INFLUENCE OF DIVERSIFICATION STRATEGIES ON PERFORMANCE OF NON-FINANCIAL FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE IN KENYA

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Influence of Diversification Strategies on Performance of Non-Financial Firms Listed at the Nairobi Securities Exchange in Kenya

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University

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This thesis has been submitted for examination with our approval as the University supervisors.

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DEDICATION

To Owen and Ethan

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TABLE OF CONTENT

DECLARATION ..... **ii**

DEDICATION ..... **iii**

ACKNOWLEDGEMENT ..... **iv**

TABLE OF CONTENT ..... **v**

LIST OF TABLES ..... **x**

LIST OF FIGURES ..... **xiii**

LIST OF APPENDICES ..... **xiv**

ACRONYMS AND ABBREVIATIONS ..... **xv**

OPERATIONAL DEFINITION OF TERMS ..... **xvii**

ABSTRACT ..... **xix**

CHAPTER ONE **1**

INTRODUCTION **1**

1.1 Background to the Study 1

1.1.1 Diversification Strategies 3

1.1.2 Capital Structure 4

1.1.3 Firm Performance 5

1.1.4 Listed Firms on Nairobi Securities Exchange 6

1.2 Statement of the Problem 7

1.3 Objectives of the Study 9

1.3.1 General Objective 9

1.3.2 Specific Objectives 9

1.4 Hypotheses 9

1.5 Significance of the Study 10

1.6 Scope of the Study 11

1.7 Limitations of the Study 12

CHAPTER TWO 13

LITERATURE REVIEW 13

2.1 Introduction 13

2.2 Theoretical Review 13

2.2.1 Resource Based View Theory 13

2.2.2 Transaction Cost Theory 17

2.2.3 Agency Theory 21

2.2.4 Ansoff Theory 23

2.2.5 Make-Or-Buy Decision 24

2.3 Conceptual Framework 25

2.3.1 Product Diversification 26

2.3.2 Geographical Diversification 28

2.3.3 Vertical Integration 29

2.3.4 Horizontal Integration 32

2.3.5 Capital Structure 33

2.3.6 Firm Performance 36

2.4 Empirical Review 37

2.4.1 Product Diversification and Firm Performance 37

2.4.2 Geographical diversification and firm performance 43

2.4.3 Vertical integration and firm performance 46

2.4.4 Horizontal integration and firm performance 47

2.4.5 Capital structure and Firm Performance 49

2.5 Critique of Existing Literature 52

2.6 Research Gaps 54

2.7 Summary....56
CHAPTER THREE....57
RESEARCH METHODOLOGY....57
3.1 Introduction....57
3.2 Research Philosophy....57
3.3 Research Design....58
3.4 Target Population....59
3.5 Sampling Frame....60
3.6 Census Design....61
3.7 Data Collection Instruments....62
3.8 Data Collection Procedure....62
3.9 Pilot Test....63
3.9.1 Reliability of Data Collection Instrument....63
3.9.2 Validity of Data Collection Instrument....64
3.9.3 Pilot Test Results....64
3.10 Data Analysis and Presentation....65
3.10.1 Assumptions of the Study....65
3.10.2 Testing of Hypothesis....66
3.10.3 Model Specification....66
3.10.4 Operationalization and Measurement of Variables....68
CHAPTER FOUR....69
RESULTS AND DISCUSSIONS....69
4.1 Introduction....69
4.2 Response Rate....69
4.3 Demographic Profile....69

4.3.1 Respondents' Gender 69
4.3.2 Respondents' Age 70
4.4 Descriptive Analysis Results 71
4.4.1 Product Diversification 71
4.4.2 Geographical Diversification 76
4.4.3 Vertical Integration 80
4.4.4 Horizontal Integration 83
4.4.5 Capital Structure 87
4.4.6 Firm Performance 90
4.5.7 Diversification Strategies Adopted by Non-Financial Firms Listed at NSE 95
4.5 Inferential Statistics Results 96
4.5.1 Diagnostic Tests 96
4.5.2 Correlation Results 100
4.5.3 Regression Analysis Results 106
4.5.4 Hypothesis Testing 119
4.5.5 Regression Analysis with the moderator variable 122
CHAPTER FIVE 135
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS 135
5.1 Introduction 135
5.2 Summary of the Findings 135
5.2.1 Product Diversification Strategy and Firm Performance 136
5.2.2 Geographical Diversification Strategy and Firm Performance 137
5.2.3 Vertical Integration Strategy and Firm Performance 137
5.2.4 Horizontal Integration Strategy and Firm Performance 138

5.2.5 Moderating Effect of Capital Structure 139
5.3 Conclusion of the Study 140
5.3.1 Product Diversification Strategy 140
5.3.2 Geographical Diversification Strategy 140
5.3.3 Vertical Integration Strategy 140
5.3.4 Horizontal Integration Strategy 141
5.4 Recommendations of the Study 141
5.4.1 Product Diversification Strategy 141
5.4.2 Geographical Diversification Strategy 142
5.4.3 Vertical Integration Strategy 143
5.4.4 Horizontal Integration Strategy 143
5.4.5 Moderating Effect of Capital Structure 144
5.5 Areas for Further Study 144
REFERENCES 145
APPENDICES.....171

LIST OF TABLES

Table 3.1: Target Population 60

Table 3.2: Sampling Frame 61

Table 3.3: Reliability Test 65

Table 3.4: Operationalization and Measurement of Variables 68

Table 4.1: Gender 70

Table 4.2: Respondents' Age 71

Table 4.3: Frequency for Product Diversification Sub-variables 72

Table 4.4: Attributes of Product Diversification 74

Table 4.5: Reasons for adopting Unrelated Product Diversification 75

Table 4.6: Description of Firm's Diversification 76

Table 4.7: Frequency for Geographical Diversification Sub-variables 77

Table 4.8: Attributes of Geographical Diversification 79

Table 4.9: Frequency for Vertical Integration Sub-variables 80

Table 4.10: Attributes of Vertical integration 82

Table 4.11: Frequency for Horizontal Integration Sub-variables 84

Table 4.12: Attributes of Horizontal Integration 86

Table 4.13: Attributes of Capital Structure (in percentage) 88

Table 4.14: Descriptive Statistics for Capital Structure 89

Table 4.15: Attributes of Firm Performance (in percentage) 91

Table 4.16: Descriptive Statistics for Return on Total Assets 92

Table 4.17: Descriptive Statistics for Return on Capital Employed 93

Table 4.18: Descriptive Statistics for Profit Margin 94

Table 4.19: Normality Test Results 97

Table 4.20: Multicollinearity Test Results 99

Table 4.21: Summary Factor Analysis Results 100

Table 4.22: Correlation Results Product Diversification and Firm Performance 101

Table 4.23: Correlation Results Geographical Diversification and Firm Performance 102

Table 4.24: Correlation Results Vertical Integration Strategy and Firm Performance 103

Table 4.25: Correlation Results horizontal integration strategy and firm performance 104

Table 4.26: Overall Pearson Correlation Matrix 106

Table 4.27: Model Summary for Product Diversification 107

Table 4.28: ANOVA for Product Diversification Strategy 108

Table 4.29: Regression Coefficients for Product Diversification 108

Table 4.30: Model Summary for Geographical Diversification 109

Table 4.31: ANOVA for Geographical Diversification 110

Table 4.32: Regression Coefficients for Geographical Diversification 111

Table 4.33: Model Summary for Vertical Integration 112

Table 4.34: ANOVA for Vertical Integration 112

Table 4.35: Regression Coefficients for Vertical Integration 113

Table 4.36: Model Summary for Horizontal Integration 114

Table 4.37: ANOVA for Horizontal Integration 114

Table 4.38: Regression Coefficients for Horizontal Integration 115

Table 4.39: Model Summary for Multivariate Regression 116

Table 4.40: ANOVA for Multivariate Regression 116

Table 4.41: Regression Coefficients for Multivariate Regression 119

Table 4.42: Model Summary for Product Diversification Strategy 123

Table 4.43: ANOVA Results for Product Diversification 123

Table 4.44: Regression Coefficients for Product Diversification 124

Table 4.45: Model Summary for Geographical Diversification Strategy 125

Table 4.46: ANOVA Results for Geographical Diversification 125

Table 4.47: Regression Coefficients for Geographical Diversification 126

Table 4.48: Model Summary for Vertical Integration Strategy 127

Table 4.49: ANOVA Results for Vertical Integration 128

Table 4.50: Regression Coefficients for Vertical Integration 128

Table 4.51: Model Summary for Horizontal Integration Strategy 129

Table 4.52: ANOVA Results for Horizontal Integration 130

Table 4.53: Regression Coefficients for Horizontal Integration 131

Table 4.54: Model Summary for Moderated Multiple Regression 131

Table 4.55: ANOVA for Moderated Multiple Regression 132

Table 4.56: Regression Coefficients for Moderated Multiple Regression 132

Table 4.57: Model Summary for Overall OLS Regression for Moderating Effect . 133

Table 4.58: ANOVA for Overall OLS Regression for Moderating Effect 134

Table 4.59: Regression Coefficients for Overall OLS Model for Moderating Effect 134

LIST OF FIGURES

Figure 2.1: Conceptual Framework 26

Figure 4.1: Gearing Ratio.....90

Figure 4.2: Return on Total Asset 92

Figure 4.3: Return on Capital Employed 93

Figure 4.4: Profit Margin 95

Figure 4.5: Diversification Strategies Adopted by Non-Financial Firms at NSE 96

LIST OF APPENDICES

Appendix I: Letter of Introduction 171

Appendix II: Research Questionnaire 172

Appendix III: Secondary Data Collection Sheet.....181

Appendix IV: Listed Companies at NSE as at January 2018 182

ACRONYMS AND ABBREVIATIONS

ANOVA	Analysis of variance
CE	Capital Employed
DC	Debt Capital
EBIT	Earnings before Interest and Tax
EBIT	Earnings before Interest and Tax
EC	Equity Capital
FTSE	Financial Times Stock Exchange
M&A	Merger and Acquisition
MMR	Moderated Multiple Regression
MNCs	Multinational Corporations
NSE	Nairobi Securities Exchange
PESTEL	Political, Economic, Social, Technological, Environmental and Legal
PM	Profit Margin
RBV	Resource Based-View
RMC	Risk Management Committee
ROCE	Return on Capital Employed
ROTA	Return on Total Asset
SR	Specialisation Ratio

TA	Total Assets
TCE	Transaction Cost Economics
TCT	Transaction Cost Theory
TS	Total Sales
VIF	Variance Inflation Factor

OPERATIONAL DEFINITION OF TERMS

Capital Structure: This is the combination of funds in a firm in the form of debt and equity which it uses to finance its investment in assets (Muzir, 2011).

Diversification Strategy: Refers to a strategy that allows a company to enter business lines that are different from current operations as well as operate in several economic markets. It is also defined as a strategy which takes an organization into both new markets and products or services (Johnson, Scholes , & Whittington, 2008).

Firm performance: It is the extent to which an investment is profitable (Murimiri, 2009).

Geographical diversification: It is the opening of branches by a firm outside the head office location (Uchenna, Nonye, Okelue, & Obinne, 2012). It is also defined as expanding a firm's activities beyond the borders of its home country across different countries and geographical regions (Capar & Kotabe, 2003).

Horizontal integration: It refers to a merger of two or more firms producing the same good under one consolidated firm (Chakravarty, 1998).

Product diversification: This involves the addition of new products to existing products either being manufactured or being marketed (Thompson Jr., Strickland III, & Gamble, 2005).

Vertical integration: This occurs where two or more production and marketing process stages are controlled effectively

by one management (Rehber, 1998). It has also been defined by Cox and Blackstone (2001) as the degree to which a company chooses to produce in several value adding stages from raw materials to the final consumer.

ABSTRACT

In the presence of current threats to firms' performance by environmental uncertainty, intense competition and the challenges of market liberalization, firms can diversify to overcome these risks. Diversification is one of the alternative strategies available to managers of organizations who are looking for ways to sustain growth and seek greater profits for their organizations. There are numerous strategies that listed non-financial firms can adopt, however, it is not clear which of these strategies have the greatest influence on profit improvement. Thus, the study was an investigation on the influence of diversification strategies on performance of non-financial firms listed at the Nairobi Securities Exchange in Kenya. The following objectives guided the study; to determine the influence of product diversification strategy, geographical diversification strategy, vertical integration strategy and horizontal integration strategy on performance of non-financial firms listed at NSE in Kenya. Capital structure was used as the moderating variable to examine its moderating effect on the relationship between diversification strategies and firm performance. The study was guided by the following theories; Resource Based View theory, Agency theory, Transaction Cost theory, Ansoff theory and make-or-buy decision. The descriptive correlational survey design was adopted. A census of 45 non-financial firms listed at the NSE was taken. Both primary and secondary data was collected to get the data for analysis. Secondary data was obtained from the audited annual financial reports of these companies for a period of five years from 2011 to 2015. To complement the secondary data semi-structured questionnaires were administered to 135 departmental managers. To analyse the data descriptive statistics, correlation and regression analyses were carried out with the aid of Statistical Package of Social Sciences. The study revealed a significant positive relationship between product diversification, geographical diversification, vertical integration, horizontal integration and performance of listed non-financial firms in Kenya. Its regression analysis revealed that 56.3% of changes in performance of these firms were attributed to the collective use of the diversification strategies. This study concluded that diversification strategies are essential strategies for firms to use in their endeavour to improve on their profit levels. The study also concluded that capital structure significantly moderated the relationship between diversification strategies and performance of listed non-financial firms in Kenya. Based on the findings the commonly used diversification strategy was product diversification. It is therefore recommended that managers and shareholders of the firms that are yet to diversify their product portfolio should diversify to remain competitive and profitable in this turbulent business environment. It is further recommended that management of the listed firms should come up with sound policies to guide them when diversifying.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Firms have in the recent years been forced to rationalize their operations and review their corporate strategy in response to stiff competition resulting from changes in business environment and introduction of competitive policies. In this age of globalisation firms worldwide are facing stiff and intense competition from other firms around the world (Ng'ang'a , Namusonge, & Sakwa, 2016). The business environment in which these firms operate is highly characterized by a dynamic environment full of rapid changes and uncertainty.

The changes in the business environment do not appear rapidly and frequently but are also in a state of constant change and instability. Due to these changes firms need to constantly rethink their business strategies and way of doing things so that they can stay ahead of competitions and also enhance the performance of their firms and become and remain relevant to the firm's different stakeholders. The PESTEL framework provided by Johnson, Scholes and Whittington (2008) helps in the understanding of macro-environmental factors that affect organizational performance. The framework categorizes environmental factors into political, economic, social, technological, ecological and legal.

Technological innovations in this novel era are growing rapidly thus leading to a world that is more globalised and in turn this has necessitated the firms to change in form, structure and scope. These new technologies have enabled firms to lower their production costs in comparison to firms using older technologies (Selen, 2011). To benefit from these production opportunities firms require to have reliable suppliers of inputs and accessible wide spread distributors and retail outlets.

Due to intense competition and technological innovations that business organizations face and many other challenges that erode their profit levels, business organizations are forced to embrace new ideas for them to stay ahead of competitors.

Diversification is one of the strategies that have been used by several organizations across the globe in order to enhance their business objectives. Marinelli (2011) asserts that most organizations around the world consider diversification as one of the ways of creating value. Diversification strategies allow firms to venture in business lines different from the current activities and also operate in several economic markets.

A significant issue in firms operating in the modern business world is diversification as a corporate strategy. As a corporate strategy, diversification seeks to increase profits through increase in sales volume obtained from venturing into new markets and new products. It is a form of growth strategy that involves significant increase in the performance objectives surpassing past performance records (Andreas, 2009). It has an impact on the firm performance especially on its finance. To boost a firm's performance, diversification as a growth strategy is adopted by many business organizations, some of which have succeeded while others have failed.

According to Montgomery (1994) and Yuliani, Sudarma and Solimum (2013) there are numerous motives for corporate diversification which may include; the synergistic motive, the financial motive, the market power motive, the resource motive, the agency motive and the cost efficiency motive. Firms may also diversify in response to the harsh environmental changes, those in mature or declining industries characterized by low profit levels and intense competition may also diversify. Shifting of buyer preference or advancement of alternative technologies could be other reasons for a firm to diversify in order to stay in business.

Managers in financial markets are forced to distribute funds more efficiently due to the market imperfections and this may also lead to diversification (Klein & Lien, 2009). Firms identify opportunities in the external business environment and expand their businesses into these industries or products that complement their current offerings. The firms diversify especially where there are opportunities to reduce costs, when they have powerful and well-known brands and to spread risk across a range of businesses. Sometimes pressure from powerful stakeholders such us shareholders and the top management may force a firm to diversify.

According to Foss and Christensen (2001), firms diversify to create positive spill overs since the resources' value in one industry is increased owing to investment in another. As a firm diversifies into an industry, this industry needs to yield higher returns on this investment. It also needs to ensure that there is synergy among the operating divisions to enhance firm's performance unlike when the divisions operate separately. Although numerous strategists suggest that firms should concentrate on their core activities, according to David (2013) he alludes that diversification is still an appropriate strategy and more so for a firm in an unattractive industry.

A firm would face higher risks especially if it was in a single industry. Though many focused firms are successful new technologies, products and the rapid shifts in buyer preferences can decimate a particular business. The shareholders of a company can accomplish the spreading of risks across different industries by buying shares in varying firms or investing in mutual funds. Corporate diversification must therefore do more than just the spreading of risks across various industries. Diversification would make sense only to the extent that it adds more to shareholder's value than what a shareholder could accomplish acting individually and also reduce systematic risk in the shareholder's portfolio (Erdorf, Hartman-Wendels , Heinrichs, & Matz, 2011).

1.1.1 Diversification Strategies

Diversification strategies are adopted by firms and are defined as the combination of business units which operate in different industries with control from a common single firm. It is also argued that they are strategies which enable firms to enter industries or markets that are not similar to their core business in general they are about initiating new businesses (Fauver, Houston, & Naranjo, 2003). This broad definition can be narrowed down to the different types of diversification strategies. Product diversification strategy consists of the addition of novel products to existing products either being manufactured or being marketed. It can be viewed as both related and unrelated (Dhandapani & Upadhayayula, 2015).

Denis , Denis and Yost (2002) allude that diversification can be both at national as well as international level which gives rise to geographical diversification strategies. Geographical diversification means the organizational spread of a firm beyond its local borders or company head office to another region either internally (within the country) or externally (beyond the country's borders) (Ibrahim, Ibrahim, & Kabir, 2009; Capar & Kotabe, 2003; Oyewobi, Windapo, & Cattell, 2013).

Besides the influence of the above mentioned strategies, firms may opt to integrate either vertically or horizontally. Many firms opt to integrate vertically, meaning that, they choose to supply their own raw materials and also distribute their finished goods instead of relying on independent suppliers and distributors. According to Besanko *et al*. (2007), new production technologies give companies an opportunity to put into use economies of scope by a wide range production at a lower cost compared to separate production leading to the firms integrating horizontally. This implies that firms can merge so that they are in a position to obtain economies of scale or scope by sharing and diffusing capacity.

1.1.2 Capital Structure

Capital structure consists of equity capital and debt capital. It means the combination of equity shares, preferred shares and long-term debt (Velnampy & Aloy, 2012). Managements of different firms attempt to keep their capital structure at optimal levels to ensure that they maximise the profits and also to sustain these levels of equity and debt. Mauwa (2016) notes that capital structure decisions are made by the board of directors and top financial staff in the firms. Gitman (2003) alludes that a firm's value is maximised when the cost of capital is at minimum. An optimal capital strucutre will imply maximisation of the value of the firm as it will determine the combination of both debt and equity. A poorly designed capital structure will lead to increased costs of capital in turn this will lower the firm's investment net present value to the extent of these investments being rejected.

The management of firms require governance mechanisms in order to shape the performance results of diversification strategies, previous studies have explored different mechanisms such as ownership structure's role (David *et al*., 2010; Tihanyi

et al., 2004), affliation to business group (Kim *et al*., 2004), national institutional context (Wan, *et al.,* 2011), home country environment and time period (Osorio, Martin, & Vicente, 2012). This study adopted capital structure. Capital structure is a mix of debt and equity and is also an important governance mechanism as noted by O'Brien *et al.* (2013) to ensure pursuit of appropriate strategies. In this study the finance choices, referred to as capital structure were considered as the moderating variable as the study sought to investigate the influence of diversification strategies on performance of listed non-financial firms.

Aftab , Ehsan, Naseer and Awan (2012) allude that many studies have been done on the relationship between corporate strategy and firm performance. Very few studies have been done to determine the impact capital structure would have on these relationships. They therefore suggest that capital structure should be incorporated in the relationship as a moderating variable as it would have an emphasis on the value addition to the firm's stock and bond holders. Because of this their study on the banking sector in Paksitan revealed that capital structure had an impact on the financial institution's overall performance and therefore it was to be given a lot of emphasis for firms especially in their attempt to add value to their stakeholders; shareholders and debt holders.

1.1.3 Firm Performance

Firm performance stimulation is a priority in both public and private sectors since it is associated directly with an entity's value creation. Firms are constantly striving for better results, competitive advantage and influence. However, most are struggling to enhance their performance. Firm Performance is the extent to which an investment is profitable (Murimiri, 2009). In the corporate world performance is the criterion by which a firm measures its capability to prevail.

According to Aftab , Ehsan, Naseer and Awan (2012) they allude that performance of a firm can be measured in terms of a firm's profitablity and market performance. Measures based on profitability are done using the return on capital employed of a firm or other returns on the revenues which have been generated by this firm for a given period of time. The current study adopted the profitability measures which

included return on total assets (ROTA), return on capital employed (ROCE) and profit margin (PM). Corporate performance can also looked at in terms of a firm's financial attainment (Nyaingiri & Ogollah, 2015).

As pointed out by Ho (2008) firm performance can be measured in terms of how efficient and effective activities of an organisation are carried out. There are many attributes that can be used to assess a firm's performance these according to Venkatraman *et al.* (2006) and Delaney *et al.* (2006) may include financial performance ROTA, sales growth, profit, effectiveness of a firm, product and service quality, customer satisfaction, service innovation and employees development. The current study borrowed from Green *et al.* (2007) who identified ROTA, ROCE and PM as important factors used to measure the firm's performance.

1.1.4 Listed Firms on Nairobi Securities Exchange

A listed company is the one whose shares are traded at the stock / securities exchange (Saleemi, 1993). Only public limited companies can be quoted because their shares are freely transferable. The firms are quoted in the Nairobi Securities Exchange (NSE) after meeting its requirements. The shares of these firms are traded at the NSE through the brokers. There were sixty four (64) listed firms at the NSE (NSE, 2015-2016) out of which 45 were non-financial. These firms are in different industries or sectors. These firms must abide by the rules and regulations of the NSE for them to remain listed failure to which a firm may be delisted.

