / statements of manufacturing firms listed on NSE. The descriptive and inferential statistical tools such as mean and standard deviation were applied to describe relevant information about each variable.

Regression analysis and simple correlation was used to investigate the relationship of financial leverage on dependent variables financial efficacy. Karl Pearson first order partial correlation coefficient  $r_{xy}$  was used to ascertain the effect of organizational factors and leverage-performance. Financial efficacy was measured by Return on Assets (ROA) Return on equity (ROE) Return on investment (ROI). Financial Leverage was measured by debt financing, equity financing, retained earnings and size of the firm. The model is specified as follows;

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

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_1 * M + \beta_5 X_2 * M + \beta_6 X_3 * M + \varepsilon$$

Where: Beta ( $\beta$ ) is the constants

( $\beta_0$ ,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ ) are coefficients.

Where, Y = Financial efficacy

X1 =Debt financing,

X2 = Equity financing

X3 = Retained earnings,

M =Firm size

$\varepsilon$  = error term

The regression coefficient ' $\beta_0$ ' is the intercept; while  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ , are the net change in Y for each change of X1, X2, X3 and X4. The error term is a random variable with a mean of zero, which captures those variables that cannot be quantified. The study used Statistical Package for Social Sciences version 22.0 to help in data analysis and used ANOVA to establish the significance of the regression model. The SPSS generated descriptive statistics such as frequencies, mean and standard deviation.

## 4.0 RESEARCH FINDINGS AND DISCUSSION

### 4.1 Descriptive statistics

#### 4.1.2 Debt Financing

Borrowing of loans from other banks, companies or financial institutions so as to support the operations of a business is referred to as debt financing. Debt financing is a financing option that is structured to improve the owners' rate of return on investments by producing a rate of return that is higher than the overall cost of the borrowed funds (Saad et al., 2015). The findings on debt financing are illustrated in Table 4.4. Basing on the findings in Table 4.4, it was confirmed that debt financing decisions must be made at the inception of the enterprise and beginning of the financial year (mean = 4.13, SD = 0.926). As well, the purpose for borrowed funds in a firm are defined prior (mean = 3.96, SD = 1.127). In that way, the manufacturing firms are better placed to make wise decisions about when, where and how to acquire debt financing. The moment the debt financing options are identified, the financial managers are tasked with the evaluation of the options (mean = 4.09, SD = 0.892).

Further, the financial managers are tasked with determining the capital requirements and the sources of finance for the business (mean = 4.27, SD = 1.007). They are also trained on how to determine and evaluate the optimal sources of business finance (mean = 3.62, SD = 1.062). In addition, the management reports debt financing decisions to the directors where the responses have not managed debt to a level acceptable by the board (mean = 4.15, SD = 0.756). The firms are therefore capable of providing a mechanism of filling financial deficits.

Additionally, financial regulations are reviewed by the organization (mean = 3.73, SD = 0.982). In fact, debt financing is covered in the public financial management Act (mean = 4.22, SD = 0.817). Other than that, processes have been defined to determine the profitability of the source of funds and these have been followed (mean = 3.82, SD = 0.803). Also, the management have set up methods to monitor and evaluate the proper performance of the borrowed funds in the firm (mean = 3.89, SD = 0.956). Moreover, there is a scoring system for evaluating the

viability of the source of debt for firms (mean = 3.79, SD = 0.871). Similarly, the financial leverage indicators of the firm have been defined in terms of the scoring system (mean = 4.05, SD = 0.955). Further, all debt financing decisions have been assessed in accordance with the defined scoring system (mean = 3.72, SD = 1.046). Besides, all significant new projects are routinely evaluated to determine the viability of the projects and the sources of financing (mean = 4.22, SD = 0.737). In that way, firms are in a position to evaluate new projects and dedicate the appropriate financing thereby increasing the likelihood of increasing the returns on debt financing.

Also, the responsibility for the determination, assessment and management of debt financing is included in the job description (mean = 4.09, SD = 1.068). Further, debt financing decisions have been collected into one list and have been allocated to a specific job title (mean = 3.94, SD = 0.907). Besides that, managers provide assurance of the effectiveness and optimality of debt funds of the firm (mean = 3.39, SD = 1.472). The findings are in line with the agency theory assertion that detailed investment information is offered to debt providers so that it can aid in the monitoring process.

