

EFFECT OF FINANCIAL DECISIONS ON FIRM VALUE OF NON-  
FINANCIAL FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE

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## DECLARATION

### Declaration by the student

This research dissertation is my original work that has never been published or presented to any other examining body.

Name: ..... Sign: ..... Date: .....

**15/03033**

### Declaration by the supervisor

This research dissertation has been submitted with my approval.

Name: ..... Sign: ..... Date: .....

## **DEDICATION**

This dissertation is dedicated to my family and in particular to my sister, Diana, my brother Daniel and my future wife and children that our Almighty father will bless me with thereafter. I also dedicate it to my lovely parents Mr. and Mrs. Kiarie for the constant encouragement and praying for me all through. I appreciate their continued support and understanding throughout this period of writing my dissertation. If it was not for them I would not have reached this far.

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## TABLE OF CONTENTS

|                                                                                     |            |
|-------------------------------------------------------------------------------------|------------|
| <b>DECLARATION.....</b>                                                             | <b>ii</b>  |
| <b>DEDICATION.....</b>                                                              | <b>iii</b> |
| <b>ACKNOWLEDGEMENT.....</b>                                                         | <b>iv</b>  |
| <b>TABLE OF CONTENTS .....</b>                                                      | <b>v</b>   |
| <b>LIST OF TABLES .....</b>                                                         | <b>ix</b>  |
| <b>LIST OF FIGURES .....</b>                                                        | <b>x</b>   |
| <b>LIST OF APPENDICES .....</b>                                                     | <b>xi</b>  |
| <b>ABBREVIATIONS AND ACRONYMS.....</b>                                              | <b>xii</b> |
| <b>DEFINITION OF TERMS.....</b>                                                     | <b>xiv</b> |
| <b>ABSTRACT.....</b>                                                                | <b>xv</b>  |
| <b>CHAPTER ONE .....</b>                                                            | <b>1</b>   |
| <b>INTRODUCTION.....</b>                                                            | <b>1</b>   |
| 1.1 Background of the Study .....                                                   | 1          |
| 1.1.1 Financial decisions .....                                                     | 3          |
| 1.1.2 The Value of the Firm.....                                                    | 6          |
| 1.1.3 Non-Financial firms listed at the Nairobi Securities Exchange (NSE), Kenya .. | 6          |
| 1.2 Statement of the problem.....                                                   | 7          |
| 1.3 Research Objectives.....                                                        | 9          |
| 1.3.1 General Objectives:.....                                                      | 9          |
| 1.3.2 Specific objectives .....                                                     | 9          |
| 1.4 Research Hypotheses .....                                                       | 9          |
| 1.5 Significance of the study.....                                                  | 10         |
| 1.5.1 Corporate managers and shareholders .....                                     | 10         |
| 1.5.2 Lenders and venture capitalists .....                                         | 10         |
| 1.5.3 Researchers .....                                                             | 10         |

|                                                                          |           |
|--------------------------------------------------------------------------|-----------|
| 1.6 Scope of the study .....                                             | 10        |
| <b>CHAPTER TWO .....</b>                                                 | <b>11</b> |
| <b>LITERATURE REVIEW .....</b>                                           | <b>11</b> |
| 2.1 Introduction.....                                                    | 11        |
| 2.2 Theoretical Review .....                                             | 11        |
| 2.2.1 Agency theory .....                                                | 11        |
| 2.2.2 Pecking Order Theory .....                                         | 13        |
| 2.2.3 Trade-off Theory .....                                             | 14        |
| 2.2.4 Modigliani and Miller Dividend Theory.....                         | 15        |
| 2.3 The Empirical Review .....                                           | 16        |
| 2.3.1 Effects of investment decisions on the firm value .....            | 16        |
| 2.3.2 Effects of financing decisions on firm value .....                 | 18        |
| 2.3.3 Effect of Dividend decisions on firm value .....                   | 20        |
| 2.3.4 Impact of Working Capital Management decisions on firm value ..... | 23        |
| 2.3.5 Mediating Effect of Firm Performance on Firm Value .....           | 25        |
| 2.4 Summary of the Literature and the Research gap .....                 | 27        |
| 2.5 Conceptual Framework.....                                            | 30        |
| 2.5.1 Operationalization of study variables .....                        | 31        |
| 2.6 Measurement and Operationalization of Variables .....                | 33        |
| <b>CHAPTER THREE .....</b>                                               | <b>34</b> |
| <b>RESEARCH METHODOLOGY .....</b>                                        | <b>34</b> |
| 3.1 Introduction.....                                                    | 34        |
| 3.2 Research design .....                                                | 34        |
| 3.3 Target Population.....                                               | 34        |
| 3.4 Sample and Sampling procedure .....                                  | 34        |
| 3.5 Instrumentation .....                                                | 35        |

|                                                                                    |           |
|------------------------------------------------------------------------------------|-----------|
| 3.6 Data Collection .....                                                          | 35        |
| 3.7 Data Analysis .....                                                            | 36        |
| 3.7.1 Empirical model.....                                                         | 36        |
| 3.7.2 Tests for regression analysis .....                                          | 38        |
| <b>CHAPTER FOUR.....</b>                                                           | <b>40</b> |
| <b>RESEARCH FINDINGS AND DISCUSSIONS.....</b>                                      | <b>40</b> |
| 4.1 Introduction.....                                                              | 40        |
| 4.2 Descriptive Statistics.....                                                    | 40        |
| 4.3 Correlation Analysis .....                                                     | 43        |
| 4.4 Diagnostic Tests.....                                                          | 46        |
| 4.4.1 Fisher-Type Test of Unit Root.....                                           | 46        |
| 4.4.2 Hausman Test.....                                                            | 47        |
| 4.4.3 Normality Test .....                                                         | 48        |
| 4.4.4 Multi-collinearity Test .....                                                | 48        |
| 4.4.5 Autocorrelation Test .....                                                   | 49        |
| 4.4.6 Heteroscedasticity .....                                                     | 50        |
| 4.5 Panel Regression of the Effect of Financial Decisions on Firm value .....      | 50        |
| 4.6 Intervening Effect of Firm Performance on Financial decisions and Tobin Q..... | 54        |
| Step 1 .....                                                                       | 54        |
| 4.7 Intervening Effect of Firm Performance on Financial decisions and MVA.....     | 57        |
| 4.8 Hypotheses Testing.....                                                        | 59        |
| <b>CHAPTER FIVE .....</b>                                                          | <b>66</b> |
| <b>SUMMARY, CONCLUSION AND RECOMMENDATIONS .....</b>                               | <b>66</b> |
| 5.1 Introduction.....                                                              | 66        |
| 5.2 Summary of Major Findings.....                                                 | 66        |
| 5.2.1 Effects of investment decisions on the firm value .....                      | 66        |

|                                                                          |           |
|--------------------------------------------------------------------------|-----------|
| 5.2.2 Effects of financing decisions on firm value .....                 | 67        |
| 5.2.3 Effect of Dividend decisions on firm value .....                   | 67        |
| 5.2.4 Impact of Working Capital Management decisions on firm value ..... | 67        |
| 5.2.5 Mediating Effect of Firm Performance on Firm Value .....           | 67        |
| 5.3 Conclusion .....                                                     | 68        |
| 5.4 Recommendations.....                                                 | 69        |
| 5.5 Areas for further Research.....                                      | 70        |
| <b>REFERENCES.....</b>                                                   | <b>71</b> |
| <b>APPENDICIES .....</b>                                                 | <b>82</b> |

## LIST OF TABLES

|                                                                                                        |    |
|--------------------------------------------------------------------------------------------------------|----|
| Table 2.1: Measurement and Operationalization of Variables .....                                       | 33 |
| Table 3.1: Summary of sampled Listed Non-Financial Firms per Sector .....                              | 35 |
| Mediating model .....                                                                                  | 37 |
| Table 3.2: Summary of Diagnostic Test to be carried out .....                                          | 39 |
| Table 4.1: Descriptive Statistics .....                                                                | 40 |
| Table 4.2: Correlation between Financial Decisions and Tobin Q.....                                    | 43 |
| Table 4.3: Correlation between Financial Decisions and Market value added.....                         | 45 |
| Table 4.4: Fisher-type Test of Unit Root .....                                                         | 46 |
| Table 4.5: Hausman Test .....                                                                          | 47 |
| Table 4.6: Normality Test.....                                                                         | 48 |
| Table 4.7: Multicollinearity Test .....                                                                | 49 |
| Table 4.8: Serial Correlation Tests .....                                                              | 49 |
| Table 4.9: Heteroscedasticity Test Results .....                                                       | 50 |
| Table 4.10: Financial decisions and Tobin Q .....                                                      | 50 |
| Table 4.11: Panel Regression of the Effect of Financial Decisions on logMVA .....                      | 52 |
| Table 4.12: Composite of Financial decisions and Tobin Q.....                                          | 54 |
| Table 4.13: Composite of Financial decisions and firm performance .....                                | 54 |
| Table 4.14: Financial performance and Tobin Q .....                                                    | 55 |
| Table 4.15: Intervening Effect of firm performance on financial decisions and Tobin Q.....             | 56 |
| Table 4.16: Composite of Financial decisions and Market value added .....                              | 57 |
| Table 4.17: Composite of Financial decisions and market value added.....                               | 57 |
| Table 4.18: Financial performance and market value added .....                                         | 58 |
| Table 4.19: Intervening Effect of firm performance on financial decisions and market value added ..... | 59 |

## LIST OF FIGURES

|                                        |    |
|----------------------------------------|----|
| Figure 2.1: Conceptual framework ..... | 30 |
|----------------------------------------|----|

## LIST OF APPENDICES

|                                                                                |    |
|--------------------------------------------------------------------------------|----|
| <b>Appendix 1:</b> Consent Letter.....                                         | 82 |
| <b>Appendix 2:</b> NSE Listed Non-financial Firms (Data Collection Guide)..... | 83 |
| <b>Appendix 3:</b> Data Collection Form.....                                   | 84 |

## ABBREVIATIONS AND ACRONYMS

|        |                                             |
|--------|---------------------------------------------|
| APP:   | Average Payable Period                      |
| ARP:   | Average Receivable Period                   |
| ASEA:  | African Security Exchange Association       |
| CMA:   | Capital Market Authority                    |
| DER:   | Debt Equity Ratio                           |
| DPR:   | Dividend Payout Ratio                       |
| EASEA: | East African Security Exchange Association  |
| EPS:   | Earnings per Share                          |
| FGLS:  | Feasible Generalized Least Square           |
| GDP:   | Gross Domestic Product                      |
| GMM:   | Generalized Method of Moments               |
| ICP:   | Inventory Conversion Period                 |
| IRA:   | Insurance Regulatory Authority              |
| KSE:   | Karachi Stock Exchange                      |
| MMLF:  | Money market Mutual Fund Liquidity Facility |
| NSE:   | Nairobi Securities Exchange                 |
| OLS:   | Ordinary Least Square                       |
| PDCF:  | Primary Dealer Credit Facilities            |
| P/E:   | Price Earnings Ratio                        |
| RGLS:  | Random Generalized Least Square             |
| ROA:   | Return on Asset                             |
| ROE:   | Return on Equity                            |
| ROI:   | Return on Investment                        |
| SRO:   | Self-Regulatory Authority                   |
| SSA:   | Sub-Saharan Africa                          |

TSE: Taiwan Security Exchange

WCM: Working Capital Management

## **DEFINITION OF TERMS**

|                       |                                                                                                                                                                                                                                                                                                          |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Financial Decisions:  | The functions of accumulating financial resources, investing them in assets and sharing the earned returns by the assets to shareholders (owners) (Pandey, 2005).                                                                                                                                        |
| Capital Structure:    | The financing sources used to finance investments (Myers, 2001).                                                                                                                                                                                                                                         |
| Investment Decisions: | Decisions that are associated with building the appropriate asset portfolio in a firm (Jagongo & Tipape, 2019).                                                                                                                                                                                          |
| Financial Leverage:   | The connection between owner's funds and borrowed funds and the capital structure. It encompasses debt, ordinary equity and preference equity used to finance the corporation's total assets, financial growth and current operations (Goel, Chadha & Sharma, 2015).                                     |
| Dividend Policy:      | Decisions that are concerned with the manner in which returns generated by the firm's assets are distributed to the firm's shareholders (Copeland & Weston, 1992).                                                                                                                                       |
| Working Capital:      | Refers to the flow of funds for the operations of the enterprise. It is composed of invested funds in the current assets or such assets which can be easily liquidated. They can be converted into cash within a short period without diminishment in value or disruption of operations (Brigham, 1996). |
| Solvency:             | Firms' continuous ability to meet maturing obligations (Pandey, 2005)                                                                                                                                                                                                                                    |
| Firm Value:           | Refers to the sum value of assets, tax benefits as a result of debt less the value of bankruptcy costs associated with the debt (Leland & Toft 1991)                                                                                                                                                     |

## ABSTRACT

Financial Managers are tasked with developing and maintaining healthy and prudent financial decisions that suite all the stakeholders in a firm. Research shows that there is extensive failure on the part of management to achieve this pioneering goal as more and more companies continue to fall under the hammer of receivership or closure. It is believed that the financial decisions made by these managers reflect a greater percentage as the cause for corporate failure. The fact that the NSE has had to delist six firms and put into suspension four others within the last decade due to financial duress is proof enough of this. This backdrop exudes the basis of the study as it sought to establish the effect of financial decisions on firm value of non-financial firms listed at the Nairobi Securities Exchange (NSE). The specific objectives of the study are: to determine the effect of investment decisions on firm value of non-financial entities quoted at the NSE, to establish the effect of working capital decisions on firm value of the listed non-financial firms at NSE, to determine the effect of dividend decisions on firm value of non-financial firms listed at NSE and to examine the effect of financial decisions on firm value of non-financial firms listed at NSE. The research adopted descriptive research approach where a sample of 36 was selected from a population of 45 listed non-financial firms. Secondary data was employed to generate panel data from 2010-2019 which were analyzed using STATA version 13 software. Coefficient of results indicated that investment decisions had a negative and insignificant relationship with firm value measured using Tobin Q. However, investment decisions had a negative and significant relationship with firm value measured using market value added. Leverage decisions had a positive and significant relationship with firm value measured using Tobin Q. However, coefficient of results indicated that financing decisions had a positive and insignificant relationship with firm value measured using market value added. Dividend decisions had a positive and insignificant relationship with firm value measured using Tobin Q. However, dividend decisions had a negative and insignificant relationship with firm value measured using market value added. Working capital management decisions had a negative and insignificant relationship with firm value measured using Tobin Q. Working capital management decisions had a negative and insignificant relationship with firm value measured using market value added. Firm performance significantly mediates the effect of financial decisions on firm value of Non-financial firms listed at Nairobi Securities Exchange as measured using Tobin Q as a measure of firm value. However, firm performance does not mediate the effect of firm performance on the relationship between financial decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange measured using market value added. Based on the findings, the study concluded that investment decisions influences market value added of Non-financial firms listed at NSE. It was also concluded that leverage decisions positively influences Tobin Q of the non-financial firms listed at the NSE. The study concluded that firm performance significantly mediates the effect of financial decisions on Tobin Q of Non-financial firms listed at NSE. The study recommends for the implementation of well thought investment decisions based on customer desires, market requirement, expert opinion and business environment. The study recommends that, the management of Non-financial firms listed at the Nairobi Securities Exchange to balance between financing a firm using short term debt and long-term debt. The study recommends for the creation of prudent financial decisions including investment, leverage, working capital and dividend decisions that will stimulate firm performance



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the Study

Decisions on corporate finance incorporate any decisions made by the management and have financial implications on the business operations. Currently managers have the responsibility of making decisions on investment, dividend payouts, financing, and those that affect the environment. The Management is also required to maximize shareholders value of the organization (Hasan, Al Mutairi, 2011). Capital structure, dividend policy and capital budgeting decisions are considered to be important when it comes to firm's ability to enhance its competitive edge (Hasan, Al Mutairi & Risik, 2011). By definition, capital structure entails alternatives used by an organization in financing its assets. A firm can go for various equity options, debts, or other financial alternatives. The management can opt to combine bonds, bank loans, lease financing, and other options with equity in a conglomerated attempt to enhance the market value of the entity (Hijazi & Shah, 2004).

Damodaran (2010) observes that the connection between financial decisions and firm's value can be determined by understanding that the value is the present value of anticipated cash flows discounted back at a rate reflecting both the risk level of the firm's projects and the financing blend adopted to finance them. A significant challenge faced by managers in the current day environment is how they can achieve optimum capital structure through the right combination of debt and equity as well as the minimization of the cost of capital not forgetting improved return to the shareholders (Goyal, 2013). The continual development as well as renovation on the capital and financial markets may affect the capital structure decisions, which will certainly establish profitability and also the firm's value differently. Therefore, it is prudent to strike an equilibrium on debt as well as equity financing to achieve the best financing structure, which could decrease the firm's price of capital and also subsequently boost the value (Akomeah, Bentil & Musah, 2018).

While the conversation of the irrelevance of dividend plan in best capital markets has actually been significant in financial concept, conflict exists about dividend plan in the real world worrying market flaws. The existence of agency problems, information asymmetry, transaction costs and taxes, makes dividend policy relevant (Al Malkawi, 2008). Kumar and Tsetsekos (1999) highlighted that markets in emerging economies differ significantly from those in established economies in divergent aspects. The markets have less information

efficiency, are often of more recent origins, more volatile, and tend to be smaller. In addition, they are diverse from developed markets in other features on taxation on dividends, corporate governance, capital gains, and ownership structure.

The universal outlook of financial decisions and the profitability of non-financial listed entities indicate contradicting findings. Gao, Lan & Liang (2014) conducted a research study on non-financial sectors in Chinese economic climate. The emphasis was on financing strategy of detailed firms on performance as well as found out that equity financing ratio and also operating performance of experienced firms in China had a positive relationship without significant linear partnership in between the endogenous corporate performance and financing ratio. On top of that, debt financing ratio and also operating performance was discovered to be adversely correlated. Terra (2003) conducted a research on whether investment decisions by Brazilian firms were affected by credit constraints, using statement of financial position data between 1986 and 1997. The study established that the firms were credit-constrained, and the only instance when credit constraints was softer was among well-established and multinational firms. Antwi, Mills and Zhao (2012) examined 34 companies on the Ghana Securities market and revealed that in such an emerging economy, equity capital was a significant component of capital structure and enhanced the firm's value.

Sheikh and Wang's (2013) investigation into whether capital outlay affects non-financial firms in Pakistan found out that capital structure measurement are negatively correlated to return on assets (ROA). More so, it emerged that overleveraging may lead to an increase in the creditors' influence and in effect limits the ability of managers to expedite their roles effectively, thus negatively affecting performance. A research on seventy-one listed non-financial corporations in Karachi Securities market by Soomro, Bhutto and Abbas (2010) in a bid to analyze the effect of the change in individual retained earnings, net cash flow, debt ratio, revenue, and number of shares on share price revealed that the variables are positively connected with share price except debt ratio. Thus, all firms should maintain debt at optimal level so as to increase the price per share which will lead to wealth increase of shareholders; the fundamental objective of these firms.