The NSE was renamed after the Nairobi Stock Exchange in July 2011. It was constituted in 1954 as a voluntary association of stock brokers in the European community and was registered under the Societies Act. The change of name reflected the NSE's strategic plan of evolving into a full service securities exchange which would aid trading, securities, debt and derivatives clearance and settlements. Numerous developments have occurred since its constitution. Some of the developments include automation of the trading through the automated trading system in 2009.

The NSE has also been converted from a company limited by guarantee to one limited by shares and the adoption of Memorandum of Association and Articles of Association to reflect these changes. The other development is the launch of Financial Times Stock Exchange (FTSE) indices which reflect the growing interest in new domestic investment and diversification opportunities in the East African region. In 2014 the capital market authority approved the listing of NSE stock through an initial public offer and subsequently self-listing its shares on the main investment market segment.

Although the NSE performance is supposed to arouse interest in investors both existing and potential into new domestic investment and diversification opportunities in the East Africa region this has not been achieved, as is reported by Ngugi (2017) the NSE is the worst performing market globally according to Bloomberg and most risk-averse investors shun stocks for safer-haven, the government debt. Issues around market volatility have made most pension schemes over the past two year lose value in their equity holdings and therefore investors play safer by buying government bonds as their interest rates give investors a better performance. Some of the listed firms are also reported to trading at multi-year lows in the current bear market while others are trading at near all-time lows.

1.2 Statement of the Problem

Kenya embarked on liberalization program in 1994 and some of the liberalization measures had huge impacts on the dynamics of the competitive environment. Generally, companies faced a lot of challenges especially after this liberalization, which led to deregulation, and removal of government control in many industries. Firms worldwide face intense competition from other firms around the world in this age of globalization, this intense competition and globalisation erodes many companies' profits (Ng'ang'a , Namusonge, & Sakwa, 2016).

Growth in globalisation in the African economy has had impacts on many industries. For instance there has been a growing influence of foreign companies especially in construction in Africa including Kenya which according to Muchira (2013) has brought a lot of jitters amongst the local construction companies that have lost in the

construction contracts award. About 75% of the Kenyan government construction contracts are performed by the foreigners a trend which has triggered alarm and protests from these firms as most of their profits have been dwindling. This has been the case for Bamburi cement limited whose operating profits has been on the decline from Kshs. 7282 million in 2011 to 5275 million in 2015.

The automobile sector has also faced challenges due to the 1990s market reform policies. This industry was opened up to compete with cheaper vehicles since the importation of new and used vehicles was allowed. According to Njoroge (2007) the slump in the volume of new cars is attributed to increase in competition from second hand vehicles and low purchasing power. A case in point is the Sameer Africa limited whose operating profits have also been on the decline as reported in their financial statements from a profit of Kshs. 188.454 million in 2011 to a loss of 15.652 million in 2015. There are also other listed non-financial firms which have also been performing dismally for example Uchumi supermarket posted a loss of Kshs. 690 million in June 2004 which was after two years of poor performance and was put under receivership (RoK, 2007), Eveready East Africa limited also posted a loss of Kshs. 201.509 million in 2015.

In order to overcome these challenges there are numerous strategies that listed non-financial companies can adopt, however, it is not clear which of these strategies have the largest influence on profit improvement. Studies examining influence of diversification strategies on firm performance showed mixed findings. Many researches have been done on the relationship between diversification strategies and firm performance, however there has been no agreement on this relationship as many researchers have concurred (Marinelli, 2011). There is still disagreement as to whether diversification increases or reduces firm performance. The relationship is still controversial, contradictory and inconclusive (Mashiri & Sebele, 2014; Santalo & Beccera, 2008). These researches have not yet reached definitive and interpretable findings to determine whether diversification strategies create or destroy firm's value. This means that the influence of diversification strategies on the performance of the non-financial listed firms remains unclear. It is against this background that the study was carried out. The study sought to investigate the influence of

diversification strategies on performance of the non-financial firms listed at NSE in Kenya.

1.3 Objectives of the Study

In any research work, objectives are significant since they provide a roadmap for the study. This study was guided by both general and specific objectives.

1.3.1 General Objective

To investigate the influence of diversification strategies on performance of the non-financial firms listed at the Nairobi Securities Exchange in Kenya.

1.3.2 Specific Objectives

The following specific objectives guided the study;

i. To determine the influence of product diversification strategy on performance of the non-financial firms listed at NSE in Kenya.
ii. To examine the influence of geographical diversification strategy on performance of the non-financial firms listed at NSE in Kenya.
iii. To evaluate the influence of vertical integration strategy on performance of non-financial firms listed at NSE in Kenya.
iv. To assess the influence of horizontal integration strategy on performance of non-financial firms listed at NSE in Kenya.
v. To examine the moderating effect of capital structure on relationship between diversification strategies and performance of non-financial firms listed at NSE in Kenya.

1.4 Hypotheses

Arising from the above objectives, the study postulated the following hypotheses:

H_{01}: Product diversification strategy has no significant influence on performance of non-financial firms listed at NSE in Kenya.

H_a: Product diversification strategy has significant influence on performance of non-financial firms listed at NSE in Kenya.

H_{02}: Geographical diversification strategy has no significant influence on performance of non-financial firms listed at NSE in Kenya.

H_a: Geographical diversification strategy has significant influence on performance of non-financial firms listed at NSE in Kenya.

H_{03}: Vertical integration strategy has no significant influence on performance of non-financial firms listed at NSE in Kenya.

H_a: Vertical integration strategy has significant influence on performance of non-financial firms listed at NSE in Kenya.

H_{04}: Horizontal integration strategy has no significant influence on performance of non-financial firms listed at NSE in Kenya.

H_a: Horizontal integration strategy has significant influence on performance of non-financial firms listed at NSE in Kenya.

H_{05}: Capital structure has no moderating effect on relationship between diversification strategies and performance of non-financial firms listed at NSE in Kenya.

H_a: Capital structure has moderating effect on relationship between diversification strategies and performance of non-financial firms listed at NSE in Kenya.

1.5 Significance of the Study

The study has contributed to the literature on diversification and firm performance. It has provided valuable factual information and data that form a basis for study by scholars who may be interested in furthering research on firm performance and diversification which would result to supporting existing theories or initiating new arguments. It also shed light on the analysis and understanding of individual impacts of diversification strategies on firm performance of the Kenyan non-financial listed

firms and contributed significantly to this research field. This study may be a source of reference material for future researchers and academicians who would study on related topics hence it may formulate a basis for further research.

The study would be of importance especially to the management of the listed non-financial firms as they would benefit from independent analysis of the influence of diversification strategies on their performance. This would help them in the formulation and implementation of relevant diversification strategies that uphold the desired firm performance. The findings of the study would guide them in their decisions concerning diversification strategies and help them better manage their firms' performance.

The regulatory authorities play a crucial role in ensuring that there is a fair play in the market by all relevant market players in an industry. This study's findings would therefore assist the regulatory authorities in assessing the suitability of the current investment regulations for listed non-financial firms. The drivers of an industry; either forward or backward, highly depends on the policies governing the industry. This study was out to enlighten the policy makers who are seeking a better understanding of the industries in order to formulate appropriate legislation. Relevant government authorities, who formulate policies to guide companies and protect consumers, would also benefit from important information the study would provide.

1.6 Scope of the Study

The study covered non-financial companies listed at Nairobi Securities Exchange. These non-financial firms face fewer regulations as opposed to the financial firms which have unique characteristics and are highly regulated. Firms in banking and insurance sectors were excluded from the study because of having unique characteristics that set them apart from the listed non-financial firms. The financial firms are guided by regulations that do not apply to the rest of the non-financial firms such as Central Bank Prudential Regulations, Banking Act requirements and compulsory regulations on disclosures. Pratheepkanth (2011) alludes that in any research, firms being investigated should be guided by same policies on bankruptcy, same financial customs and should have market rules that are comparable. Due to

this the study's target population was forty five (45) non-financial firms. The study focused on the data of 44 firms as one of the firms Rea Vipingo was delisted in 2015.

The data for the period 2011 to 2015 was collected from the audited annual financial reports of non-financial firms. This period was deemed appropriate because it is during this period that some firms recorded dismal performance which caused public outcry such firms included Kenya Airways, Rea Vipingo, Uchumi supermarket, Eveready East Africa and Trans-century. In addition to this most of the non-financial firms make their strategic plans for 5 years and therefore no much change would be done to the adopted strategies by the firms since the strategies are long term in nature. The scope of the study was limited to the following diversification strategies; product diversification, geographical diversification, vertical integration and horizontal integration. The study was also limited to one moderating factor, the capital structure of the firm.

1.7 Limitations of the Study

The only limitation encountered during the study was obtaining some data from the firm's website since annual reports as the NSE handbook (2015-2016) did not give all the required data. This was alleviated by visiting the firm's websites where the financial statements were placed and extracting the required data for the different financial years from 2011 to 2015. Questionnaires were used to collect primary data through the drop and pick to the departmental managers. A lot of persistence was required for the questionnaires to be filled. Due to the busy schedules of these managers majority of the appointments failed. To mitigate this, the researcher made frequent visits to the firms and also got contact persons in these firms who she kept in touch with through frequent phone calls.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed literature related to the study based on the themes that follow; product diversification, geographical diversification, vertical integration, horizontal integration, performance of listed non-financial companies and capital structure as a moderating variable on the relationship between diversification strategies and listed non-financial firms' performance, theoretical review, conceptual framework and summary of literature.

2.2 Theoretical Review

In order to elaborate on the influence of diversification strategies on firm performance, the researcher focused on the following theories as elucidated by numerous researchers.

2.2.1 Resource Based View Theory

Resource Based View theory is defined by Rothaermel (2012) as a theory which emphasizes resources of a firm as fundamental determinants of performance and competitive advantage. It is a theoretical approach that considers strategies like diversification as a way of seeking new uses for resources already existing or filling gaps in the resource base of an organisation (Theuven, 2004). It is a perspective that drew more from Penrose (1959) theory of enterprise growth and was popularized by Wernerfelt (1984) and Barney (1991) in their works. The traditional model of Resource Based View (RBV) was theorized in 1991 and is still acknowledged as one of the most capable models for studying and analysing resource strategy relationships 20 years later (Barney, Ketchen & Wright, 2011). The view of the theory is that each organization is a collection of unique resources and capabilities. Resources are fundamental in explanation of sustained competitive advantage of firms.

The resources of a firm can be categorized into three; physical, human and organizational. These resources should be valuable, rare, inimitable and non-substitutable to enable a firm reach a sustainable competitive advantage (Barney, 1991). The perspective of RBV as remarked by Andreu, Claver and Quer (2008) is that the growth of a company requires a balance between exploiting the already existing resources in a firm and developing new ones. RBV leans towards the firm's sustainable competitive advantage, since it focuses on exploitation of its unique resources.

Corporations have capabilities which can be shared among the firm's business units by transferring them from one business to another thus achieving synergy and hence giving a firm an edge. Firms' capabilities are complex bundle of skills and knowledge that have been accumulated over time and are exercised through processes that enable firms to coordinate their activities and make use of their assets (Day & Nedungadi, 2004). Diversification strategies allow firms to acquire additional resources through acquisition of other firms to improve the ability of the companies to compete by creating new capabilities or changing the capabilities that are already in existence (Holcomb, Holmes Jr., & Hitt, 2006).

Horizontal integration strategy through the acquisition of competitors with the aim of increasing share of the market of the firm is an appropriate strategy as is noted above. Thus economies of scale can be achieved. It can also be achieved through use of related diversification as this facilitates a firm to assemble a mutually reinforcing business portfolio since resources that are critical can be shared among the units. According to Prahalad and Hamel (1990), related product diversification leads to higher firm performance compared to a focused firm as the firms can maximize their resources across business units to realize additional returns.

Firms using related diversification strategy can outperform those using unrelated diversification strategies (Hitt , Hoskisson, & Kim, 1997). This is to the extent that the key to superior performance from a diversification strategy depends on the firm's ability to share resources; an unrelated diversified firm is unlikely to have resources that can be useful to all its business units. Asset specificity in a firm's resources may

bring sustainable competitive power to their owner relative to competitors, but also create a challenge on the other hand especially on the firm's ability to transfer these resources to new application (Montgomery & Wernerfelt, 1988).

This means that a firm sometimes may not be in a position to use the available resources in new ventures especially where the new ventures require other resources different from what the firm has. Asset specificity leads to several empirical predictions that revolve around the concept of relatedness of diversification activities: the more closely those activities are related or complementary, the more profitable diversification is expected to be. According to Christensen and Foss (1997) and Foss and Christensen (2001), diversified firms can create spill overs since the values of resources in one industry increases due to investment in another industry.

Previous studies have revealed that analysis of internal resources can enable firms to determine their potential or realize sources of competencies and capabilities, and thus a firm can achieve competitive advantage if its resources are inimitable by its competitors (Barney, 1991). Financial resources have the highest degree of flexibility and are suitable for both related and unrelated product diversification. However, sources of these finances should be considered as they have varying implications to the firm. In many firms, managers use internal funds for unrelated diversification.

The RBV theory has been criticized for some reasons despite its increase in literature devoted to its advancement conceptually and empirically. The reasons are first; from the perspective of modern strategic management Penrose's (1959) understanding of competitive advantage it missed out on how firms developed sustainable superior competitive advantage, but instead adopted a frame work for seeking profit. Second, RBV has been regarded as a static theory as it fails to address the fundamental issue of how future resources can be created or how the current stock of valuable, rare, imperfectly imitable and imperfectly sustainable resources can be refreshed in an unstable environment (Priem & Butler, 2001).

On the same note according to Williamson's (1985) assertion that although resources can be exploited through contracts, due to their asset specificity nature it is sometimes almost impossible to contract in the market transactions with them. The theory has also been criticized for being too abstract and therefore lacking operational validity. Third, like the Porter's five forces model RBV cannot account for competitive advantage for firms in highly dynamic markets. The unique path dependent resources can be leveraged across related product lines and provide higher rents. For instance physical or tangible resources are highly inflexible because they can only be used in a few similar industries.

Therefore, if a firm has an excess physical capacity, it is very unlikely that the firm will engage in unrelated diversification (Chatterjee & Wernerfelt, 2001). This is because some physical or tangible resources are very inflexible in their use; however, the flexible ones might also be limited in their use. Capabilities such as managerial expertise have the potential to create value when shared across businesses (Miller, 2006). This theory informs the product diversification and the horizontal integration strategies. Chatterjee and Wernerfelt assert that the type of diversification strategy depends on the firm's resource specificity as this dictates which product diversification strategy a firm can adopt.

It can adopt either related or unrelated product diversification strategy. If the firm is well endowed with physical resources then this implies that it can only venture in related products. However, finances are highly flexible and this would allow a firm to venture in both related and unrelated. Additionally a resource that can only be used in one product is not suitable for diversification into unrelated businesses but rather in related businesses. In the resource-based approach, managerial expertise has the potential to create value when shared across businesses (Miller, 2006). This expertise if well managed can benefit the different business units of a firm. Horizontal integration strategy can also be adopted especially by a firm that is well endowed with finances as it can acquire its competitors with the aim of increasing its market share which in turn enables a firm to achieve economies of scale.

2.2.2 Transaction Cost Theory

Transaction cost theory (TCT) was developed by Coase (1937). Transaction cost within a firm takes place when the organisation of production cost through the exchanges in the market exchange is higher than within the firm. This means that a firm prefers to carry out activities in-house to avoid costs of transacting with other firms in the market. Transaction costs according to Coase include cost of finding, selling, negotiating, monitoring and dispute resolving ways with other firms in open market transactions.

According to Joskow (1988) the main focus of TCT is the definition of the coordination determinants of transactions through markets or hierarchies. According to Williamson (1994) TCT seeks to address why economic transactions are organized in the way they are in modern society. Different firms' economic transactions are internalized within its boundaries while others are procured from external parties. Firms generally internalize activities inside it when there is some form of market failure and especially if that is the source of its intermediate inputs.

The theory also argues that there are costs to conduct transactions through the market; Coase (1937) and Williamson (1985) noted that these transaction costs can be reduced through other mechanisms other than markets. This theory claims that transaction costs incurred are as important as production cost and they form an important part of total costs of ex-ante costs and ex-post costs. TCT views a firm as a hierarchy which adds value by economizing on these transactions. It claims that a firm provides a more efficient method of organizing relative to the market when it optimizes the transaction costs.

It rests upon several assumptions about the human and its behaviour and the environment characteristics (Williamson, 1979; Williamson & Ouchi, 1981). These assumptions throw light into why firms face higher costs for market-based transactions and why they may be more efficient at transaction organisation than the markets. A firm also selects the form of governance that minimizes both transaction and production costs. Opportunism with guile views the human beings as individuals who may engage in behaviour that is deceitful both before and after agreeing to

contracts. The assumption is about motivation of human behaviour and Williamson (1985) viewed human beings as simply self-interested.

This assumption is important since in its absence, contracts would be enforced without costs and there would be no need for other forms of organisation besides the market. It has been criticised for ignoring the contextual grounding of human action as it has presented an under socialised view of human motivation and over socialised view of institution control (Granovetter, 1985). Ghoshal and Moran (1996) claim that opportunism with guile is bad for practise and that TCT is normative or prescriptive and opportunism if taken seriously by managers could result to negative consequences for organisations.

Bounded rationality as an assumption means that individuals are unable to process large degrees of information and is also difficult for them to assign probability values to the occurrence of future events. This results to incomplete contracts due to uncertainty of future in the contracting moment. Jones (1998) who adopted a positive or entrepreneurial view criticises it and argues that the assumptions are not problems to be managed and overcome but are opportunities to be taken advantage of. Asset specificity, uncertainty and frequency of transactions are assumptions about the environment.

Asset specificity as defined by Williamson (1985) is “durable investments that are undertaken in support of particular transactions, the opportunity cost of which investment is much lower in best alternative uses should the original transaction be prematurely terminated”. TCT focuses on asset specificity and the role it plays in determination of how better to organize exchanges. When assets are not specific to an exchange the market may be the most efficient way to organize it otherwise, the firm would be efficient. Uncertainty is a state of not knowing about the future or inability to determine who is more prone to behave opportunistically (Williamson, 1993b). This is an important assumption as the firms plan into the future which is very unpredictable and it is impossible to tell how employees would behave when faced with such scenarios of uncertainties.

Without the existence of bounded rationality and opportunism Williamson asserts that uncertainty would be much less of a problem since general rules would generally prevail. Contract would not be costlessly written and enforced because it is not easy to determine before who will behave opportunistically. The degree of frequency of transactions range from occasional to recurrent, depending on the volume, number or temporal spread of transactions a firm may decide to have alternative governance structure. A major critique to TCT is its tautological nature; Williamson failed to operationalize the measures of transaction cost.

According to Whyte (1994) on the basis of transaction cost economics, the author explains that occurrence of vertical integration is by asset specificity with significant transaction specific sunk costs and uncertainty. Frank and Henderson (1992) assert that this theory predicts that the organisation of transactions over the market will outweigh management's internal cost and this will lead to inter-firm profit claim thus making the firm profitable. This strategic decision is then a transaction-cost-minimising response to the limited information and contracting cost.

The theory informs the vertical integration strategy. This can be inferred from the following that since the 19th century firms have used vertical integration with the aim of achieving economies of scale and reducing transaction costs. For instance according to Harrigan (1984) ownership of mining ores, ship foundries, rolling mills and plant fabrications were necessary for steel companies to reduce their costs and improve productivity. This implies that the firms that had adopted the vertical integration were better placed to reduce their transaction costs. The theory can be applied to both variants of vertical integration (backward and forward) as a means of reducing total costs.

It is cheaper for a firm to perform the role of suppliers and distributors than to spend time and money on these parties. It guides the firm's management on how to vertically integrate and in identification of firm boundaries and the activities there in and those procured from external parties. It also identifies the nature of transaction costs both before and after the firm's activities. All firms incur costs such as information costs, costs during negotiation and monitoring costs. The theory requires

these firms to minimise on the transaction costs involved while at the same time maximise on probable contracts.

Arguments by Coase (1937) are that there exist conditions in which it is more efficient for a company to create a market internally rather than venture into foreign ones. Transactions are free of cost in a perfect market because; information is freely available, decisions are made rationally, there are always different options of suppliers and buyers and the specific transactions do not have carry-over effects between two parties from one period to another. However, in reality these conditions do not exist. Due to non-existence of these conditions transaction costs are incurred.

This approach makes an assumption that a firm has developed firm specific advantages in its home market. The advantages are usually in the form of development of intangible assets internally, some form of know-how which give the firm superiority in terms of production, product, marketing and /or management knowledge. Due to the imperfections characterised by the market for know-how, complications in terms of pricing and transfer arise which in turn increase associated cost of transacting with a partner. According to Madhok (1997) a preference for internalizing the transaction results when there is a high level of transaction cost in the external imperfect market. However, firms will prefer to produce abroad when they perceive that the costs of organising transactions internally is greater than the costs of external imperfect market.

Johanson and Mattson (1987) allude that this approach predicts that international market starts with the markets nearby, this is because the internalization is associated with administrative and risk-taking cost. These costs may be lower in cases where the foreign market is less different from the home market. This approach also argues that firms choose the form of organisation and location for which the overall transactions costs are minimized (Coviello & Martin, 1999). Transaction characteristics are analysed and their efficient management is viewed as a firm's force of competitiveness (Madhok, 1997).

The theory also informs geographical diversification strategy. It does this in the sense that geographical diversification may also lead to a firm incurring heavy costs such as market entry costs, costs of coordinating business units in different countries and regions as well as information-processing costs. The management of the firm therefore need to be keen about this strategy as under certain conditions as was noted by Sambharya (1995) the costs may surpass the benefits. As firms venture outside their home markets there is need to analyse the transaction characteristics and firms' management must ensure that these transactions are efficiently managed as this can be viewed as a firm's force of competitiveness.

2.2.3 Agency Theory

The agency theory was developed by Jensen and Meckling (1976). It is a supposition that explains the relationship between principals and agents in business. The theory is concerned with resolving problems that exist in agency relationships. An agency problem may arise because of potential conflicts between stockholders and creditors. Conflicts between debt holders and shareholders arise only when the risk of default exists. Mashiri and Sebele (2014) allude that "agency theory says that managers can pursue their own interests through diversification which are not always in line with their shareholders. This complicates the case for diversification. It raises the debate of whom between the investor and corporate executive should diversify".