Finally, the financial managers assess the financial efficacy of the firm for proper decision making (mean = 3.45, SD = 1.249). Overall, the findings on debt financing summed up to a mean of 3.943 and standard deviation of 0.710 implying that the manufacturing firms utilize debt financing in their operations. As well, there were less variations in the responses as indicated by the standard deviation.

**Table 4.1:Debt financing**

n=82	Mean	Std. Dev	Skewness	Kurtosis
Debt financing decisions must be made at the inception of the enterprise and beginning of the financial year.	4.13	0.926	-1.706	3.616
Debt financing options must be identified and evaluated by financial managers	4.09	0.892	-1.455	3.322
The role of finance manager is to determine the capital requirements and the sources of finance for the business.	4.27	1.007	-1.534	2.228
Financial regulations are reviewed by the organization	3.73	0.982	-0.315	-0.875
Debt financing is covered in the public financial management Act.	4.22	0.817	-1.822	5.219
Finance Managers have been trained to determine and evaluate the optimal sources of business finance.	3.62	1.062	-0.709	0.337
The purposes for borrowed funds in a firm are defined prior	3.96	1.127	-0.828	-0.309
A scoring system for evaluating the viability of the source of debt for firms has been defined	3.79	0.871	-0.613	-0.104
The financial leverage indicators of the firm has been defined in terms of scoring system	4.05	0.955	-0.71	-0.449
Processes have been defined to determine the profitability of the source of funds, and these have been followed	3.82	0.803	-0.972	2.357
Debt financing decisions have been collected into one list and have been allocated to a specific job title	3.94	0.907	-0.792	1.006
All debt financing decisions have been assessed in accordance with the defined scoring system	3.72	1.046	-0.473	-0.391
Management have set up methods to monitor and evaluate the proper performance of the borrowed funds in the firm	3.89	0.956	-0.037	-1.45
Management reports debt financing decisions to the directors where the responses have not managed debt to a level acceptable by the board	4.15	0.756	-0.603	0.069
All significant new projects are routinely evaluated to determine the viability of the projects and the sources of financing	4.22	0.737	-1.132	3.115
Responsibility for the determination, assessment and management of debt financing decision is included in job description	4.09	1.068	-1.918	3.588
Managers provide assurance on the effectiveness and optimality of debt funds of the firm	3.39	1.472	-0.47	-1.159
Financial Managers assess the financial efficacy of the firm for proper decision making.	3.45	1.249	-0.296	-0.908
<b>Debt Financing</b>	<b>3.943</b>	<b>0.710</b>	<b>0.145</b>	<b>-0.706</b>



### 4.1.3 Firm Size

The moderating variable in the study is firm size. Undoubtedly, firm size is a basis of competitive advantage in the sense that larger firms tend to be more efficient than their smaller counterparts that suffer from resource constraints. It is in this regard that the study sought to establish the moderating role of firm size on the relationship between financial leverage and financial efficacy. Table 4.7 illustrates the results.

As indicated in the Table, the firm accrues a number of benefits for instance it enables the firm to easily qualify for credit facilities, gain trust from its suppliers, and thus improve financial efficacy or performance (mean = 3.80, SD = 0.777). There are however gaps as to whether the micro-economic and macroeconomic environment of the firm affects the size of the firm (mean = 3.440, SD = 1.123). Also, it is uncertain if the size of the firm improves growth and financial efficacy or performance of the firm (mean = 3.390, SD = 1.074). Besides, there is doubt if the firm size can be determined by the number of employees the firm has (mean = 3.270, SD = 1.007).

Further, it is uncertain if the top management should employ strategies to regulate the size of the firm in order to achieve financial efficacy (mean = 3.160, SD = 1.212). As well, it is undefined if the top management can consider opening new branches to increase their sales, outreach and increase their capacity and financial efficacy (mean = 3.120, SD = 1.059). As well, there is doubt if firm size as a moderating variable affects the financial efficacy of the firm (mean = 3.060, SD = 1.148). Overall, the findings on firm size summed up to a mean of 3.321 and a standard deviation of 0.802 implying there are several gaps with respect to the moderating role of firm size on the relationship between financial leverage and financial efficacy.