A similar study by Maina and Ishmail (2014) on the of capital strata effect on profitability of firms at the Nairobi Securities market established that debt and equity are significant determinants of performance on the listed firms. Maina and Ishmail (2014) postulated that firms that used more debt to finance their businesses recorded low performance. The

conclusion was that companies at NSE preferred more of short-term debt to long-term debt. Therefore, there is need to consider the market dynamics, the size and financial strength of the firm to create a perfect capital structure that will increase a firm's value.

Specific to securities markets, investors globally have been rushing to sell off their portfolios amidst very low demand leading to substantial declines in key indices. Further, the anticipated global downturn is expected to have a detrimental effect by a further decline in performance of most sectors of the economy leading to projections of further drops in share prices in listed entities in sectors such as tourism and travel, oil and gas, investment banking, traditional retail and entertainment, professional sport, banking, healthcare, manufacturing and education. In mitigation, Governments and Central Banks have applied a cocktail of fiscal and monetary stimulus tools ranging from economic stimulus measures like; reduction of central bank rates, cash reserve ratios, reverse repo operations, quantitative easing, loosened capital adequacy on banks and other firms; to direct measures to support the capital markets directly such: as Primary Dealer Credit Facilities (PDCF) an, Money Market Mutual Fund Liquidity Facilities (MMLF) (CMA, 2020).

### **1.1.1 Financial decisions**

Fama (1974) conducted a study and postulated that the value of a firm is solely dependent on the investment decisions made by the firm's management. The managers' investment decisions, in this case, comprises of fixed assets that ultimately affects firm's value. An investment in structures such as buildings, machinery equipment, factories, will have the capacity to develop and continue to improve its value (Hidayat et al., 2019). However, biases on corporate investment decision's rationality may cause irrational behavior in management. Heaton (2002), states that beyond the traditional assumption of "*super-calculator*" agent economics managers can present irrational aspects since they may be frapped by optimism bias. Optimistic CEOs and managers are assumed to manage investment cash flow sensitivity since from their optimism bias they will view that the stock market undervalue their shares and so the external financing costs will be perceived as being high. These Optimistic CEOs will make their corporate investment conditioning through the existence of significant amount of internal cash flow. Then, they will act irrational and will over invest with adequate cash flow while under invest with short cash.

Leverage decisions in a firm result in utilizing borrowed capital to fund a firm in order for it to expand its asset base and generate more return on risk capital or to improve the potential return of a given investment (Adam, 2019). Jensen & Meckling (1976) herald the use of debt to increase the firm value. In agency theory, one of the mechanisms for minimizing the urge for a manager is increasing debt. The reasoning behind it is that debt accumulation can minimize agency costs that can enhance the firm's value. Debt will increase the value of the firm from a rise in prices of the stocks. Consequently, if the debt decreases, there will be lowered stock market price. A study by Modigliani and Miller (1963) shows that firms that are highly geared tend to have a higher value than those financed by equity only due to interest tax shield benefit arising since interest expense is tax allowable. Later Modigliani incorporated the effect of bankruptcy costs in his research and concluded that when a company continues to increase the debt portion in its capital structure it reaches a point where the borrowing costs exceed the interest tax shield enjoyed.

Accumulation of debt is fairly priced by bondholders, who take precaution on inflation risk and account default, but is attractive to issue due to tax incentive on interest payments (Gomes, Jermann & Schmid, 2016). Dennis and McKeon (2012) concur that organizations that increase leverage (intentionally) through accumulating debt, do so solely as a boost to the operating needs and not a means to disburse an enormous equity payout. Subsequent debt reviews are neither rapid nor proactive attempts to rebalance the capital portfolio of the firm concerning a long-run goal. Besides, the evolution of the leverage ratio relies on whether the company attains surplus returns.

While dividends compose the core cash payment to shareholders; the greater the anticipated future streams of dividends, the greater the share value of the shareholders (Carlson, 2001). Dividend policy continuity suggests stability and continued growth in the company's earnings. This attracts investor confidence by guaranteeing a constant of return on their investments (Baker and Powell, 2002). Adelegan, (2008) argues that dividend policy affects investors' earnings and overall growth of a firm. The firm's management aims an optimal dividend policy that enhances shareholders' return and firm's growth so as to maximize the stock price in the securities market (Al-Hassan, Asaduzzaman, & Karim, 2013). Amromin, Harrison and Sharpe (2006) negate this by stating that dividends have an inverse relationship to the price of stock that is if dividends to be paid are high, then the price of stock tends to rise giving the firm a high value.

The appropriate distribution of available cash resources minimizes the amount of financial resources generated internally for managers to use forcing them to seek external financing from the capital markets more frequently, thus subjecting managers to be under scrutiny of relevant authorities such as Capital Market Authority (CMA). For them to secure the required funds, the managers seek incentives to reduce agency costs and disclosure of information. Thus, dividend payouts benefit the shareholders by minimizing these costs linked to monitoring managers in expanding this responsibility to the capital market (Al Malkawi, 2008; Easterbrook, 1984, and Moh'd et al., 1995).

The objective of the firm can be achieved by utilizing its working capital prudently since it affects the ability of a company to operate as a going concern due to its liquidity position making it very crucial to decide on how the funds should be spent (Mickiewicz, Bishop and Varblane, 2004). Working Capital monitoring involves regulating and also intending present possessions and responsibilities in such a way that pillows against the threat of failing to satisfy short-term commitments and also avoid investment in such assets excessively in order to enhance productivity (Eljelly, 2004). It likewise looks for to lower the money conversion cycle as well as the degree of capital locked up in the internet current assets. The time between the capital outflow and cash inflow is minimized, and process costs reduced (Robertson, 2006).

The working capital (WC) is always disregarded since it involves short-term financing and investment. However, it is a vital component in the financial management decisions. Having an optimal WC management contributes positively to the enhancement of firm's value. For a company, to gain optimal WCM, a manager has to ensure a balance between liquidity and profitability and do so accurately (Zariyawati, Annuar, Taufiq, & Rahim, 2009). More so, it acts as a constraint in financial performance, because it hardly contributes to ROE (return on equity).

Financial performance in a firm is used to track progress that a firm has made on achieving its goals and strategic plans (Kariuki, 2013). Kang and Kinyua (2016), defined financial performance as an indicator in monetary terms of a company operations. It has also been defined as the effectiveness in which a firm has achieved its objective and vision (Busch, Baver & Orlitzky, 2015). Financial performance is measured in different ways which includes: return on asset (ROA), return on equity (ROE), earnings per share (EPS), market returns, market to book value (MBV), price earnings ratio and cashflow added method

(CVA). The main objective of each firm is to maximize its profit and profit margins, return on asset and earnings per shares are the ultimate measures of performance for listed non-financial firms (Orgore & Kusa, 2013). Many firms that make prudent financial decisions maximize their profit and to an extent maximize the firm value. Therefore, financial performance intervenes on the relationship between financial decisions and firm value.

### **1.1.2 The Value of the Firm**

Leland and also Toft (1991), as cited in (Adenugba, Ige and also Kesinro, 2016), show that value in link to a firm is the composite value of its internet possessions and tax benefits delighted in as a result of debt less the value of insolvency costs from debt. In his study, Modigliani (1980) hint that, the value is the amount of equity as well as debt associated with financing a firm and also this rests just on income stream produced from readily available properties. The firm's equity (value) is the reduced value of shareholders' earnings referred to as its take-home pay. In other terms, it is the ratio of earnings to the equity capitalization rate or the expected price of return on equity. Net income can be defined as the difference of net operating income and interest on debt. However, the value of debt of the firm is the discounted value of interest on the debt. Moeljadi & Sumiati (2016) opine that firm value can be seen from several approaches. Balance sheet approaches see firm value as value of its assets. Another method to measure a firms' value is based on income statement determined by sales, earnings or other indicators. Firms' value is also investors' view of a firm often associated with security prices.

If there is an increase in the firm value, it will resonate to an improvement shareholder's income, which will enhance the prosperity and accumulation of wealth of the owners. The investor can view the firm's value from security prices angle, return on stocks, EPS (earnings per share), price to book value (PBV), price earnings ratio (PER), and Tobin's Q. Tobin's measures performance of the firm, or the firm value which indicates management's efficiency on assets (Hidayat, Wahyudi & Muharam, 2019).

### **1.1.3 Non-Financial firms listed at the Nairobi Securities Exchange (NSE), Kenya**

The NSE is a leading securities' market based in Kenya's capital, Nairobi. It was established in 1954, and thus has more than sixty-year's heritage in trading in both equity and debt securities. It operates a world class modern securities trading facility serving both local, regional and international investors. The market enhances exposure to those seeking to invest in Kenya and those attracted to Africa's economic growth. The Nairobi Securities Exchange

demutualized and self-listed in 2014; a move that was welcome and recognized by the country's CMA (Capital Markets Authority) as a Self-Regulatory Organization (SRO) in July 2016. The exchange market has a vital role in the economic growth by encouraging savings and investment from investors in addition to helping firms' access capital costs effectively. The NSE works under the watch and guideline of CMA. At a global level, NSE is a member of World Federation of Exchange while it is a founder member of the ASEA (African Securities Exchanges Association). At the regional level it is associated with the East African Securities Exchanges Association (EASEA). In addition, NSE has membership in Association of Futures Market. It also serves as a partner in the United Nations SSE initiative (NSE, 2020).

For an economy to record exponential growth, money has to move from less to more productive activities. The NSE ensures the concept works by enabling idle currency and savings to become productive by linking the lenders and borrowers at a low cost. The market also educates the public on trading in shares and bonds both individually or as a group investment. NSE Facilitates good management of companies by requesting for reports regarding their performance. It also provides daily market reports and stock price list to ensure that potential investors have a glimpse on the worth of their assets anytime (NSE, 2020).

There are 10 sectors which NSE has listed companies from these include the Agriculture, automobiles/accessories, energy and petroleum, telecommunication, commercial and services, manufacturing, construction, investment, growth enterprise market, banking and insurance. A total of 65 firms spread across these sectors have been listed with 45 of them falling under the bracket of non-financial institutions, the target population for the study (NSE, 2020).

## **1.2 Statement of the problem**

The exchange market plays a vital role in economic growth by encouraging savings and investment from investors as well as helping firms' access capital costs effectively. This contributes heavily towards the realization of the strategic vision 2030. To achieve this, the exchange market educates the public on trading in shares and bonds as an individual or as a group. It also facilitates good management of companies by requesting for reports regarding their performance. In addition, the government has put significant efforts towards empowering such companies through grants focusing primarily on financial restructuring. In

order for a company to remain competitive in this market or even globally it needs to maximize its firm value.

The firm value, can only be maximized by managers making prudent financial decisions that suite and favor all stakeholders (Hasan & Al Mutairi, 2011). According to Obay (2018), how managers make financial decisions is still a puzzle yet business success heavily depends on the managers' ability to effectively allocate funds and structure financial components appropriately. This shows the extensive failure on the part of management to achieve this pioneering goal as more and more companies continue to fall under the hammer of receivership or closure. It is clear that the financial decisions made by these managers reflect a greater percentage as the cause for corporate failure. For the period 2010-2019, the NSE has delisted six firms and put into suspension four others due to financial distress is proof enough of this as demonstrated in the statistics from NSE (Wanyongah, 2019). This depicts that on average, one firm is affected per year. Filbeck and Krueger (2005) claimed that Non-financial companies listed at the Nairobi Securities Exchange (NSE) contribute 31.4% of GDP, which is far below the global average of 50% for similar firms in the developed world. Additionally, the listed companies are overwhelmed with borrowing from banks or underdeveloped bond market. From 2010-2019 the corporate bond value, has increased from 24.2 billion to 49.2 billion indicating more than 100% increase (CMA, 2019). In addition, the borrowing, does not offer the same level of tax shield benefits in emerging economies like Kenya as it does in established economies (Mburu, 2015).

Studies on financial decisions in Kenya focused on their effect on capital structure (Okiro, Aduda, & Omoro, 2015), on profitability (Maina & Ishmail, 2014) and on financial performance (Goyal, 2013; Akomeah, Bentil & Musah, 2018; Kondongo, Mokoaleli-Mokoteli & Maina, 2015; Bitok, 2004 and Gitau 2011). Studies on firm value of listed non-financial firm were based in different countries specifically Chinese (Gao, Lan & Liang, 2014); Brazil (Terra, 2003); Ghana (Antwi, Mills & Zhao, 2012) and Karachi (Maina & Ishmail, 2014). Making this data and findings not applicable in the local context. In addition, the local studies made failed to show the extent to which financial decisions affect the firm value of listed non-financial firms. Furthermore, the alarming rate of financially distressed firms is wanting as well as the reduced performance compared to the global average, making the backbone of this study. As it sort to bridge the research and practice gaps by ascertaining the effect of financial decisions on firm value of listed non-financial firm at the Nairobi Securities Exchange.

## **1.3 Research Objectives**

### **1.3.1 General Objectives:**

To establish the effect of financial decisions on firm value of non- financial firms listed at the Nairobi Securities Exchange (NSE).

### **1.3.2 Specific objectives**

1. To establish the effect of investment decisions on firm value of non- financial firms quoted at the Nairobi Securities Exchange.
2. To assess the effect of leverage decisions on firm value of non-financial firms listed at the Nairobi Securities Exchange.
3. To determine the effect of dividend decisions on the firm value of firms listed at the Nairobi Securities Exchange.
4. Identifying the effect of working capital management decisions on firm value of non-financial firms at the Nairobi Securities Exchange.
5. Assessing the mediation effect of firm performance on the relationship between financial decisions and firm value of non-financial firms at the Nairobi Securities Exchange.

## **1.4 Research Hypotheses**

H<sub>0</sub>1: There lacks statistical significant relationship between investment decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange.

H<sub>0</sub>2: There is no statistically significant relationship between leverage decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange.

H<sub>0</sub>3: There is no statistically significant relationship between dividend decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange.

H<sub>0</sub>4: There is no statistically significant relationship between working capital management decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange.

H<sub>0</sub>5: There is no statistically significant mediation effect on the relationship between financial decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange.

## **1.5 Significance of the study**

### **1.5.1 Corporate managers and shareholders**

The study may highlight the different financing decisions available for a company to make. Managers may be able to assess the performance of each capital decision while bearing in mind specific company variables so as to create an optimal capital mix suited to enhance and maximize shareholders' wealth subsequently enhancing the firm's value. Managers may also weigh on the suitability of a conservative or aggressive WCM in tandem with organizational financial requirements. Shareholders may also get insights on the mediating factors of choosing one financial decision over another by management in pursuit of maximizing their wealth. It may also encourage them to be more proactive in their role of bringing management to question over unfavorable decisions that may jeopardize their stake.

### **1.5.2 Lenders and venture capitalists**

Leverage providers such as commercial banks as well as venture capitalists may be able to study the financial behaviors of non-financial quoted entities in the country to inform their decision on funding such. The findings of the study may also be used for modeling to project financial earnings and investment decisions of such firms. The study may also give insight to industry players in assessing the optimal capital mix for enhancing firm value.

### **1.5.3 Researchers**

The study contributed to existing knowledge by seeking clarity on the mediating impact of financial decisions on firm value of listed companies. It also created research gaps for further research as macro-economic variables continue to adversely and positively affect listed companies.

## **1.6 Scope of the study**

The study incorporated a sample of 36 firms out of 45 listed non-financial corporations at the securities market. The sample included all non-financial firms that were listed throughout from 2010 to 2019. Panel data contained in the companies' fiscal reports as well as financial statements of the non-financial corporations from the NSE were collected and analyzed for the years 2010 to 2019.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The section of the study provides a deep overview of both theoretical as well as empirical literature review on which the research is anchored on. The relationship between independent variables (financial decisions) and dependent variable (firm value) was presented in the conceptual framework to demonstrate the conceptualization of these variables and clearly highlight existing research gap to contextualize the study.

#### **2.2 Theoretical Review**

The study was guided by four theories that highlight the various financial decisions available for business as well as the consequences of each in concerning the firm value of the business. These theories are discussed below:

##### **2.2.1 Agency theory**

Jensen and Meckling (1976) developed this theory and holds that agency problems or issues emanate from conflicts of interest due to the divergent aims of stakeholders, managers, shareholders, and bondholders (Chen & Chen, 2011). Agency theory can be perceived as the economic analysis of cooperation in areas where externality, limited observability, uncertainty or asymmetric information excludes the pure market entities (Bamberg and Spremann, 2012). The lead researchers portend that supervisors are egocentric and also sometimes can have objectives that differ from those of the owners (shareholders), which, if not managed or kept track of, might attract them to indulge in actions that prefer them at the cost of owners' wealth maximization. As control and also dominance of the managerial team strengthens, the firm experiences enhanced information crookedness, making it harder for bondholders as well as shareholders to watch on the managers' activities. Total control by the management leads to entrenchment of the managers and minimizes reporting transparency.

According to Stulz (1990), entrenchment motives may eventually make managers to use leverage beyond the elastic limit or the optimal point, so as to cement their control and minimize pressure from the external owners who are the shareholders. In a counter point of view, Fama & French (2002) postulates that entrenched managers may prefer minimal leverage to optimal leverage since they perceive it to have lower firm risk and thus protect their under diversified human capital resources (Huang, Boateng and Newman, 2016). This will definitely result to conflict with management and shareholders and bondholders.

Agency conflicts emanate from different sources (Smith & Warner, 1979). Jensen and Smith (2000) also highlight four primary sources of agency conflicts/problems. First, it is in dividend payout ratio. If the price of bonds is enacted with the assumption that the company maintains its dividend policy, then the value of the bonds reduces considerably by unforeseen dividend increase either financed by reducing the level of investments or through sale of debt. Secondly, conflict may arise through claim dilution. If bond prices work on the assumption that there will be no issuance of supplemental debt of similar or higher priority, then the bond value will be reduced by issuing another debt. Thirdly, conflicts can emanate as a result of asset substitution where the stockholders' value on equity increases contrary to the value of claims by the bondholders that is reduced in the event the entity substitutes high-risk and opts for low-risk investments/projects. Lastly, there is under-investment. In this case, substantial size of the firm's value is made up of future investment opportunities. The business can be enhanced with high-risk bonds that can have incentives to reject positive (internet existing value) jobs if the benefit from purchasing the task accrues to the firm's shareholders. Danielson, Heck and Shaffer (2008) say that given that the stock price of a firm can be manipulated in the short-term, incentives to increase the existing stock price can destabilize both the investment and operating decisions.

Dobbin & Jung (2010) argue that, though agency theorists offer adequate remedy measures to increase entrepreneurialism and mitigate risk-taking through stock options, debt financing, diversification, and outsider board members. However, they did not offer remedy for moderating risk, dealing with independent boards, and executive equity holding. Therefore, in practice, the remedy accelerated corporate risk-taking devoid of imposing constraints. Hence both recessions of the new millennium can be traced and linked to these changes in corporate strategy. The authors contend that, to date, industry regulators have not proposed anything to turn around the perverse incentives of the current "shareholder value" framework. Buck, Main, and Bruce (2005) criticize agency theory that it can be said to be under-

socialized and thus fails to meet the generalizability to fit in context where social remedies may deal with the agency issues.