Jensen and Meckling (1976) stressed risk-shifting as being an agency problem. The shareholders have interest of investing in riskier projects as this would increase their returns and the risks would be absorbed by the creditors. Creditors can protect themselves against this problem through insisting on restrictive covenants to be incorporated in the debt contract. If they perceive that shareholders are trying to take advantage of them in unethical ways, they may refuse to deal further with the firm.

The creditors may sometimes also require a much higher than normal rate of interest to compensate for the risks of such possible exploitations. Under-investment problem is also an agency issue associated with debt as stressed by Myers (2001). A firm may decide not to invest in positive net present value projects that the shareholders would accept if the firm were totally equity financed, but would reject them when the firm

is partially debt financed. While the pay-offs to these investments may be large enough to be profitable, there may not be sufficient to repay the debt holders.

In this case the lenders would get the rights to the positive pay-offs and the shareholders would get nothing. The non-payment to shareholders would bring about conflicts between the shareholders and the management of these companies as their aim of investing in shares is for them to earn dividends and if they are not forthcoming then claims would be that the managers are not working hard. A limited liability company is owned by the shareholders but is managed by a board of directors appointed by the shareholders. Consequently, conflict of interests is likely to occur between managers and shareholders. Jensen and Meckling (1976) introduced the notion that agency conflicts within firms are an important determinant of capital structure.

Due to the conflict of interest, agency costs such as opportunity wealth loss, monitoring and bonding expenditures by the bondholders and the owner - manager, bankruptcy and reorganization costs may be incurred. Therefore, there is need for an optimal capital structure which can be achieved by trading off the agency costs of debt financing for its benefits. Debt plays an important role in motivating managers and their organizations need to be efficient (Jensen, 1986). When a firm generates a substantial free cash flow there arise conflict of interest between shareholders and managers over the pay-out policies.

These pay-outs reduce resources controlled by managers and their power to engage in self-serving interest activities. When more debt is created then managers will have less cash flow at their disposal and therefore this reduces the agency costs. This theory informs the moderating variable, capital structure, especially due to the fact that agency conflicts are important determinants of capital structure in a firm (Jensen & Meckling, 1976). Financing options of a firm are an important governance mechanism in a firm as it ensures that a firm has adequate funds for its activities. The funds can be sourced in form of debt or equity.

The use of debt is beneficial to shareholders as they can invest in riskier business ventures through the management of their firms. This would shift the risks from them to the creditors (Jensen & Meckling, 1976). As the management tries to come up with an optimal capital structure then it must determine the levels of debt and equity. The management should also consider the reactions of the creditors as they can be more restrictive when it comes to debt issuance more so when the creditors realise that the management of the firms borrowing are taking advantage of them in unethical ways. As Myers (2001) noted under investment is also an agency problem since identification of projects is done by the management and the decision to invest in these projects lies with the shareholders.

The implications of the projects on the financial position of the firm should also be an area of concern by the shareholders. According to Aggarwal and Samwick (2003) they argue that there are two agency arguments why senior managers in an organization would want to diversify. Some of the senior managers may be equity holders in these firms; they may be facing idiosyncratic risk which through diversification may be reduced. The senior managers may also diversify for their own personal reasons. For instance, they may diversify so that they can gain reputation since they will be managing firms with diversified business activities. Some firms may have weak corporate governance systems and managers in such firms may take advantage of this and diversify in various business activities even though they are not profitable (Jiraporn *et al.*, 2008).

2.2.4 Ansoff Theory

This theory was advanced by Ansoff who studied 100 largest United States corporations between 1909 and 1948 and his findings were that the firms that stuck to their traditional products and methods experienced growth (Ansoff, 1957). He continues to state that companies can diversify either vertically, horizontally, or laterally. A firm that diversifies vertically goes back to the production of inputs such as raw materials, components parts and new product introduction. While that which diversifies horizontally may do so by introducing new products which ought not to

contribute necessarily to the present line in any way, but may cater for the aspects of the company's know-how and experience in technology, finance and marketing.

The theory informed the vertical integration and horizontal integration variables in the study where firms sought to venture into input production and production of new products which are not in any way related to the present line in order to grow and increase business profitability. Ansoff also developed a growth matrix which presents four directions which an organisation may take in its quest for growth. The directions are; market penetration, market development, product development and diversification.

Market penetration is achieved when a firm increases its sales volume by selling in the existing market (Ansoff, 1957). This can be achieved through product promotion. Market development is when as organisation sells its existing products in new markets, while product development is when a firm develops new products and sells them to its existing market. This requires a firm to have innovations. Diversification is the riskiest of all which entails development of new products and the sale of the same to new and existing markets.

The objectives of the firm determine the type of diversification that a firm should adopt. If a firm shows signs of growth then vertical and horizontal integrations should be appropriate for it. Otherwise a firm that shows decline in the sales volume should not adopt vertical integration as this would only mean that the company is postponing problems which would eventually catch up with it. It was also noted that if a firm's objective was to achieve stability then such a firm should adopt lateral diversification which means moving beyond the industry confines to which the company belongs.

2.2.5 Make-Or-Buy Decision

The make-or-buy decision answers the question "why do some firms choose to vertically integrate while others choose not to?" The firm managers make decisions on whether to produce their own inputs or outsource from outside independent suppliers or have a contractual relationship with a specific supplier. This decision

goes a long way in determining the firm's level of integration (Walker & Weber, 1984). According to Sudarsanam (2010) the thinking determines whether a firm integrates vertically backward or forward. Where backward means that the firm is involved in production of its own input rather than buy from external suppliers. This implies the 'make' decision which enables a firm to have joint ownership and control rights while the 'buy' decision means separation. As the firms make these decisions costs and benefits of either alternative should be considered. This would aid a firm to decide whether to carry out activities in-house or buy from specialists outside the firm (Besanko *et al*., 2007).

2.3 Conceptual Framework

In the context of listed non-financial companies, capital structure is proposed to have a significant role for achieving firm performance. Figure 2.1 illustrated the conceptual model for the study.

The conceptual framework of the research was based on the reviewed variables under study and presented graphically the different variable interactions in influencing and determination of the objective of the study relationships. Diversification strategies (product diversification, geographical diversification, vertical integration and horizontal integration) were considered independent variables; firm performance (ROTA, ROCE and PM) considered dependent variable while capital structure (debt or gearing ratio) was considered the moderating variable.

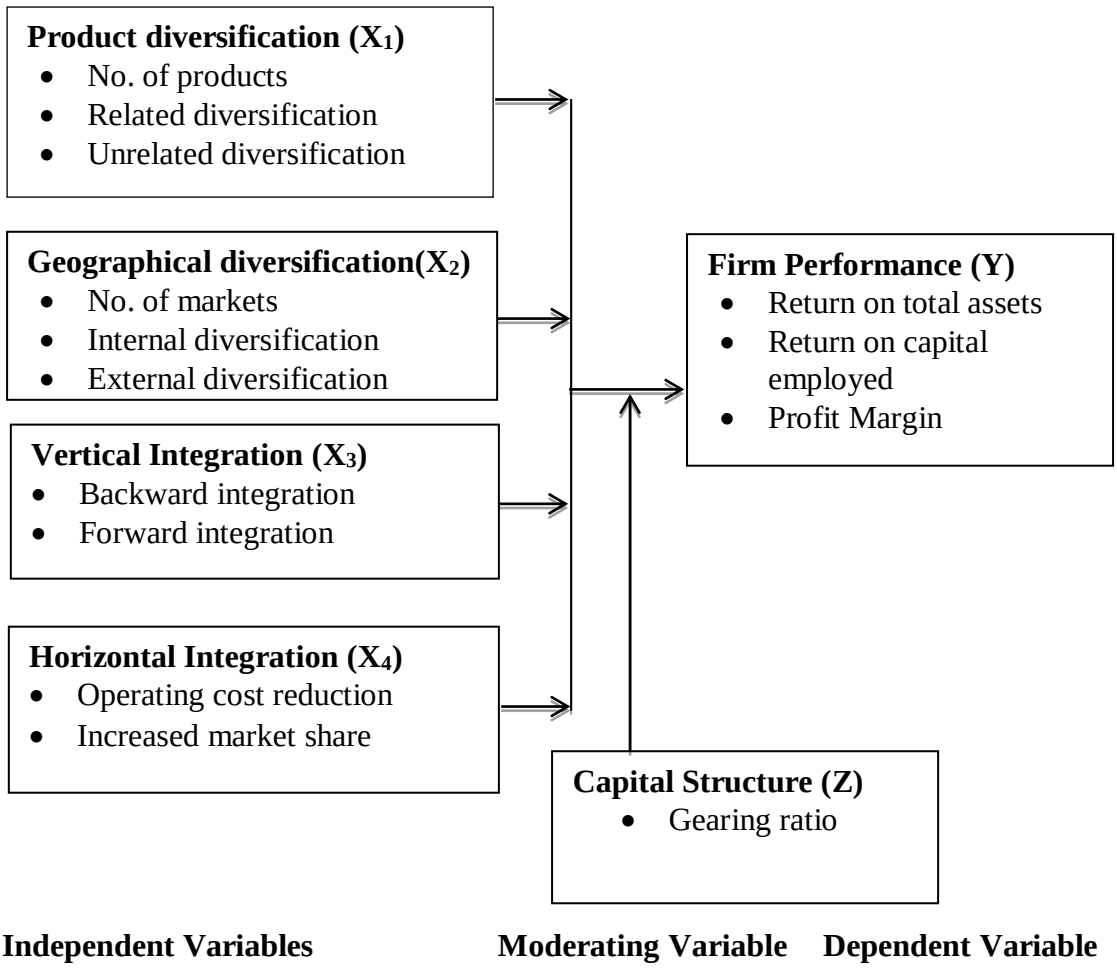

Figure 2.1: Conceptual Framework

2.3.1 Product Diversification

Product diversification involves the addition of new products to existing products either being manufactured or being marketed. It is also defined as the development of a firm beyond the present product and market but still contains the broad confines of the industry value chain (Oyedijo, 2012). Corporate diversification is considered as a strategy for firms to expand their operations to maximise their profits. Corporate diversification according to Kim *et al*., (2009) refers to a firm's expansion into 'related and unrelated' investments. Product diversification can be classified as either related or unrelated.

Thompson Jr. *et al*. (2005) define related product diversification as "a strategy that involves businesses whose value chains possess competitively valuable cross-business value chain match-ups or strategic fits". The strategic fits would exist whenever value chain activities of different businesses are sufficiently similar as to present opportunities for the diversifying firms (Marangu, Oyagi, & Gongera, 2014). Related product diversification involves building shareholders' value by capturing cross business strategic fits (Collins & Montgomery, 2008). The appeal of related diversification is exploiting match-ups to realize a "2+2=5" performance outcome and thus build shareholder value.

Related diversification also involves the opportunities of a second business that benefits from access to core competencies of the company (Pearce & Robinson, 2010). Most companies favour it in order to capitalize on synergies such as; transferring valuable expertise, technological knowhow from one business to another, combine related activities of separate businesses to achieve lower costs, exploit common use of a well-known brand name and cross-business collaboration to create competitively valuable resources strengths and capabilities, use of common sales force to call on customers and advertise related products.

According to Johnson and Scholes (2005) unrelated diversification refers to pursuit of opportunities beyond the present product and market base of a firm outside the present industry. Unrelated diversification strategy is an important component of the strategic management of a firm, and the relationship between a firm's diversification strategy and its economic performance is an issue of considerable interest to managers and academicians (Kotler & Armstrong, 2008). Businesses are said to be unrelated when their value chain are so dissimilar that no competitive valuable cross-business relationships exist.

An unrelated diversified company has, under a single corporate umbrella, more than one business unit which operate their activities in different industries. As a result value chain dissimilarity has no real potential for transfer of skills, technology or other resources from one business to another. Many companies decide to diversify into industries or businesses that have good profit opportunities (Thompson &

Strickland, 2006). In most cases companies that pursue unrelated diversification always acquire an established company rather than by forming a subsidiary.

2.3.2 Geographical Diversification

Due to globalization of world markets and production many firms are experiencing a lot of environmental changes and challenges. To gain competitive advantage the firms are expanding their operations to different regions. Internationalization or multinational is beneficial for businesses because of cost-reduction, innovation, and knowledge sharing and acquisition (Geringer *et al.*, 1989). Internationalisation is defined as 'firm' expansion across global regions and countries borders to different geographic locations or markets. The firms do this so as to enjoy the numerous advantages which enable them to enhance their competitive advantage.

Where an organization diversifies into national markets or markets in different countries, this diversification offers firms opportunities to acquire additional businesses and extend operations into new markets in new countries. The scope of operations ranges from one country to several countries and eventually globalization. International diversification has some economic benefits such as enabling a firm to reap economies of scale by having large markets for its products.

According to Johnson *et al.* (2008) international diversification enables a firm to stabilize its earnings across markets whereby a drop in one region is offset by increased earnings in another region. Capar and Kotabe (2003) allude that international diversification is closely related to geographical diversification which entails cross-border expansion of firms outlets through either branches or subsidiaries. Geographical diversification is the proliferation of branches and service outlets across a geographical boundary, often a country.

Uchenna *et al.* (2012) also defines it is as the opening of branches by a firm outside the head office location and according to Goetz *et al.* (2013) as the spread of a firm's assets across different geographical points. Geographical diversification of a listed non-financial company will mean the organizational spread of a firm beyond its local borders or company head office to another region either internally (within the

country) or externally (beyond the country's borders) (Ibrahim *et al.,* 2009; Oyewobi *et al.,* 2013). Some of the definitions of geographical diversification according to Lee and Kwok (1988) emphasize structural characteristics, while others pay attention to performance characteristics such as foreign sales to total sales, foreign assets to total assets or foreign taxes to total taxes.

2.3.3 Vertical Integration

According to Harrigan (1984) vertical integration is one of the first diversification strategies that a firm considers in its attempt to progress from being a focused company. Harrigan defines it as a variety of decisions concerned with whether a firm should via its business units provide certain goods and services in-house or purchase them from outsiders. It has also been defined by Cox and Blackstone (2001) as the degree to which a company chooses to produce in several value adding stages from raw materials to the final consumer. It is a strategy used by firms so that they can obtain control over their suppliers and distributors.

The firms employ it so that they increase their market power, lower their transaction costs as well as secure their supplies and distribution channels. It occurs where two or more production and marketing process stages are controlled effectively by one management (Rehber, 1998). According to Fan and Lang (2000) two businesses are said to be vertically integrated if one firm uses as input the other firm's product for its own production or supply output as the other firm's input. Besanko *et al.* (2007) assert that firms choose to integrate vertically thus produce their own materials and distribute their finished goods instead of transferring the supply and distribution to independent outsiders.

Vertically integrated firms maximize return on investments through value addition, complimenting own produce from other sources as well as offering diversified products from the same material inputs. They use marketing channels that enable their produce get to the market at the lowest per unit cost. A firm that is vertically integrated would provide a set of products through its business units in a single value chain. Thus integrated firms transfer all their relevant produce to adjacent, in-house business units. Vertical integration according to Sudarsanam (2010) leads to

increased technical efficiencies in coordinating, monitoring and enforcement of production process. It has two variants; backward and forward integration.

A firm has an option to choose either, the choice is pegged on the scope of the firm and the venture's cost (Andrade , 2001). Through backward or forward integration companies may reduce risks and interdependencies on partners external to the businesses' supply chain. This can be achieved when a company pursues either of the variants as this would increase a company's decision making power over its key resources and competencies which are important to a company's competitiveness (Amir, 2009). A firm is said to have employed backward integration when it diversifies closer to its raw materials in the production process and allows it to control the quality of supplies being purchased (Thomas, 2010).

Backward integration is aimed at moving the firm's activities lower in the production process stages so that a firm can have control over the quantity and quality of supplies or it can supply its own raw materials. It involves moving towards the present product's input. Forward integration is employed when a firm enters the business of selling or distributing its own output to the consumers and it involves a firm moving upwards the production or distribution process of its present products.

In this case a firm moves closer to the consumers allowing it to control how its products are sold. The firm can decide to establish its own retail outlets for the sale of its produce. How best a firm can manage its needs for limited supplies or accessibility to channels of distribution is answered by the various vertical integration alternatives. According to Dobashi *et al*., (1999) vertical integration can be applied in three levels; non-integration, semi-integrated (quasi integrated) and full integration. Non-integration strategies are followed by the firms that obtain raw materials and access markets with no transfers internally and no ownership. They are like "contracts" as noted by Harrigan (1984).

Firms following the quasi-integration alternative need not own 100% of the business units adjacent in their vertical chain. Harrigan notes that under appropriate circumstances, the quality and access to stable supplies can be obtained through quasi-integration arrangements. Taper integrated companies are those that have

adopted either backward or forward integration alternatives but also depend on outsiders for part of their supplies or distribution. While full integration occurs where a firm transfers all its needs for product either the supply or distribution to outsiders and this may increase the firm's exposure to information loss about their customers and competitors, flexibility in competition and also increase the excess capacity risk (Harrigan, 1984).

Fully integrated firms face higher capital costs and higher barriers to exit due to asset specificity and inflexibility of use of the assets especially the physical such as machine and equipment. Vertical integration as a strategy is a multi-dimensional concept as Harrigan (1985b) notes. According to Mpoyi and Bullington (2004) there are different vertical integration measures which examine specific dimension and yield complementary insights into this complex phenomena. The old concept of vertical integration as being 100% owned operations that are interconnected physically to supply 100% of the firms' need is out dated. This has necessitated firms to obtain supplies through quasi-integration arrangements.

Firms could contract for instance research and development in form of joint ventures and utilize genetic engineering technology to obtain this capability. Firms may prefer to use outsiders for some of the functions otherwise if a firm prefers not to use outsiders as extensions of their corporate entity a variety of other vertical arrangements are possible. The form of integration ownership which is ownership of suppliers and distributors indicate the proportion of a firm's equity invested in a vertically linked venture. When firms have 0% ownership of suppliers or distributors this is termed as contract.

This form of ownership as stated by Harrigan (1984) is attractive when firms are reluctant to buy specialised assets, need to lower breakeven points because of underdeveloped demand or can make arrangements for delivery schedules with the suppliers (distributors) as these outsiders are extensions of the firm's assets. In this kind of vertical arrangement firms risk the least proportion of their assets.

In the case of quasi-integration firms own less than 95%. The quasi-integration has two variants down stream and upstream quasi-integration arrangements. The down stream enable firms to retain qualified distributors, to maintain quality images while upstream enable firms to enjoy vertical integration advantages without the assumption of any risks. Full integration is when a firm has more than 95% ownership of suppliers or distributors. In this scenario a firm exerts complete control over the activities of the vertically linked businesses. In this kind of ownership the firms risks the greatest proportion of equity.

2.3.4 Horizontal Integration

Horizontal integration takes place when a company merges with another in the same market or a company diversifies into a market related to its existing business or it diversifies into a totally unrelated business. It also refers to a merger of two or more firms producing the same goods under one consolidated firm (Chakravarty, 1998). Amir (2009) argues that it is a type of strategy pursued by a company with intentions of strengthening its industrial position. It is undertaken in order to increase profit stability by spreading risks or proportion reduction of high risk businesses in the portfolio of the firm (Makarfi, 2005). Firms may adopt this strategy in order to achieve growth in size, increase product differentiation, economies of scale, reduction in competition or access to new markets.

Horizontal integration occurs in form of mergers, acquisitions and hostile takeovers (Dinc & Erel, 2010). A merger is joining of two similar sized independent companies to make one entity, acquisition is the purchase of another firm and a hostile takeover is a forceful acquisition of a firm with government's or court's intervention (Amir, 2009). Sudarsanam (2010) notes that pure horizontal mergers exist where firms selling identical products merge and related mergers are firms selling products that are not identical in terms of end use but nevertheless share commonalities such as technology, markets, marketing channels, branding or knowledge base.

Sudarsanam for simplification purposes terms pure horizontal mergers and related mergers as horizontal mergers. Horizontal mergers are appropriate in industries and markets whose products are in mature or declining stage of their life cycle. There is a

low overall growth rate in these markets and the firms have accumulated production capacity that exceeds the demand. The combination of low market growth and excess capacity presents difficulties to a firm that strives to attain cost efficiencies. The cost efficiencies may be achieved from scale, scope and learning economies. When an increase of production in the variety of goods and services saves the firm on the costs it incurs then economies of scope are said to exist.

Besanko *et al.* (2007) assert that economies of scope are defined in terms of the relative total cost of producing a variety of goods and services together in one firm versus separately in two or more firms. This means that it is less costly to merge two or more product lines in a single firm compared to supplying them separately. The author also alludes that economies of scope and scale are central to many business strategy issues. Economies of scale and scope exist where large-scale production, distribution or retail operations have an advantage in cost over smaller operations. They are the essence for merger and diversification strategies.

They have effects on entry and exit of firms, firms' product pricing and the firms' capability to protect its long term sustainable competitiveness. When a firm is producing the same product on large scale then economies of scale arise. A firm is said to have economies of scale especially where it achieves per unit cost saving as the production of a given product increases. Sudarsanam (2010) notes that to achieve these economies of scale then the associated costs, risks and cost savings extent have to be taken note of. However, as the firm continues with increase in production of a given good or service, there is a possibility that the firm's management may lack adequate coordination, monitoring and control of the firm due to the numerous layers of management. This is when diseconomies of scale set in. As Besanko *et al.*, (2007) posit that beyond a certain size bigger is no longer better and may at times lead to worse outcomes.

2.3.5 Capital Structure

Capital structure is the combination of funds in a firm in the form of debt and equity which it uses to finance its investment in assets (Muzir , 2011). It means the combination of equity shares, preferred shares and long-term debt (Velnampy &

Aloy, 2012). The relative mix of debt and equity capital is an important governance mechanism that impacts corporate diversification strategy (Kochhar, 1996). It also impacts many other aspects of business and financial management. Interaction between diversification and capital structure has become an area of interest to many researchers because of the associated strategic implications regarding corporate governance. Managements of different firms attempt to keep their capital structure at optimal levels to ensure that they maximise the profits and also to sustain adequate levels of equity and debt. Mauwa (2016) notes that capital structure decisions are made by the board of directors and top financial staff in the firms. Gitman (2003) alludes that a firm's value is maximised when the cost of capital is at minimum.

An optimal capital strucutre will imply maximisation of the value of the firm as it will determine the combination of both debt and equity. A poorly designed capital structure will lead to increased costs of capital in turn this will lower the firm's investment net present value to the extent of these investments being rejected. Evaluation of financial choices is carried out because of their close interaction with capital structure and management choices. The capital structure of a company plays an important role in its performance. It is defined using the resource based view of strategy relative to how the firm finances its investment using debt and equity instruments. Thus, the structure component of the study was viewed from a financial perspective as the financial structure of the firm as is used as a proxy for firm structure in the study carried out by Chathoth and Olsen (2005).