**Table 4.2: Firm size**

n=82	Mean	Std. Dev	Skewness	Kurtosis
Firm size as a moderating variable affects the financial efficacy of the firm	3.060	1.148	-0.172	-0.711
The size of the firm improves growth and financial efficacy or performance of the firm	3.390	1.074	-0.534	-0.078
Top management can consider opening new branches to increase their sales, outreach, and increase their capacity and financial efficacy.	3.120	1.059	-0.185	-0.232
The micro-economic and macroeconomic environment of the firm affects the size of the firm	3.440	1.123	-0.353	-0.457
The firm size can be determined by the number of employees the firm has	3.270	1.007	-0.343	-0.037
Top management should employ strategies to regulate the size of the firm in order to achieve financial efficacy	3.160	1.212	-0.270	-0.777
Firm size accrues a number of benefits for instance it enables the firm to easily qualify for credit facilities, gain trust from its suppliers, and thus improve financial efficacy or performance.	3.800	0.777	-0.777	0.619
<b>Firm size</b>	<b>3.321</b>	<b>0.802</b>	<b>-0.237</b>	<b>-0.404</b>

### 4.1.4 Financial Efficacy

Financial efficacy reflects business sector outcomes and results that shows overall financial health of the sector over a specific period of time. It is an indication of how well a firm is utilizing its resources to maximize the shareholders wealth and profitability. The findings on financial efficacy are illustrated in Table 4.8.

As evident in the findings, the performance of a firm is determined on its financial efficacy (mean = 3.570, SD = 0.875). As well, financial efficacy shows overall financial health of the sector over a specific period of time (mean = 3.510, SD = 0.707). However, it is unclear if financial efficacy or performance principally reflects business sector outcomes and results (mean = 3.440, SD = 1.134). Similarly, there is doubt whether financial efficacy determines the general performance of the firm (mean = 3.440, SD = 1.067). Also, it has not been fully established if financial efficacy of a firm is influenced by the firm financial leverage (mean = 3.380, SD = 0.938). Besides that, there is doubt if the resources assigned to the firm are reasonable in light of significance and financial efficacy of the firm (mean = 3.380, SD = 0.989). As well, there is uncertainty whether financial efficacy recommendation and reports of the firm get appropriate responses from key stakeholders of the firm (mean = 3.3560, SD = 1.035).

Further, it is unclear if all financial reports of the firm must be prepared accordance to the stipulated regulations in the financial management act and financial managers have followed (mean = 3.330, SD = 1.089). Moreover, there is uncertainty as to whether financial efficacy indicators of a firm include ROA, ROI and net profit (mean = 3.320, SD = 0.873). Besides that, it has not been fully established if the internal controls have been employed to monitor and regulate the financial efficacy of the firm and results are delivered at an appropriate time meeting the statutory deadlines (mean = 3.300, SD = 1.074). Additionally, it is unclear if annual financial reports

of a firm indicate its financial efficacy (mean = 3.160, SD = 0.962). Overall, the findings on financial efficacy summed up to a mean of 3.380 and standard deviation of 0.662. The results suggest that there are several gaps regarding the financial efficacy of manufacturing firms.

**Table 4.3: Financial efficacy**

n=82	Std.			
	Mean	Deviation	Skewness	Kurtosis
Financial efficacy or performance principally reflects business sector outcomes and results.	3.440	1.134	-0.626	-0.389
Financial efficacy shows overall financial health of the sector over a specific period of time	3.510	0.707	-0.259	-0.164
Financial efficacy indicators of a firm includes ROA, ROI, Net profit etc.	3.320	0.873	-0.330	0.040
The performance of a firm is determined on its financial efficacy.	3.570	0.875	-0.512	0.058
Financial efficacy of a firm is influenced by the firm financial leverage	3.380	0.938	-0.464	0.078
Annual financial reports of a firm indicate its financial efficacy.	3.160	0.962	-0.412	-0.132
All financial reports of the firm must be prepared accordance to the stipulated regulations in the financial management act and financial managers have followed.	3.330	1.089	-0.283	-0.437
Internal controls have been employed to monitor and regulate the financial efficacy of the firm and results are delivered at an appropriate time meeting the statutory deadlines.	3.300	1.074	-0.457	-0.286
Financial efficacy determines the general performance of the firm.	3.440	1.067	-0.712	0.071
The resources assigned to the firm are reasonable in light of significance and financial efficacy of the firm.	3.380	0.989	-0.593	-0.035
Financial efficacy recommendation and reports of the firm get appropriate responses from key stakeholders of the firm	3.350	1.035	-0.624	-0.194
<b>Efficacy</b>	<b>3.380</b>	<b>0.662</b>	<b>-0.398</b>	<b>-0.333</b>