Therefore, in consideration of Agency theory the study seeks to establish whether firm managers have abided by the prescriptions of agency theorists by being entrepreneurial risk takers who have diversified their investment portfolio by evaluating their debt and stock options so as to maximize shareholders' wealth or they have been serving personal goals entrenched in firm profitability. The study was guided by this theory as it evaluates financial decisions embraced by managers of the companies under study.

### **2.2.2 Pecking Order Theory**

The theory was postulated by Myers (1984). According to Myers, the connection that exists between the firm-value its capital structure can be pegged and attributed to information asymmetry. This is when the managers have substantial information compared to the creditors (bondholders) and equity investors (shareholders). In support of the pecking order theory Chen & Chen, (2011) connotes that the theory predicts the existence of a financing hierarchy, where managers avoid external financing costs as much as they can. Consequently, they at first prefer to utilize the firm's internal funds, then debt and eventually go for outside equity (external borrowing) as a last option to finance their investments. Taking into consideration the current and future financing costs, then it becomes easier to make a prediction on how volatility of net cash flows impacts both debt and dividends (Myers & Majluf, 1984; Myers 1984). Reducing the chances of issuing high risk stocks or foregoing profitable projects when firm's net cash flows are considerably low, companies can record lower dividend payouts and reduced leverage (Fama and French, 2002). Similarly, since it is costly to finance projects by introducing high risk stocks, dividends are unattractive for entities with no or less profitable assets, huge current and anticipated projects, and increased leverage (Meyers 1984 as cited by Fama & French, 2002). Shahnazarian (2005) argues that the existence of non-tax costs of debt that rise with the debt ratio affects the marginal cost of borrowing, while restrictions on dividends constrain the extent to which a firm can use different financing sources.

Using the pecking order theory, developing entities focus on financial funds. They will tend to seek external financial resources to enhance the growth of their business. A preview of the factors that affect debt decisions for Taiwan electronic firms (305) listed on the country's securities exchange market (Taiwan Securities Exchange) of 2009, it was evident that growth

and profitability opportunities are critical variables that affect a firm's capital structure (Chen and Chen, 2011). Bulan & Yan (2009) conversely posit that the Myer's pecking order theory denotes the financing behavior of already established firms better than the growing firms since the established or mature firms are more stable, older and tend to be highly profitable with good credit ratings. Therefore, they naturally have wide and profound debt capacity. Sinha & Chandra (2013) argue that the missing argument in Meyers and Majluf (1984) study is that corporations utilize internal generated funds to avoid the issuance costs in external based financing, and utilize debts to avoid equity issues if any external funds are needed since the latter source of external capital requires higher issuance costs than that for the others. Wanja & Muriu (2020) question whether the pecking order theory holds among Listed Kenyan firms. They establish that financial deficits determine net debt issues and hence a strong case for pecking order theory in Kenya in explaining decisions associated with capital structure. The Myer's theory guided the study in establishing the order of preference in financial decisions taken by non-financial corporations listed at the NSE while in consideration of financial market imperfections and institutional developments.

### **2.2.3 Trade-off Theory**

This theory was developed by Modigliani and Miller (1958) and forms the foundation for current day perception on company's capital structure as it holds that the firm's value is dependent on the profitability and not on the capital structure (Cline, 2015). Subsequently, other refinements were made to the theory. First, Miller's (1977) study on the impact of personal taxes led to a situation of minimized gains for the investors. Secondly, tax shield impacts are clearly explained by DeAngelo – Masulis in his 1980 study. The theory was conceptually completed with the Jensen's contribution in 1976. Jensen introduced the costs that emanated from a company's financial distress (Berk and DeMarzo, 2007).

In addition, the theory forecasts that companies will often select a blend of equity and debt financing to strike a balance on the benefits and costs of debt. Firms go for debt financing due to the tax incentive benefit as well as the maximum control of free cash flow issues. The bankruptcy costs and related agency issues offer companies with incentives to utilize minimal funds. There is also a framework on the optimization of a firm's capital structure through developing a blend of financing that takes into account marginal costs as well as the benefits related of debt financing. Among the primary empirical prediction of the trade-off theory is that debt ratios may tend to be mean reverting as companies embrace external capital markets

to maintain their values at a level close to the market optimum. The theory offers reasons as to why small and growing young firms prefer bank debt exclusively as opposed to already established large and mature firms which tend to mix debt financing. More so a flexible commercial bank debt provides a superior trade-off between bankruptcy costs and tax shields (Hackbarth, Hennessy and Leland, 2007)

Frank & Goyal (2008), postulate that contrary to most literature on Trade-off theory, the highly profitable and developed firms tend to explore other different financing methods. For instance, they can issue debt and then repurchase equity. On the contrary, the least profitable firms shy off debt and thus focus on issuance of equity. The two also contend that the corporation's size appears to be significant in mediating the relationship since developed firms happens to be much active in public debt markets. On the contrary, growing small entities tend to be relatively more vibrant in the equity markets. In application of this theory, the study examined how the trade-off between equity and debt has been played out by non-financial corporations quoted at the securities market in Nairobi. The research evaluated the debt to equity ratios of each firm, as well as the size and profitability of the firm with respect to accumulated total assets to ascertain the conclusion and prediction that the higher profitability companies can effortlessly borrow more funds to minimize tax liabilities (Fama& French, 2002).

#### **2.2.4 Modigliani and Miller Dividend Theory**

Modigliani and Miller (1961) hypothesized the dividend theory. They concluded that the market views dividends as an indication of the management's perception of the future earnings of the firm. Previous research indicates that the share price tends to fall after dividends are omitted or decreased and this forces managers to maintain the current dividend payments (Kirkulak and Kurt, 2010). Modigliani and Miller (1961, 1977) contend that the value of the firm is independent of the dividends. According to Bhattacharya (1979) and other researchers, the trend on the dividend policy can be a signal to indicate firm's position or state, and thus relevant in a group of models (frameworks) that have asymmetric information relating to stochastic company earnings, shareholder liquidity and deadweight expenses arising from dividend payment, refinancing cash flow shocks or covering underinvestment (Villamil, 2008).

Franklin, Bernado, and Welch (2000) established that only organizations with highly expected earnings pay desired dividends, hence predicting their prospects to the securities

market. Villamil (2008) more importantly questions the reason why a company can adopt financial decisions to get information, as opposed to direct disclosure. How then can investors benefit from dividend payments when it is actually paid dollar for dollar out of the value of their shares? Asquith and Mullins Jr (1986) questioned. The answer however, lies in the market imperfections captured by the assumptions of Modigliani and Miller (1961). In relation to the dividend theory, the study investigated the effect dividend payments have had on firms' value of non-financial corporations at the NSE; bearing in mind that dividend payment is a requirement for listed companies where there has been a financial surplus. The study also investigated if dividend payments have had any signaling effect that would be gauged by increased equity subscription.

## **2.3 The Empirical Review**

### **2.3.1 Effects of investment decisions on the firm value**

Decisions on investment tend to be the most critical since they present a direct impact on company's profitability (Riyanto, 2013). Brigham & Houston, (2006) note that the accuracy of decisions made in tandem with the selection of assets worth to invest on is essential since it puts into account the costs and expenses likely to be incurred by the firm. Various studies relating to investment decisions and firm value have been conducted and they present varied results. Santoso (2019), focused on how investment decisions and the choice of appropriate sources of funds affect the firm's performance and the ultimate firm value. He conducted the study in two phases. First, he concentrated on how the investment decisions affected the long-term assets through long-term financing and the ultimate effect on the value and rate of return. Secondly, he concentrated on investment decisions and their impact on the firm's current assets, funding for financial performance and the ultimate corporation value. In his research, data was centered on the consumer products in sub-sector firms quoted at Indonesia Securities market from 2010 to 2017. Applying path analysis, it was concluded that asset structure significantly affects the financial performance as well as the firm value. In addition, capital structure specifically affects the profitability as opposed to the firm's value. Return on Investment index was adopted to measure the financial performance.

Another study by Triani and Tarmidi (2019) sought to establish how decisions on investment decisions, dividend policies and funding affected the firm value in companies quoted on the Indonesia Securities market from 2013 to 2016. The study narrowed its scope on industries in the property and real estate sector. Triani and Tarmidi concluded that investors did not react

significantly to the corporate investment decisions and thus the value is not affected by investment decisions. The research employed purposive sampling method to select 33 samples from a vast population of 48 companies at the Indonesian Securities Exchange. Multiple linear regression model was used for analysis using SPSS. The study resonated with Dushnitsky and Lenox (2005) who observed that there lacks systematic evidence that supports whether corporate venture capital investment increases value to the investing firms.

Del Brio, Perote, & Pindado (2003) attempted to find out the link between firm value and investment. By adopting panel data methodology, the study indicated an inversely direct proportional relationship between extent of investment and value of the firm. However, when the analysis added investment opportunities as a variable, results on findings showed that the value is enhanced for such firms with impeccable investment opportunities. Moreover, the study resonated with the findings of Chung, Wright, and Charoenwong in their 1998 research. Chung and his counterparts had established that the quality of investment opportunities adopted by a firm dictates the share price reaction to its capital expenditure decisions as opposed to its industry affiliation. Myers and Majluf (1984) further caution that where the firm's investment opportunities outstrip the operating cash flows, then it is likely that the management may forego favorable and desirable investments rather than issue risky stocks to finance them. Hsiao, Hsu, Li, & Hsu (2011) examined how corporate investment and managerial sentiment relate. Also, they looked into how the firm's investments affected the firm value. They sampled a number of Taiwanese companies and came to the conclusion that maximizing the value of a firm required an optimal level of investment. However, the optimal investment may not exist, since the quality of the investment opportunities was also a determinant factor.

Marchica and Mura (2010) in their study titled "*Financial Flexibility, Investment Ability, and Firm Value: Evidence from Firms with Spare Debt Capacity*" portend that having a conservative oriented leverage policy aimed at enhancing a constant financial flexibility can improve ability or capacity to invest. The analysis revealed that a firm coming from a season of low leverage can expand capital expenditure and enhance their investment portfolio. Further, Marchica and Mura discovered that these current or novel investments are funded via new issuance of debt and that the effect on financial flexibility is essential as well as economically viable. Also, tests conducted on long-run performance indicated that firms that assume and embrace financial flexibility are well-positioned to invest largely and also invest favorably through making appropriate investments. Childs, Mauer, and Ott (2005) empirical

study focused on the interplay between investment decisions and flexible financing. They adopted a model involving stockholder–bondholder conflicts with investment policies and discovered that having a financial flexibility framework encourages the adoption of short-term debt and thus reducing agency costs drastically. The costs may be as a result of either under or over-investment. However, reducing in the agency costs may hardly encourage an increase in leverage by the firm, since the initial debt level by the management relies on the nature of growth opportunities available in the investment opportunity portfolio. Further, the study also notes that there is partial interdependence of financial policies.

In conclusion, Durnev, Morck, and Yeung (2004) posit that investment decisions at the corporate level tend to be focused on enhancing the firm value where there is a greater concentration on firm-specific risk arbitrage. A firm’s Investment decisions on companies with high creditworthiness are very sensitive to the internal funds availability. On the contrary, less creditworthy firms tend to be less sensitive to availability of internal fund. Long and Malitz (1985) elucidated that the true economic growth emanates from the firm's capacity and ability to choose from investments that offer unique processes and products. When the investment opportunities are intangible or firm specific, it is likely that they may have an ultimate favorable return on investment. Thus, there is a possibility to generate positive NPV or net present values. Hence, higher cash flows are expected. Thus there is also a possibility that the cash flow size is a proxy for intangible or firm-specific investment opportunities compared to growth opportunities.

### **2.3.2 Effects of financing decisions on firm value**

Leverage and its effect on firm value have attracted a lot of research across the globe. Several studies have come to a decision that leverage has direct connection with firm value, unlike any other financing decision. A research to investigate the connection between financial performance and the leverage of listed entities in Kenya by Kodongo, Mokoaleli-Mokoteli, & Maina (2015) found out that leverage significantly, and negatively, have an impact in the firm’s profitability but it has no effect on value. Further, the study elucidated that firm’s performance also rely on other things than just the firm’s capital structure. Sales growth and asset tangibility, and the size of the firm are essential profitability determinants of but surprisingly, asset tangibility consistently had a negative connection with profitability. The study applied yearly data for the period between year 2002 and year 2011 and different panel procedures.

Oluwagbemiga (2013) sought to establish the perceived connection between the overall value and the corporate capital structure of firms. The research established that firms utilized more debt as an option of funding its assets than the equity capital and that a positive connection exists between the capital structure, liquidity, corporation size, growth chances and the firm value. In addition, it was concluded that a higher debt to equity ratio enhanced the value of the firm. The study used an explanatory research pattern or design. The population consisted of 61 firms depicted at the NSE while the sample size was lowered to 35 firms excluding companies in financial, insurance and investment sectors due to their peculiar nature with regards to capital structure. The research used data acquired from annual audited financial statement of the companies that are quoted on Nairobi Securities market and used the descriptive and regression models for data analysis. The study recommended that the listed firms in Kenya to engage the strategic investors to level up their debt capital and that the equity share holder should be substituted for debt shareholding in future as it would bring about enhanced firm's value.

Kenyanya and Ombok (2018) purposed to analyze the effect or cause of leverage on value-added financial performance of NSE firms. The research used correlational research with a target population of 64 firms and purposive sampling technique to obtain 456 firm-year observations from 2003 to 2014 for 38 firms. Secondary data was analyzed using fixed effects multiple regression model and the outcome demonstrated that financial leverage has a negative significant impact ( $\beta = -0.4502$ ;  $p = 0.000$ ) on value-added performance implying a unit rise in the leverage leads to 45.02% reduction in value-added financial performance. Therefore, the study concluded that rise in financial leverage levels in the average listed firm in the NSE significantly reduces value-added performance.

Empirical evidence shows that leverage decreases the negative impact of data asymmetry on corporation value that exists in imperfect capital markets. A study by Fosu, Ahmad, & Coffie (2016) assessed the impact of information asymmetry on the value of the firm in the pre and post 2007/09 financial crisis and for low and high growth opportunity companies. Focusing on a large sample of UK companies, it was established that information asymmetry adversely affects the corporation value and that this impact lowers with company's leverage. The study also found out that leverage negatively affects the firm value. Finally, the study concluded that the marginal impact of leverage is lower for information asymmetric entities.

In retrospect Cheng and Tzeng (2011) utilized GMM model or the Generalized Method of Moment to establish the impact of leverage on firm value and contextual variables influencing on this connection. A population of 645 was used in the Taiwan Securities market from year 2000 to year 2009. The empirical outcomes showed as follows: First, the value of leveraged company is higher compared to that of an unleveraged company if we don't take into consideration the bankruptcy probability. Secondly, considering the cost and benefit of debt, the leverage is significantly and positively related to the company value before realizing the company' optimal capital structure. Thirdly, the positive effect of leverage to the company value seems to be stronger when there is financial quality (that is., the greater Z-score). These results provide insight into the firm debt finance decision to maximize the overall value.

Ogbulu & Emeni (2012) upon assessing the impact of capital structure on company value drew conclusions that in an economic environment like Nigeria, the equity capital being part of the capital structure is unimportant to the firm's value, while Long-term-debt was regarded a major firm's value determinant. They therefore advised corporate financial decision makers to embrace more long-term debt options than equity capital in funding projects since it leads to a positive firm value. Afey & Warui (2019) established that firm size, profitability, tangibility, liquidity and growth had a negative significant connection on financial leverage.

Conclusively, Aggarwal, Kyaw, and Zhao (2008), postulate that the effect of debt on corporate value relies on a balance between the conflict of interest among managers, shareholders, and creditors. Where conflict of interest (managers versus shareholders) exceed that of shareholders and the creditors, then leverage can improve the firm value since debt pushes managers to make payments that could otherwise fund negative NPV projects. Therefore, prolonged conflict of interest on shareholders versus creditors attracts more incentives to the firms to cancel projects with positive NPV.

### **2.3.3 Effect of Dividend decisions on firm value**

Can decisions on dividend affect the market stock prices? A study conducted by Aamir et al, (2011). The case study was the dividend paying corporations of KSE (Karachi Securities market). The study attempted to establish the impact of dividend policy on security Prices after controlling the variables such as Profit after Tax, (EPS) Earnings per Share, and (ROE) Return on Equity. Fifty-five (55) firms was taken as the sample size from a population of KSE-100 Index from 2001 to 2010. Fixed and random impact models were adopted on panel

data to establish the relation existing between dividend policy and the security prices. Outcomes revealed that performance indices such as Dividend Yield (DY), EPS, ROE and net Profit are highly positively related to securities prices. However, Retention Ratio had a negative relation with securities Prices and significantly demonstrated variations market prices. The research conspicuously showed the critical role of dividend policy as an indicator regarding the success of a company. Anton (2016) agrees that dividend pay-out ratio positively affect the firm value after controlling other firm-particulars variables. This was after a research on the impact of dividend policy on corporation's value that sampled sixty-three non-financial entities listed on the Bucharest Securities market from 2001 to 2011. The study adopted fixed effects model.

Yilmaz and Gulay (2006) in their study sought to examine the impact of cash dividend payments on stock returns and trading volumes in the exchange market. They as well researched whether there was any significant difference in investment options in relation to dividend pay-out ratio and the size in the Istanbul Securities market (ISE) from year 1995 to year 2003. They established that prices begin to increase sessions before cash dividend payments, and on the ex-dividend day, they fall considerably. Finally, lowering in the sessions after payments. Trading volume showed a significant upward shift before the date of payment. Interestingly, it then stabilized after. Therefore, the study concluded that cash dividends have impact on the prices and on the trading volumes in various ways at all payment levels (before, during, and after) thus enhancing some profitable trading strategy options around the ex-dividend session. The results support the price-volume impact discussions on the dividend payment period and the huge impact of cash dividends on the market securities.

Another study by Wanjohi (2017) sought to examine the effect of dividend policy on the firm value and more specifically to establish the impact of; regular and irregular dividend payout policies, and non-dividend payout policy on securities price of Kenyan insurance companies. The research concluded that there was a positive connection between the EPS and the dividend policy. Regular dividend paying companies had more impact compared to non-dividend paying firms. It also revealed that the company's retained earnings had a negative significant effect on the owners' wealth. The population of the study included of all the 49 insurance companies operating in the economy. Secondary Data was obtained from NSE hand books, Insurance Regulatory Authority and the published reports of each company. Panel data was used in aid of the regression model analysis. A sample of nine (9) Insurance

companies was selected with the period of operation being from 2008 to 2015. The model used was random impact method.

Kibet et al, (2016) sought to investigate the impact of dividend policy that is the cash and share dividend on the securities prices. The research attempted to identify the connection between share prices and cash dividends of companies listed at the Nairobi Securities Exchange market. Data for 55 selected firms was procured from the NSE, CMA, and the statistics bureau between 2001 and 2011. Random Generalized Least Square (RGLS) regression model was adopted for analysis. Results indicated a statistically significant positive connection existed between cash dividend and securities prices. However, a negative statistically insignificantly correlation existed between dividends issued and security prices. These results were a clear indication that dividend policy affects the security prices. Also, a rise in cash dividends would consequently increase the share prices for firms at the Nairobi Securities market. Conversely, a rise in share dividend would lead to a decrease in share price, insignificantly.