To maximize the firm value it is critical for the managers of a firm to find an optimal balance between equity and debt components since the objective of the firm is to manage these two components of the firm's financial structure to minimize cost of capital. The debt and equity instruments mix which is used to finance a firm's assets comprise of common stock, debt and preferred stock and it varies from one firm to the other. Firms' managers have a big challenge of choosing optimal capital structure which is the mix of securities that minimizes the cost of financing the firm's activities and thereby maximizing the value of the firm (Ajay & Madhumathi, 2012).

Capital structure of a firm has significant implications for its operations as it creates opportunities and limitations for the firm (Chen & Low, 2004).Optimal capital is the capital structure with a minimum weighted cost of capital and thereby maximizing the value of the firm's stock, one in which the share price is maximized (Enow, 2010). Poddar and Mittal (2014) assert that bad capital structure decisions may lead to a firm's financial distress and eventually to bankruptcy and due to this management of firms need to set the capital structure in a way that the firm's value will be maximized.

Aftab *et al.*, (2012) allude that many studies have been done on the relationship between corporate strategy and firm performance. Very few studies have been done to determine the impacts capital strucutre would have on these relationships. They therefore suggest that capital structure should be incorporated in the relationship as a moderating variable as it would have an emphasis on the value addition to the firm's stock holders and bond holders. Because of this their study on the banking sector in Paksitan revealed that capital structure had an impact on the financial institution's overall performance and therefore it was to be given a lot of emphasis for firms especially in their attempt to add value to their stakeholders; shareholders and debt holders.

Debt financing has benefits since firms can lower their overall cost of capital and help shield some income from taxes, it may pose risks because failure to make periodic interest and loan payments can result to a firm's financial problems and insolvency (Kochhar, 1996). The cost of financial problems increase if a firm uses debt often (Markopoulou & Papadopoulos , 2008). It also presents less risk for investors and its interests has a tax advantage. However, it has disadvantages in that it increases the earnings variance which may provoke the investors to ask for greater returns.

In contrast to debt financing, equity financing does not require direct obligation of repayment of funds from the firm (Enow, 2010), instead the equity holders become part of the business owners and hence are able to exercise some degree of control of the firm. The choice of capital structure measure depends on the analysis objective as

argued by Rajan and Zingales (1995). If the study is about the firm's choice of capital structure then focus should be on the stock variables, if on predicting bankruptcy as function of leverage then the focus should be on a flow of measure such as interest coverage ratio. Since this study fell in the first category then the stock leverage measures were adopted i.e. the gearing ratio.

2.3.6 Firm Performance

Firm performance stimulation is a priority in both public and private sectors since it is associated directly with an entity's value creation. Firms are constantly striving for better results, competitive advantage and influence. However, most are struggling to enhance their performance. According to Richard (2009) there are models, frameworks or methods for conducting entities valuations, these create unnecessary stress for management to select the paths that would be congruent with the organizations beliefs and cultural philosophy. Firm performance is the extent to which an investment is profitable (Murimiri, 2009). In the corporate world performance is the criterion by which a firm measures its capability to prevail.

According to Aftab *et al.* (2012) they allude that performance of a firm can be measured in terms of a firm's profitablity and market performance. Measures based on profitability are done using the return on capital employed of a firm or other returns on the revenues which have been generated by this firm for a given period of time. Corporate performance is looked at in terms of a firm's financial attainment (Nyaingiri & Ogollah, 2015).

As pointed out by Ho (2008) firm performance can be measured in terms of how efficient and effective activities of an organisation are carried out. There are many attributes that can be measured to assess a firm's performance these according to Venkatraman *et al.* (2006) and Delaney *et al.* (2006) may include financial performance ROTA, sales growth, profit, effectiveness of a firm, product and service quality, customer satisfaction, service innovation and employees development.

The balance score card as introduced by Kaplan and Norton (2001) is a realistic measure of firm performance. It defines a strategy cause and effect relationship and

provides a framework to organizing strategic objectives into the financial perspective in line with the vision and mission of the firm. Ibrahim *et al.,* (2009) maintain that there are various measures of firm performance which produce different results. It was conceptualized from the accounting point of view. The study used variables from the accounting domain that depict the firm performance to test the viability of the diversification strategy - firm performance relationship.

Earlier studies used different accounting measures; Capon, Farley, and Hoenig (1990) assert that accounting measures of performance would include return on equity, return on assets, return on sales, and return on invested capital. In this study the following accounting measures were used to measure the study's dependent variable; Return on total asset (ROTA), Return on capital employed (ROCE) and profit margin (PM). The current study also borrowed from Green *et al.,* (2007) who identified ROTA, ROCE and PM as important factors used to measure the firm's performance. The assumption is that the economic conditions of Kenya during 2011 through to 2015 were stable.

2.4 Empirical Review

This section provides a discussion of past studies according to the study's objectives. The section reviews product diversification, geographical diversification, vertical integration, horizontal integration and capital structure. Literature review according to Kothari (2004) helps the author show why their research matters and allow the reseacher place his or her research in intellectual and historical context.

2.4.1 Product Diversification and Firm Performance

Various strategic management scholars sought to establish the relationship between product diversification strategy and firm performance, the findings revealed mixed results as some posited positive relationships others negative and also non-linear relationships. Some study findings strongly evidenced that firms that diversified into related areas were more profitable than other diversified firms (Rumelt, 1974, 1982, Palepu, 1985, Ramanujam and Varadarajan, 1989). Chen and Ho's (2000) study revealed that corporate diversification in Singapore showed that diversification had a

negative impact on firm value which implied that corporate diversification led to a diversification discount. Their findings also showed that large firms tend to diversify compared to smaller firms.

Phung and Mishra (2016) did a study on the impact of corporate diversification on firm performance of listed companies in Vietnam over a period of 2007 to 2012. The study employed econometric estimation techniques such as fixed effect, Heckman selection model and system generalised method of moments. The findings revealed that corporate diversification had a negative effect on the firm performance. Further, the findings also revealed that lack of a corporate governance system which is efficient may encourage firms to follow diversification strategies which would impair the firm's performance.

The findings of the study by Doaei, Anuar and Ismail (2015) on 102 manufacturing firms listed in Busra Malaysia revealed that there existed a negative relationship between product diversification and efficiency and international diversification and efficiency. The study was different from the current study as it measured efficiency using Banker, Charnes, and Cooper envelopment model with one input and six outputs for a period of five years from 2006 to 2010.

Based on the agency theory managers pursued their own interest and in this view product diversification had a negative impact on firm performance this was alluded to by Denis, Denis, and Sarin (1997) and Berger and Ofek (1995). This study was different from the current one as the later adopted only the agency theory but the present one has put into considration other theories like the transaction cost theory and the Ansoff theory.

Boubaker, Mensi, and Nguyen (2008) in their study using annual data from 25 non-banking listed corporations on the Tunis Stock Exchange established a strong evidence of corporate diversification decreasing the firm value. The study was different because their dependent variable was firm value but the present study's dependent variable is the firm performance measured using the accounting measures. While Singh *et al.*, (2003) who analysed the relationship between corporate diversification and firm performance of 889 Indian firms found that diversified firms

performed significantly worse than focused firms. Further their findings revealed a significant negative relationship between degree of diversification and firm performance and made a conclusion that this was a result of inefficiencies in costs of the diversified firms.

Some studies on corporate diversification posited a non-linear relationship between corporate diversification and firm performance. For instance Khanna and Palepu (2000) in their study of 1309 listed firms in India showed a non-linear relationship between corporate diversification and firm performance. Diversification initially decreased firm's profits but after some time it improved upon reaching a certain level. Li and Rwegasira (2008) in an investigation on the relationship between corporate diversification and firm performance for 300 firms listed in China from 2003 to 2004 reported a U-shaped relationship between corporate diversification and firm performance.

Based on different theories scholars also noted positive association and relationship between the product diversification and firm performance. In their study Hsu and Liu (2008) used longitudinal data which cointained firm-level operation information for the period between 1997 and 2002, findings revealed that product diversity and customer diversity were positively associated with firm performance while geographicaal diversity had a negative association.

Findings of a study by Jung and Chan-Olmsted (2005) on media conglomerates revealed related product and international diversification contributed to better financial performance of the media conglomeraes. The researchers also noted that excessive diversification which led to high degree unrelated diversification would decrease the performance. This meant that diversification strategies were beneficial to a firm to a certain extent beyond which diseconomies of scale set in and the firm was not in a position to reap benefits from its use. This brought about the decline in performance.

The investigation by George and Kabir (2008) on the relationship between corporate diversification and performance of 607 Indian firms listed on the Bombay Stock Exchange revealed that, at first sight, diversification strategies of firms appeared to

lower firm performance. The result supported prior studies documenting a 'diversification discount'. However, when the authors turned their attention to distinguishing features like the organizational structure and corporate governance of the firms, the results revealed that diversification strategies of independent firms significantly lowered the firm profitability whereas those of firms that were affiliated to business groups had an insignificant impact on firm performance. The results indicated that performance as measured in terms of turnover growth, net profit, return on sales, return on equity and return on assets increased in line with increase in diversification from 2000 to 2004.

Study by Schoar (2002) using a data set from the US Census Bureau's Longitudinal Research Database reveals a positive correlation between diversification and performance of the firm. However the findings by Schoar are given a different opinion by Chang *et al*. (2011) who asserts that there was lack of distinction between related and unrelated diversification and therefore carried out a study keeping the distinction between related and unrelated diversification clear using the Entropy Measure and its decomposed components as proxies. They measured the firm's relative productivity by using the Data Envelopment Analysis (DEA) method and drew a conclusion that related (unrelated) diversification contributed to the increase (decrease) of productivity.

La Rocca and Staglianò (2012) in their study of Italian firms between 1980 and 2007 on the effect of unrelated corporate diversification on firm performance findings revealed that there was a positive effect which was explained by the fact that these firms diversified to reduce information assymetry and derive benefits from the internal capital market. Hann, Ogneva, and Ozbas (2013) who carried out a study of the US firms from 1998 to 2006 stated that diversified firms could reduce the cost of capital and therefore improve the firm's value more than focused firms, the positive effect according to their findings was accelerated when the firms' managers received incentives which were in the stock purchase options.

Berg (2016) did a study which focused on Indian publicly listed firms between 2006 and 2012 and used accounting-based and market-based measures of firm performance, tried to explain the factors that influenced the costs and benefits of diversified firms in comparison to non-diversified firms. The findings revealed that on average diversified firms had a higher performance than non-diversified firms. However, due to the meltdown of global economic activities during the global financial crisis, the performance of both diversified and non-diversified firms in India deteriorated.

In a study using two different data bases Villalonga (2004) revealed that studies based on one showed evidence of 'diversification discount' while the other supported the 'diversification premium' hypothesis. The researcher argued that the former data showed unrelated diversification while the latter related diversification. In a study on corporate diversification and firm performance evidence from Asian hotel industry results suggest that unrelated industrial diversification was the only alternative to improve hotel firm performance (Ooi *et al.*, 2014).

Based on the agency theory, the study by Kallamu, Saat and Senik (2013) using a sample of 37 listed finance firms tested the moderating effect of separate risk management committee (RMC) on the relationship between corporate strategy and firm performance. Findings revealed that the presence of RMC significantly moderated the relationship between non-traditional strategy and firm performance in a positive way. The results also provided an empirical support for the agency theory with suggestions of the presence of subcommittee of the board of directors helped to facilitate effective monitoring of management thereby ensuring a reduction in risk taking activities of managers which enhanced firm performance.

Oladele's (2012) study on product diversification and performance of manufacturing firms in Nigeria indicated that diversifying firms had higher level of return on assets. The study by Mashiri and Sebele (2014) which adopted cross-sectional design focused on the listed conglomerates in the food and beverages sector with operations in the Zimbabwe Securities Exchange. The study was limited to the period spanning 1999–2004, a six-year span which they considered adequate in terms of following

strategies and identifying trends. Findings established a relationship that is positive and linear between diversification and firm performance as measured by turnover and also diversification was positively and linearly related to performance.

A case study by Khamati (2014) based on the RBV theory focusing on the adoption of diversification as a strategy at Radio Africa Limited in Kenya and its effect on the organization's performance. Findings revealed a positive relationship between diversification strategy and performance of Radio Africa Limited in Kenya. It was also established that though the performance improved as a result of the strategy the overall growth in revenues was decreasing at a decreasing rate.

Findings of a study on the dairy industry carried out by Kariuki (2016) using descriptive research design and cluster and random sampling showed a significant positive linear correlation between dairy enterprise performance and access to inputs, level of technological innovation and access to markets. The researcher also sought to find out if value addition which was measured interms of related product diversification had a moderating effect on the relationship of access to inputs, level of technological innovation, access to markets and enterprise performance, it was revealed that it had a positive implication on the profitabilty of the dairy enterprise.

Adopting the descriptive survey research design and regression model for data analysis done Mwangi's (2015) findings revealed that corporate diversification was positively related to financial performance of listed manufacturing firms in Kenya. However, growth and firm size were found to be negatively related to financial performance of these listed manufacturing firms. The correlation results were found to be weak but moderate between corporate diversification and financial performance of listed manufacturing firm. Findings of a study carried out by Nyaingiri and Ogollah (2015) which employed a case study and stratified random sampling revealed that the following related significantly to the corporate performance general economic environment, efficiency view, firm characteristics and co-insurance effect.

Marangu, Oyagi, and Gongera (2014) using descriptive correlational survey design carried out a census study on sugar firms in Kenya on the effect of concentric diversification strategy on organisation competitiveness. Using a questionnaire to

collect primary data from the production and marketing managers and analysing this data using descriptive and inferential statistics, results revealed that concentric strategies had an overall significance impact on competitiveness. At individual level also the regresion analysis showed that there existed a statistically positive linear relationship between concentric diversification and firm competitiveness. This implied that concentric diversification had a positive effect on sugar firm's competitiveness.

2.4.2 Geographical diversification and firm performance

Some scholars posit that the relationship between the geographical diversification and firm performance was positive due to the uncovered opportunities in other geographical regions (Delios & Beamish, 1999; Qian & Li, 2002; Tallman and Li, 1996), and the increase of market power (Kim *et al*., 1993; Kogut, 1985). While others found a negative or non-existent relationship between variables and argued that global diversification represented a cost related to the agency relationship between managers and investors, widely known as "diversification discount" (Denis & Yost, 2002; Fatemi, 1984).

The costs and benefits of internationalization considered together formed a curvilinear relationship. Geringer, *et al*.,(1989); Gomes and Ramaswamy (1999); Hitt, *et al*., (1997); Sullivan (1994b) obtained an inverted-U shape relationship, they stressed that the benefit of internationalization increased to a point, and then the costs eventually exceeded the advantages of accessing new resources. Other scholars who posited the U-shape relationship between international diversification and performance were Lu and Beamish (2001); Ruigrok and Wagner (2003) and Thomas (2006).

In the early stages, internationalization increased a firm's costs because of newly generated complexity for governance. Nevertheless, performance started to increase after firms got acquainted with the environment and acquired new knowledge and capabilities. In their research Contractor *et al.*, (2003) found a sigmoid-shaped relationship in knowledge-based service firms. In support of such a relationship was

Lu and Beamish, (2004) who noted that liabilities and costs are reduced through learning, experiences, and economies of scale and scope.

A study by Qian *et al.,* (2010) on 123 US based MNEs over a period of seven years and leveraging both sales-based and subsidiary based measures for diversification. Findings revealed that performance increases at an increasingly higher rate as firms focused more on intra-regional diversification. An inverted U-relationship existed between performance and the level of geographical diversification. Further the findings indicated no evidence of a sigmoidal relationship between the degree of regional diversification and performance.

In their study Hsu and Liu (2008) used longitudinal data which cointained firm-level operation information for the period between 1997 and 2002, findings revealed that product diversity and customer diversity were positively associated with firm performance while geographical diversity had a negative association. It was also revealed that the contractual manufacturing model was a moderator between product diversity and firm performance and it was also positively associated to firm performance.

Findings of a study by Goetz *et al.* (2013) among the U.S. bank holding companies revealed that geographical diversification intensified agency problems, and thus hurt performance. This therefore implied a negative relationship between geographical diversification and firm performance.

Results of a study done by Wan (1998) on Hong Kong Multinational Corporations (MNCs) show that, Hong Kong MNCs were more internationally diversified, but did not perform better, than domestic firms. Also, among Hong Kong MNCs, international diversification had a positive impact on profitability stability and sales growth. Industrial diversification also enhanced profitability stability but reduced profitability significantly.

In their study Lu and Beamish (2004) based on 1489 Japanese firms for the periods between 1986 to 1997 revealed a consistent non-linear curve which at first showed a decrease in performance with increase in internationalisation, followed by a positive

relationship between an increase in geographical diversification and performance which then declined at higher levels of multinationality. This relationship was moderated by intangible assets merits that were derived with the geographic scope expansion of the firm.

Wu, Wu, and Zhou (2012) investigated the relationship between expansion internationally and firm performance of 318 listed Chinese manufacturing firms for the period between 1999 to 2008. The study explored the relationship between the variables and then investigated the role of diversification and established the moderating effect of diversification between internationalisation and firm perfromance. The firms were grouped into three according to the levels of diversification; high, medium and low levels. Data was analysed through statistical technique of fixed effects panel data model. The findings revealed that internationalisation at high and low levels was negatively associated with firm performance but at medium level there was a positive association.

Bany-Ariffin *et al.* (2016) study aimed at evaluating the impact of internationalization and firm performance of 100 Malaysian MNCs which had investment abroad, employed panel generalized method of moment estimation technique for data analysis. The findings revealed that the move for investment abroad had a positive impact on these firms performance.

Arasa (2014) did a study on the KCB Group which adopted a longitudinal research design based on portfolio and industrial economics theories. Using trend data analysis and content analysis to establish the effect of diversification on performance, the findings revealed that KCB group adopted geographical diversification strategy which had a positive effect on performance, as income increased banks registered an increase in profits.

A study by Kwena (2015) on commercial banks in Kenya revealed that there was a negative relationship between income and geographical diversification when ROA was used as a measure of performance. However, a positive relationship existed between the two variables when ROE was used as a measure of performance. The study done by Njuguna (2013) on the effect of diversification on growth of

companies listed at NSE, employed regression analysis for data analysis. Findings revealed a positive relationship between growth in income of the listed firms and firm sizes though the relationship was not very strong. A negative relationship was revealed between growth and branch expansion. This was mainly attributed to the fact that regional expansion may have to take sometime to break even and therefore net income of the firms would present a negative relationship.

2.4.3 Vertical integration and firm performance

The findings of the study carried out by Ravichandran and Bhaduri (2015) for the period between 2003 to 2014 on firms in the Indian manufacturing sector and using standard econometric analysis on panel data revealed that there was a negative relationship between diversification and performance of the firms. The study measured performance using Tobin's Q, results showed that the highly diversified firms performed poorly on account of vertical diversification while horizontal diversification had a positive effect on performance.

Findings of the study by Dorsey and Boland (2009) revealed that significant premiums were found for food processors and restaurant with vertical integration or diversification strategies. While on the other hand for food wholesaler and retail supermarket integration and diversifications strategies had significant premiums too. During this period food processors were integrating towards retail supermarkets this meant that the firms were using forward vertical integration.

Findings of a study carried out by Forbes and Lederman (2010) on the US airline industry revealed that vertical integration had a positive effect on the operational performance of the large US airlines. The integrated airlines performed better than the non-integrated and performance advantage increased especially on days when the weather was bad and the airports were congested. These airlines used regional partners to operate some of the flights and these regional partners could either be owned or governed through contracts.

Oloda (2017) carried out a study on the effect of vertical integration on organisational survival in selected manufacturing firms in Nigeria. The study's

sample size was 205 managers who were selected from six firms. Both primary and secondary data was used. To test the relationship between the variables reviewed the Spearman Rank-order correlation coefficient was used. The findings of the study established a positive and significant relationship between the dimensions of vertical integration (both forward and backward) and organizational survival. Conclusion from this study is that vertical integration enhances organizational survival.

A study by Kimani *et al.* (2016) that adopted descriptive analysis for its individual research indicators and correlation and regression analysis to establish the effect of vertical, horizontal and diagonal integration on competitive performance. The findings revealed that vertical and horizontal integration contributed significantly to the competitive performance of the firms while diagonal integration was found to be insignificant. Its regression analysis also revealed that 74% of change in competitive performance of firms was attributed to collective use of the integration strategies.

2.4.4 Horizontal integration and firm performance

The study findings by Ravichandran and Bhaduri (2015) for the period between 2003 to 2014 on firms in the Indian manufacturing sector and using standard econometric analysis on panel data revealed that there was a negative relationship between diversification and performance of the firms. The study adopted the Tobin's Q to measure the firm's performance; results revealed that the highly diversified firms performed poorly on account of vertical diversification while horizontal diversification had a positive effect on performance.

Guest, Bild and Runsten (2010) investigated the financial impact of 303 acquisition of companies in the UK which was completed between January 1985 to December 1996. In their quest to establish if takeovers yielded a positive net present value of the acquring firm they used accounting returns and residual income approach of analysis. The findings revealed that accounting returns showed significant improvement in performance while the residual income approach established that acquitisition had a small and significant effect on fundamental value relative to control firm.

Floreani and Rigamonti (2001) examined mergers in the insurance industry from 1996 to 2000 in both Europe and US. The study adopted an event study methodology and came up with 56 deals which formed the sample in which acquring firms were listed. The findings revealed that mergers in insurnance companies enhanced value for the bidder shareholders. Further they found out that abnormal returns for acquiring firms increased as the deal size increased.

Kimani *et al.,* (2016) did a study that adopted descriptive analysis for its individual research indicators and correlation and regression analysis to establish the effect of vertical, horizontal and diagonal integration on competitive performance. The findings revealed that vertical and horizontal integration contributed significantly to the competitive performance while diagonal integration was found to be insignificant. Its regression analysis also revealed that 74% of changes in competitive performance of firms were attributed to collective use of the integration strategies.

Study by Mboroto (2013) on petroleum firms in Kenya which was limited to a sample of pair companies listed on the Kenyan market that merged or acquired between 2002 and 2012. Secondary data collected from the firm's financial reports and comparison made of mean of 3 years pre- and post-merger/acquisition done. Using financial ratio analysis and paired t-test the study findings revealed that mergers and acquitisions had insignificant outcome on financial performance of these firms. On the analysis of post mergers and acquisition evaluation the findings showed that the firms' performed better this was supported by merger/acquisition which had a positive significant impact on ROA.