#### 4.1.5 Correlation Results

Correlation analysis is usually carried out in order to establish the degree to which two variables converge or diverge together depending on the case so as to determine the significance of the relationship. Usually, the Pearson's Product Moment Correlation Coefficient is used to make inference about the existing relationship between two variables.

As a result, a positive value of the correlation coefficient shows that the two variables move together in the same trend, and when there is a negative value, it shows that the variables move in opposite direction or trend. Essentially, correlation analysis depicts to a given degree, the aspect of how one factor effects another. However, correlations do not imply or infer a cause-effect relationship. Consequently, a correlation analysis of the independent variables and the dependent variable was conducted and the findings were summarized and presented in Table 4.9.

The findings in Table 4.9 show that debt financing have a positive and significant relationship with financial efficacy,  $\rho = 0.670$ ,  $p < 0.01$  and this means that there is a probability of 0.670 that financial efficacy will increase with increased debt financing. The findings also show that equity financing has a positive and significant relationship with financial efficacy,  $\rho = 0.691$ ,  $p < 0.01$  indicating that there is a 0.691 probability that financial efficacy will increase with increase in equity financing.

The findings also show that retained earnings have a positive and significant relationship with financial efficacy,  $\rho = 0.738$ ,  $p < 0.01$  meaning that there is 0.738 probability that financial efficacy will increase with increase in retained earnings. Finally, firm size has a positive and significant relationship with financial efficacy,  $\rho = 0.669$ ,  $p < 0.01$  meaning that with increase in firm size, there is a probability of 0.669 that financial efficacy will increase. Assessment of inter-factor correlations revealed a positive and significant relationship between the independent factors. These findings provide enough evidence to suggest that there was linear relationship between debt financing, equity financing, retained earnings and firm size with financial efficacy.

**Table 4.4: Correlation results**

		Financial Efficacy	Debt Financing	Firm Size
Financial efficacy	Pearson Correlation	1		
	Sig. (2-tailed)	1		
	N	82		
Debt financing	Pearson Correlation	.670**	1	
	Sig. (2-tailed)	0.000		
	N	82	82	
	N	82	82	
Firm size	Pearson Correlation	.669**	.427**	1
	Sig. (2-tailed)	0.000	0.000	
	N	82	82	82

#### 4.1.6 Regression Analysis

The study sought to establish the relationship between financial leverage and financial efficacy of listed manufacturing companies in Kenya. More specifically, the study sought to: examine the effect of debt financing on financial efficacy of listed manufacturing companies in Kenya, establish the effects of equity financing on financial efficacy of listed manufacturing companies in Kenya and to assess the influence of retained earnings on financial efficacy of listed manufacturing firms in Kenya. This section starts with the model summary and the analysis of variance that are presented in Table 4.10 and Table 4.11.

#### 4.1.7 Effect of Debt Financing On Financial Efficacy

The first specific objective of the study was to examine the effect of debt financing on financial efficacy of listed manufacturing companies in Kenya.