In order to grasp the importance of dividend decision to firm value, it is imperative to understand the determinants of dividend decisions in corporate finance. Arko, Abor, Adjasi, and Amidu (2014) sought to research the determinants of the dividend decisions of company in Sub-Saharan Africa (SSA) and found out that decision on dividend and its payments are enhanced by the profitability of a firm level, investment chances sets, taxation, institutional shareholding, leverage, and risk. Therefore, dividend rule is essential and firm managers should take enough time to design dividend framework that will improve firm performance as well as shareholder value (Ouma & Murekefu, 2012). Despite dividend relevance to firm value, firms have not been paying their dividends religiously. A decrease of net dividend payers is experienced, followed by a decrease in the level of paid net real dividends (Kirkulak & Kurt, 2010).

In conclusion Baker et al.,(2002) revealed that managers of a firm stress the importance of having dividend continuity and come to agreement that changes in dividends impact the company value. Fairchild, (2010) observes that a company may have the need to cut down dividends so that they can invest in projects that are value-creating but the company will suffer “market punishment” since investors are behaviorally inclined to trust that dividend cuts is not at all attractive. Thus, firms may refuse to cut down dividends, and therefore go for favorable projects. Baker & Weigand (2015) posit that companies tend to follow a managed

dividend policy rather than a residual one, which focuses paying out dividends from earnings gained after achieving the investment needs as well as while maintaining its targeted capital strata.

#### **2.3.4 Impact of Working Capital Management decisions on firm value**

The WCM in a firm ensures that it is able to keep on with its operations and that there is adequate cash flow to sustain both operational expenses and maturing short-term debt (Brigham & Houston, 2012). Several empirical studies have advised management not to under-estimate importance of cash holdings and WCM. Firms may employ aggressive policies of working capital management with lowered levels of current assets as a portion of the total assets. Also, different policies may be adopted to empower the financing decisions by using high levels of current liabilities in relation to the existing liabilities (Nazir & Afza, 2009). Aktas, Croci, & Petmezas (2015) sought to establish value-enhancing capability of WCM by delving into the impact of WCM through a number of US firms between 1982 and 2011. They found out that where an optimal level of working capital policy was adopted, the operating performance as well stock performance was seen to improve considerably. Hence, they also concluded that firms needed to converge to that optimal level by reviewing their investment in working capital (either increasing or decreasing).

A study to establish whether working capital efficiency had an effect on firm value was done by Wasiuzzaman (2015), which sought to establish how financing constraints affected the relationship. The sample population included 192 firms where data was collected. The sample focused on a decade record performance of these firms from 1999 to 2008. The analysis adopted an ordinary least squares (OLS) model for this purpose. Further, regression technique was used for advanced analysis. The conclusions from the study depicted that improving efficiency in working capital by having an optimal mix in working capital investment leads to improved value of a firm. However, financing constraints always provide a setback to this relationship and influences the value negatively. For financially deprived firms, efficiency of the working capital significantly increases and improves firm's value. However, for the financially unconstrained firms, the proponent is insignificant.

Another study by Sudiyatno, Puspitasari, and Sudarsi (2017) focused on the impact of the policy related to WC on firm performance as well as the value. The research focused on the manufacturing sector on industries quoted in the Indonesia Securities Exchange from 2010 to 2013. The variables used as a proxy involved the interplay of current assets to firm's

accumulated assets and existing current liabilities to the firm's accumulated assets. Further, capital structure was used as the control variable. The proxy for capital structure was leverage. Variables applied as a proxy for the company's performance included ROA and value of the company. Tobin's Q was used as a measurement tool. Data collection method used was purposive sampling. The findings demonstrated that the current assets as a portion to the total assets have notable positive impact on the performance. Concerning current liabilities and leverage, there was a negative significant impact to the total assets on firm performance. In addition, return on asset (ROA) had a significant negative effect firm value.

Arachchi, Perera, & Vijayakumaran (2017) conducted a study on the value effect of WCM. They used a sample of 44 companies operating at the Colombo Securities market (CSE) over five years (2011-2015). CSE market is known to be a high growth frontier market (FM) in the global arena (Arachchi, Perera, & Vijayakumaran, 2017). WCM efficiency was determined via Cash Conversion Cycle model. On the other hand, firm value was measured using Tobin Q ratio. Leverage, firm size, as well as growth in sales were the control variables used in the study. Panel data regression analysis was also used and involved the pooled OLS and fixed effects regressions. Conclusion in the study was that Cash Conversion Cycle has an inverse relationship to Tobin Q, imposing that managers can enhance the value for the owners through efficient management on investment in the firm's working capital.

The main challenge in WCM is to attain favorable tradeoff between liquidity and profitability. Effective liquidity management is crucial in a company's value, profitability, and its risk management. (Bolek & Wolski, 2012) opine that liquidity management is linked to working capital, which is as a result of decisions made on the level of receivables, payables, cash, and inventory. In their study, they set out to determine how current and potential investors perceive and interpret corporate profitability and liquidity ratios on the Warsaw Securities Exchange. The study results indicated that Polish investors view profitability as important compared to liquidity in the valuation of listed companies on the Warsaw Securities market. The market is the most developed in the region. Debatably, the positive correlation of increased liquidity ratio, denoting an optimal level of liquidity with market value demonstrated that investors opt that companies maintain high levels of liquidity. Investors view on companies should be appealing and profit-oriented. Also, companies should be liquid enough to meet the market opportunities.

Cumbie and Donnellan (2017) advise firm managers to manage every individual component in the working-capital separately to enhance firm value as managers that do not comprehend the optimal level for these components create sub-optimal value on the firm thus leading to diminished returns on investment for shareholders (owners). Appropriate management of working capital is evidenced through profitability, liquidity, efficiency, solvency, and the ultimate wealth maximization for the owners. Therefore, the study investigated these benefits by assessing the impact WCM on the firm value of non-financial corporations at the NSE.

### **2.3.5 Mediating Effect of Firm Performance on Firm Value**

The analysis of how financial decisions affects firm value would be void if there was no consideration of firm performance. It is against this backdrop that most studies link firm performance to firm value. They ascertain that performance has a mediating effect on the overall value, although most preceding studies show an inverse correlation between these two paradigms. A study by Muiruri & Wepukhulu (2018) on how these decisions affect financial performance of NSE listed corporations, demonstrated that capital structure has a non-significant positive effect on ROA. On ROE, the effect is both positive and significant. Liquidity decisions have both significant and positive effect on firm's ROA and ROE. In addition, investment decisions have a positive and significant effect on both ROA and ROE. However, dividend decisions tend to have insignificant negative impact on both ROA and ROE. The study recommends that since the debt to equity ratio can affect returns on equity and assets significantly; there is a need for listed firms to balance their financing using debts and equity. The study also recommends that since liquidity positively impacts performance of the listed corporations, it is necessary for these listed firms to have an optimal balance in their liquidity options by ensuring investment in adequate current assets to offset the short-term liabilities. This enables the daily running of the business to be easier and sustainable thus improving performance. The study also recommended listed firms to invest more in firm machinery, plant, equipment and property, to enhance the returns from these investments.

Another study by Yegon, Cheruiyot, and Sang (2014) that sought to explain the relationship between a firm's dividend and its investment, profitability, and Share distribution found out that there exists a significant positive connection between the dividend policy adopted by the firm and the variables as aforementioned (profitability, investments, share earnings-EPS). The study concentrated on data extracted from fiscal annual reports of corporations. The sample involved nine manufacturing corporations at the NSE. In addition, these data

collected was subjected to regression analysis, specifically using e-view software. Recommendations expected organizations to postulate an appropriate and robust dividend policy to enhance profitability and lure investors and partners.

A research by Mwangi *et al.*, (2014) sought to ascertain the link between capital structure and performance of non-financial entities at the NSE. The research used an explanatory non-experimental design. The sample comprised of 42 corporations. Moreover, panel data was used extracted from company documents from 2006-2012. Panel data models (random effects) and FGLS regression were used for data analysis. The results showed that financial leverage negatively affected the firm's performance as measured ROA and ROE. Recommendations from the study expected that managers of such corporations focus on reducing dependence on long term debt to finance their investments.

In agreement, Banafa, Muturi and Ngugi (2015) assessed how leverage affected profitability of the non-financial corporations listed in Kenya, and revealed that financial leverage has a negative and significant effect on corporates' profitability. The theory that was adopted in the study was Static trade-off theory. A casual research design was employed to select a target population of 42 companies under different categories. Secondary data obtained from the annual reports and other financial statements of these companies from 2009-2013 was used. For data analysis, regression model was used to support the objective of the study. Presentation of the results was done through inferential analysis and descriptive statistics such as Student t test.

A study by Waema and Nasieku (2016) sought to find the effect of WCM on the profitability manufacturing corporations. Specifically, the study concentrated on aspects of credit, debtor, inventory, and liquidity management and how they affected profitability of the sampled firms. A quantitative research design was employed. Waema and Nasieku (2016) narrowed the target population to ten (10) manufacturing companies at the NSE database. The data employed came from the available audited reports for 10 years spanning from 2005 to 2014 of each of the manufacturing firms. Data collection and analysis was done through the Panel data model. The findings revealed a positive relationship between creditor management and profitability. More study findings demonstrated that there is a negative relationship between the performance and the other aspects (debtor, inventory and cash management) of the firms. In conclusion, the research noted a significant effect on profitability of these corporations within the decade.

Mwangi, Makau and Kosimbei (2014) yet again sought to reveal the impact of WCM on the profitability of non-financial corporations listed at NSE. In this research, Mwangi and his associates adopted an explanatory non-experimental research design. They selected a working sample of 42 companies to develop conclusions for their study. In terms of data used, they opted to extract information from the annual reports as well as from financial statements of the companies. In addition, data was extracted from the CMA hand books from 2006-2012. Panel data models (random effects) was deemed appropriate for the study and thus applied. The FGLS model was adopted on the regression results and revealed that a robust and an aggressive financing policy enhanced a significant positive effect on ROA and ROE. Also, a conservative investing policy was seen to have positive effect on the firm's profitability. The study recommended that an appropriate and an aggressive financing policy was significant. In addition, managers were expected to adopt a conservative investing policy improve performance of the firms.

In conclusion, Siahaan, Ragil and Solimon (2014) conducted research that was guided by a deep curiosity on the issues that genuinely influenced a company's profitability and the ultimate value. The companies were clustered according to their asset size. That is, Large and Small Groups. The study used Generalized Structured Component Analysis (GSCA) to measure the influence of Capital Structure and Company Size towards profitability, liquidity, and value as well as to prove the moderation between the two company size clusters. From the study, the major conclusion was that a significant divergent characteristic existed between the two clusters, and arose from the influence of the endogenous variables towards exogenous variable. Thus, the research considered it a new and perfect contribution that the impacts of endogenic variables towards exogenous variable are not identical to each other, when different asset sizes are involved.

#### **2.4 Summary of the Literature and the Research gap**

The interdependence of financial decisions has been clearly highlighted from the empirical review of the financial decisions under study. Most researchers have been at the forefront to ascertain the impact of financial decisions on performance or firm value, yet resulted to having mediating effects from other financial decisions. In reference to the outlined objective of this study, it is prudent to critically examine the interoperability of the financial decisions and their resulting effect on each other as well as on the firm value. In addition, firm

performance proxied by profitability has severally emerged as a conduit between firm's value and financial decisions and seems to have an inverse relationship with firm value causing concerns of Agency conflicts between managers' goal of firm profitability against shareholders' wealth maximization.

From the empirical evidence gathered, investment decisions have been shown to have little or no effect on investors' reaction to a firm's share price. However, this changes with introduction of investment opportunities. It is argued that the quality of available investment opportunities is what actually determines the share price reaction by investors. Conversely, leverage decisions have been known to have a notable link with firm value. However, several studies indicate that a negative relationship exists between leverage and firm performance but surprisingly increases firm value. The advantage of debt issuance comes from both tax shield incentive and non-tax shield effects. Tax shield refers to the tax saving benefit that relates to the interest on issued debt, while non-tax shield is the reduction in tax arising from non-debt related components, such as investment tax credit and depreciation. Fosu et al negate this view of leverage and argue that leverage has a significant negative impact on firm value especially regarding information asymmetry. Cheng and Tzeng conclude that leverage seems to be positively correlated with the value of the firm before reaching the optimal capital structure of the firm.

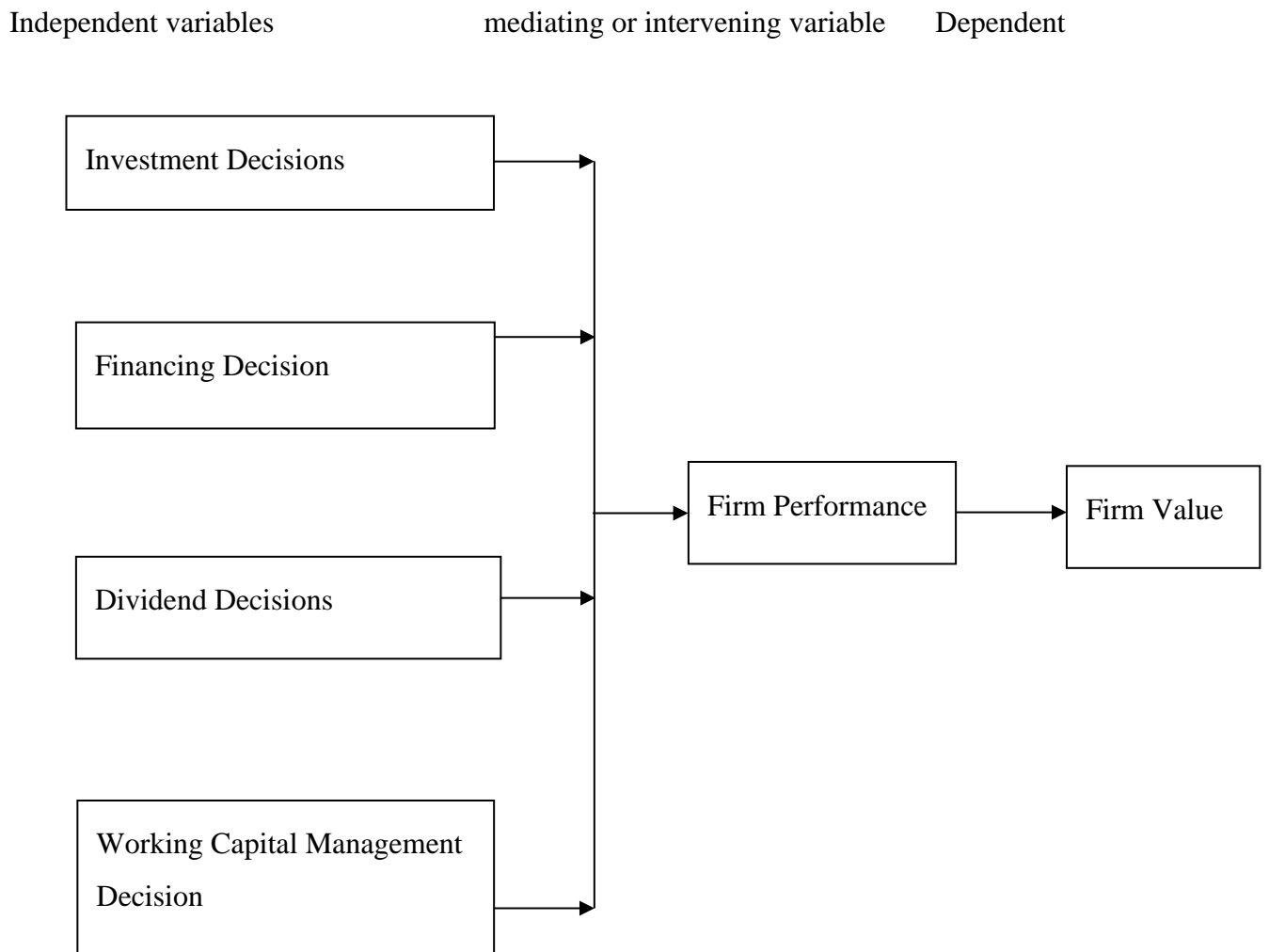
Despite decline in dividend payment by firms, empirical evidence supports Modigliani-Miller's theory of dividend signaling. However, Kibet et al bring out the different reactions by investors to cash and share dividends. It emerged that investors prefer a cash dividend as opposed to a share dividend, to which Murekefu and Ouma advise that dividend policy is indeed relevant, thus managers need to devote sufficient time in working out a dividend policy that will positively affect firm performance as well as shareholder value. In addition, the study recommend that NSE listed firms should reduce their gearing levels in order to make better payouts to the equity holders.

Several studies reflecting on WCM highlight the significance of ensuring that a firm can continue its noble operations and that it has adequate cash flow to sustain both operational expenses and maturing short-term debt. Although WCM is highly restricted by financing constraints faced by a firm it has an active role in increasing firm value. Most of the studies recommend having a vibrant and aggressive financing policy due to its positive impact on ROA and ROE.

In conclusion, Hermeindito concludes that Investment decision positively influences financing decision. Further, the study holds that there exists a significant negative relationship between dividend decisions and financing. Dividend decisions negatively influences investment decision. Also, in comparison, the Pecking Order Theory is more profound or superior to the Agency Theory in explaining the managerial behavior in making financial policies.

Although various studies on the impact of financial decisions on firm value have been conducted, research gaps exist as there is no study that has collectively investigated the effects of financial decisions (decisions on investment, leverage, dividend and working capital management) on the firm value of non- financial firms listed at the Nairobi Securities Exchange. It is worth noting that existing studies on the impact of financial decisions on firm value have been done in established economies which have mature and well-regulated capital markets unlike in Kenya where capital markets are still in their growth phase, coupled with a struggling economy. The study is also informed on the managerial behavior of listed firms, who prefer showcasing profits in the media as opposed to creating shareholder wealth as is evident with the collapse, mergers or total shutdown of companies that once exhibited exponential growth in their annual reports. Most of these company mergers in the country are also indicative of failure to increase firm value hence being used as an avenue to salvage investor capital.

## 2.5 Conceptual Framework



**Figure 2.1: Conceptual framework**

### **2.5.1 Operationalization of study variables**

Previously reviewed literature shows that decisions on investment, dividend, financing and WCM, can be descriptively quantified and then analyzed to establish their connection with the firm value. The mediating effect of company performance has clearly been determined from the literature review as an essential variable that mediates the connection between firm value and financial decisions.

Investment decision can be operationalized by the Non-Current assets to Total Assets Ratio. Other measures for appraising Investment decisions against firm value include Price Earnings Ratio (Shen, 2000; Sezigin, 2010; Abdel et al, 2003, Triani & Tarmidi, 2019) , PEG Ratio (Reverte, 2009; Mazzotta & Veltri, 2014). Winarto (2015) proposes other measures for investment decisions including Plant & Equipment to the Book Value of the Assets Ratio (PPE / BVA), Book Value of Gross Property, Market Value to Book Value of Assets Ratio (MVA / BVA) and Market to Book Value of Equity Ratio (MVE / BVE). Trombley (2008) advises against using PEG as a method to choose among different types of companies and come to a decision that the best utilization of PEG is for within-industry screening when companies are likely to have same cost of capital and same growth prospects. Damodaran (2002) holds that P/E ratio cannot be applied to loss-making companies, and since finding comparable companies with similar qualities for valuation is difficult causes a disadvantage for the P/E ratio.