A study by Kirui (2014) on listed firms at NSE for the period between 2000 to 2013, using secondary data obtained from the firms' annual financial reports. The study adopted descriptive research design and employed the Mann Whitney test to analyse the pre- and post- merger/acquisition financial averages, the ratio analysis was also undertaken to compare and ascertain performance of the firms over the two periods. The findings revealed that mergers and acquisitions had a positive relationship with financial performance for the listed firms.

Mailanyi (2014) carried out a study on the effect of mergers and acquitions on oil companies in Kenya. The study adopted causal research design and focused on M&A that took place between 2003 and 2013 within the oil industry. Secondary data used was obtained from the annual reports of the firms. The study entailed the comparison of the financial ratios between 3 years pre-merger/acquisition and 3 years post-merger/acquisition. Regression analysis was done to determine the relationship between the variables, the study findings revealed that there was a decline of financial performance following a merger/acqusition process amongst the oil companies.

In the study by Mitema (2014) on effetcs of mergers and acquisition on value of insurance companies, with a sample of 4 insurance companies for the period between 2000 and 2014 intrinsic valuation approach was employed. The residual income valuation model was used to measure the fundamental values both pre-merger and post-merger. The findings showed that M&A had a statistically significant effect on the book value and fundamental value of the entities that merged. The research further found no significant effect on dividends, residual income and terminal value of the merged enetity. Overall, the findings evidenced that M&A had a positive effect on the value of the firms thus they created value.

2.4.5 Capital structure and Firm Performance

Financial leverage exhibits the extent to which a firm's assets are financed by debt. Chen and Low (2004) allude that firms with high debt ratio would have the ability to access more funds for expansion. Leverage thus affects the performance in the context of corporate diversification. To determine the relationship between capital structure decisions and performance of firms in Pakistan, Abdul (2012) concluded that financial leverage had a significant negative relationship with performance as measured by ROA, GM and Tobin's Q, however when performance was measured by ROE the relationship was negative but not statistically significant.

In their study Phung and Mishra's (2016) noted that lack of an efficient corporate governance system may encourage firms to adopt diversification strategies which sometimes would affect the firm performance negatively. Due to this reason the

current study adopted capital struture as a moderating variable. This was informed by suggestions by Jensen and Meckling (1976) who alluded that financing options are an important governance mechanism in a firm. This is because finances are required to fund a firm's activites. Javed and Akhtar (2012) carried out a study on firms on the Karachi stock exchange in Pakistan. Using the correlation and regression tests on perfomance findings established a positive connection between financial leverage, financial performance and growth and size of the firms.

An empirical investigation of 48 firms publicly traded restaurant firms whose operations were in the United States by Chathoth and Olsen (2007) revealed that the constructs of economic risk, corporate strategies and capital structure explained a significant variance in the firm performance. The researchers while testing the constructs made an assumpiton that the dependent variables firm performance did not affect the independent variables economic risk, corporate strategies and capital structure instead these constructs affected firm performance. With this in mind a unidirectional relationship was posited and this led to formulation of a non-recursive model. The researchers used secondary data for the period between 1995 and 2000 and to gauge the direction and magnitude of the relationships between the variables regression analysis was adopted.

To identify the sign and magnitude of the significance of diversification on capital structure Larry (2010) did a study on China's publicly listed companies for the period between 2000 to 2006. This researcher adopted panel data analysis and also adopted the following univariate approaches t-test, Kolmogorov-Smirnov and Kruskal-Wallis ranks test and cluster analysis.

Findings revealed that corporate diversification into either a related or unrelated industries had an opposite effect on capital structure after controlling ownership structure and corporate governance mechanisms. Further findings showed that an increase in business relatedness degree was associated with debt reduction while an increase in business unrelatedness was associated with debt increase. It was also strongly evidenced that government-controlled firms used less debt financing and

that government ownership weakened the relationship between unrelated diversification and leverage.

The study by Mwangi, Muathe and Kosimbei (2014) on the relationship between capital structure and performance of non-financial firms listed at Nairobi Securities Exchange using explanatory non-experimental research design and took a census of 42 listed non-financial companies. Secondary panel data was used which was obtained from the annual reports and financial statements of these firms for the period between 2006 and 2012. Panel data models was applied. From the generalised least square regression analysis resuts indicated that financial leverage had a negative statistically significant association with performance as measured by ROA and ROE. The recommendation made was that managers should reduce their reliance on the longterm debt as a source of finance.

In their study on investigation on the effect of debt-equity ratio on performance of listed firms at NSE, Maina and Kondongo (2013) adopted the census approach. The findings of the study which was carried out between 2002 and 2011 revealed a negative relationship between capital structure and all performance measures used in the study. It was observed that listed firms used more short-term debt than the long-term. Research findings on the impact of capital structure on firm performance showed mixed results. Some posited positive relationships while others negative. In their study on the effects of capital structure on the market value of selected firms at Nigerian Stock Exchange, findings revealed that a positive and significant relationship existed between the study variables (Adeyemi & Oboh, 2011).

Findings of a study by Uremadu and Onyekachi (2018) revealed that capital structure i.e. total debt to equity capital had a negative and insignificant impact on firm performance (ROA). This means that firm should consider financing its business activities with retained earnings before thinking of corporate debt; corporate debt should be a last option for the managers. According to Ruland and Zhou's (2005) study findings established that diversification strategies increased the firm's value but on the other hand financial leverage increased firm value only when firms were diversified. The agency theory informs the capital structure moderating variable in

that debt leverage is an effective solution to the problem of diversification discount found in many firms.

Few researches have been done to show the joint interrelationships between diversification, capital structure and firm performance. The study findings by Park and Jang (2013) revealed that leverage had a positive influence on firm performance where as firm performance had no signigficant direct impact on leverage. However, firm performance indirectly affected leverage through unrelated diversifiction. The study also established that low performing firms had the tendency to diversify into unrelated diversification.

In their study Jouida and Hellara (2017) on joint interrelationship between diversification strategies, capital structure and firm performance, results showed that a reduction in firm performance and an increase in debt leves associated with activity diversification. Geographical diversification is negativley related to performance and leverage as noted by these scholars. This implied that the non-financial firms were geographically diversified and this was anticipated to increase the firm's problems in processing of information and coordination which would impair a firm's performance.

2.5 Critique of Existing Literature

There are numerous empirical studies showing that diversification strategies influence the performance of firms listed in the various stock exchange markets globally. However, there is no agreement among the various authors regarding diversification strategies and firm performance. In the Kenyan context few studies have been conducted in this area. The researcher was unable to find a study focusing on diversification strategies and performance of non-financial firms listed at NSE.

On the impacts of diversification strategies on firm performance numerous studies have been done and various theories advanced to support the positive impact the product diversification and geographical diversification strategies have had on the firm performance. In support of this, theories such as resource based view theory and transaction cost theory certain scholars revealed that product diversification (Zhao,

2008: Kuppuswamy & Villalonga, 2010) and geographical diversification (Han, Lee, & Suk, 1998) have proved to be very useful corporate strategies in different organisations. These scholars are also in support of the linear models of both strategies which imply that the benefits of the strategies are more than the cost incurred in their adoption.

Scholars who adopted transaction cost theory hypothesised that diversified firms had a positional advantage compared to focused firms as these firms could enjoy internal market efficiencies because they conducted their business transactions from within and they were able to gain a ready access to their organisational assets (Lins & Servaes, 1999). Geographical diversification is also supported by various theories as firms that have adopted this strategy benefits from learning since these firms use this strategy and therefore get exposure in the different geographical areas. Firms also enjoy the cost reductions and economies of scale.

Other scholars on the other hand put forward suggestions that product diversification and geographical diversification had negative impacts on firm performance hence they were not as useful for the firms that had adopted them (Denis , Denis , & Yost, 2002). The costs of some of these strategies for instance geographical sometimes could be very high which would impair a firm's performance. Excessive use of geographical diversification according to Beleska-Spasova and Glaister (2010) also brought about high coordination costs, diseconomies of scale set in and there were problems associated with flow of large information from the different geographical regions. These costs could largely be associated with negative impact geographical diversification has on firm performance.

On the same note other scholars posited that these diversification strategies had non-linear impact (Palich, Cardinal, & Miller, 2000) on firm performance. This meant that firms benefited from these strategies up to a certain level beyond which these firms were not able to reap any benefit from their use. This could explain the setting in of diseconomies of scale as well as other governance problems. There are suggestions that moderate use of these strategies would be useful to the non-financial listed firms in Kenya. As a predictor variable of firm performance, some scholars

viewed these strategies as significant (Bausch & Pils, 2009) while others as insignificant (Geringer, Tallman, & Olsen, Product and international diversification among Japanese multinational firms, 2000).

As cited by Omrane (2016) various scholars' researches revealed both positive and negative impacts of vertical integration on firm performance. Vertical integration is a strategy adopted by many firms to enhance their performance as argued by Isasken, Dreyer and Gronhaug (2011). Research findings by Roder (2007)also provided evidence that vertical integration is positively correlated with firm performance. On the other hand a negative and statistically significnat impact of vertical integration on firm productivity was established by Lu and Tao (2008).

From the analysis of literature diversification strategies don't seem to have a direct influence on firm performance of listed non-financial firms. The current research considered capital structure as an important moderating variable on the strength of the relationship between diversification strategies and performance of listed non-financial firms at NSE. The researcher therefore identified research gaps which were filled by focusing on the role of capital structure as a moderating variable between diversification strategies and performance of these listed non-financial firms.

2.6 Research Gaps

Studies examining influence of diversification strategies on firm performance showed mixed findings. There is still disagreement as to whether diversification increases or reduces performance. No agreement has been achieved among scholars on the interaction impacts of diversification strategies on firm performance (Capar & Kotabe, 2003; Kang, 2011). The relationship is still controversial, contradictory and inconclusive (Santalo & Becerra, 2008; Mashiri & Sebele, 2014). This means that no set of guidelines has been developed about whether a firm should diversify or should remain focused (Asrarhaghighi *et al*., 2013; Lu & Beamish, 2004; Mehmood & Hilman, 2013).

Although there are numerous studies on diversification strategies and firm performance in developed countries, very little research has been carried out on

diversification strategies and performance of listed non-financial companies in a developing country like Kenya. Moreover studies carried out examined direct impact of diversification strategies on firm performance (Arasa, 2014; Karanja, 2013; Khamati, 2014; Mwangi, 2015; Mashiri & Sebele, 2014; Marinelli, 2011; Klein & Lien, 2009).

Some studies indicated that diversification improved profitability overtime citing a positive relationship (Wan, Hoskisson, Yiu, & Short, 2011), while others demonstrated negative relationship and that diversification decreased performance (Maksmovic & Phillips, 2007). Others have shown that diversification and performance linkage depends on business cycle. Santalo and Becerra (2008) explain conceptually and provide empirical evidence that no relationship exists (positive, negative or even quadratic) between diversification and firm performance.

According to Daud *et al*. (2009) and Mackey (2006) studies in this area have given inconclusive results due to data being inconsistent, studies are carried out at different time frames, different performance measures are used and also the moderating variables are different. Mackey in addition to time frames and varying profitability measures also asserts that there have been different measures of diversification. This study investigated listed non-financial firms' performance over a period of five years with the assumption that strategic plans for firms are done for a period of 5 to 6 years. According to Andreou and Louca (2010) the results inconclusiveness and confusion come up due to the methodology and theoretical frameworks used by different researchers. There exists a research gap since most of the studies carried out in Kenya have been in the banking industry and most of this studies have dwelt on case studies. This current study sought to fill the gap by including all the non-financial firms listed at the NSE.

Most studies focused on the direct relationship between diversification strategies and firm performance. Capital structure is viewed to moderate this relationship because for a firm to carry out its activities it needs funds. These funds can come from either equity capital or debt capital or both. Capital structure is an important governance mechanism as it shapes monitoring and incentives and it impacts on diversification

strategies (Wiiliamson, 1988). Many researches have explored governance mechanism exercised by equity owners on the diversification strategies and firm performance relationship (Connelly, Hoskisson, Tihanyi, & Certo, 2010). Other researches have explored the lenders governance mechanism on this relationship (O'Brien, David, Yoshikawa, & Delios, 2013). However, the governance mechanism of the two combined in form of capital structure remain unexplored. This has necessitated the study to investigate the moderation role of capital structure on the relationship between diversification strategies and firm performance.

Different theories present opposing predictions about the impact of capital structure on this relationship. According to the agency theory (Jensen, 1986)alludes that incentives that are high-powered pose threats to bankruptcy which may be induced by managers through excessive diversification and these managers may only pursue value-enhancing diversification. While the TCT theorists argue that this high-powered incentives may preclude the forbearance and discretion which is needed for exploring and capitalizing on new market opportunities that may arise (Kochhar, 1996).

2.7 Summary

This chapter presents a discussion on the various study variables which included; product diversification, geographical diversification, vertical integration, horizontal integration and performance of listed non-financial firms. In the theoretical framework theories relevant to the study were reviewed. Empirical literature review in relevant areas of the study were also covered. Theoretical literature in the study supports the diversification strategies and firm performance. There have been numerous studies on the effect of diversification strategies on performance of firms. Not any of the studies dwelt on the diversification strategies and performance of listed non-financial firms. This research therefore envisaged studying the association of diversification strategies on firm performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter covers the research methodology adopted by the study. It includes research design, research instrument, sampling procedures, data collection procedures, data processing and analysis, pilot testing as well as the operationalization and measurement of variables. The study adopted both qualitative and quantitative approaches. Data was analyzed by means of standardized statistical procedures.

3.2 Research Philosophy

A research philosophy is a belief about the way in which data about a phenomenon should be gathered analysed and used. It reflects the researcher's perspective in phenomena interpretation and depending on how he/she thinks about knowledge development. Levin (1988) states that it is a pattern of beliefs on the procedural steps of research design and relates to how data should be gathered and analysed. Literature review postulates two major approaches in which research could be classified: positivism and phenomenology. According to Winter (1987) positivism is developed from existing theory within a logical manner through highly structured empirical tests of hypotheses.

Positivism is more compatible with natural science and applied research. Phenomenology on the other hand aims at illuminating the nature of a concerned phenomenon and to understand it through its perception by actors in its context. Positivism as an approach has been criticized as an inappropriate philosophy in strategic management research because of its structural tendency. Phenomenological research consider human beings as part of the phenomenon and focuses on understanding the mechanism in which meaning realities and beliefs of the social world are formulated by a social group's members.

The research methods under the phenomenological perception place considerable attention to focusing on the meaning within the qualitative approach rather than the measurement of social phenomena (Husseny & Husseny, 1997). Thus, research carried out using the phenomenological methodology aims at understanding intentional phenomena by meaning interpretation. The nature of research, its aims and the question (s) the researcher seeks to answer dictates which approach to adopt as stated by Saunders, Lewis and Thornhill (2007). This study adopts the phenomenological approach with the aim of understanding the influence of diversification strategies on the performance of listed investment conglomerates in Kenya.

3.3 Research Design

Research design is the method used in carrying out a research (Mugenda & Mugenda, 2003). According to Kothari (2004), it is the conceptual structure in which research is carried out; it is a design plan in which the data collection, measurement and analysis is contained. The study adopted descriptive correlational survey design. Its purpose was to establish relationships between and among independent variables of study and listed non-financial firms' performance. In descriptive research design information is collected without changing the environment. This design was deemed appropriate as it gave a description of a group of people, phenomena or an event based on the influence on another variable (Salkind, 2010).

It was also deemed appropriate because of the observational nature of data that was collected from the annual reports of the companies. It examined the relationship among variables (correlational). Correlational research is some form of descriptive research which describes in quantitative terms the degree to which variables are related. It explores the relationship between variables and predicting a subject's score on one variable given his or her score on another variable (Mugenda, 2008; Mugenda & Mugenda, 2012). Walliman (2011) argues that variables can have correlations which can be either positive, negative or none at all.

Both quantitative and qualitative data was collected. The quantitative research applied the use of numeric descriptions of opinions and attitudes of the population by use of closed ended questionnaires for data collection (Creswell, 2013). The qualitative approach looked into exploring and understanding of meanings attached by individuals or groups to social problems by use of open ended questions. Its analysis involved building from specific to general themes inductively and interpretations made by the reseacher there from. The qualitative data in this study was then subjected to quantitative analysis.

3.4 Target Population

Population is a well-defined collection of individuals or objects with similar characteristics (Kothari, 2004). According to Cooper and Schindler (2008), population is the total collection of elements for which inferences can be made by a researcher. The researcher's target population consisted of all listed non-financial companies in Kenya. This set of firms was considered because they had fewer regulations compared to the financial firms. Firms in the financial sectors were excluded because they were highly regulated by the Central Bank Prudential on liquidity, assets and other disclosures (Pratheepkanth, 2011). The exclusion was also due to the fact that their financial statements were presented differently from those of other sectors. The exclusion was consistent with previous studies which excluded banks, insurance companies and security companies in their analysis (Phung & Mishra, 2016; Jiraporn, Kim, & Davidson, 2008; Lien & Li, 2013; Hann, Ogneva, & Ozbas, 2013; Chen & Yu, 2012).

Table 3.1: Target Population

Sector	Number of Firms
Agricultural	6
Automobiles and Accessories	3
Commercial and Services	10
Construction and Allied	5
Energy and Petroleum	5
Investment	5
Manufacturing and Allied	10
Telecommunication & Technology	1
Total	**45**

Source: NSE Handbook (2015-2016)

3.5 Sampling Frame

A sampling frame contains a list of elements of the population on which the actual sampling process can be done. Kothari (2004) refers to it as a source list and defines it as a list that contains the names of all items of a universe. The sampling frame in this study was composed of all the 45 non-financial listed firms as provided in the NSE (2015-2016) handbook. The actual list is in Appendix IV. A major reason for choosing the listed firms was due to accessibility of the data required by the fact that it is a legal requirement of Companies Act Cap. 482 for listed companies to publish their audited financial statements which provided data required in this study. The unit of analysis was the non-financial firms listed at the NSE. In each firm, three departmental managers were picked as respondents because they were involved in the strategy formulation and implementation and were also considered as providers of useful information required for the study.

Table 3.2: Sampling Frame

Sector	Number of Firms	Number of Respondents
Agricultural	6	18
Automobiles and Accessories	3	9
Commercial and Services	10	30
Construction and Allied	5	15
Energy and Petroleum	5	15
Investment	5	15
Manufacturing and Allied	10	30
Telecommunication & Technology	1	3
Total	**45**	**135**

Source: NSE Handbook (2015-2016)

3.6 Census Design

The study adopted a census design as this is a complete enumeration of all items in the population (Kothari, 2004). Since the number of firms listed is small then census approach was deemed fit for adoption. When a population is small census approach is recommended (Mugenda & Mugenda, 2003). Simple random sampling technique was used for distribution of questionnaires to three departmental managers per firm. Data was collected for 44 firms as one Rea Vipingo had been excluded from the study due to its delisting. Data was collected for the period between 2011 and 2015. The period was appropriate for the study as during this period some of the non-financial firms such as Kenya Airways, Uchumi Supermarket, Transcentury had performed poorly. The five year period was also considered appropriate because many firms do their strategic plans which are long term in nature and hardly change before this term is over. The only changes they may make may be incremental and not overhaul.

3.7 Data Collection Instruments

Both primary and secondary data were required for the study. The primary data consisted of qualitative aspects while the secondary data quantitative aspects. A semi structured questionnaire was used to collect the primary data (Appendix II). According to Kothari (2004) questionnaire is very useful in extensive inquiries and can lead to reliable results despite being expensive. It allows the respondent adequate time to think through the responses. The questionnaire had both closed and open ended questions. The closed ended questions had the advantage of being quick to answer and did not require the respondent to have specialised writing skills and during the analysis the items were easy to code.

The open ended questions allowed the respondents to give their views; as such they were a means of getting the opinions and views of the respondents (Polonsky & Waller, 2009). The questionnaire was divided into four parts namely firm and respondent profile which was used to capture basic information about the firm and the respondent. The second part was diversification strategies which was further subdivided into product diversification, geographical diversification, vertical integration and horizontal integration. These were to capture information on the use of diversification strategies by the listed non-financial firms.

The third part was capital structure which captured information on the sources of finance to the firm and lastly was the firm performance which was aimed at interrogating the performance of the firm. The secondary data was collected from the annual audited financial reports for the chosen companies for the period from 2011 to 2015 and these were obtained from the NSE, Capital Markets Authority and respective companies' websites.

3.8 Data Collection Procedure

The choice of the procedure to collect data is dependent on the nature of the problem and availability of time and money (Cooper & Schindler, 2008). The study collected both primary and secondary data. The semi-structured questionnaires which were personally administered by the researcher were used to collect the primary data. The

researcher used the drop and pick method where the respondent was very busy and /or not available. The targeted respondents were the, departmental managers. The data collected from annual audited financial reports of the companies for the period ranging from 2011 to 2015 formed the secondary data.

3.9 Pilot Test

The aim of pilot test is to enable the researcher to pre-test the instrument to ensure that items in the instrument are clearly stated and that they have the same meaning to all respondents (Mugenda, 2008). Pilot testing assists researchers to check if the data collection instrument obtains the required results. It is during the pre-testing that the researcher assessed the clarity of the instrument and its ease of use. Pilot testing in this study was done by collecting data from managers of the listed firms not participating in the main study. The study took 10% of the main sample size and therefore four firms were picked through convenience sampling, this was based on the recommendation by Cooper and Schindler (2008).

Convenience sampling was deemed appropriate as the researcher used respondents that were voluntarily available (Leedy & Ormrod, 2005). A total of three managers from each firm were used in the testing of the reliability and validity of the questionnaire. Pilot testing was used first to address the questions' content, crucial topical areas of the study that were covered in the questionnaire. Secondly, it aided the researcher to check for errors and also find out if the questionnaire provided information suitable and reliable for analysis. From the pilot test the researcher revised the questionnaire to meet the needs of the study.

3.9.1 Reliability of Data Collection Instrument

Reliability is a measure of the degree to which a research instrument yields consistent results after repeated trials (Mugenda & Mugenda, 2003). It is important as it enables the researcher to identify misunderstanding, ambiguities and inadequate items in the research instrument and make the necessary adjustments so that the data collected can have more reliability. To ensure reliability in this study, the questionnaire was pre-tested on selected respondents; the aim of doing this was to

allow changes on various items of the questionnaire. To test data reliability the study employed Cronbach's alpha coefficient whose value falls between zero (0) and one (1) (Kipkebut, 2010). Cronbach's alpha (α) indicates the extent to which a set of test items can be treated as measuring a single latent variable (Cronbach, 1951). Higher values of this coefficient mean that scales are more reliable. A value of 0.7 is acceptable as recommended by Field *et al*. (2012) and a minimum level of 0.6 is also considered good by Bryman (2008). The recommended value of greater than 0.7 was adopted for this study.