**Table 4.5: Effect of Debt Financing On Financial Efficacy**

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	1.552	0.188		8.267	0.000
Debt financing	0.586	0.053	0.731	11.132	0.000
<b>Summary Statistics</b>					
R	0.731a				
R Square	0.534				
Adjusted R Square	0.530				
ANOVA (F-stat)	123.922				
ANOVA (p value)	0.000				
a Dependent Variable: <b>financial efficacy</b>					

Source :( Researcher Findings, 2020)

The findings show that debt financing has a positive and significant effect on financial efficacy,  $\beta_1 = 0.731$ ,  $p = 0.000$  meaning that with each unit increase in debt financing, financial efficacy increases by 0.731 units. In line with these findings, Fong Chun Cheong and Steve (2015) confirmed that debt financing is appropriate for firms to pursue an aggressive growth strategy especially when the interest rates are low. In a similar vein, Maghanga et al, (2012) revealed that an optimal debt financing is crucial in ensuring that companies realize improved financial efficacy. In terms of theory, the findings validate the trade-off theory in the sense that, the manufacturing firms accrue benefits from the tax advantage of interest deductibility (Modigliani & Miller 1963). Moreover, since debt financing contributes to financial efficacy, it means that the manufacturing firms have utilized a debt ratio which maximizes its value as opined by the trade-off theory.

#### 4.1.8 Overall Regression Model

Table 4.10 illustrates the model summary of multiple regression models. The results in the table showed that all the three predictors (retained earnings, equity financing and debt financing) explained 66.7% variation of financial efficacy. This showed that considering the three study independent variables, there is a probability of predicting financial efficacy by 66.7% (R-squared = 0.667).

**Table 4.6: Model Summary**

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.817a	0.667	0.655	0.4513	1.551

a Predictors: (Constant), retained earnings, equity financing, debt financing

b Dependent Variable: financial efficacy

**4.1.9 ANOVA Model**

The model fit was tested using analysis of variance (ANOVA) and the findings are presented in Table 4.11. The findings indicated that the above discussed coefficient of determination was significant as evidence of F (3, 78) ratio of 52.159 with  $p < 0.001$ . Thus, the model was fit to predict financial efficacy using retained earnings, equity financing and debt financing.

**Table 4.7: ANOVA Model**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	31.871	3	10.624	52.159	.000b
Residual	15.887	78	0.204		
Total	47.757	81			

a Dependent Variable: financial efficacy

b Predictors: (Constant), retained earnings, equity financing, debt financing

The coefficient of estimates table 4.12 for overall regression showed that retained earning had the highest positive and significant effect on financial efficacy ( $\beta_3 = 0.421$ ,  $p < 0.000$ ) such that with each unit increase in retained earnings, financial efficacy will increase by 0.49521 unit. Equity financing has a second highest positive and significant effect on financial efficacy,  $\beta_2 = 0.304$ ,  $p = 0.001$  meaning that increasing equity financing by 1 unit would increase financial efficacy by 0.304 units. Debt financing had the least positive and significant effect on financial efficacy ( $\beta_1 = 0.304$ ,  $p = 0.001$ )

**Table 4.8: Coefficients of Estimate**

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
(Constant)	0.564	0.263		2.149	0.035		
debt financing	0.237	0.099	0.219	2.400	0.019	0.513	1.949

a Dependent Variable: financial efficacy

Based on the above results the results derived the following multiple linear regression model as shown below.  $Y = .564 + 0.219 X_1 + 0.304 X_2 + 0.421 X_3 + \epsilon$

**4.1.10 Moderating Effect of Firm size on Financial leverage and financial efficacy**

The fourth objective of the study was to establish the moderating effect of firm size on the relationship between financial leverage and financial efficacy listed manufacturing companies in Kenya. In order to confirm firm size making moderation effect on the relationship between financial leverage and financial efficacy. The following steps were carried out; First, the study standardized all variables to make interpretations easier afterwards and to avoid multicollinearity. Second, the study fitted a regression model (model 3) predicting the outcome variable financial efficacy (FE) from the Financial leverage (debt financing, equity financing and retained earnings). The effects as well as the model in general ( $R^2$ ) should be significant. Third, the study added the interaction effect (FS\*FL) to the previous model (model 4, 5 and 6) and check for a significant  $R^2$  change as well as a significant effect by the new interaction term. If both are significant, then moderation is occurring. If the predictor and moderator are not significant with the interaction term added, then complete moderation has occurred. If the predictor and moderator are significant with the interaction term added, then moderation has occurred (Marsh *et al*, 2013), however the main effects are also significant. The hierarchical regression results are presented in Model 2 to 6 in Table 4.13.  $H_{02a}$  specified that firm size moderates the relationship between debt financing and financial efficacy ( $\beta = .314$ ,  $\rho < .05$ ). So, the null hypothesis was rejected. This was also confirmed by  $R^2\Delta$  of .010 which indicate that firm size moderates the relationship between debt financing and financial efficacy by 1%. This implies that firm size enhances the relationship between debt financing and financial efficacy. The findings are in tally with that of Ismail (2016) which indicated that the size of the firm is key to improving its overall efficacy.