Financing decisions was operationalized by Long-term Debt to Equity Ratio (DER). Debt-to-capital or debt-to-assets is the mostly used measure of financing in empirical research. Others include: short-term debt-to-total assets, long-term debt-to-total assets and total debt-to-total assets ratios (George & Okaka, 2015), total liabilities to total assets (Gill & Obradovich, 2012).

Dividend decisions was operationalized by Dividend Payout Ratio (DPR) expressed as Total dividends paid divided by net income. Other research studies have used Dividend per Share (Khan, Islam, Choudhury, & Adnan, 2014; Josiah & Henry, 2011) Dividend Yield (Foong, Zakaria, & Tan, 2007; Priya & Mohanasundari, 2016, Robertson & Wright, 2006). Amidu (2007) upon using the dividend payout ratio argues that a company that pays dividend it lowers its retained earnings which affects its internally generated financing.

WCM decisions were operationalized by the Current ratio. Other measures used in gauging working capital management against firm value include Quick ratio (Habernal, 2012), Cash Conversion Cycle (Rehman, 2006; Jose et al, 1996; Eljelly, 2004), Average Payables Period (Cote & Latham, 1999; Singh & Pandey, 2008) , Operating Cycle (Nazir & Afza, 2009). Raheman and Nasr (2007) used the account collection period ratio and opined that a longer cycle of cash conversion might rise the profitability since it leads to increased sales. Therefore, corporate profitability might as well lower with the cash conversion cycle, if the costs of higher investment in working capital increase faster than the advantage of holding more stocks and/or granting more trade credit to clients.

The dependent variable, Firm value can be operationalized by Tobin Q expressed as Equity market value / Equity book value. This ratio was used observing the following assumptions: there is no non-classical measurement error and there is no autocorrelation of firm returns (Bartleft & Partnoy, 2018). As well as by market value added (MVA) expressed as market value of shares – book value of shareholders' equity. Other measures include Price book value (Collins, Pincus & Xie, 1999).

## 2.6 Measurement and Operationalization of Variables

**Table 2.1: Measurement and Operationalization of Variables**

| <b>Category</b>      | <b>Variable</b>                      | <b>Operationalization</b>                                                                              | <b>Measurement</b>                                                                                                 |
|----------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Dependent variable   | Firm Value                           | Tobin Q<br><br>Market Value Added (MVA)                                                                | Equity market value /<br>Equity book value<br><br>Market value of shares-<br>book value of<br>shareholders' equity |
| Independent Variable | Investment Decisions                 | Non-Current Asset to Total Asset Ratio                                                                 | Non-current Assets /<br>Total Assets                                                                               |
| Independent Variable | Financing Decisions                  | Debt to Equity Ratio (DER)                                                                             | Long-term Debt/Equity                                                                                              |
| Independent Variable | Dividend Decisions                   | Dividend Payout Ratio (DPR)                                                                            | Total Dividend /<br>Net Income                                                                                     |
| Independent Variable | Working Capital Management Decisions | Current Ratio (CR)<br><br>Indicates whether the available current assets can meet current liabilities. | Current Assets / Current Liabilities.                                                                              |
| Mediating Variable   | Firm's Performance                   | Return on Assets (ROA)                                                                                 | EBIT/ Total Assets                                                                                                 |

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This section focuses on an in depth review of research methodology adopted in the study. It expounds on the various aspects such as research design, sample frame, target population, sampling procedures, data collection, data analysis techniques and presentation methods that will be applied.

#### **3.2 Research design**

By definition, research design gives a detailed chronology of how investigation of the research variables will be done to ensure effective address of the research problem. The study applied descriptive research design to find out the impact of financial decisions on the firm value of quoted non-financial firms at the NSE. The scientific approach by a descriptive research design allows the collection of data relating to the subject of study. Kothari (2004) lauds this research design for being flexible enough to provide an opportunity to consider different facets of the research problem. In this study, the research design entailed collection and analysis of listed Non- Financial firms' data from their financial reports, NSE and CMA handbooks for the period between 2010 and 2019. These data contain vital information that signals the financial decisions that have been employed by the various firms over the years that will be used for analysis.

#### **3.3 Target Population**

A definition by Mugenda and Mugenda (2008), depicts the target population as a section or portion of a population used to generalize the research results. In this research, target population will encompass all the Non-financial companies at the Nairobi Securities Market as at 31<sup>st</sup> December, 2019. The NSE had 43 such listed non-financial firms as at 31<sup>st</sup> December, 2019 (NSE, 2020).

#### **3.4 Sample and Sampling procedure**

Cooper and Schindler (2001) denote a sample as a portion of the study's target population, picked to represent the total population of the study. A sample has to meet all the requirements for it to be considered optimal. The requirements are efficiency, reliability, flexibility, and representativeness (Kothari, 2004). The research selected all the non-financial companies that were listed throughout the period from 2010 to 2019. In total 36 companies

existed as non-financial listed company over the period under review formed the sample for the study. In other words the study dropped all the firms that were listed from 2010 to 2019 due to lack of complete data.

**Table 3.1: Summary of sampled Listed Non-Financial Firms per Sector**

| Item | Sectors                            | No. of Listed Firms | Percentage |
|------|------------------------------------|---------------------|------------|
| 1.   | Agricultural                       | 6                   | 17         |
| 2.   | Automobile and related Accessories | 1                   | 3          |
| 3.   | Commercial and related services    | 9                   | 25         |
| 4.   | Construction and Allied services   | 5                   | 14         |
| 5.   | Energy & Petroleum                 | 3                   | 8          |
| 6.   | Insurance                          | 4                   | 11         |
| 7.   | Manufacturing                      | 7                   | 19         |
| 8.   | Telecommunications                 | 1                   | 3          |
|      | Total                              | 36                  | 100        |

### 3.5 Instrumentation

Secondary data were collected using a data collection form (appendix 3) and comprised annual financial reports as well as the income statements obtained from the company websites, data from NSE and CMA handbooks for the financial periods between 2010 and 2019.

### 3.6 Data Collection

Data required for the research necessitates a combination of cross sectional data from the listed non-financial firms and time series data from the period under study, therefore panel data procedures was used to gather the relevant information required. In panel related studies, researchers mine information from similar number of observations over a period of time

(Heckman & Robb 1985). Panel data procedures allow more accurate inference of model parameters while accounting for both heterogeneity and dynamic effects that are not visible in cross sections (Green, 2008). For systematic gathering of relevant information for the research, secondary data from the companies' statement of financial position, income statement, and corresponding notes to the highlighted accounts, as well as NSE and CMA handbooks for the period stated were reviewed.

### 3.7 Data Analysis

Analysis of the collected data encompassed correlation analysis, descriptive statistics and data multiple regression models aided by the STATA version 13 software. Descriptive statistics was utilized in profiling and summarizing the status of investment decisions, dividend decisions, financing decisions, WCM decisions, and firm value of the listed non-financial companies. Correlation analysis was used to establish whether a relationship exists between the independent variables (Investment decisions, financing decisions, dividend decisions, and WCM decisions) and the dependent research variable, firm value. Panel data regression analysis was conducted and results used to test the hypotheses of the study.

#### 3.7.1 Empirical model

The model to be applied in the study is as follows:

$$y_{it} = \beta_0 + x'_{it}\beta + \varepsilon_{it} \quad \dots\dots\dots (3.1a)$$

This equation was expanded to a random effects model by specifying  $\varepsilon_{it}$  as shown below:

$$\varepsilon_{it} = V_i + \mu_{it} \quad \dots\dots\dots (3.1b)$$

Where

$y_{it}$  = Dependent variable (firm value =  $I$  at time  $t$ )

$x'_{it}$  = Denotes Vector of the independent variables

$\beta$  = Denotes Coefficients of the study

$\beta_0$  = a constant

$\varepsilon_{it}$  = error term, where  $V_i$  stands for heterogeneity effects, and  $\mu_{it}$  denoting the idiosyncratic disturbances.

The equation 3.1 is therefore expanded to get equation 3.2 for estimation.

$$FVAL_{it} = \beta_0 + \beta_1 INVDEC_{it} + \beta_2 FINDEC_{it} + \beta_3 DIVDEC_{it} + \beta_4 WCMDEC_{it} + \varepsilon_{it} \dots (3.2)$$

Where:

$\beta_1 INVDEC_{it}$  = Investment decision of a firm  $i$  at time  $t$

$\beta_2 FINDEC_{it}$  = Financing decisions of a firm  $I$  at time  $t$

$\beta_3 DIVDEC_{it}$  = Company's Dividend decisions  $I$  at time  $t$

$\beta_4 WCMDEC_{it}$  = Company's Working Capital Management decisions  $I$  at time  $t$

$FVAL_{it}$  = Firm value of a firm  $I$  at time  $t$

$\beta_0$  = constant

$\varepsilon_{it}$  = Error term

$\beta$  's = coefficients related to explanatory variables

### Mediating model

To find out the mediating impact of financial performance on the relationship between the independent variables (financial decisions) and dependent variable (firm value). Baron and Kenny (1986) came up with a four step-wise approach where several regression analyses are carried out and significance of the coefficients is analyzed at every phase. These steps are as follows:

Step I; regressing dependent variable on independent variables.

$$Y = \beta_0 + \beta_1 X + \varepsilon \dots\dots\dots (3.3)$$

Step II; regressing mediating variable on independent variables.

$$M = \beta_0 + \beta_1 X + \varepsilon \dots\dots\dots (3.4)$$

Step III; regressing dependent variable on mediating variables.

$$y = \beta_0 + \beta_1 M + \varepsilon \dots\dots\dots (3.5)$$

Step IV; examining whether the mediating variables completely mediates the relationship between the variables.

$$Y = \beta_0 + \beta_1 X + \beta_2 M + \varepsilon \dots\dots\dots (3.6)$$

Where:

M is the mediating variable (firm performance)

Hence equation 3.2 is specified as follows:

$$FVAL_{it} = \beta_0 + \beta_1 INVDEC_{it} + \beta_2 FINDEC_{it} + \beta_3 DIVDEC_{it} + \beta_4 WCMDEC_{it} + \beta_m + \varepsilon_{it} \dots \dots \dots (3.7)$$

Where:

$\beta_m$  = Mediating Variable (Firm performance)

### 3.7.2 Tests for regression analysis

The study is alive to the fact that regression analysis has limitations related to data problems and model specifications that may hinder a true result. However, as Freud, Wilson and Sa (2006) advice, the study checked the Multi-collinearity to remedy model specifications. It employed residual analysis to check for violations of model assumptions and check for data problems that may cause unreliable results. Hence, the study employed the following diagnostic tests.

**Table 3.2: Summary of Diagnostic Test to be carried out**

| <b>Diagnostic Test</b>                                                                                                                                                                                                  | <b>Specific test</b>         | <b>Conclusion</b>                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| <p><b>Multicollinearity Test</b><br/>Applied to establish the extent of correlation between the variables.</p>                                                                                                          | Value inflation factor (VIF) | When VIF <5 and value of Tolerance >5, then there is no Multicollinearity                         |
| <p><b>Autocorrelation Test</b><br/>A test that determines the linearity between errors on a series of observations in a time series (Gujarati, 1993).</p>                                                               | Wooldridge Drukker Test      | If p-value < 0.05 no auto correlation otherwise there independence variables are auto correlated. |
| <p><b>Heteroscedasticity Test</b><br/>Applied to test whether there is regression model residual variance inequality on different observations. (Ghozali, 2007).</p>                                                    | Breusch- Pagan Test          | If the p value is < 0.05, Reject H <sub>0</sub> and if p value is > 0.05, Accept H <sub>0</sub>   |
| <p><b>Normality test</b><br/>A special test used to find out whether or not normal distribution occurs in the data through Significance test of the value (Santoso, 2010).</p>                                          | Jacque Bera test             | If p value is > 0.05, data is normally distributed, if not there is skewness                      |
| <p><b>Random or Fixed effect test</b></p>                                                                                                                                                                               | Hausman test                 | If the p-value > 0.05 then use the random effect and if not use the fixed effect.                 |
| <p><b>Panel unit root test</b><br/>Used to test for the stationarity of the time series. Estimating models without considering the non-statutory nature of the data would lead to spurious results (Gujarati, 2003)</p> | Fishers Test                 | If the p-value < 0.05 the data is stationary. Hence reject the null hypothesis.                   |

**CHAPTER FOUR**  
**RESEARCH FINDINGS AND DISCUSSIONS**

**4.1 Introduction**

This chapter presents the results and discussion of results. Descriptive results, assumption tests and panel models are presented. Results are presented in line with objectives guiding the study.

**4.2 Descriptive Statistics**

Table 4.1 shows the descriptive results for firm value of non-financial firms listed measured using Tobin Q, and Market Value Added. It also presents the descriptive statistics of investment decisions, leverage decisions, dividend decisions, working capital management decisions and firm performance of firms quoted at NSE.

**Table 4.1: Descriptive Statistics**

| Variable                                | Obs | Mean       | Std. Dev. | Min        | Max       |
|-----------------------------------------|-----|------------|-----------|------------|-----------|
| Tobin Q                                 | 340 | 2.572635   | 38.51792  | -559.7252  | 318.1779  |
| Natural log of Market Value Added (MVA) | 340 | 14.56293   | 3.074263  | 7.160069   | 21.08497  |
| Investment decisions                    | 340 | 0.6170156  | 0.2074212 | 0.08       | 0.9666451 |
| Financing decisions                     | 340 | -0.5272459 | 51.30196  | -817.36    | 464.631   |
| dividend decisions                      | 340 | 0.2855734  | 0.6283781 | -5.334973  | 3.236014  |
| working capital management decisions    | 340 | 2.379327   | 2.67933   | 0.0290409  | 18.76093  |
| firm performance                        | 340 | 0.0750048  | 0.1425636 | -0.7293649 | 0.66      |

The descriptive results show that the mean value for firm value measured using Tobin Q was 2.572635 with a minimum of -559.7252 and a maximum of 318.1779. The variation in Standard Deviation was 38.51792 implying that Tobin Q varied in the measurement period. The average Tobin Q of 2.572635 implies that the market value is larger than the value of assets recorded by all the non-financial listed firms at the Nairobi securities Exchange. However, the lowest Tobin Q value of -559.7252 implies that the market value

of this particular firm was lower than value of firm recorded assets. The firm with the highest Tobin Q value of 318.1779 implies that the market value is far much larger than the value of assets recorded by the firm. According to Gharaibeh and Qader (2017) Tobin Q assesses firm value.

Further, average firm value measured using natural log of Market Value Added was 14.56293 with a minimum of 7.160069 and a maximum of 21.08497. The standard deviation for Market Value Added was 3.074263 implying that Market Value Added varied during the study period. MVA describes the ability of the listed firms to increase shareholders value over time. Listed non-financial firms that had high MVA imply that the management is effective and is able to sustain the operations of the firm. Listed firms with lower MVA are an implication that shareholders and bondholders contributed substantial firm value. None of the listed firms had a negative MVA implying that among the firms, no particular firm had shareholders contributing more to the firm than the market value of the firm.

Investment decisions had a mean of 0.6170156 with a minimum of 0.08 and a maximum of 0.9666451. The standard deviation for investment decisions was 0.2074212 implying that investment decisions varied during the study period. The acceptable ratio of non-current assets to total assets is 1-1.25 and below (Lubyanaya, Izmailov, Nikulina & Shaposhnikov, 2016). For that reason, an average of 0.6170156 across all the non-financial firms quoted at the NSE was thus operating at the acceptable level. However, for firms that require higher capital to operate, the ratio of non-current assets to total assets may be higher.

Financing decisions had a mean of -0.5272459 with lowest of -817.36, higher of 464.631 and standard deviation of 51.30196 implying that financing decisions varied during the study period. The negative average of debt to equity ratio among the study firms implies that non-financial firms had interest rates that are greater than their return on investments. It also implies that the most firms under study are operating in negative net worth. A higher debt to equity ratio of 464.631 implies that this firm is operating on more debts than equity. The results also agree with Ibhagui and Olokoyo, (2018) who showed that leverage and Tobin's Q are positively related for the case of Nigerian quoted firms. However, the results do not agree with Memon, Khan, Shaikh, Shah, Zahid and

MuhammdShaikh (2017) who established that financing decisions is has no significant effect on Pakistani listed firms.

Dividend decisions had a mean of 0.2855734 with a minimum of -5.334973 and a maximum of 3.236014 and standard deviation of 0.6283781 implying that dividend decisions varied during the study period. The average dividend payout ratio of 0.2855734 implies that most of the firms under study were paying dividends that area reasonably proportion to net income. The firm with highest dividend payout ratio of 3.236014 implies that this firm is paying more dividends to shareholders than what is earning. Such scenario occurs when a firm is trying to woo investors to invest in the company. The minimum dividend payout ratio of -5.334973 implied that the firm made losses yet it went ahead to pay dividends. Anton (2016) agrees that dividend pay-out ratio positively affect the firm value after controlling other firm-particulars variables. Yilmaz and Gulay (2006) in their study sought to examine the impact of cash dividend payments on stock returns and trading volumes in the exchange market established that prices begin to increase sessions before cash dividend payments, and on the ex-dividend day, they fall considerably.

The mean value for working capital management decisions was 2.379327 with a minimum of 0.0290409, a maximum of 18.76093 and standard deviation of 2.67933. The average current ratio of 2.379327 implies that the non-financial listed firms under study had more of current assets that can be converted to cash within a short period compared to liabilities. The listed non-financial firm with lowest current ratio of 0.0290409 implies that this firm has very less current assets than current liabilities and thus its operations in the course of the year is not protected. However, the listed non-financial firm with highest current ratio of 18.76093 implies that this firm has more of current assets than current liabilities and thus its operations in the course of the year are protected. The WCM in a firm ensures that it is able to keep on with its operations and that there is adequate cash flow to sustain both operational expenses and maturing short-term debt (Brigham & Houston, 2012). Aktas, Croci, and Petmezas (2015) sought to establish value-enhancing capability of WCM by delving into the impact of WCM through a number of US firms between 1982 and 2011 and found out that where an optimal level of working capital policy was adopted, the operating performance as well stock performance was seen to improve considerably.

Finally, the mean of firm performance measured using ROA was 0.0750048 with a minimum of -0.7293649, a maximum of 0.66 and standard deviation of 0.1425636. Return on assets depicts how a firm is using money it invested to make profit. The average ROA of 7.5% implies that most of the non-financial listed firms under study are not efficiently using their resources invested to generate higher net income. The firm with highest ROA of 66.0% implied that this firm was effective in using its money to generate profit for the company. The firm with negative ROA is an implication that the firm was making losses.

### 4.3 Correlation Analysis

In order to get an overview of the association between the dependent and independent variables, the researcher conducted pairwise correlation analysis. Correlation matrix between financial decisions and firm value measured using both Tobin Q and market value added. Table 4.2 indicates the correlation matrix of financing, investment, dividend and working capital management decisions against firm value measured using Tobin Q.