3.9.2 Validity of Data Collection Instrument

Validity is the degree to which results obtained from the analysis of the data actually represent the phenomenon under study (Mugenda & Mugenda, 2003). According to Sekaran (2003) validity of the questionnaire items is dependent on ability and willingness of respondents to provide the requested information. The study considered construct validity which referred to the degree to which a construct's operationalization did measure what the theory said it did. In this study, to ensure validity of the questionnaire it involved going through the instrument and ensuring that it answered the set objectives. Content validity was also a concern in the study; it is the degree to which a test's content matches the content domain associated with the construct. A test has content validity built into it by careful selection of which items to include (Anastasi & Urbina, 1997).

Items are chosen so that they comply with the test specification which is drawn up through a thorough examination of the subject domain. Bailey (1994) notes that by using a panel of experts to review the test specifications and the selection of item, content validity of a test can be improved. This study therefore used the expertise of research supervisors and other researchers to improve on the questionnaire.

3.9.3 Pilot Test Results

Pilot testing is carried out with the aim of testing the reliability of the research instrument. In this study a total of 12 questionnaires were obtained and a reliability test conducted the results are as shown in the table below. The results showed that a

Cronbach alpha coefficient greater than 0.7 which indicated that the factor being investigated is reliable (Suhr & Shay, 2009). A summary of each factor's Cronbach alpha coefficient is shown below on Table 3.3.

Table 3.3: Reliability Test

Variables	Cronbach's Alpha	Number of Items	Comment
Product Diversification	0.795	8	Accepted
Geographical Diversification	0.795	7	Accepted
Vertical Integration	0.752	4	Accepted
Horizontal Integration	0.829	8	Accepted
Capital Structure	0.875	4	Accepted
Firm performance	0.754	5	Accepted

The findings indicated that the factors were found to be reliable as they exceeded the minimum threshold of 0.7 as recommended by Sekaran (2003). This implied that all the items in the questionnaire were retained for the final survey.

3.10 Data Analysis and Presentation

After data collection using the questionnaires, the data was cleaned, edited and coded into numerical representations. The type of data dictated the data analysis, that is whether qualitative or quantitative. Content analysis was employed to analyse the qualitative data. Polonsky and Waller (2009) allude that content analysis is textual or visually based and its main focus is the analysis of frequency of occurrence of specific phrases or images. The researcher also conducted the general statistical analysis which included descriptive statisitcs, correlation and regression analysis from which the hypotheses were tested.

3.10.1 Assumptions of the Study

The data was first checked for assumption violations. The assumptions tested included normality, linearity and multicollinearity. To test for normality the study used skewness and kurtosis and the Kolmogorov-Sminorv and Shapiro-Wilk

normality tests. Using R^2 and adjusted R^2 linearity was tested. This according to Hair *et al.*, (2010) R^2 and adjusted R^2 are the commenest way of assesing linearity relationship. Linearity was also rechecked using Variance Inflation Factor (VIF) which tests for multicollinearity of the independent variables. When the VIF of one of the independent variable is too large (>10) then there is need for concern or when the tolerance is 0.1 or less.

3.10.2 Testing of Hypothesis

To test the relationship between diversification strategies and performance of non-financial firms listed at NSE in Kenya multiple regression analysis was adopted. The moderating effects of capital structure on the relationship between diversification strategies and firm performance was tested using the moderated multiple regression model where the R^2 values with and without the moderating variable were compared (Brace, Kemp & Snelgar, 2012). To test the hypotheses the p-value approach at 95% confidence level was used. The null hypothesis was rejected if the calculated p-value was less than the significant level (0.05) otherwise it was accepted.

3.10.3 Model Specification

The study had four independent variables and one dependent variable; the simple regression model (Equation 3.1) was used to establish the relationship between these variables.

$Y = \beta_{oi} + \beta_i X_i + e_i$…… .....Equation 3.1

Where; Y = firm performance

i =1,2,3,4

β_{oi} is constant

β_i is the the slope or gradient of the regression line which explains the manner in which Y relates with X_i

e_i is the error term

The multiple linear regression model was employed to establish the joint relationship of the independent variables and dependent variable as illustrated in equation 3.2.

$Y = \beta_o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$…….....Equation 3.2

Where; Y=Firm Performance

β_o = constant

β_i is the coefficient for X_i (i = 1, 2, 3, 4)

X_1 = Product diversification

X_2 = Geographical diversification

X_3 = Vertical Integration

X_4 = Horizontal Integration

ε = error term

To test the moderation effect of capital structure the hierarchical moderated multiple regression (MMR) analysis was employed. This as alluded by Cohen, West and Aiken (2003) involved the computation of interaction variables PD*CS, GD*CS, VI*CS and HI*CS and regressing the same with the dependent variable. The equation 3.3 was applied to test the moderation effects

$Y = \beta_o + \beta_1 X_1 * Z + \beta_2 X_2 * Z + \beta_3 X_3 * Z + \beta_4 X_4 * Z + \varepsilon$.....Equation 3.3

Where,

β_o is constant

β_1, β_2, β_3 and β_4 are regression constants or the rate of change induced by X_1*Z, X_2*Z, X_3*Z and X_4*Z on Y.

ε is the standard error term.

Equation 3.3 established the existence of any moderating effect. Changes in R^2

revealed the magnitude of moderation effect and the null hypothesis would be rejected when the computed p-value was less than the significant value of 0.05.

3.10.4 Operationalization and Measurement of Variables

As stated by Saunders *et al*., (2009) operationalization of variables enables facts to be measured. According to Hail and Rist (2009) the measurement of variables in social relationships is and has been a nagging problem which still remains unresolved. In the study scales were either developed or adopted from other scales in existence to suit the study's context. The model for the relationship between diversification strategies and firm performance moderated by capital stucture included the following constructs as shown on Table 3.4.

Table 3.4: Operationalization and Measurement of Variables

Variable	Operationalization	Indicator	Measurements
Firm Performance (Dependent Variable)	Firm performance	• Return on total assets • Return on capital employed • Profit Margin	Ratios
Diversification Strategies (Independent Variables)	Product Diversification	• Related diversification • Unrelated diversification	Ordinal
	Geographical Diversification	• Internal diversification • External diversification	Ordinal
	Vertical Integration	• Backward integration • Forward integration	Ordinal Ordinal
	Horizontal Integration	• Operating cost reduction • Increased market share	Ordinal
Moderating Variable	Capital Structure	• Gearing ratio	Ratio

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents results and discussion of the findings. The study used descriptive analysis to find out how the respondents responded to various statements in the questionnaire. The study further carried out correlation and regressions analyses. Hypotheses testing were done based on the findings of the multivariate regression analysis.

4.2 Response Rate

The response rate of questionnaires was 116 out of the desired 135, this was 85.9%. According to Babbie (2004); Mugenda and Mugenda (2003), this response rate was high enough to analyse and make conclusions. A response rate of at least 51% in an open study is considered adequate by Nachmias and Nachmias (2006) while Cooper and Schindler (2003) argue that a 30% response rate of the sample size provide enough data to be used to generalize characteristics. This response rate could be attributed to frequent follow-ups by the researcher to all the respondents and appropriate data collection procedure employed.

4.3 Demographic Profile

The demographic profile indicated the state of the respondent at the data collection time. These are explained in the following sub-thematic areas addressing the prime profiles which are gender and age.

4.3.1 Respondents' Gender

The study wanted to establish the gender of respondents that participated in the study. Gender representation is important to ensure the feedback obtained was not gender biased. The findings revealed that slightly more than half (51.7%) of the

respondents were male while 48.3% were of the female gender as shown in Table 4.1.

Table 4.1: Gender

Variable	Characteristic	Frequency	Percent (%)
Gender	Male	60	51.7
	Female	56	48.3
Total		**116**	**100**

The results implied that the employment in the listed non-financial firms was not gender biased since both male and female were employed as the departmental or section heads. It also confirmed that these firms had adhered to the constitution promulgated in 2010 that stipulated that both private and public sector institutions should adhere to two third gender rule in their employment. These findings showed a significant reduction in gender disparities as reported by Suda (2002) whose study findings revealed the existence of gender disparity in the Kenyan labour market. The findings also implied that no gender dominated employment in the firms therefore there was no major disparity in gender distribution. Gender diversity in this study was assumed to have no implication on the performance of the listed non-financial firms as it was an inquiry to find out whether these firms had both genders employed as departmental managers.

4.3.2 Respondents' Age

In terms of age the findings of the study were as indicated in the Table 4.2 below. Age of the respondents was also a critical variable that the study pursued to establish. The results revealed that 42.2% of the respondents were between 35 and 44 years, 37.9% were between 45 and 54 years, 11.2% were between 25 and 34 while those above 55 years were the least at 8.6%.

Table 4.2: Respondents' Age

Variable	Characteristic	Frequency	Percent (%)
Age Bracket	Between 25 and 34	13	11.2
	Between 35 and 44	49	42.2
	Between 45 and 54	44	37.9
	Above 55	10	8.6
Total		**116**	**100**

The results implied that the respondents in this study were from different generations hence the study took into consideration the generation bias. Based on the results on age it is implied that majority (42.2%) were between the ages of 35 and 44. Age in this study was also assumed to have no implications on the performance of the listed non-financial firms as it was an inquiry to find out the age structure of respondents in the firms employed as departmental managers.

4.4 Descriptive Analysis Results

4.4.1 Product Diversification

The study's objective was to determine the influence of product diversification strategy on the listed non-financial firms' performance. This section presents descriptive results which include frequencies and percentages on the study variables. The study sought to establish the product classes and the approximate number of products/services offered by the target companies. To determine the firm's performance it was necessary to know what the firms offered in the market and therefore knowledge of companies' product classes and number of products/services was considered inevitable.

The results on Table 4.3 showed that 34.4% produced independent products, 32.8% produced complementary while another 32.8% produced substitute products. The study further sought to establish the number of products produced by the sampled

firms. The results showed that 15.5% produced only 1 product, 22.4% produced 2-3 products, another 22.4% produced between 4 and 5 products, 6-7 products were produced by 23.3% while those who produced over 7 products were 16.4%.

Table 4.3: Frequency for Product Diversification Sub-variables

		Frequency	Percent (%)
Product classes produced	Substitutes	38	32.8
	Complementary	38	32.8
	Independent	40	34.4
Total		**116**	**100**
Approximate number of types of products a firm currently has in the market	1 Product	18	15.5
	2-3 products	26	22.4
	4-5 products	26	22.4
	6-7 products	27	23.3
	Over 7 products	19	16.4
Total		**116**	**100**

These results showed that only 15% the listed non-financial firms produced one type of product which implied that they had not diversified in terms of products produced. The products offered by the non-financial firms had implications on supplies to the local demand and competition within the industry on raw materials used in the production process. Further implications of these findings revealed that due to challenges faced in different industries to which these firms belong in terms of cost of production, non-financial companies opted to diversify into other product or service offerings in order to improve their profit margin and capacity utilization.

The non-financial firms which had more than one product in the market were in a position to attract and satisfy diverse customer needs, create barriers to entry, spread risks and also develop economies of scope (Pakhunwanich, Story, & Cadogan, 2018)

this was expected to have a positive impact on the firm performance. The findings are in agreement with those of Maweu (2016) who alludes that production of diverse products translate into a positive performance measure and improvement in capacity utilization, as his findings revealed that diversification within the sugar companies had implications on the exploiting or use of sugar by-products which would otherwise have gone to waste.

Table 4.4 presents the findings based on the statements measured on Likert scale on the extent of product diversification among listed non-financial firms. The responses were analyzed through the mean and standard deviation. The respondents agreed that the firms introduced new products in the market often; it was significant for the firm to introduce products related to existing products in the market; the firms embarked on the introduction of related products on the strength of existing brand products; the firms advertised and delivered/distributed related products together; the firms utilized the same expertise in the development and marketing of related products; the introduction of related products had resulted in reduction of cost of doing business and the firms introduced products that are unrelated to current products. Each of the factors had a mean score of 4.27, 4.26, 4.10, 4.20, 4.21, 4.12, 4.29, and 4.10 respectively.

The aggregate mean score for the attributes was 4.19 which implied that all respondents agreed that product diversification strategy had an influence on firm performance. This aggregate mean score revealed that the attributes related to the use of product diversification strategy in the non-financial firms was high. Additionally the aggregate standard deviation (0.95) showed that the responses concentrated around the mean and hence a stable and reliable estimator of the true mean. The narrow variation from the overall mean response confirmed that the respondents agreed that product diversification strategy played a major role in performance of their firms.

Table 4.4: Attributes of Product Diversification

Statements	SA	A	N	D	SD	Mean	Std Dev
The firm introduces new products in the market often.	45.7%	42.2%	6.9%	3.4%	1.7%	4.27	0.87
It is significant for the firm to introduce products related to existing products in the market.	49.1%	36.2%	8.6%	3.4%	2.6%	4.26	0.94
Extent to which you agree that your firm embarked on the introduction of related products on the strength of existing brand products.	40.5%	41.4%	9.5%	5.2%	3.4%	4.10	1.01
The firm advertises related products together.	40.5%	47.4%	6.0%	3.4%	2.6%	4.20	0.90
Extent to which you agree that your firm delivers/distributes related products together.	44.0%	39.7%	11.2%	3.4%	1.7%	4.21	0.90
To what extent would you agree that your firm utilizes the same expertise in the development and marketing of related products?	44.0%	38.8%	7.8%	4.3%	5.2%	4.12	1.07
Extent to which you agree that introduction of related products has resulted in reduction of cost of doing business.	46.6%	44.0%	5.2%	0.9%	3.4%	4.29	0.88
The firm has introduced products that are unrelated to current products.	39.7%	43.1%	9.5%	3.4%	4.3%	4.10	1.01
Average						**4.19**	**0.95**

The findings implied that the non-financial firms favored this strategy and hence were able to capitalize on the synergies that came with related product diversification. Pearce and Robinson (2010) noted that related diversification involves the opportunites of a second business that benefits from access to core competencies of a company. These firms also adopted the unrelated diversification and this also implied that they diversified into industries or businesses that had good

profit opportunities through acquisitions rather than formation of subsidiaries as was noted by Thompson Jr., Strickland III, and Gamble (2005).

The findings presented in Table 4.5 showed some of the reasons cited by the respondents for their firms' diversification into unrelated products. The findings revealed that 26.7% cited low operational costs in unrelated products, 25.9% cited high profit margin in unrelated products, 24.1% cited less competition faced by unrelated products and finally 23.3% cited better sales in unrelated products. The findings implied that various firms had different reasons for diversifying into unrelated products.

Table 4.5: Reasons for adopting Unrelated Product Diversification

Reasons	Frequency	Percent
Better sales in unrelated products	27	23.3
Less competition faced by unrelated products	28	24.1
High profit margin in unrelated products	30	25.9
Low operational costs in unrelated products	31	26.7
Total	**116**	**100**

The study findings concurred with Yuliani *et al.* (2013) who posited that there were numerous motives for corporate diversification which may include; the synergistic motive, the financial motive, the market power motive, the resource motive, the agency motive and the cost efficiency motive. The findings implied that listed non-financial firms diversified especially where there were opportunities to reduce costs and also when they felt that they had powerful and well-known brands and also where they felt they could spread risk across a range of businesses.

The study also asked the respondents to rate their firms in terms of product diversification. The results presented in Table 4.6 showed that 34.9% rated their firms as highly diversified; another 46.5% indicated they were moderately diversified and 18.6% indicated they were undiversified. These findings further confirmed that majority of the listed non-financial firms were diversified in terms of products

produced. The firms that were found to be highly diversified meant that the sales from their dominant business was below 70% of their total sales while the moderately diversified ones meant that the dominant business sales was between 70 % and 95% of the firm's total sales.

Table 4.6: Description of Firm's Diversification

Description with regard to product diversification	Frequency	Percent (%)
Highly diversified	40	34.9
Moderately diversified	54	46.5
Undiversified	22	18.6
Total	**116**	**100**

On the description on diversity with regard to product the study findings also concurred with Yahaya *et al.* (2009); Mashiri and Sebele (2014) who classified the firms they studied into three groups; firms with Specialisation Ratio (SR) was greater than 0.95 (SR>0.95) which were firms that produced a single product, firms with SR which was between 0.7 and 0.95 which were moderately diversified and firms whose SR was less than 0.7 were highly diversified. The firms that were found to be highly diversified meant that the sale from their dominant business was below 70% and those that were moderately diversified meant that their sales from their dominant business was between 70% and 95% of the firms total sales. This classification had an implication of showing the prominence of the firm's core product market to that of the rest of the firm.

4.4.2 Geographical Diversification

The study's second objective was to examine the influence of geographical diversification strategy on the listed non-financial firm performance in Kenya. This section presents descriptive results on respondents' opinion on statements used to measure geographical diversification. The results presented in Table 4.7 indicated that 74.1% of the respondents revealed that their firms ventured into new markets for the last five (5) years. This was an attribute of geographical diversification.

Further results indicated that majority of the respondents agreed that they had branches both locally, regionally and globally. Some companies indicated to have as many as over 10 branches regionally and globally while others had between 1 and 3 branches in the region and around the world. These results clearly indicated that majority of the listed non-financial firms had diversified geographically locally and to both regional and global markets.

Table 4.7: Frequency for Geographical Diversification Sub-variables

		Frequency	Percent (%)
Has the company ventured into any new markets for the last five (5) years?	Yes	86	74.1
	No	30	25.9
	Total	**116**	**100**
Local branches in Kenya (Domestic Market)	None	25	21.6
	1-3 branches	18	15.5
	4-6 branches	21	18.1
	7-9 branches	28	24.1
	Over 10	24	20.7
	Total	**116**	**100**
Branches in the East Africa region (Regional Market)	None	26	22.4
	1-3 branches	20	17.2
	4-6 branches	23	19.8
	7-9 branches	23	19.8
	Over 10	24	20.7
	Total	**116**	**100**
Branches or affiliates in the world (Global Market)	None	23	19.8
	1-3 branches	27	23.3
	4-6 branches	29	25
	7-9 branches	19	16.4
	Over 10	18	15.5
	Total	**116**	**100**

Table 4.8 contains the findings based on the statements on Likert scale. The respondents were expected to indicate their opinion on a scale of 5-strongly agree to 1-strongly disagree with regard to the statement on geographical diversification attributes. Table 4.10 contains the descriptive results on the extent of geographical diversification among listed non-financial firms in Kenya. The responses were analyzed through the mean and standard deviation. The respondents agreed that their firms frequently ventured into marketing of their products in new geographical areas; the firms had expanded operations to different regions through branches or subsidiaries; these branches or subsidiaries were found within and outside the country's borders; firms had established related firms in other regions within Kenya and unrelated firms across the country and that it was important for the firms to establish branches or subsidiaries in different regions. Each of the factors had a mean score of 3.61, 3.66, 3.41, 3.56, 3.48, 3.61 and 3.55.

The aggregate mean score for the attributes was 3.55 which on the study's 5 point Likert scale tends to 4 which was 'agree' implied that respondents agreed that geographical diversification strategy had an influence on the firm performance. This aggregate mean score revealed that the attributes related to the use of geographical diversification strategy by the non-financial firms was high. Additionally the aggregate standard deviation (1.29) showed that the responses concentrated around the mean and hence a stable and reliable estimator of the true mean. The narrow variation from the overall mean response confirmed that the respondents agreed that geographical diversification strategy played a major role in performance of their firms.

Table 4.8: Attributes of Geographical Diversification

Statements	SA	A	N	D	SD	Mean	Std Dev
The firm frequently ventures into marketing of its products in new geographical areas	20.7%	30.2%	28.4%	11.2%	9.5%	3.61	1.21
The firm has expanded its operations to different regions through branches or subsidiaries	36.2%	24.1%	20.7%	7.8%	11.2%	3.66	1.34
The branches or subsidiaries are found within the country's borders	27.6%	8.6%	20.7%	30.2%	12.9%	3.41	1.33
The branches or service outlets are found outside the country's borders	27.6%	32.8%	19.8%	7.8%	12.1%	3.56	1.30
To what extent would you agree that your firm has established related firms in other regions within Kenya	25.0%	30.2%	23.3%	11.2%	10.3%	3.48	1.27
To what extent would you agree that your firm has established unrelated firms across the country	31.9%	26.7%	22.4%	8.6%	10.3%	3.61	1.30
To what extent would you agree that it is important for your firm to establish branches or subsidiaries in different regions	29.3%	27.6%	23.3%	8.6%	11.2%	3.55	1.30
Average						**3.55**	**1.29**

4.4.3 Vertical Integration

The study's third objective was to evaluate the influence of vertical integration strategy on listed non-financial firms' performance. This section presents descriptive results on the extent of vertical integration strategy among listed non-financial firms and how it affects their performance. The study sought to establish the percentage of inputs a firm obtains from a business unit that it owns. The results as shown on Table 4.9 revealed that 44% of the respondents indicated that they obtained between 0% to about 80% of their inputs from a business unit they owned, while 41% of the respondents revealed they obtained over 80% of their inputs from a firm they owned.

Similarly, the results showed that 47.4 % of the respondents sold more than 80% of their output through or to their own outlets, while 36.2% had sales of between 0% and 80% made through their own outlets. The study sought to establish the percentage of firm's ownership of suppliers or distributors. The findings are presented on Table 4.11. Majority of the respondents (43.1%) stated that their firms had 0% ownership, 40.5% stated that their firms had less than 95% ownership and 16.4% stated that their firms had more than 95% ownership.

Table 4.9: Frequency for Vertical Integration Sub-variables

Variables	Category	Frequency	Percent (%)
Percentage of inputs a firm obtains from a business unit that it owns	No input at all	17	14.7
	Between 0% and 80% of inputs	51	44
	More than 80% of the inputs	48	41.4
	Total	**116**	**100**
Proportion of output a firm sells to (or through) its own outlets	No sales to (or through) a business unit	19	16.4
	Between 0% and 80% of output sold (or through)	42	36.2
	More than 80% of output sold to (or through)	55	47.4
	Total	**116**	**100**
Percentage of ownership of suppliers or distributors	0% ownership (contracts)	50	43.1
	Less than 95% ownership (quasi-integration)	47	40.5
	95% or more of ownership (full ownership)	19	16.4
	Total	**116**	**100**

From the findings it is implied that the non-financial listed firms adopted both the backward and forward vertical integration since they sourced their inputs from business units they owned and also sold their output through outlets they owned. The findings also implied that these firms preferred to engage in contracts either with their suppliers or distributors which is explained by the 0% ownership of suppliers or distributors and quasi–integration vertical arrangements with their suppliers and distributors as explained by the less than 95% ownership. The findings concur with arguments by Besanko *et al.* (2007) who allude that firms choose to integrate vertically thus producing their own materials and distributing their finished goods instead of transferring the supply and distribution to independent outsiders. These arrangements also lead to increased technical efficiencies in coordinating, monitoring and enforcement of production process according to Sudarsanam (2010). Expectations are that the firms would have a positive performance because they would exert control on the business units vertically linked to them especially with regards to the sourcing of inputs and distribution of output.