$H_{02}$  predicted that firm size does not moderate the relationship between equity financing and financial efficacy. However, the regression results showed a positive and significant moderating effect of firm size on the relationship between Equity financing and financial efficacy ( $\beta = .550$ ,  $\rho < .05$ ). Hence, the null hypothesis was rejected. This

was also supported by change of R squared of 1.9% ( $R^2\Delta = .019$ ) indicating that firm size moderates the relationship between equity financing and financial efficacy by 1.9%. This implies that firm size strengthens the relationship between equity financing and financial efficacy of listed manufacturing firms. The results are in line with that of Kale (2014) which concluded that the more profitable a firm is, the more likely they are going to reduce its debts hence internal financing is preferred.

$H_{2c}$  stated that firm size does not moderate the link between retained earnings and financial efficacy. However, the regression results showed that firm size positively moderated the relationship between Retained earnings and financial efficacy ( $\beta = 0.419, \rho < .05$ ), rejecting the null hypothesis. The moderating effect was also revealed by change in R squared ( $R^2\Delta .015$ ) and F change ( $F \Delta = 12.541$ ). This suggests that firm size facilitates the relationship between retained earnings and financial efficacy. The implication is that larger firms are likely to utilize their earning for growth and expansion purposes. Consequently, the findings conform with that of Omar (2013) which indicated that a larger firm is open to many opportunities such as the opening of new branches to increase their sales and increasing their capacity and profitability. Further, since they are bigger in nature, it means they are exposed to a bigger market share that translates to financial efficacy.

**Table 4.9: Moderating Effect of Firm Size on Financial Leverage and Financial Efficacy**

	Model 2	Model 3	Model 4	Model 5	Model 6
	B(Se)	B(Se)	B(Se)	B(Se)	B(Se)
(Constant)	0.001(.042)	0.006(.038)	0.006(.155)	(-0.012)(.036)	(-0.006)(.035)
Zscore(DF)	0.226(.057)**	0.151(.053)**	0.053(.838)	0.08(.062)	0.079(.06)
Zscore(EF)	0.352(.068)**	0.219(.065)**	0.181(2.764)**	(-0.139)(.105)	0.05(.115)
Zscore(EF_FS)				0.550(.144)**	0.25(.164)
Zscore(RE_FS)					0.419(.118)**
<b>Model Summary</b>					
R	0.817	0.855	0.861	0.871	0.88
R Square	0.667	0.731	0.741	0.759	0.775
Adjusted R <sup>2</sup>	0.656	0.721	0.73	0.748	0.763
Std. Error	0.587	0.528	0.520	0.502	0.488
<b>Change Statistics</b>					
R <sup>2</sup> Δ	0.639	0.064	0.010	0.019	0.015
F Δ	121.464	45.116	7.152	14.528	12.541
df1	3	1	1	1	1
df2	190.000	189.000	188.000	187.000	186.000
Sig. F Δ	0.000	0.000	0.008	0.000	0.001

a Dependent Variable: Zscore (FE)

\*\*p<.01, \*p.05

DF= debt financing, EF=Equity financing, RE=Retained earnings, FS=Firm size and FE= Financial efficacy

Source: Research Data (2020)

Based on the above results the results derived the following hiech linear regression model as shown below.

$$Y = -.006 + 0.226 X_1 + 0.352X_2 + 0.390X_3 + 0.314X_1 * M + .550X_2 * M + .419X_3 * M + \varepsilon$$

## 5.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

### 5.1 Debt Financing and Financial Efficacy

The findings on debt financing indicated that debt financing decisions must be made at the inception of the enterprise and beginning of the financial year. Besides, debt financing options must be identified and evaluated by financial managers. It was further established that the role of finance manager is to determine the capital requirements and the sources of finance for the business. As well, financial regulations are reviewed by the organization. Other than that, debt financing is covered in the public financial management Act.