**Table 4.2: Correlation between Financial Decisions and Tobin Q**

|         | TobinQ             | invdec            | findec           | divdec            | wcmdec           | firmper |
|---------|--------------------|-------------------|------------------|-------------------|------------------|---------|
| TobinQ  | 1.000              |                   |                  |                   |                  |         |
| invdec  | -0.0328<br>0.5465  | 1.000             |                  |                   |                  |         |
| findec  | 0.917<br>***0.000  | -0.0026<br>0.9625 | 1.000            |                   |                  |         |
| divdec  | 0.0275<br>0.6133   | -0.0388<br>0.4757 | 0.0124<br>0.8195 | 1.000             |                  |         |
| wcmdec  | -0.0033<br>0.9513  | -0.0187<br>0.7305 | 0.0103<br>0.85   | -0.0284<br>0.6024 | 1.000            |         |
| firmper | 0.3186<br>***0.000 | -0.1409<br>0.0093 | 0.3086<br>0.000  | 0.2327<br>0.000   | 0.1147<br>0.0345 | 1.000   |

Key: Invdec= Investment decisions, findec= financing decisions, divdec= dividend decisions, wcmdec= working capital management decisions, firmper= firm performance

The correlation results found that investment decisions were negatively but insignificantly associated with firm value measured using Tobin Q ( $r=-0.0328$ ,  $p=0.5465>0.05$ ). Dividend decisions is positive but insignificantly associated with firm value measured using Tobin Q ( $r=0.0275$ ,  $p=0.6133>0.05$ ). It was also established that working capital management decisions had a negative and insignificant association with firm value measured using Tobin Q ( $r=-0.0033$ ,  $p=0.9513>0.05$ ).

However, the correlation results found that firm performance had a positive and significant association with firm value measured using Tobin Q ( $r=0.3186$ ,  $p=0.000<0.05$ ). Performing companies are able to manage the company well, then the costs incurred by the company will be smaller, so that the resulting profits will be greater. Maximizing firm value is important and the main goal of firms, because maximizing firm value means maximizing prosperity of investors. The results agree with Endri and Fathony (2020) in a study on determinants of firm's value found that profitability proved to have significant positive effects on firm value in financial sector companies.

Further, the correlation results found that financing decisions had a positive and significant association with firm value measured using Tobin Q ( $r=0.917$ ,  $p=0.000<0.05$ ). Financing decisions entails the choice of either to finance by use of debt or equity or both in financing firms' operations. Firms need to decide which of the financing method is appropriate. If a firm is dealing with risky debts, it has the option of shifting wealth from bondholders to stockholders or the other way round. The results of the study agree with Ayuba, Bambale, Ibrahim and Sulaiman (2019) that financing decisions including use of short term and long term debt have positive significant effect on Tobin's Q. The results also agree with Ibhagui and Olokoyo, (2018) who showed leverage and Tobin's Q is positively related among Nigerian quoted firms. However, the results do not agree with Memon, Khan, Shaikh, Shah, Zahid and MuhammdShaikh (2017) who established that financing decisions has no significant effect on Pakistani listed firms. Table 4.3 shows the correlation matrix of investment decisions, financing decisions, dividend decisions and working capital management decisions against firm value measured using market value added.

**Table 4.3: Correlation between Financial Decisions and Market value added**

|         | dMVA              | invdec            | findec           | divdec            | wcmdec           | firmper |
|---------|-------------------|-------------------|------------------|-------------------|------------------|---------|
| dMVA    | 1.000             |                   |                  |                   |                  |         |
| invdec  | 0.0157<br>0.0049  | 1.000             |                  |                   |                  |         |
| findec  | -0.0025<br>0.9649 | -0.0026<br>0.9625 | 1.000            |                   |                  |         |
| divdec  | 0.0255<br>0.6576  | -0.0388<br>0.4757 | 0.0124<br>0.8195 | 1.000             |                  |         |
| wcmdec  | -0.0281<br>0.6247 | -0.0187<br>0.7305 | 0.0103<br>0.85   | -0.0284<br>0.6024 | 1.000            |         |
| firmper | 0.0295<br>0.608   | -0.1409<br>0.0093 | 0.3086<br>0.000  | 0.2327<br>0.000   | 0.1147<br>0.0345 | 1.000   |

Key: MVA= Market Value Added, Invdec= Investment decisions, findec= financing decisions, divdec= dividend decisions, wcmdec= working capital management decisions and firmper= firm performance

The correlation results found that investment decisions were positively and significantly associated with firm value measured using market value added ( $r=0.0157$ ,  $p=0.0049<0.05$ ). The correlation results found that financing decisions had a negative and insignificant association with firm value measured using MVA ( $r=-0.0025$ ,  $p=0.9649>0.05$ ). Dividend decisions is positively but insignificantly associated with firm value measured using MVA ( $r=0.0255$ ,  $p=0.6576>0.05$ ). It was also established that working capital management decisions had a negative and insignificant association with firm value measured using MVA ( $r=-0.0281$ ,  $p=0.6247>0.05$ ). Firm performance is positively but insignificantly related to firm value as measured by market value added ( $r=0.0295$ ,  $p=0.608>0.05$ ).

## 4.4 Diagnostic Tests

### 4.4.1 Fisher-Type Test of Unit Root

Stationarity was conducted to ensure that data is stationary with no spikes before running model. Fail to consider stationarity of data may result to inaccurate model coefficients (Gujarati, 2009). Fisher-type test was utilized to check stationarity and results are shown in Table 4.4. The hypotheses to be tested were;

Ho: All panels contain unit roots

Ha: At least one panel is stationary

**Table 4.4: Fisher-type Test of Unit Root**

| Variable |                | Inverse chi-squared (70)<br>P | Inverse normal<br>Z | Inverse logit t (179)<br>L* | Modified inv. chi-squared<br>Pm |
|----------|----------------|-------------------------------|---------------------|-----------------------------|---------------------------------|
| Tobin Q  | test statistic | 156.5581                      | -4.4626             | -5.2497                     | 7.3155                          |
|          | p-value        | 0.000                         | 0.000               | 0.000                       | 0.000                           |
| dMVA     | test statistic | 262.3455                      | -9.4799             | -11.4299                    | 16.2562                         |
|          | p-value        | 0.000                         | 0.000               | 0.000                       | 0.000                           |
| Invdec   | test statistic | 151.084                       | -2.3529             | -4.1277                     | 6.8528                          |
|          | p-value        | 0.000                         | 0.009               | 0.000                       | 0.000                           |
| findec   | test statistic | 191.339                       | -2.574              | -5.232                      | 10.255                          |
|          | p-value        | 0.000                         | 0.005               | 0.000                       | 0.000                           |
| divdec   | test statistic | 188.7776                      | -5.6015             | -7.33                       | 10.0385                         |
|          | p-value        | 0.000                         | 0.000               | 0.000                       | 0.000                           |
| wcmdec   | test statistic | 213.2952                      | -4.1901             | -6.9299                     | 12.1107                         |
|          | p-value        | 0.000                         | 0.000               | 0.000                       | 0.000                           |
| firmper  | test statistic | 164.7168                      | -2.0012             | -4.1217                     | 8.005                           |
|          | p-value        | 0.0000                        | 0.0227              | 0.0000                      | 0.0000                          |

Key: MVA= Market Value Added, Invdec= Investment decisions, findec= financing decisions, divdec= dividend decisions, wcmdec= working capital management decisions and firmper= firm performance

The stationarity results test for unit root revealed that, at level Tobin Q, investment, financing, dividend, and working capital management decisions and firm performance

were stationary as the sig. is less than 0.05 at P, Z, L\* and Pm. Market Value Added was non stationarity at level since p-value>0.05. This phenomenon called for the need to conduct differencing to make this variable stationary. When first level differencing was conducted, Market Value Added became stationarity. The results imply that results are not spurious and would yield accurate estimates of the model.

#### 4.4.2 Hausman Test

It is important to decide whether to employ random or fixed model (Baltagi, 2005). Hausman test was checked by use of Hausman's approach (1978). Table 4.5 presents the Hausman test results.

H<sub>0</sub>: Random effect is appropriate

H<sub>1</sub>: Fixed effect is appropriate

**Table 4.5: Hausman Test**

| <b>TobinQ</b>  |            |            |              |                            |
|----------------|------------|------------|--------------|----------------------------|
| <b>Column1</b> | <b>(b)</b> | <b>(B)</b> | <b>(b-B)</b> | <b>sqrt(diag(V_b-V_B))</b> |
|                | Fixed      | random     | Difference   | S.E.                       |
| invdec         | -5.447155  | -5.597875  | 0.1507203    | 10.38475                   |
| findec         | 0.7029099  | 0.6884111  | 0.0144989    | .                          |
| divdec         | -0.2981702 | 0.8935174  | -1.191688    | 0.6573597                  |
| wcmdec         | -0.0621632 | -0.1856991 | 0.1235359    | 0.3375453                  |
| chi2(4)        | 5.60       |            |              |                            |
| Prob>chi2      | 0.2312     |            |              |                            |
| <b>dMVA</b>    |            |            |              |                            |
| invdec         | 1.54E+07   | 9696933    | 5656740      | 1.03E+08                   |
| findec         | -1879.099  | -5833.587  | 3954.488     | 46924.67                   |
| divdec         | 7111.17    | 4806999    | -4799887     | 8152039                    |
| wcmdec         | -1003960   | -1214198   | 210237.5     | 3466920                    |
| chi2(4)        | 0.38       |            |              |                            |
| Prob>chi2      | 0.9843     |            |              |                            |

Key: MVA= Market Value Added, Invdec= Investment decisions, findec= financing decisions, divdec= dividend decisions, wcmdec= working capital management decisions and firmper= firm performance

The null hypothesis was that random is preferred to fixed model. To predict the panel model using Tobin Q, Hausman test revealed a chi-square of 5.60 and p-value 0.2312>0.05 and thus fail to reject the null hypothesis thus accepting that random is

preferred to fixed model when measuring firm value using Tobin Q. The study concludes that random effect is appropriate model when firm value is measured using growth in Tobin Q. When firm value was measured using Market Value Added, Hausman test showed a chi-square of 0.38 and p-value  $0.9843 > 0.05$  and thus the null hypothesis was not rejected. We conclude that random effect is appropriate model when firm value is measured using Market Value Added.

#### 4.4.3 Normality Test

Data need to be normal with no outliers before running viable model (Brooks, 2008). Bera and Jarque (1981) technique was employed to test normality where if the p-value is  $< 0.05$ , a conclusion is made that data is not normal while  $p\text{-value} > 0.05$  implies data is normal. Table 4.6 the Skewness and Kurtosis results. Non-parametric tests are conducted if data is found not to be normal. The null hypotheses are;

$H_0$ : The data are not normally distributed

$H_1$ : The data are normally distributed

**Table 4.6: Normality Test**

| Variable | Observation | Skewness | Kurtosis | p-value |
|----------|-------------|----------|----------|---------|
| TobinQ   | 340         | 1.0670   | 0.7324   | .166    |
| Dmva     | 340         | 3.3921   | 0.9205   | .453    |
| Invdec   | 340         | 2.0211   | 0.6413   | .825    |
| Findec   | 340         | 4.8153   | 0.5104   | .967    |
| Divdec   | 340         | 3.0634   | 0.5679   | .084    |
| Wcmdec   | 340         | 1.2035   | 0.8241   | .487    |
| Firmper  | 340         | 5.0481   | 0.7204   | .063    |

Skewness and Kurtosis test results are presented in Table 4.6. Results showed that calculated  $p\text{-value} > 0.05$  hence data were normal and parameter tests could be ran.

#### 4.4.4 Multi-collinearity Test

According to William (2013), multicollinearity describes the availability of correlations between variable under study. Presence of multicollinearity may render results of the model inaccurate (Alin, 2010; Daoud, 2017). Multicollinearity was tested by use of variance inflation factors where value of  $VIF > 5$  indicates presence of multicollinearity.

**Table 4.7: Multicollinearity Test**

| Variable | TobitQ |          | dMVA  |          |
|----------|--------|----------|-------|----------|
|          | 1/VIF  | VIF      | 1/VIF | VIF      |
| Divdec   | 1      | 0.997488 | 1     | 0.997488 |
| Invdec   | 1      | 0.998096 | 1     | 0.998096 |
| wcmdec   | 1      | 0.998689 | 1     | 0.998689 |
| Findec   | 1      | 0.999729 | 1     | 0.999729 |
| Mean VIF | 1      |          | 1     |          |

VIF output in Table 4.7 shows that all value were less than 5 hence no multicollinearity. When multicollinearity was tested with Tobin Q as a measure of firm value, the VIF values for investment, financing, dividend, working capital management decisions and firm performance were less than 5. Likewise, when multicollinearity was tested with Market Value Added as a predictor of firm value, the VIF values for investment, financing, dividend and working capital management decisions were also less than 5 implying that multicollinearity is absent.

#### 4.4.5 Autocorrelation Test

Wooldridge test was employed to check presence of serial autocorrelation. The following hypotheses were tested. The results are presented in Table 4.8.

H<sub>0</sub>: Residuals vales are not present in this model.

H<sub>1</sub>: Residuals vales are present in this model

**Table 4.8: Serial Correlation Tests**

| <b>TobitQ</b>                                            |
|----------------------------------------------------------|
| <b>Wooldridge test for autocorrelation in panel data</b> |
| <b>H<sub>0</sub>: no first-order autocorrelation</b>     |
| F (1, 9) = 1.995                                         |
| Prob > F = 0.1915                                        |
| <b>dMVA</b>                                              |
| <b>Wooldridge test for autocorrelation in panel data</b> |
| <b>H<sub>0</sub>: no first-order autocorrelation</b>     |
| F (1, 9) = 1.406                                         |
| Prob > F = 0.2661                                        |

Source: Research Data, 2020

The null hypothesis was that the model has no serial correlations. When Serial Correlation was conducted with Tobin Q as measure of firm value, the test statistic reported F-test of 1.9995 and a p-value of 0.1915 > 0.05. For Market Value Added as

measure of firm value, the F-test was 1.406 with a p-value of 0.2661 > 0.05. The null hypothesis was thus not rejected implying that there are no serial correlations. In the event that serial correlations are present, Feasible Generalized Least Squares is estimated.

#### 4.4.6 Heteroscedasticity

Heteroscedasticity was tested by using Breusch-Pagan test. The null hypothesis tested is that, error terms have a constant variance that is, Homoscedastic. Output Table 4.9 indicate that, the error terms are heteroscedastic given that, the p-value (Tobin Q=0.0632 > 0.05 and Market Value Added as measure of firm value=0.0752 > 0.05) confirmed that the null hypothesis of constant variance was accepted therefore, justifying the absence of heteroscedasticity in the data as indicated by Poi and Wiggins (2001).

**Table 4.9: Heteroscedasticity Test Results**

| <b>Breusch-Pagan / Cook-Weisberg test for Heteroscedasticity</b> |   |               |             |
|------------------------------------------------------------------|---|---------------|-------------|
| Ho: Constant variance                                            |   |               |             |
| Variable: fitted values                                          |   | <b>TobinQ</b> | <b>dMVA</b> |
| chi2(1)                                                          | = | 3.45          | 3.17        |
| Prob > chi2                                                      | = | 0.0632        | 0.0752      |

#### 4.5 Panel Regression of the Effect of Financial Decisions on Firm value

An overall panel regression analysis was conducted between financial decisions that included investment decisions, financing decisions, dividend decisions, and working capital management decisions on firm value measured using both Tobin Q and Market Value Added (Rencher & Schaalje, 2008). The panel regression on financial decisions and firm value is shown in Table 4.10.

**Table 4.10: Financial decisions and Tobin Q**

| TobinQ       | Coef.    | Std. Err. | Z     | P>z     |
|--------------|----------|-----------|-------|---------|
| Invdec       | -5.59788 | 4.033641  | -1.39 | 0.165   |
| Findec       | 0.688411 | 0.0162953 | 42.25 | 0.000** |
| Divdec       | 0.893517 | 1.331869  | 0.67  | 0.502   |
| Wcmdec       | -0.1857  | 0.3121729 | -0.59 | 0.552   |
| _cons        | 6.576247 | 2.784205  | 2.36  | 0.018** |
| R-squared:   | =0.8422  |           |       |         |
| Wald chi2(4) | =1788.50 |           |       |         |
| Prob > chi2  | =0.0000  |           |       |         |

\*\* sig at 5%

The panel regression model is;

$$\text{Firm value} = 6.576247 - 5.59788 \text{ invdec} + 0.688411 \text{ findec} + 0.893517 \text{ divdec} - 0.1857 \text{ wcmdec}$$

Where: invdec = Investment decisions

findec = financing decisions

divdec = dividend decisions

wcmdec = working capital management decisions

The R-squared was used to check how well the model fitted the data. The study was supported by coefficient of determination R-square of 0.8422. This means that investment decisions, financing decisions, dividend decisions and working capital management decisions explain 84.22% of variations in firm value measured using Tobin Q of non-financial firms quoted at the Nairobi Securities Exchange. The results imply that investment decisions, financing decisions, dividend decisions and working capital management decisions are strong predictors of firm value measured using Tobin Q. Firm's value is very important. Value can be perceived as a management success in managing the company. Value also reflected market response to the company.

Coefficient of results indicated that investment decisions had a negative and insignificant relationship with firm value measured using Tobin Q, dividend decisions had a positive and insignificant relationship with firm value measured using Tobin Q while working capital management decisions had a negative and insignificant relationship with firm value measured using Tobin Q. Only financing decisions had a positive and significant relationship with firm value measured using Tobin Q ( $\beta = 0.688411$ ,  $p = 0.000 < 0.05$ ). This was supported by a calculated z-statistic of 42.25 that is larger than the critical z-statistic of 1.96. This implies that a unit increase in financing decisions results to 0.688411 increase in firm value measured using Tobin Q.

Financing decisions entails the choice of either to finance by use of debt or equity or both in financing firms' operations. Firms need to decide which of the financing method is appropriate. If a firm is dealing with risky debts, it has the option of shifting wealth from bondholders to stockholders or the other way round. According to the pecking order theory firms tend to prefer internal financing to external financing; with intention of avoiding overreliance on external financing. The results of the study agree with Ayuba, Bambale, Ibrahim and Sulaiman (2019) that financing decisions including use of short term and long term debt have positive significant effect on Tobin's Q. The results also

agree with Ibhagui and Olokoyo, (2018) who showed that financing decisions and Tobin's Q are positively related for the case of Nigerian quoted firms. However, the results do not agree with Memon, Khan, Shaikh, Shah, Zahid and MuhammdShaikh (2017) who established that financing decisions is has no significant effect on firm value of Pakistani listed firms. Further, the panel regression on financial decisions and firm value measured using market value added and the model is presented in Table 4.11.