Table 4.10 contains the descriptive results on the extent of vertical integration among listed non-financial firms in Kenya. The responses were analyzed through the mean and standard deviation. The respondents agreed that their firms supplied their own input materials; the firms distributed or were involved in the distribution of their own output; that it was important for the firms to distribute its products through established wholesale or retail outlets and it was also important for the firms to own wholesale/retail outlets. Each of the factors had a mean score of 3.64, 3.84, 3.81 and 3.63 respectively.

The aggregate mean score for the attributes was 3.73 which tends to 4 (agree) on the 5 point Likert scale used in the study which implied that respondents agreed that vertical integration strategy had an influence on the firm performance. This aggregate mean score revealed that the attributes related to the use of vertical integration strategy in the non-financial firms was high. Additionally the aggregate standard deviation (1.24) showed that the responses concentrated around the mean and hence a stable and reliable estimator of the true mean. The narrow variation from

the overall mean response confirmed that the respondents agreed that vertical integration strategy played a major role in performance of their firms.

Table 4.10: Attributes of Vertical integration

Statements	SA	A	N	D	SD	Mean	Std Dev
To what extent would you agree that your firm supplies its own input materials?	30.2%	34.5%	13.8%	12.1%	9.5%	3.64	1.29
To what extent would you say that your firm distributes its own output?	38.8%	32.8%	11.2%	8.6%	8.6%	3.84	1.27
To what extent would you agree that it is important for your firm to distribute its products through established wholesale or retail outlets?	30.2%	39.7%	18.1%	5.2%	6.9%	3.81	1.13
To what extent would you say it is important for your firm to have own wholesale/retail outlets?	27.6%	38.8%	12.9%	10.3%	10.3%	3.63	1.28
Average						**3.73**	**1.24**

The study sought to find out from the respondents some of the advantages of vertical integration. The study established that the advantages of supplying own raw materials; the results showed that 43.1% indicated timely supply, 25.9% indicated reliable supply and 24.1% indicated high quality supply. Some of the advantages cited by the respondents for distributing own output included timely distribution which was cited by 37.9% of the respondents, good contact with customer (32.8%) and maintenance of quality products (29.3%). The study findings showed that majority of the respondents cited improved efficiency as one of the advantages of

firms distributing products through established wholesale or retail outlets. Timely distribution was cited by majority of the respondents as the advantage of firms owning wholesale/retail outlets.

Findings on the merits of vertical integration are in agreement with those of Harrigan (1984) who alluded that firms had the following advantages upon the adoption of vertical integration; integration economies which reduced costs, improved coordination of activities which reduced inventory and other related costs, competitive benefits which made a firm avoid foreclosure to inputs services or markets, improved marketing and technology intelligence, an increase in value addition, superior control of the firm's economic environment and synergies could be created by coordinating vertical activities skillfully.

The findings of the study on advantages of vertical integration also concurs with the findings of the study done by Wambugu *et al*., (2014) which revealed that the vertical integration model in dairy production confered a lot of benefits to farmers thus enabling them produce more profitably. This study finding also concurs with those of Sudarsanam (2010) who found that vertical integration leads to increased technical efficiencies in coordinating, monitoring and enforcement of production process. It is expected that firms that have adopted vertical integration will have high performance since the adoption of this strategy enabled a firm to be efficient and effective in their business activities.

4.4.4 Horizontal Integration

The study's fourth objective was to assess the influence of horizontal integration strategy on non-financial firms' performance. This section presents results of descriptive analysis. The study used frequencies, percentages, mean and standard deviation in this section. The study wanted to establish whether the non-financial firms in Kenya had ventured into new regional areas at the same stage of production as its operations. Analysis of data showed that 69% of the respondents agreed while 31% disagreed as revealed in Table 4.11.

The study further sought to establish some of the methods for horizontal integration adopted by the non-financial firms listed in Kenya. The results revealed that 34.5% of the respondents indicated strategic alliances, 17.2% indicated acquisitions, and 16.4% indicated joint venture while 15.5% indicated mergers as some of the methods of combining businesses preferred by the listed non-financial firms in their horizontal integration.

Table 4.11: Frequency for Horizontal Integration Sub-variables

Variables	Category	Frequency	Percent
The firm has ventured into new regional areas at the same stage of production as its current operations	Yes	80	69
	No	36	31
Total		**116**	**100**
Method of combining businesses preferred by firms	Subsidiary	10	8.6
	Hostile Takeover	9	7.8
	Acquisition	20	17.2
	Merger	18	15.5
	Strategic Alliance	40	34.5
	Joint Ventures	19	16.4
Total		**116**	**100**

The findings on firms venturing into new regional areas at the same stage of production and marketing as its current operations implied that listed non-financial firms engaged in horizontal integration as it was implied by Onumah *et al*., (2007). Onumah alluded that horizontal integration occurred when a farmer had control over other farmers who were performing similar activities at the same production and marketing level. Because of adopting horizontal integration then it implied that the

non-financial firms would have control over other firms and this would translate to higher market share which subsequently implied a positive effect on the profits of these firms.

Sudarsanam (2010) noted that pure horizontal mergers existed where firms selling identical products merged and related mergers where firms which sold products that were not the same in terms of end use but shared things in common in terms of technology, markets and distribution channels, branding or knowledge base.

Table 4.12 presents the findings based on the statements measured on Likert scale on the extent of horizontal integration among the listed non-financial firms. The responses were analyzed through the mean and standard deviation. The respondents agreed that the firms had combined with other companies to form new firms through mergers and acquisitions; it was significant for the firm to engage in business mergers; it was also important for the firm to acquire other firms with similar products / services; the merger or acquisition had led to reduction in operation and marketing costs and enabled a firm attain economies of scale, it influenced the increase in market share of the firm; it had led the firms to gaining better distribution or marketing network and the firms eliminated competition and offered protection to the existing market by obtaining new market outlets. Each of the factors had a mean score of 3.92, 4.01, 4.07, 4.12, 3.82, 4.21 and 4.26 and 3.92 respectively.

The aggregate mean score for the attributes was 4.04 which tends to 4 (agree) on the 5 point Likert scale used in the study implied that respondents agreed that horizontal integration had an influence on the firm performance. This aggregate mean score revealed that the attributes related to the use of horizontal integration strategy in the non-financial firms was high. Additionally the aggregate standard deviation (1.11) showed that the responses concentrated around the mean and hence a stable and reliable estimator of the true mean. The narrow variation from the overall mean response confirmed that the respondents agreed that horizontal integration strategy played a major role in performance of their firms.

Table 4.12: Attributes of Horizontal Integration

Statement	SA	A	N	D	SD	Mean	Std Dev
The firm has combined with another company to form a new company through a merger or acquisition.	37.9%	35.3%	14.7%	5.2%	6.9%	3.92	1.17
To what extent would you agree that it is significant for your firm to engage in a business merger?	35.3%	44.8%	10.3%	4.3%	5.1%	4.01	1.05
To what extent do you agree that it is important for your firm to acquire other firms with similar products / services?	44.8%	33.6%	10.3%	6.0%	5.3%	4.07	1.12
The merger or acquisition has led to reduction in operation and marketing costs.	44.0%	38.8%	7.8%	4.3%	5.2%	4.12	1.07
The merger or acquisition has enabled the firm to achieve economies of scale.	36.2%	34.1%	12.4%	7.8%	9.5%	3.82	1.34
The merger or acquisition has influenced the increase in market share of the firm.	44.0%	39.7%	11.2%	3.4%	1.7%	4.21	0.99
The merger or acquisition had led to the firm gaining better distribution or marketing network.	45.1%	36.2%	12.6%	3.4%	2.6%	4.26	0.94
The firm has eliminated competition and protected existing market by obtaining new market outlets.	37.9%	35.3%	14.7%	5.2%	6.9%	3.92	1.17
Average						**4.04**	**1.11**

The study findings agree with results of Mutura *et al*. (2016) which alluded to the fact that the firms enjoyed the advantage of reducing cost of production and marketing. This is by pooling skilled manpower and thus minimizing transaction cost, accessing market information and adhering to government regulations was easier. The findings were also in agreement with those of Besanko *et al*. (2007) who argued that economies of scale and scope existed where large scale production, distribution or retail operations had an advantage in costs over smaller operations.

In this case when the listed non-financial firms adopt horizontal integration they may be able to operate in large scale thus enjoy economies of scale. The overall implication of these findings was that listed non-financial firms diversified horizontally through mergers and acquisitions to increase their market share in other regions where they initially lacked presence and also reduce the firm's operations and marketing costs. It may be expected that with a larger market share and low operation and marketing costs the listed non-financial firms would have better performance thus a positive effect on the profit margins.

4.4.5 Capital Structure

The study's fifth objective was to examine the moderating effect of capital structure on relationship between diversification strategies and performance of listed non-financial firms**.** The respondents were probed to rate various statements on capital structure using a Likert scale. The results are presented on Table 4.13 On the statement of whether the firms relied on loans to run business activities 36.2% of the respondents strongly agreed while 6.9% strongly disagreed. On the statement of whether the firm had a huge burden of short term liabilities compared to the long-term 34.5% of the respondents strongly agreed while 6.9% strongly disagreed. The question of leverage control 33.6% of the respondents agreed that the company kept the leverage under control while 8.6% disagreed. The question on whether the cost of equity was more than the cost of debt 34.5% of the respondents strongly agreed while 12.1% strongly disagreed.

The aggregate mean score for the attributes was 4.05 which tends to 4 (agree) on the 5 point Likert scale used in the study. This aggregate mean score revealed that the attributes of the capital structure in the non-financial firms was high. Additionally the aggregate standard deviation (1.26) showed that the responses concentrated around the mean and hence a stable and reliable estimator of the true mean. The narrow variation from the overall mean response confirmed that the respondents agreed to the statements regarding the capital structure in the questionnaire.

Table 4.13: Attributes of Capital Structure (in percentage)

Statement	SA	A	MA	D	SD	Mean	Std Dev
To run business activities the firm relies on loans.	36.2%	37.1%	10.3%	9.5%	6.9%	4.2	1.21
The company has a huge burden of short-term liabilities compared to long-term.	34.5%	37.9%	9.5%	11.2%	6.9%	3.9	1.22
The company keeps leverage level under control.	33.6%	33.6%	12.1%	12.1%	8.6%	4.3	1.28
The cost of equity is more than cost of debt.	34.5%	37.1%	9.5%	6.9%	12.1%	3.8	1.32
Average						**4.05**	**1.26**

The findings revealed that the company used short-term liabilities to fund their business activities. These findings concurs with the study findings of Maina and Kondongo (2013) whose study on the effect of debt-equity ratio on performance of listed firms employing a census approach showed that the listed firms used more short-term debt than long-term.

This section contains the trend analysis results of capital structure which was measured using the gearing ratio. Table 4.14 indicates that the gearing ratios of listed non-financial firms decreased across the study period. The gearing ratio in 2015 was less compared to that of 2011 which implied that the use of debt in financing operations reduced for the listed non-financial firms between 2011 and 2015 which further implied that firms were using more equity to finance their operations than debts. The large standard deviations revealed that some firms were highly leveraged while others were not. The minimum values indicate some firms had very low debts while others had huge debts as shown by the maximum gearing ratios.

Table 4.14: Descriptive Statistics for Capital Structure

		2011	2012	2013	2014	2015
Gearing Ratios	Mean	51.98057	45.93314	45.65972	46.92147	40.57788
	Std. Deviation	44.66293	38.42332	36.58386	36.60132	29.58879
	Minimum	5.1000	4.6600	0.0000	5.9200	2.5300
	Maximum	195.56	170.44	180.93	193.92	137.28

The trend analysis presented in Figure 4.1 further revealed that on average there was a decline in the gearing ratios among the listed non-financial firms on NSE. These findings confirmed that firms reduced their debt and relied on equity to finance their

operations.

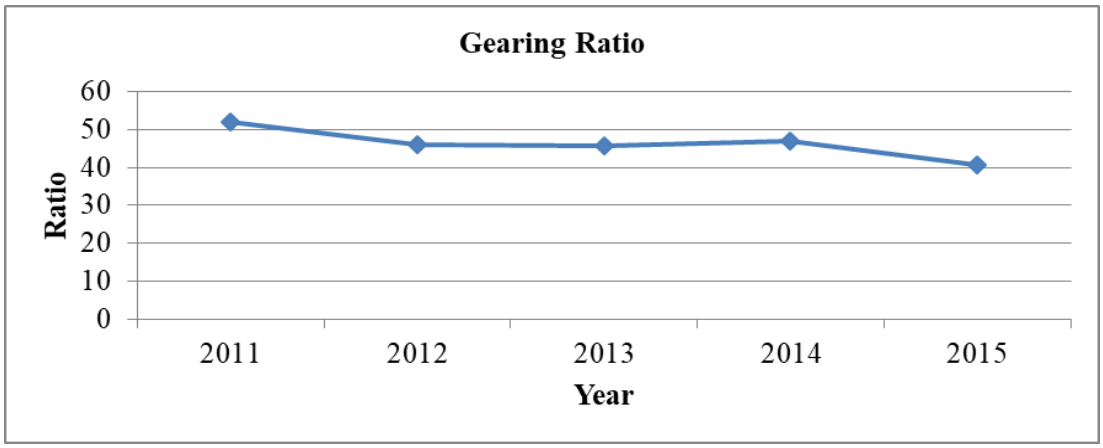

Figure 4.1: Gearing Ratio

The findings show that the non-financial firms used the mix of debt and equity to finance their business activities. According to Kochhar (1996), the relative mix of debt and equity capital presented in form of a firm's capital structure is an important governance mechanism that impacts corporate diversification strategy. Capital structure of a firm has significant implications for a firm's operations; as it creates opportunities and limitations for the firm (Chen & Low, 2004).

4.4.6 Firm Performance

The study sought to determine the attributes rating of listed non-financial firms' performance. The results are as presented in Table 4.15. On the statement of description of the firm's ROTA for the last 5 years 68.9% of the respondents agreed to the statement it has been rising while 11.6% said it was declining and another 11.6% mentioned that it had been fluctuating. About the ROCE over the last 5 years 51.2% mentioned that ROCE was rising 16.3% stated that it was declining, 14% mentioned it remained constant and 11.6% said it was fluctuating. On the statement about the profit margin most of the respondents (46.5%) indicated it was rising while 20.9% showed that it was declining and 16.3% and 9.3% indicated that the PM was fluctuating and remained constant respectively. The average mean of responses was 1.77 which means that majority of the respondents had their ROTA, ROCE and PM

rising and the standard deviation was 1.09 which meant that the responses were clustered around the mean response.

Table 4.15: Attributes of Firm Performance (in percentage)

Statement	Rising	Declining	Constant	fluctuating	Mean	Std Dev
How would you describe your firm's return on total assets for the last five years?	69.8%	11.6%	0%	11.6%	1.5	1.01
How would describe your firm's return on capital employed for the last five years?	51.2%	16.3%	14%	11.6%	1.85	1.1
How would describe your firm's profit margin for the last five years?	46.5%	20.9%	9.3%	16.3%	1.95	1.15
Average					**1.77**	**1.09**

This section presents the trend analysis on the performance indicators adopted by the study to measure listed non-financial companies' performance. These were computed from annual reports of the listed non-financial firms. They included return on total assets, return on capital employed and profit margins. All the indicators were measured in percentages.

a). Return on Total Assets

The return on total assets (ROTA) is a ratio that measures a company's earnings before interest and taxes (EBIT) against its total net assets. The ratio is an indicator of how effectively a firm is using its assets to generate earnings before contractual obligations are paid. The results on the analysis of ROTA are presented in Table 4.16 and Figure 4.2. The findings presented in the table indicated that ROTA was high in

2011 compared to other years in the study period. The results further showed that some firms made huge losses as shown by minimum ROTA values while others were highly profitable as shown by maximum ROTA values during the study period. The high standard deviation further confirmed large deviation in ROTA of listed non-financial firms from the mean. On average the results showed that non-financial firm's ROTA decreased between 2012 and 2015.

Table 4.16: Descriptive Statistics for Return on Total Assets

	Statistics	2011	2012	2013	2014	2015
ROTA	Mean	12.4027	10.27181	9.588554	9.910838	2.298069
	Std. Deviation	19.01651	16.12426	17.28	16.25821	27.70691
	Minimum	-61.9306	-28.0237	-56.1939	-26.6664	-120.147
	Maximum	51.792	48.1359	57.0573	60.847	38.3739

The trend of return on total assets shown in Figure 4.2 indicates that there has been significant reduction in return on total assets of these listed firms. The findings implied that the average performance these firms have been reducing.

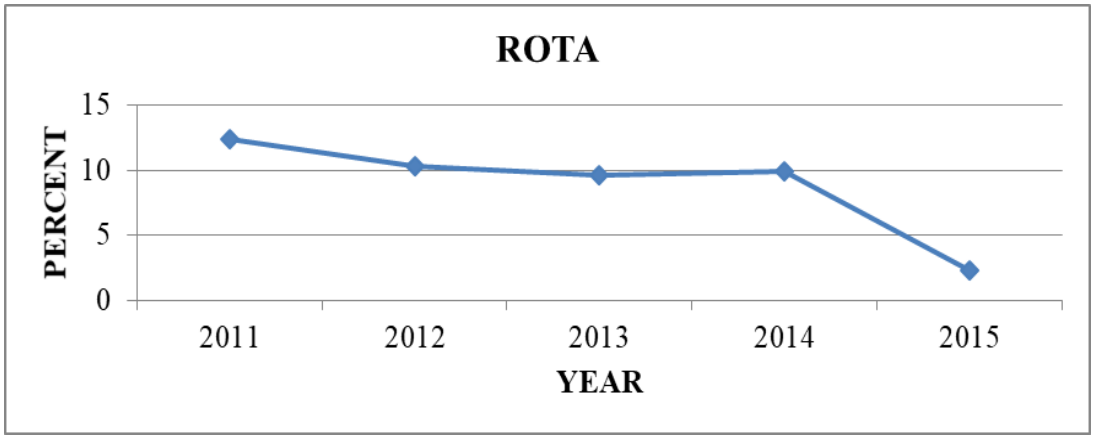

Figure 4.2: Return on Total Asset

b). Return on Capital Employed

This section contains the analysis of return on capital employed for listed non-financial firms in Kenya. Table 4.17 contain the descriptive statistics for return on capital employed. The results presented in Table 4.19 and Figure 4.3 showed an increase in ROCE between 2011 and 2012 followed by a significant drop in the subsequent years. The least average ROCE was recorded in 2013 which coincided with the 2013 general election in Kenya. There was a slight increase in average ROCE in 2014 followed again by a slight drop in 2015. Similar, to ROTA some firms had high ROCE as shown by maximum values while other significantly low ROCE as indicated by the minimum values.

Table 4.17: Descriptive Statistics for Return on Capital Employed

	Statistics	2011	2012	2013	2014	2015
ROCE	Mean	15.52606	17.71253	6.475264	8.850263	7.861293
	Std. Deviation	28.48959	26.71152	28.63203	31.77855	35.81299
	Minimum	-66.012	-50.4343	-72.6472	-69.3231	-80.9311
	Maximum	80.11	82.5778	71.742	84.5037	86.5788

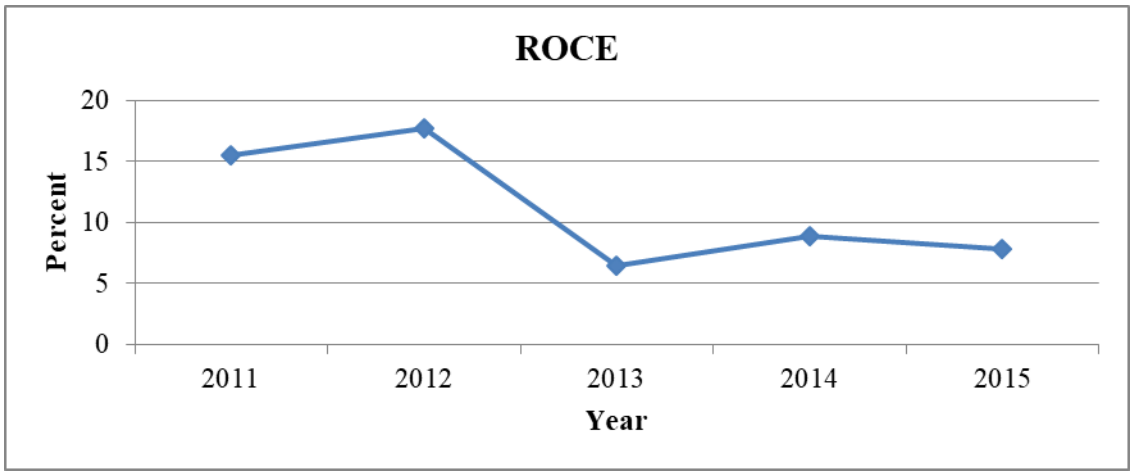

Figure 4.3: Return on Capital Employed

c). Profit Margin

The study further analysed profit margins as a percentage of profit before interest and tax to total sales of the listed firms in Kenya. The descriptive findings for profit margins are presented in Table 4.18.

Table 4.18: Descriptive Statistics for Profit Margin

	Statistics	2011	2012	2013	2014	2015
PM	Mean	17.97109	15.39909	9.682733	12.85734	7.280343
	Std. Deviation	27.31138	33.92413	31.39496	26.59928	72.94485
	Minimum	-49.3767	-61.3541	-122.342	-44.1737	-327.514
	Maximum	101.4592	126.3843	66.6102	82.148	215.7653

The descriptive statistics presented in Table 4.20 indicated that profit margins were higher in 2011 compared to other years in the study period; however, there was a slight increase in average profit margins in 2014. The high standard deviation values implied that the huge difference in terms of profit margins among different firms. These further implied that some firms had large profit margins as indicated by maximum values while others had very low profit margins as shown by the minimum values. On average the finding implied that listed non-financial firms in Kenya recorded a reduction in percentage of profits margins to total sales from an average of 17.9% in 2011 to an average of 7.28% in 2015. This reduction could be attributed to intense competition from international firms as argued by Ng'ang'a, Namusonge and Sakwa (2016). The trend results presented in Figure 4.4 further confirmed that there was reduction in percentage of profit margins to total sales in listed non-financial firms in Kenya.