Also, finance managers have been trained to determine and evaluate the optimal sources of business finance. Moreover, the purpose for borrowed funds in a firm are defined prior. There is also a scoring system for evaluating the viability of the source of debt for firms. Additionally, the financial leverage indicators of the firm have been defined in terms of the scoring system. Besides, processes have been defined to determine the profitability of the source of funds and these have been followed. Further, debt financing decisions have been collected into one list and have been allocated to a specific job title.

Moreover, all debt financing decisions have been assessed in accordance with the defined scoring system. Also, the management have set up methods to monitor and evaluate the proper performance of the borrowed funds in the firm. In addition, the management reports debt financing decisions to the directors where the responses have not managed debt to a level acceptable by the board. Also, all significant new projects are routinely evaluated to

determine the viability of the projects and the sources of financing.

Further, the responsibility for the determination, assessment and management of debt financing is included in the job description. Besides that, managers provide assurance of the effectiveness and optimality of debt funds of the firm. Moreover, the financial managers assess the financial efficacy of the firm for proper decision making.

The results of multiple regressions indicate that debt financing had a positive and significant relationship with financial efficacy. Therefore, the null hypothesis was rejected. Furthermore, firm size moderated the relationship between debt financing and financial literacy. Therefore, the null hypothesis was rejected and the alternate hypothesis accepted which was that firm size does moderate the relationship between debt financing and financial literacy.

## 5.2 Conclusion

In conclusion, debt financing positively influenced financial efficacy of listed manufacturing firms in Kenya. The reason for this is that the purpose of borrowed funds is defined earlier such that once the firms acquire business finance, they utilize it in the intended projects. The probability of financial efficacy is further enhanced by a scoring system that evaluates the viability of the source of debt. Besides, there is routine monitoring of projects which makes it possible to determine if the borrowed funds are appropriately used. In that case, there is a holistic approach with regard to debt financing in manufacturing firms.

Furthermore, firm size positively moderates the relationship between debt financing and financial efficacy. The implication is that large firms are open to several debt financing options that are likely to lead to financial efficacy. Consequently, such firms can seek for more financing and utilize its human resource pool and other assets to ensure that the borrowed funds contribute to the financial efficacy of the firm.

## 5.3 Recommendations

There is overwhelming evidence from the study indicating that debt financing contributes to financial efficacy of manufacturing firms listed at NSE. It is therefore utmost necessary for firms to put in place modalities for determining and evaluating the optimal sources of business finance. Once this is done, the purpose of borrowing funds needs to be defined at the onset and a scoring system should be in place for evaluating the viability of the sources of debt for firms. Moreover, the management should ensure that there is monitoring and evaluation of the performance of the borrowed funds. Further, since firm size positively moderates the relationship between debt financing and financial efficacy, firms should employ an optimal debt level and emphasize on growing their firms so that they can enjoy the economies of scale associated with larger firms. In that way, financial efficacy will be enhanced.

Since equity financing enhances the financial efficacy of manufacturing firms, emphasis needs to be on ensuring that equity financing is in line with the objectives of the firm. Besides that, firms need to ensure there is greater equity to debt ratio to facilitate greater financial efficacy. As well, the finance managers should actively engage in the assessment and evaluation of equity financing of the firm. Also, they need to have a clear understanding of the level of equity the firm requires to finance its operations. Moreover, the finance managers should regularly implement and monitor equity financing decisions. In so doing, the firms are set to benefit optimally from equity financing options.

## 5.4 Areas for Further Research

Arising from the findings of the study, recommendations for further research are made. While this study successfully examined the conceptualized framework of the moderated role of firm size on the relationship between financial leverage and financial efficacy of manufacturing firms in Kenya. It has also presented a rich prospect for other areas to be researched in future. In terms of industry, the study was only confined to the manufacturing sector. It would however be useful to carry out similar study across heterogeneous industries. Future research should therefore expand to other industries and contexts because financial leverage and financial efficacy vary according to sector. Future research may re-examine the conceptual model used in this research with a larger sample size so that the outcome can be generalized to a larger population.

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