**Table 4.11: Panel Regression of the Effect of Financial Decisions on logMVA**

| logMVA       | Coef.    | Std. Err. | Z     | P>z     |
|--------------|----------|-----------|-------|---------|
| invdec       | -3.559   | 0.9723391 | -3.66 | 0.000** |
| findec       | 0.000486 | 0.0010048 | 0.48  | 0.629   |
| divdec       | -0.12487 | 0.1742834 | -0.72 | 0.474   |
| Wcmdec       | -0.04971 | 0.0372144 | -1.34 | 0.182   |
| _cons        | 16.64615 | 0.7856237 | 21.19 | 0.000   |
| R-squared:   | =0.1218  |           |       |         |
| Wald chi2(4) | =15.78   |           |       |         |
| Prob > chi2  | =0.0033  |           |       |         |

\*\* sig at 5%

The panel regression model is;

$$\text{Firm value} = 16.64615 - 3.559\text{invdec} + 0.000486\text{findec} - 0.12487\text{divdec} - 0.04971\text{wcmdec}$$

Where: invdec = Investment decisions

findec = financing decisions

divdec = dividend decisions

wcmdec = working capital management decisions

Coefficient of determination also known as the R-square was used to check how well the model fitted the data. The study was supported by coefficient of determination R-square of 0.1218. This means that investment decisions, financing decisions, dividend decisions and working capital management decisions explain 12.18% of variations in firm value measured using market value added of non-financial firms quoted at the Nairobi Securities Exchange. The results imply that financial investment decisions, financing decisions, dividend decisions and working capital management decisions are weak predictors of firm value measured using market value added. Producing shareholder value is the key to success in today's marketplace. MVA stand for the value added to the particular share over its book worth. MVA notifies how much value a shareholder has actually included in this wealth, which he has invested in the share. As necessary, a firm

with an objective of boosting the shareholder's wide range should try to profit from its MVA.

Coefficient of results indicated that financing decisions had a positive and insignificant relationship with firm value measured using market value added, dividend decisions had a negative and insignificant relationship with firm value measured using market value added while working capital management decisions had a negative and insignificant relationship with firm value measured using market value added. However, investment decisions had a negative and significant relationship with firm value measured using market value added ( $\beta = -3.559$ ,  $p = 0.000 < 0.05$ ). This was supported by a calculated z-statistic of 3.66 that is larger than the critical z-statistic of 1.96. This implies that a unit increase in investment decisions results to 3.559 decline in firm value measured using market value added. The results imply that investment decisions may be bad or ineffective adding no value to the organization.

Investment decision functions are performed by the management level in a firm since they are financial management roles. Financing choice promotes the survival as well as growth of a service enterprise, which requires the demand to carry efforts of services in the direction of recognizing reliable financing decision, which will safeguard the investors' interest. Investment decision includes investment with high risk is the risk seeker who invests more to more to expect more returns from the investment decisions. The choice of the investment decisions will have a significant impact on firm value. The results agree with Pandya (2016) in a study on the impact of financial leverage on market value included India that investment decisions are statistically substantial in explaining variation in market price added of the sample business. The results do not agree with Triani and Tarmidi (2019) who sought to establish how decisions on investment decisions, dividend policies and funding affected the firm value in companies quoted on the Indonesia Securities market from 2013 to 2016 and concluded that investors did not react significantly to the corporate investment decisions and thus the value is not affected by investment decisions.

## 4.6 Intervening Effect of Firm Performance on Financial decisions and Tobin Q

### Step 1

In the first step, Tobin Q was regressed on financial decisions. The results in Table 4.12 show that, in step one, the influence of financial decisions on Tobin, Q is significant ( $\beta=0.688505$ ,  $R^2=0.8409$ ,  $p<0.05$ ), implying that 84.09% of firms' value using Tobin Q is attributable to one unit change in financial decisions. The first mediation condition which states that, dependent variable is significantly affected by independent variable in the absence of the mediating variable is thus satisfied.

**Table 4.12: Composite of Financial decisions and Tobin Q**

| TobinQ       | Coef.    | Std. Err. | z     | P>z   | [95% Conf. Interval] |
|--------------|----------|-----------|-------|-------|----------------------|
| Findec       | 0.688505 | 0.016288  | 42.27 | 0.000 | 0.656581 0.720429    |
| _cons        | 2.935646 | 0.834432  | 3.52  | 0.000 | 1.30019 4.571103     |
| R-squared:   | 0.8409   |           |       |       |                      |
| Wald chi2(2) | 1786.76  |           |       |       |                      |
| Prob > chi2  | 0.0000   |           |       |       |                      |

Firm value = 2.935646+ 0.688505 findec

Where: findec = financing decisions

### Step 2

The independent variable is significantly related to the intervening variable. The second step involved regression of composite of financing decisions on firm performance. The results presented in Table 4.13 shows that, the influence of composite of financial decisions on firm performance measured using return on assets is significant ( $\beta=0.00114$ ,  $R^2=0.0952$ ,  $p<0.05$ ), thus satisfying the second condition which states that, the independent variable should be significantly related to the mediator variable, for the process to continue to step 3.

**Table 4.13: Composite of Financial decisions and firm performance**

| Firmper    | Coef.    | Std. Err. | z    | P>z   | [95% Conf. Interval] |
|------------|----------|-----------|------|-------|----------------------|
| Findec     | 0.00114  | 0.000149  | 7.66 | 0.000 | 0.000849 0.001432    |
| _cons      | 0.079162 | 0.017455  | 4.54 | 0.000 | 0.04495 0.113373     |
| R-squared: | 0.0952   |           |      |       |                      |

|              |        |
|--------------|--------|
| Wald chi2(2) | 58.75  |
| Prob > chi2  | 0.0000 |

$$\text{Financial performance} = 0.079162 + 0.00114\text{findec}$$

Where: findec = financing decisions

### Step 3

The third step was intended to test for the influence of the financial performance on firm value (Tobin Q) as shown in Table 4.14. As shown in the Table 4.14, the influence of the financial performance on firm value using Tobin Q was significant ( $\beta=69.32323$ ,  $R^2=0.1015$ ,  $p<0.05$ ), thus satisfying the third condition that, the mediator variable should be significantly related to the dependent variable, for the process of testing for mediation to continue to the final step. The financial performance is significantly related to firm value measured using Tobin Q.

**Table 4.14: Financial performance and Tobin Q**

| TobinQ       | Coef.    | Std. Err. | Z     | P>z   |
|--------------|----------|-----------|-------|-------|
| firmper      | 69.32323 | 11.21834  | 6.18  | 0.000 |
| _cons        | -3.03473 | 2.180754  | -1.39 | 0.164 |
| R-squared:   | 0.1015   |           |       |       |
| Wald chi2(2) | 38.19    |           |       |       |
| Prob > chi2  | 0.0000   |           |       |       |

$$\text{Firm Value} = -3.03473 + 69.32323\text{firmper}$$

Where: firmper = firm performance

### Step 4

The fourth step was to test if firm performance and composite of financial decisions is significantly related to firm value using Tobin Q. Here, firm performance and financial decisions was tested to see if it predicts firm value as measured by Tobin Q as shown in Table 4.15.

**Table 4.15: Intervening Effect of firm performance on financial decisions and Tobin Q**

| <b>TobinQ</b> | <b>Coef.</b> | <b>Std. Err.</b> | <b>Z</b> | <b>P&gt;z</b> |
|---------------|--------------|------------------|----------|---------------|
| Findec        | 0.679383     | 0.517074         | 1.31     | 0.093         |
| Firmper       | 8.567219     | 4.947936         | 1.73     | 0.083         |
| _cons         | 2.237858     | 0.924444         | 2.42     | 0.015         |
| R-squared:    | 0.8423       |                  |          |               |
| Wald chi2(2)  | 1800.32      |                  |          |               |
| Prob > chi2   | 0.0000       |                  |          |               |

$$\text{Firm value} = 2.237858 + 0.679383\text{findec} + 8.567219 \text{ firmper}$$

Where: findec = financing decisions

firmper = firm performance

Table 4.15 shows that, the influence of financial decisions on firm value (Tobin Q) was insignificant in the presence of the firm size ( $\beta=0.679383$ ,  $R^2=0.8423$ ,  $p>0.093$ ), and thus satisfying the fourth condition which states that, the effect of financial decisions on firm value (Tobin Q) is insignificant in the presence of firm performance as the intervening variable. The Tobin's q ratio is specified as market price of a company divided by the book value of equity. Therefore, there must exist a favorable connection in between the Tobin's q proportion and future company efficiency for the proportion to be a legitimate proxy for a company's investment possibilities. Previous literature has actually not analyzed this affiliation in between the Tobin's q proportion and also future firm efficiency. Tobin's q proportion has been extensively utilized as a proxy for financial investment opportunities in the financing literature. If Tobin's q is a valid proxy for financial investment opportunities, it must observe a positive relationship between the q proportion as well as future operating efficiency of a company. According to Yegon, Cheruiyot, and Sang (2014) who sought to explain the relationship between a firm's dividend and its investment, profitability, and share distribution found out that there exists a significant positive connection between firm performance and firm value. The results agree with Endri and Fathony (2020) in a study on determinants of firm's value found that profitability proved to have significant positive effects on firm value in financial sector companies. Likewise, Fu, Singhal and Parkash (2016) noted that that higher

Tobin's q ratio is related to higher future operating firm performance for the sample firms.

#### 4.7 Intervening Effect of Firm Performance on Financial decisions and MVA

##### Step 1

In the first step, market value added was regressed on financial decisions. The results in Table 4.16 show that, in step one, the influence of financial decisions on MVA is significant ( $\beta=0.00000392$ ,  $R^2=0.0122$ ,  $p<0.05$ ), implying that 1.22% of firms' value using market value added is attributable to one unit change in financial decisions. The first mediation condition which states that, dependent variable is significantly affected by independent variable in the absence of the mediating variable is thus not satisfied.

**Table 4.16: Composite of Financial decisions and Market value added**

| dlogMVA      | Coef.      | Std. Err. | Z     | P>z   |
|--------------|------------|-----------|-------|-------|
| findec       | 0.00000392 | 0.001017  | 0.000 | 0.997 |
| _cons        | 0.004687   | 0.127263  | 0.04  | 0.971 |
| R-squared:   | 0.0122     |           |       |       |
| Wald chi2(2) | 0.000      |           |       |       |
| Prob > chi2  | 0.9969     |           |       |       |

$$\text{Firm value} = 0.004687 + 0.00000392 \text{findec}$$

Where: findec = financing decisions

MVA = market value added

##### Step 2

The independent variable is significantly related to the intervening variable. The second step involved regression of composite of financing decisions on firm performance (MVA). The results presented in Table 4.17 shows that, the influence of composite of financial decisions on firm performance measured using return on assets is significant ( $\beta=0.00114$ ,  $R^2=0.0952$ ,  $p<0.05$ ), thus satisfying the second condition which states that, the independent variable should be significantly related to the mediator variable, for the process to continue to step 3.

**Table 4.17: Composite of Financial decisions and market value added**

| Firmper | Coef. | Std. Err. | Z | P>z |
|---------|-------|-----------|---|-----|
|---------|-------|-----------|---|-----|

|              |          |          |      |       |
|--------------|----------|----------|------|-------|
| Findec       | 0.00114  | 0.000149 | 7.66 | 0.000 |
| _cons        | 0.079162 | 0.017455 | 4.54 | 0.000 |
| R-squared:   | 0.0952   |          |      |       |
| Wald chi2(2) | 58.75    |          |      |       |
| Prob > chi2  | 0.0000   |          |      |       |

$$\text{Financial performance} = 0.079162 + 0.00114\text{findec}$$

Where: findec = financing decisions

### Step 3

The third step was intended to test for the influence of the financial performance on firm value (market value added) as shown in Table 4.18. As shown in the Table 4.18, the influence of the financial performance on firm value using market value added was insignificant ( $\beta=-0.38004$ ,  $R^2=0.3994$ ,  $p<0.05$ ), thus not satisfying the third condition that, the mediator variable should be significantly related to the dependent variable, for the process of testing for mediation to continue to the final step. The financial performance is significantly related to firm value measured using market value added.

**Table 4.18: Financial performance and market value added**

| dlogMVA      | Coef.    | Std. Err. | Z     | P>z   |
|--------------|----------|-----------|-------|-------|
| Firmper      | -0.38004 | 0.362083  | -1.05 | 0.294 |
| _cons        | 0.037688 | 0.103358  | 0.36  | 0.715 |
| R-squared:   | 0.3994   |           |       |       |
| Wald chi2(2) | 1.10     |           |       |       |
| Prob > chi2  | 0.2939   |           |       |       |

$$\text{Firm value} = 14.38243 - 0.48474\text{firmper}$$

Where: firmper = firm performance (ROA)

### Step 4

The fourth step was to test if firm performance and composite of financial decisions is significantly related to firm value using market value added. Here, firm performance and financial decisions was tested to see if it predicts firm value as measured by market value added as shown in Table 4.19.

**Table 4.19: Intervening Effect of firm performance on financial decisions and market value added**

| dlogMVA      | Coef.    | Std. Err. | Z     | P>z   |
|--------------|----------|-----------|-------|-------|
| Findec       | 0.000447 | 0.001123  | 0.4   | 0.691 |
| Firmper      | -0.43266 | 0.391388  | -1.11 | 0.269 |
| _cons        | 0.044511 | 0.103494  | 0.43  | 0.667 |
| R-squared:   | 0.3896   |           |       |       |
| Wald chi2(2) | 1.22     |           |       |       |
| Prob > chi2  | 0.5426   |           |       |       |

$$\text{Firm Value} = 0.044511 + 0.000447\text{findec} - 0.43266\text{firmper}$$

Where: findec = financing decisions

firmper = firm performance

MVA = market value added

Table 4.19 shows that, the influence of financial decisions on firm value (MVA) was insignificant in the presence of the firm size ( $\beta=0.000447$ ,  $R^2=0.3896$ ,  $p>0.4$ ), and thus satisfying the fourth condition which states that, the effect of financial decisions on firm value (market value added) is insignificant in the presence of firm performance as the intervening variable. However, the first three conditions were not fulfilled thus firm performance does not mediate the relationship between financial decisions and firm value measured using marked added value.

#### 4.8 Hypotheses Testing

The hypothesis was tested using p-value method. The acceptance/rejection criterion was that, if the p-value is greater than the significance level of 0.05, we fail to reject the  $H_0$  but if it's less than 0.05 level of significance, the  $H_0$  is rejected.

The first hypothesis to be tested was: -

*$H_{01}$ : There exists no statistical significant relationship between investment decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange.*

The null hypothesis was that, there lacks statistical significant relationship between investment decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange. The hypothesis was tested utilizing p-value method. The acceptance/rejection criterion was that, if the p-value is higher than the relevance degree of 0.05, we fall short

to reject the  $H_0$  but if it's less than 0.05 level of relevance, the  $H_0$  is declined. Cause Table 4.11 shows that, investment decision and market value measured using market added value is negative and significantly related with  $p\text{-value} = 0.000 < 0.05$ . The study concludes on the basis of market added value as the other is inconclusive. The null hypothesis was therefore rejected and concluded that, there is a significant effect of statistical significant relationship between investment decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange measured using market value added. Investment decision functions are performed by the management level in a firm since they are financial management roles.

Investment decision assists in the survival as well as development of a company enterprise, which calls for the demand to funnel efforts of businesses towards understanding effective financing decision, which will certainly protect the shareholders interest. Investment decision includes investment with high risk is the risk seeker who invests more to more to expect more returns from the investment decisions. The results agree with Durnev, Morck, and Yeung (2004) who posit that investment decisions at the corporate level tend to be focused on enhancing the firm value where there is a greater concentration on firm-specific risk arbitrage. A firm's Investment decisions on companies with high creditworthiness are very sensitive to the internal funds availability. On the contrary, less creditworthy firms tend to be less sensitive to availability of internal fund.

The choice of the investment decisions will have a significant impact on firm value. The results validate the agency theory that agency costs threaten the ability of a firm to undertake viable investments. According to the agency theory, agency conflicts emanate from different sources resulting to under-investment. In this case, substantial size of the firm's value is made up of future investment opportunities. The company can be endowed with high-risk bonds that can have incentives to reject positive (net present value) projects if the benefit from investing in the project accrues to the firm's bondholders. Danielson, Heck and Shaffer (2008) opine that since the stock price of a firm can be manipulated in the short-term, incentives to increase the current stock price can destabilize both the investment and operating decisions. The results agree with Pandya (2016) in a study on the impact of financial leverage on market value added in India that debt equity ratio and debt ratios are found to be statistically significant in explaining variation in market value added of the sample companies. The results do not agree with Triani and Tarmidi (2019) who sought to establish how decisions on investment

decisions, dividend policies and funding affected the firm value in companies quoted on the Indonesia Securities market from 2013 to 2016 and concluded that investors did not react significantly to the corporate investment decisions and thus the value is not affected by investment decisions.

The second hypothesis to be tested was: -

*H<sub>02</sub>: There is no statistically significant relationship between leverage decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange.*

The null hypothesis was that, there is no statistically significant relationship between leverage decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange. The hypothesis was tested using p-value method. The acceptance/rejection criterion was that, if the p-value is greater than the significance level of 0.05, we fail to reject the H<sub>02</sub> but if it's less than 0.05 level of significance, the H<sub>02</sub> is rejected. Results in Table 4.10 shows that, leverage decision and firm value using Tobin Q is positive and statistically significantly related with p-value =0.000<0.05. The study concludes on the basis of Tobin Q as the other is inconclusive. The null hypothesis was therefore rejected and concluded that, there is statistically significant relationship between leverage decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange measured using Tobin Q. The results validates the agency theory that managers are self-serving and at times can have goals that differ from those of the owners (shareholders), which, if not controlled or monitored, may entice them to indulge in actions that favor them at the expense of owners' wealth maximization. As control and dominance of the managerial team strengthens, the company experiences increased information asymmetry, making it harder for bondholders and shareholders to keep an eye on the managers' actions. Entrenchment motives may eventually make managers to use leverage beyond the elastic limit or the optimal point, so as to cement their control and minimize pressure from the external owners who are the shareholders. In a counter point of view, Fama & French (2002) postulates that entrenched managers may prefer minimal leverage to optimal leverage since they perceive it to have lower firm risk and thus protect their under diversified human capital resources (Huang, Boateng and Newman, 2016). This will definitely result to conflict with management and shareholders and bondholders.

The effect of debt on company value depends on the balance between the conflict of interest amongst managers, shareholders, and also lenders. When disputes of interest

between managers and shareholders outweigh that between shareholders as well as financial institutions, leverage can boost strong value since financial obligation compels the managers to pay out funds that may or else have been bought adverse web present value jobs. Nevertheless, when the problem of interest in between shareholders and also lenders outweighs that between supervisors and shareholders, firms with arrearage might have extra rewards to reject jobs that have favorable web existing value if the take advantage of approving the job accumulate to the creditors without also increasing shareholders' wealth. These findings additionally recommend that the endogeneity of financing decisions and also the company issue in between shareholders and also creditors are most likely to be in charge of the negative relation between leverage and company value.

Financing decisions concerned making use of financial debt as well as equity in financing companies' operations. Absence of a partnership between a firm's market value and its financing decisions does not in itself suggest that the financing decisions are immaterial to the company's safety and security holders. When the firm can provide high-risk financial obligation, it may have the ability to utilize its financing decisions to change riches from its shareholders to its supply- owners or vice versa. According to the chain of command concept firms prevent outside financing while they have interior financing available as well as stay clear of brand-new equity financing while they can engage in brand-new debt financing at reasonably reduced interest rates. The results of the study agree with Ayuba, Bambale, Ibrahim and Sulaiman (2019) that financing decisions including use of short term and long term debt have positive significant effect on Tobin's Q. However, the results do not agree with Memon, Khan, Shaikh, Shah, Zahid and MuhammdShaikh (2017) who established that financing decisions have no significant impact on firm's performance in Pakistan. Likewise, the results disagree with Kenya and Ombok (2018) who analyzed the effect or cause of leverage on value-added financial performance of NSE firms and analyzed using fixed effects multiple regression model and the outcome demonstrated that financial leverage has a negative significant impact on value-added financial performance.

The third hypothesis to be tested was: -

*H<sub>03</sub>: There is no statistically significant relationship between dividend decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange.*

The null hypothesis was that, there is no statistically significant relationship between leverage decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange. The hypothesis was tested using p-value method. The acceptance/rejection criterion was that, if the p-value is greater than the significance level of 0.05, we fail to reject the  $H_{03}$  but if it's less than 0.05 level of significance, the  $H_{03}$  is rejected. Results in Table 4.10 shows that, dividend decisions and firm value using Tobin Q is positive and statistically insignificantly related with p-value =0.67>0.05. Further, the results in Table 4.11 shows that, leverage decisions and market value measured using market added value is negative and insignificantly related with p-value =0.474>0.05. The null hypothesis was therefore the null hypothesis was and concluded that, there is no statistically significant relationship between dividend decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange. The results of the study invalidate the Modigliani and Miller Dividend Theory that the market views dividends as an indication of the management's perception of the future earnings of the firm. Kirkulak and Kurt (2010) indicated that the share price tends to fall after dividends are omitted or decreased and this forces managers to maintain the current dividend payments. Modigliani and Miller (1961, 1977) contend that the value of the firm is independent of the dividends. According to Bhattacharya (1979) and other researchers, the trend on the dividend policy can be a signal to indicate firm's position or state, and thus relevant in a group of models (frameworks) that have asymmetric information relating to stochastic company earnings, shareholder liquidity and deadweight expenses arising from dividend payment, refinancing cash flow shocks or covering underinvestment (Villamil, 2008).

The forth hypothesis to be tested was: -

*$H_{04}$ : There is no statistically significant relationship between working capital management decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange.*

The null hypothesis was that, there is no statistically significant relationship between working capital management decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange. The hypothesis was tested using p-value method. The acceptance/rejection criterion was that, if the p-value is greater than the significance level of 0.05, we fail to reject the  $H_{04}$  but if it's less than 0.05 level of significance, the  $H_{04}$  is

rejected. Results in Table 4.10 shows that, working capital management decisions and firm value using Tobin Q is negative and statistically insignificantly related with p-value =0.552>0.05. Further, the results in Table 4.11 shows that, working capital management decisions and market value measured using market added value is negative and insignificantly related with p-value =0.182>0.05. The null hypothesis was accepted and concluded that, there is no statistically significant relationship between working capital management decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange. The working capital is always disregarded since it involves short-term financing and investment. However, it is a vital component in the financial management decisions. Having an optimal working capital management contributes positively to the enhancement of firm's value. For a company, to gain optimal working capital management, a manager has to ensure a balance between liquidity and profitability and do so accurately. The results invalidate the Trade-off Theory developed by Modigliani and Miller (1958) that the firm's value is dependent on the profitability and not on the capital structure. In addition, the Trade-off Theory forecasts that companies will often select a blend of equity and debt financing to strike a balance on the benefits and costs of debt. Firms go for debt financing due to the tax incentive benefit as well as the maximum control of free cash flow issues. The bankruptcy costs and related agency issues offer companies with incentives to utilize minimal funds. There is also a framework on the optimization of a firm's capital structure through developing a blend of financing that takes into account marginal costs as well as the benefits related of debt financing. Among the primary empirical prediction of the trade-off theory is that debt ratios may tend to be mean reverting as companies embrace external capital markets to maintain their values at a level close to the market optimum. The theory offers reasons as to why small and growing young firms prefer bank debt exclusively as opposed to already established large and mature firms which tend to mix debt financing.

The fifth hypothesis to be tested was: -

*H<sub>05</sub>: There is no statistically significant mediation effect firm performance on the relationship between financial decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange.*

The null hypothesis was that, there is no statistically significant mediation effect on the relationship between financial decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange. The hypothesis was tested using p-value method. The acceptance/rejection criterion was that, if the p-value is greater than the significance level of 0.05, we fail to reject the  $H_{0.5}$  but if it's less than 0.05 level of significance, the  $H_{0.5}$  is rejected.

Results in Table 4.12 - 4.19 shows that the four steps in testing intervening of firm performance on the relationship between financial decisions and firm value measured using Tobin Q of Non-financial firms listed at Nairobi Securities Exchange are fulfilled. The null hypothesis was therefore rejected and concluded that, firm performance significantly mediates the effect of financial decisions on firm value of Non-financial firms listed at Nairobi Securities Exchange as measured using Tobin Q as a measure of firm value.

The Tobin's q ratio is specified as market price of a firm split by the replacement price of its possessions. Therefore, there have to exist a positive link between the Tobin's q ratio as well as future firm performance for the ratio to be a legitimate proxy for a firm's investment opportunities. Previous literary works has actually not examined this web link in between the Tobin's q ratio in addition to future business performance. Tobin's q ratio has actually been completely used as a proxy for investment opportunities in the financing literary works. If Tobin's q is a reputable proxy for investment opportunities, it should observe a positive connection between the q ratio as well as future operating performance of a firm. The results agree with Nawaiseh (2017) that there is a statistically significant impact of financial performance on the firms' values. According to Yegon, Cheruiyot, and Sang (2014) who sought to explain the relationship between a firm's dividend and its investment, profitability, and Share distribution found out that there exists a significant positive connection between the dividend policy adopted by the firm and the variables as aforementioned (profitability, investments, share earnings-EPS). Likewise, Fu, Singhal and Parkash (2016) noted that that higher Tobin's q ratio is related to higher future operating performance for the sample firms. However, when firm value was measured using market value added and firm performance used to check the mediating effect firm performance on the relationship between financial decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange, the four steps in testing intervening of a variable were not fulfilled. Therefore, firm performance does

not mediate the effect of firm performance on the relationship between financial decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange measured using market value added.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents a summary of major findings of this study, sets out the relevant conclusions and makes recommendations for practice and suggestions for further research based on the findings of this study.

#### **5.2 Summary of Major Findings**

This section contained the summary of the findings.

##### **5.2.1 Effects of investment decisions on the firm value**

The first objective of the study was to establish the effect of investment decisions on firm value of non- financial firms quoted at the Nairobi Securities Exchange. Coefficient of results indicated that investment decisions had a negative and insignificant relationship

with Tobin Q. However, investment decisions had a negative and significant relationship with market value added.

### **5.2.2 Effects of financing decisions on firm value**

The second objective of the study was to assess the effect of leverage decisions on firm value of non-financial firms listed at the Nairobi Securities Exchange. Correlation results found that only financing decisions had a positive and significant association with firm value measured using Tobin Q. Leverage decisions had a positive and significant relationship with Tobin Q. However, coefficient of results indicated that financing decisions had a positive and insignificant relationship with market value added.

### **5.2.3 Effect of Dividend decisions on firm value**

The third objective of the study was to determine the effect of dividend decisions on the firm value of firms listed at the Nairobi Securities Exchange. Dividend decisions had a positive and insignificant relationship with Tobin Q. However, dividend decisions had a negative and insignificant relationship with firm value measured using market value added.

### **5.2.4 Impact of Working Capital Management decisions on firm value**

The fourth objective was to identify the effect of working capital management decisions on firm value of non-financial firms at the Nairobi Securities Exchange. Working capital management decisions had a negative and insignificant relationship with Tobin Q. Working capital management decisions had a negative and insignificant relationship with market value added.

### **5.2.5 Mediating Effect of Firm Performance on Firm Value**

The fifth objective of the study was to assess the mediation effect of firm performance on the relationship between financial decisions and firm value of these firms at the Nairobi Securities Exchange. All the four steps in testing intervening of firm performance on the relationship between financial decisions and firm value measured using Tobin Q of Non-financial firms listed at Nairobi Securities Exchange were fulfilled implying that firm performance significantly mediates the effect of financial decisions on firm value of Non-financial firms listed at Nairobi Securities Exchange as measured using Tobin Q as a measure of firm value. However, when firm value was measured using market value added and firm performance used to check the mediating effect firm performance on the

relationship between financial decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange, the four steps in testing intervening of a variable were not fulfilled. Thus, firm performance does not mediate the effect of firm performance on the relationship between financial decisions and firm value of non-financial firms listed at the Nairobi Securities Exchange measured using market value added.

### **5.3 Conclusion**

Based on the findings, the study concluded that investment decisions negatively influence market value added implying that a unit increase in investment decisions results to 0.972339 decline in market value added. Investment decisions helps with the survival and growth of a business enterprise, which calls for the demand to direct efforts of companies towards recognizing reliable financing decision, which will certainly protect the shareholders interest. However, the results imply that investment decisions may bad or ineffective adding no value to the organization. Investment decision includes investment with high risk is the risk seeker who invests more to more to expect more returns from the investment decisions. It may also be argued that the investment decision do not affect short term market performance of the firm. It however increases the book value thus reducing the market value.

It was also concluded that financing decisions positively influences Tobin Q. The results imply that a unit increase in financing decisions results to 0.688411 increase in Tobin Q. Financial leverage is making use of debt in a company's capital structure, when firms take their financial decision, they need to consider the capital structure as it influences the mixture of debt and equity, as well as subsequently, the impact on the earnings and also risks of shareholders. Financial Leverage is important in financing firms' operations, assets and thus an increase in firm value.

The study concluded that firm performance significantly mediates the effect of financial decisions on Tobin Q of Non-financial firms listed at Nairobi Securities. The results imply that the effect of financial decision on Tobin Q is not direct and is mediated by the size of financial performance attained by the firm. There were no contradictions for significant coefficients. High the firm performance will press the firm's stock market price boosts, as investors will react favorably as a signal to spend funds. As a

representation of the firm value, the climbing stock exchange costs show the firm value is additionally raising.

#### **5.4 Recommendations**

The study established that investment decisions influences firm value. The study recommends for the implementation of well thought investment decisions based on customer desires, market requirement, expert opinion and business environment. Investment decisions should involve understanding the market, creating new business opportunities and investing in product and service quality improvement and cost reductions. The development of value not just involves the production of decisions related to preparation of tasks and also control of understanding of the very same, however likewise takes into consideration those involving brand-new financial investments and the selection of required financing resources, as these might produce or destroy value. So, it is vital to consider how investment decisions are perceived by the firm as it brings effort, creativity, and attitude towards firm products and services.

It was also established that leverage decisions positively influences firm. The study recommends that, the management of Non-financial firms listed at the Nairobi Securities Exchange to balance between financing a firm using short term debt and long-term debt. For firms looking for long-term financing, can go for equity or preference shares and debentures. For short-term financing requirements such as working capital, listed firms can borrow funds in the form of bank loans, factor receivables and commercial paper. The choice often depends upon which source of funding is most easily accessible for the firm. Short-term debt is less expensive than lasting debt but is riskier because they need to be renewed occasionally. A firm may discover itself in a situation if they are incapable to renew their debt usually as a result of some adverse information, actual or otherwise. Many failings of huge firms are sped up by unavailability of short-term financing. Nevertheless, long-term financial debts are more effective sources of debt financing amongst reputable company institution primarily by virtue of their asset base.

The study also established that firm performance significantly mediates the effect of financial decisions on firm value of Non-financial firms listed at Nairobi Securities Exchange as measured using Tobin Q as a measure of firm value. The study recommends for the prudent creation of prudent financial decisions including investment, leverage, working capital and dividend decisions that will stimulate firm performance. Good firm

performances triggers prices of stock to go up as such, investors will rush to invest their money there. Rising stock prices implies that firm value is growing.

### **5.5 Areas for further Research**

It is evident that, financial decisions among firms differ significantly depending on the sector in which a firm operates in. The financial decisions of non-financial firms versus financial firms may differ significantly in terms of how firms' operations are financed, investment decisions and to distribute working capital for the firms. Investment decisions, financing decisions and working capital decisions for manufacturing firms may be significantly different from the financial decisions for a financial based firm. As a result of sector wise effects, there is a need to conduct a comparison study to establish the effect of financial decisions on firm value of non-financial firms versus financial firms listed at Nairobi Securities Exchange. The comparison study how financial decisions impact shareholder value among firms operating in different sectors.

However, the study established that investment decisions, dividend decisions, working capital management were not significantly related to firm value measured using Tobin Q. Likewise, financing decisions, dividend decisions, working capital management were non-significant predictors of firm value measured using market value added. Further research may be conducted focusing on these variables while expanding the scope of the study to check how the relationship among the variable and firm value will behave.

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## APPENDICIES

### Appendix 1: Consent Letter

To whom it may concern,

Dear Sir/Madam,

**RE: KIARIE JAMES KIIRI REG. NO: 15/03033**

It is my distinct pleasure to introduce to you Mr. James Kiarie who is a student in our institution pursuing a Master of Science in Commerce at the School of Business and Public Management.

James is conducting a research on a topic titled: *“Effect of Financial Decisions on Firm Value of Non- Financial Firms Listed at the Nairobi Securities Exchange”* which is part of the requirements of the program he is pursuing.

The research as well as the data procured thereof shall be used for academic purposes only.

Any assistance accorded to him is highly appreciated.

In case of further inquiry, do not hesitate to contact the undersigned.

Yours faithfully,



Dr. Nyaribo Misuko  
Dean, School of Graduate Studies & Research

**Appendix 2: NSE Listed Non-financial Firms (Data Collection Guide)**

| <b>Sector</b>             | <b>Listed Firms</b>                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Agricultural              | <ol style="list-style-type: none"><li>1. Eaagads Ltd</li><li>2. Kakuzi Plc</li><li>3. Kapchorua Tea Co. Ltd</li><li>4. The Limuru Tea Co. Ltd</li><li>5. Sasini Plc</li><li>6. Williamson Tea Kenya Ltd</li></ol>                                                                                                                                                                     |
| Automobiles & Accessories | <ol style="list-style-type: none"><li>1. Car &amp; General (K) Ltd</li></ol>                                                                                                                                                                                                                                                                                                          |
| Commercial and services   | <ol style="list-style-type: none"><li>1. Deacons (East Africa) Plc</li><li>2. Eveready East Africa Ltd</li><li>3. Express Kenya Ltd</li><li>4. Kenya Airways Ltd</li><li>5. Longhorn Publishers Plc</li><li>6. Nairobi Business Ventures Ltd</li><li>7. National Media Group Ltd</li><li>8. Sameer Africa Plc</li><li>9. Standard Group Plc</li><li>10. TPS East Africa Ltd</li></ol> |

|                        |                                                                                                                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        | 11. Uchumi Supermarket Plc<br>12. WPP Scangroup Plc                                                                                                                                                                                     |
| Construction & Allied  | 1. ARM Cement Plc<br>2. Bamburi Cement Ltd<br>3. Crown Paints Kenya Plc<br>4. E.A Cables Ltd<br>5. E.A Portland Cement Co. Ltd                                                                                                          |
| Energy & Petroleum     | 1. Kengen Co. Plc<br>2. Kenya Power & Lighting Co. Ltd<br>3. Total Kenya Ltd<br>4. Umeme Ltd                                                                                                                                            |
| Insurance              | 1. Britam Holding Plc<br>2. CIC Insurance Group Ltd<br>3. Jubilee Holdings Ltd<br>4. Kenya Re Insurance Corporation Ltd<br>5. Liberty Kenya Holding Ltd<br>6. Sanlam Kenya Plc                                                          |
| Manufacturing & Allied | 1. B.O.C Kenya Plc<br>2. British American Tobacco Kenya Plc<br>3. Carbacid Investment Ltd<br>4. East African Breweries Ltd<br>5. Frame Tree Group Holdings Ltd<br>6. Kenya Orchards Ltd<br>7. Mumias Sugar Co. Ltd<br>8. Unga Group Ltd |
| Telecommunication      | 1. Safaricom plc                                                                                                                                                                                                                        |

### Appendix 3: Data Collection Form

Firm name: .....

Date Listed: .....

Address: .....

#### Part 1: Investment Decisions

##### (1) Non-Current Assets to Total Assets Ratio

|                                                  | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|--------------------------------------------------|------|------|------|------|------|------|------|------|------|------|
| Non-Current Assets (NCA)                         |      |      |      |      |      |      |      |      |      |      |
| Total Assets (TA)                                |      |      |      |      |      |      |      |      |      |      |
| Non-Current Assets to Total Asset Ratio = NCA/TA |      |      |      |      |      |      |      |      |      |      |

## Part 2: Financing Decisions

### (1) Debt to Equity Ratio

|                                              | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|----------------------------------------------|------|------|------|------|------|------|------|------|------|------|
| Total Long-term Debt                         |      |      |      |      |      |      |      |      |      |      |
| Equity                                       |      |      |      |      |      |      |      |      |      |      |
| Debt to Equity Ratio = Long-term Debt/Equity |      |      |      |      |      |      |      |      |      |      |

## Part 3: Dividend Decisions

### (1) Dividend Payout Ratio (DPR)

|                                 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---------------------------------|------|------|------|------|------|------|------|------|------|------|
| Total Dividend                  |      |      |      |      |      |      |      |      |      |      |
| Net Income                      |      |      |      |      |      |      |      |      |      |      |
| DPR = Total Dividend/Net Income |      |      |      |      |      |      |      |      |      |      |

## Part 4: Working Capital Management Decisions

### (1) Current Ratio

|                                 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---------------------------------|------|------|------|------|------|------|------|------|------|------|
| Total Current Assets (TCA)      |      |      |      |      |      |      |      |      |      |      |
| Total Current Liabilities (TCL) |      |      |      |      |      |      |      |      |      |      |
| Current Ratio= TCA/TCL          |      |      |      |      |      |      |      |      |      |      |

## Part 5: Firm Value

### (1) Tobin Q Ratio

|  | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|--|------|------|------|------|------|------|------|------|------|------|
|  |      |      |      |      |      |      |      |      |      |      |

|                           |  |  |  |  |  |  |  |  |  |  |
|---------------------------|--|--|--|--|--|--|--|--|--|--|
| Equity Market value (EMV) |  |  |  |  |  |  |  |  |  |  |
| Equity Book Value (EBV)   |  |  |  |  |  |  |  |  |  |  |
| Tobin Q Ratio = EMV/EBV   |  |  |  |  |  |  |  |  |  |  |

**(2) Market Value Added (MVA)**

|                                        | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|----------------------------------------|------|------|------|------|------|------|------|------|------|------|
| Market Value of Shares (MVS)           |      |      |      |      |      |      |      |      |      |      |
| Book Value of shareholders Equity (BE) |      |      |      |      |      |      |      |      |      |      |
| Tobin Q Ratio = MVS- BE                |      |      |      |      |      |      |      |      |      |      |

**Part 6: Financial Performance**

**(1) Return on Asset (ROA)**

|                                         | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|-----------------------------------------|------|------|------|------|------|------|------|------|------|------|
| Earnings Before Interest and Tax (EBIT) |      |      |      |      |      |      |      |      |      |      |
| Total Assets (TA)                       |      |      |      |      |      |      |      |      |      |      |
| ROA = EBIT/TA                           |      |      |      |      |      |      |      |      |      |      |