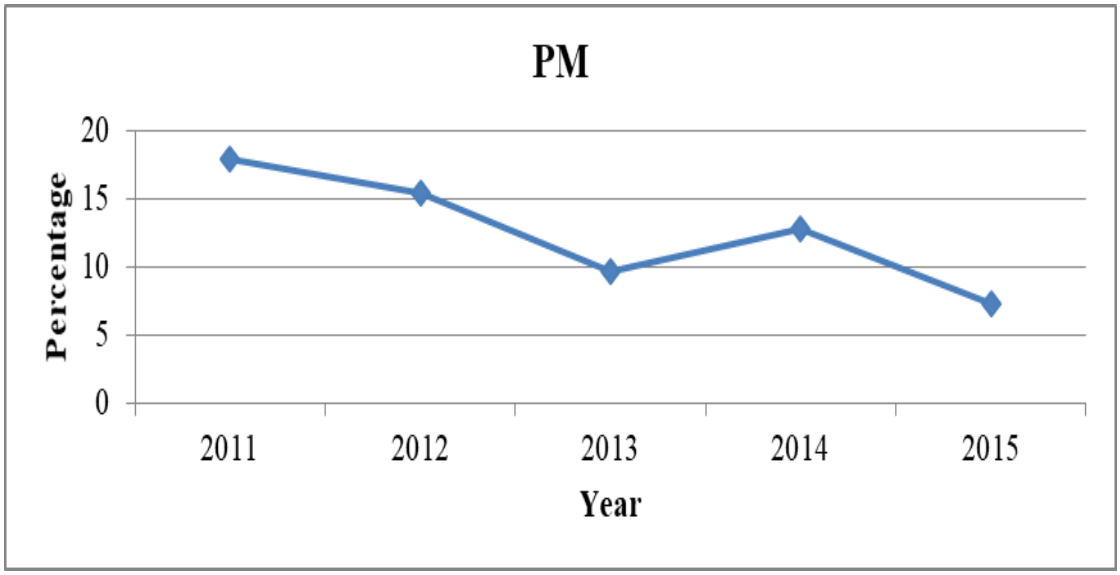

Figure 4.4: Profit Margin

These findings could justify why firms such as Mumias, Eveready and Transcentury have continuously given profits warnings to shareholders while other such Bamburi Cement have resorted to cost cutting strategies to remain afloat.

4.5.7 Diversification Strategies Adopted by Non-Financial Firms Listed at NSE

This section presents the finding on the extent of adoption of different diversification strategies among the listed non-financial firms in Kenya. This was achieved by categorizing firms into two categories high diversification and low diversification based on various diversification strategies adopted in this study.

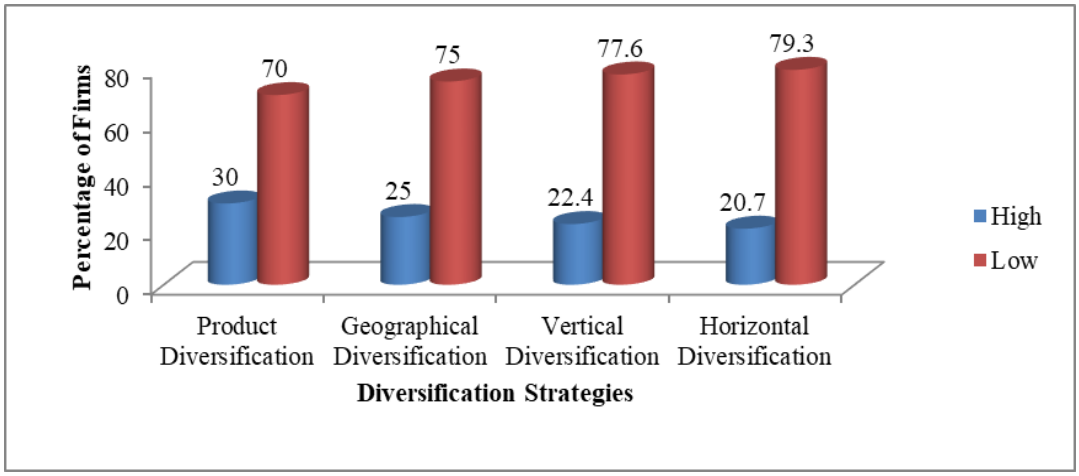

Figure 4.5: Diversification Strategies Adopted by Non-Financial Firms at NSE

The findings revealed that the most common diversification strategy was product diversification, followed by geographical diversification. Vertical and horizontal integrations were least common among listed non-financial firms in Kenya. However, only 30% of the firms could be categorized as highly diversification in terms of product diversification, 25% geographical diversification, 22.4% vertical integration and 20.7% horizontal integration. These findings implied that on average the level of product and geographical diversification, vertical and horizontal integration was low among the listed non-financial firms in Kenya.

4.5 Inferential Statistics Results

This section present results of the correlation and regression analysis. Before proceeding with the analysis several diagnostic tests were carried out to test how well the data fitted in the models. The study relied on the inferential statistics to test the study hypotheses.

4.5.1 Diagnostic Tests

The study performed tests on statistical assumptions which included normality test, multicollinearity, and factor analysis. The tests were done to ensure that the assumptions were not violated which implied that the findings would not be biased.

4.5.1.1 Normality Test

Normality is the benchmark for statistical methods as is indicated by Hair *et al*. (2010). It is one of the three assumptions of multivariate analysis. It is defined as the distribution shape of an individual metric variable and its correspondence to the normal distribution. Regression assumes normality between variables. Skewness and kurtosis measures of distribution should be computed to test for normality (Tabachnick & Fidell, 2007). Skewness gives a description of the symmetry of the distribution around the centre and kurtosis tells of the degree of flatness or peakedness of a distribution (Cohen *et al*., 2003). As a rule of the thumb the value of skewness shoud fall between positive one and negative one i.e ±1 Table 4.19 shows all the variables corresponding to skewness and kurtosis values. Most of the variables are close to the enough to values given as the rule of the thumb and therfore did not violate the normality assumption which is based on the rule of ±1 statistic threshold (Aluja, Blanch, & Garcia, 2005). Kolmogorov-Smirnov Test (K-S) was also carried out to test the normality of the variables. This test is a non-parametric procedure which establishes the type of distribution of data sample. The results are shown on Table 4.19.

Table 4.19: Normality Test Results

		PD	GD	VI	HI	CS	FP
N		116	116	116	116	116	116
Normal Parameters[a,b]	Mean	4.194	3.5419	3.7306	4	3.7866	2.8333
	Std. Deviation	0.591	0.80955	0.95391	0.84898	0.86241	0.66157
Most Extreme Differences	Absolute	0.275	0.126	0.19	0.222	0.222	0.137
	Positive	0.165	0.067	0.134	0.156	0.115	0.078
	Negative	-0.275	-0.126	-0.19	-0.222	-0.222	-0.137
Kolmogorov-Smirnov Z		0.967	1.353	0.403	0.387	0.388	0.477
Asymp. Sig. (2-tailed)		0.112	0.051	0.543	0.32	0.321	0.065
Skewness		0.065	0.025	0.009	0.033	0.069	0.051
Kurtosis		2.875	2.733	2.885	2.593	2.792	2.597

a. Test distribution is Normal.

b. Calculated from data.

The null and alternative hypotheses were: H_0: The data is normally distributed and H_1: The data is not normally distributed. From the results obtained the Kolmogorov-Smirnov Z statistics was greater than 0.05, the study therefore failed to reject the null hypotheses hence conclusion was made that the data was fit for linear regression analysis as it was normally distributed. The values for skewness were also close to zero which implied that the data was normally distributed. For a standard normal distribution skewness should be zero. Kurtosis for a normal distribution on the other hand, should be 3; therefore the reported values indicated that the data was a normal distribution since the values were close to 3.

4.5.1.2 Test for Multicollinearity

Multicollinearity is said to occur when the independent variables are highly correlated. This may cause serious impacts on the results of a regression analysis as it would be very difficult to make a distinction between the contributions of a variable showing multicollinearity in predicting the regression relationship. According to Hair *et al*. (2010) an ideal situation is when there are high correlations between the independent variable and the dependent variable and not among the independent variables.

The study used variance inflation factor (VIF) as an indicator of multicollinearity. The results are shown on Table 4.20. Multicollinearity indicates whether a predictor has a strong linear relationship with other predictor variables, a VIF of 10 should be a cause of worry about multicollinearity (Field *et al.*, 2012). This implies that a value of 10 and above could suggest presence of multicollinearity. As a rule of thumb, lower levels of VIF are desirable as higher levels negatively affect the results from the multiple regression analysis. Accordingly, the study adopted a VIF value of 10.0 as the threshold.

Table 4.20: Multicollinearity Test Results

	Collinearity Statistics	
	Tolerance	**VIF**
Product Diversification	0.632	1.582
Geographical Diversification	0.486	2.059
Vertical Integration	0.535	1.869
Horizontal Integration	0.633	1.579
Capital Structure	0.553	1.808
Mean VIF		**1.7794**

The results on multicollinerity test revealed that there was no threat of multicollinearity as all the VIF values were within the threshold of 10.0. This implied that the study could use the linear regression model.

4.5.1.3 Factor Analysis

Factor analysis looks into the internal-correlations among data to come up with an internally consistent surrogate of the variable (Mugenda & Mugenda, 2012). This study conducted a factor analysis and according to Gorsuch (1990) the implication of this is that the newly created variables should represent the fundamental constructs, which underlie the original variables. Factor loadings are an indication of how much a factor explains a variable in factor analysis. The general rule of the thumb applied for acceptable factor loading is 0.40 or above. Hair *et al.* (2010) and Tabachnick and Fidell (2007) noted that only factors with factor loading above 0.4 should be retained for further study. Therefore, the minimum level 0.40 or 40% was approved for the study.

The results obtained on Table 4.21 summary of factor loading analysis showed that all the variables had factor loadings above 40% and therefore were acceptable on this basis hence no need for trimming of the factors. This means that no variable was dropped or eliminated.

Table 4.21: Summary Factor Analysis Results

Variables	Number of Items	Loadings	Comment
Product Diversification	8	Above 70	Accepted
Geographical Diversification	7	Above 70	Accepted
Vertical Diversification	4	Above 50	Accepted
Horizontal Diversification	8	Above 60	Accepted
Capital Structure	4	Above 70	Accepted
Firm Performance	5	Above 70	Accepted

4.5.2 Correlation Results

This section presents results of correlation tests conducted to test the association between product diversification, geographical diversification, vertical integration and horizontal integration and performance of non-financial firms listed at the NSE.

4.5.2.1 Correlation Results for Product Diversification Strategy and Firm Performance

To test the association strength between product diversification strategy and firm performance correlation analysis was conducted. The results of correlation analysis as shown on Table 4.22 indicated that product diversification had a positive and significant correlation ($r=0.390$, $p=0.000$) with performance of listed non-financial firms. This association between product diversification and firm performance of listed non-financial firms was moderately strong. The findings implied that positive increase in product diversification would result in corresponding positive change in firm performance.

Table 4.22: Correlation Results Product Diversification and Firm Performance

		Product Diversification	Firm Performance
Product Diversification	Pearson correlation	1	0.39**
	Sig. (2-tailed)		0.000
	N	116	116
Firm Performance	Pearson correlation	0.39**	1
	Sig. (2-tailed)	0.000	0.000
	N	116	116

** Correlation is significant at the 0.05 level (2-tailed)

The study findings concur with Marangu, Oyagi, and Gongera (2014) who investigated the effect of concentric diversification strategy on organisation competitiveness on sugar firms in Kenya. Using regression analysis the study found that firm performance is significant and positively related to product diversfication. The findings also concur with Schoar's (2002) study who using a data set from the US Census Bureau's Longitudinal Research Database found out a positive correlation between diversification and performance of the firm. However the findings contradict Phung and Mishra (2016) who did a study on the influence of corporate diversification on firm performance of listed companies in Vietnam over a period between 2007 to 2012. The results revealed that corporate diversification had a negative effect on the firm performance.

4.5.2.2 Correlation results for Geographical diversification strategy and firm performance

The correlation analysis was done to test the association's strength between geographical diversification strategy and firm performance. The results from this correlation analysis were as shown on Table 4.23 indicated that geographical diversification strategy had a positive and significant correlation ($r = 0.466$, $p = 0.000$) with listed non-financial firms' performance. This association was moderately

strong. The findings implied that a positive increase in geographical diversification would result in a corresponding positive change in firm performance.

Table 4.23: Correlation Results Geographical Diversification and Firm Performance

		Geographical diversification	Firm Performance
Geographical Diversification	Pearson correlation	1	0.466**
	Sig. (2-tailed)	0.000	0.000
	N	116	116
Firm Performance	Pearson correlation	0.466**	1
	Sig. (2-tailed)	0.000	0.000
	N	116	116

** Correlation is significant at the 0.05 level (2-tailed)

The findings concur with studies done by Delios and Beamish (1999) and Tallman and Li (1996) which found a positive relationship between geographical diversification and firm performance. However, the study findings contradicted those of Kumar (1984) and Njuguna (2013) which revealed that geographical diversification and firm performance had a negative relationship. This is alluded to the fact that the regional and global expansion may have to take some time to break even and therefore net income of firm's branches would result into a negative relationship. The current study findings are also in contradiction with Wan (1998) as his study findings showed that geographical diversification had no effect on the firm performance.

4.5.2.3 Correlation Results for Vertical Integration Strategy and Firm Performance

The correlation was conducted to test the strength of the association between vertical integration strategy and firm performance. The results of correlation analysis as

shown on Table 4.24 indicated that vertical integration strategy had a positive and significant correlation (r=0.441, p=0.000) with listed non-financial firms' performance. The association between vertical integration and firm performance of listed non-financial was moderately strong. The findings implied that a positive increase in vertical integration would result in a corresponding positive change in firm performance.

Table 4.24: Correlation Results Vertical Integration Strategy and Firm Performance

		Vertical Integration	**Firm Performance**
Vertical Integration	Pearson correlation	1	0.441**
	Sig. (2-tailed)	0.000	0.000
	N	116	116
Firm Performance	Pearson correlation	0.441**	1
	Sig. (2-tailed)	0.000	0.000
	N	116	116

** Correlation is significant at the 0.05 level (2-tailed)

The findings of this study concurs with findings by Forbes and Lederman (2010) on the US airline industry which revealed that vertical integration strategy had a positive effect on the operational performance of the large US airlines. They also concurred with study findings of Kimani *et al.* (2016) whose findings revealed that vertical integration contributed significantly to the competitive performance of the firms. However, the findings contradicted the findings of the study carried out by Ravichandran and Bhaduri (2015) on firms in the Indian manufacturing sector which evidently revealed a negative relationship between vertical integration and performance of the firms.

4.5.2.4 Correlation Results for Horizontal Integration Strategy and Firm Performance

The correlation analysis was conducted to test the strength of the association between horizontal integration strategy and firm performance. The results of correlation analysis as shown on Table 4.25 indicated that horizontal integration had a positive and significant correlation (r=0.339, p=0.000) with listed non-financial companies' performance. The association between horizontal integration and firm performance was moderately strong. The findings implied that positive increase in horizontal integration would result in corresponding positive change in firm performance.

Table 4.25: Correlation Results horizontal integration strategy and firm performance

		Horizontal Integration	**Firm Performance**
Horizontal Integration	Pearson correlation	1	0.339**
	Sig. (2-tailed)	0.000	0.000
	N	116	116
Firm Performance	Pearson correlation	0.339**	1
	Sig. (2-tailed)	0.000	0.000
	N	116	116

** Correlation is significant at the 0.05 level (2-tailed)

The findings concur with Ravichandran and Bhaduri's (2015) study on firms in the Indian manufacturing sector whose results showed that highly diversified firms performed better on account of horizontal diversification which had a positive effect on their performance. It was also in agreement with findings of Kimani *et al.*, (2016) which evidenced that vertical and horizontal integration contributed significantly to the competitive performance of firms in the rabbit industry while diagonal integration was found to be insignificant.

4.5.2.5 Overall Pearson Correlation Results

Multicollinearity occurs when the independent variables show high correlations amongst themselves. Ideally the high correlations should exist between independent variable and dependent variable, while there should be low correlations among the independent variables as alluded to by Hair *et al.* (2010). The result showed that product diversification strategy had a positive and significant association with firm performance (r=0.390, p=0.000).

The result also showed that geographical diversification strategy had a positive and significant association with firm performance (r=0.466, p=0.000). The association between vertical integration strategy and firm performance was also positive and significant (r=0.441, p=0.000). Horizontal integration strategy (r=0.339, p=0.000) was also found to be positively and significantly correlated with firm performance.

According to Field (2005) multicollinearity may lead to significant impact on the statistics results and regression since it may not be possible to distingush the contributions by a variable that exhibits multicollinearity in predicting the regression relationship. Table 4.26 presents the overall correlation matrix for all the variables. Examination of the table reveals that there was no sign of multicollinearity. The highest correlation coefficient (0.628) does not exceed the 0.9 threshold as suggested by Hair *et al.* (2010).

Table 4.26: Overall Pearson Correlation Matrix

		PD	GD	VI	HI	CS	FP
Product Diversification	Pearson Correlation	1					
	Sig. (2-tailed)						
Geographical Diversification	Pearson Correlation	0.5**	1				
	Sig. (2-tailed)	0.000					
Vertical Integration	Pearson Correlation	0.544**	0.547**	1			
	Sig. (2-tailed)	0.000	0.000				
Horizontal Integration	Pearson Correlation	0.44**	0.511**	0.52**	1		
	Sig. (2-tailed)	0.000	0.000	0.000			
Capital Structure	Pearson Correlation	0.385**	0.628**	0.518**	0.456**	1	
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		
Firm Performance	Pearson Correlation	0.390**	0.466**	0.441**	0.339**	0.363**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	

** Correlation is significant at the 0.05 level (2-tailed)

4.5.3 Regression Analysis Results

This section contains the results of regression analysis. Regression modelling was adopted to link the independent variables to the dependent variable. Analysis of variance (ANOVA) as described by Kothari (2004) is a technique for testing difference among diverse data groups for similarity. The core of ANOVA is in the total amount of variation in a data set that can be categorized into two; one attibuted to chance and the other to specific causes. F-test is also used in the context of ANOVA.

4.5.3.1 Univariate Regression Result for Product Diversification and Firm Performance

The first objective of the study aimed at testing the influence of product diversification strategy on firm performance of listed non-financial firms in NSE. Linear regression analysis was employed to test the nature of influence of product diversification strategy on firm performance. The model summary presented in Table 4.27 results showed a relationship R= 0.390 this indicates a strong positive association between product diversification strategy and firm performance. R-squared = 0.152 indicated that 15.2% of variation in the firm performance of listed non-financial firms can be explained by product diversification strategy while the remaining percentage of 84.8% is explained by other variables not in the model.

Table 4.27: Model Summary for Product Diversification

Model	R	R-Squared	Adjusted R-Squared	Std. Error of the Estimate
1	0.390	0.152	0.145	0.61182

a. Predictors: (Constant), Product Diversification

As shown on Table 4.28 F-test was done to test the null hypothesis product diversification strategy has no significant influence on the listed non-financial firms' performance. The F-statistic obtained was 20.466 with a p-value of 0.000 which further confirmed a significant relationship between product diversification and performance of listed non-financial firms in Kenya. The null hypothesis was rejected since the F- statistic = 20.466 which is greater than the F critical value = 3.92 and a conclusion made that product diversification strategy influenced the firm performance.

Table 4.28: ANOVA for Product Diversification Strategy

Model		Sum of Squares	Df	Mean Square	F	P-value
1	Regression	7.661	1	7.661	20.466	0.000[b]
	Residual	42.673	114	0.374		
	Total	50.333	115			

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Product Diversification

To test significance of the influence of product diversification strategy on firm performance, the regression coefficients (β_1), the intercept (β_0), and the significance of all coefficients in the model were subjected to the t-test to test the null hypothesis that the coefficient is zero. The null hypothesis state that, β (beta) = 0, meaning product diversification strategy has no significant influence on firm performance as the slope β (beta) = 0.

The model $\mathbf{Y= \beta_0+ \beta_1X_1+\varepsilon}$ therefore became **Firm Performance = 1.002 + 0.437 (Product Diversification Strategy).** The beta coefficient results of the model showed that the constant β_0 = 1.002 was significantly different from 0, since the p-value = 0.016 is less than 0.05. The coefficient β_1 = 0.437 similarly was significantly different from 0 with a p-value = 0.000 which was less than 0.05. The results revealed a positive and significant relationship between product diversification strategy and firm performance. The results implied that a unit change in product diversification strategy would result in 0.437 units change in performance of the non-financial companies listed at NSE in Kenya.

Table 4.29: Regression Coefficients for Product Diversification

	β	Std. Error	Beta	t	P-value.
(Constant)	1.002	0.409		2.45	0.016
Product Diversification Strategy	0.437	0.097	0.39	4.524	0.000

a. Dependent Variable: Firm Performance

This confirms the existence of a significant positive effect of product diversification strategy on performance of listed non-financial firms in Kenya. The findings of this study concurs with those of Mashiri and Sebele (2014) who indicated that performance as measured in terms of turnover growth, net profit, return on sales, return on equity and return on assets increased in line with increase in diversification. However, the findings conflicted with George and Kabir (2012) who in their study using a sample of 607 listed companies in Bombay Stock Exchange and data from 1999 to 2000 revealed that there was a negative effect of corporate diversification on firm performance. It was also conflicting with the results of Khanna and Palepu (2000) who in their study of 1309 listed firms in India showed a non-linear relationship between corporate diversification and firm performance.

4.5.3.2 Univariate Regression Result for Geographical Diversification and Firm Performance

The study's second objective was to establish the relationship between geographical diversification and listed non-financial firms' performance. The results (Table 4.30) indicated R = 0.466 indicating a strong positive association between geographical diversification and firm performance of listed companies, R-squared of 0.217 implied that geographical diversification strategy accounted for 21.7% of the variation in performance of listed non-financial firms while the remaining percentage 78.3% is explained by other variables not in the model.

Table 4.30: Model Summary for Geographical Diversification

Model	R	R-Squared	Adjusted R-Squared	Std. Error of the Estimate
1	0.466	0.217	0.210	0.58784

a. Predictors: (Constant), Geographical Diversification

As shown on the Table 4.31, F-test was carried out to test the null hypothesis geographical diversification strategy no significant influence on the performance of

the companies listed at NSE in Kenya. The F-statistic obtained was 31.658 with a p-value of 0.000 which is less than 0.05 which confirmed a significant relationship between geographical diversification strategy and the listed non-financial firms' performance.

Table 4.31: ANOVA for Geographical Diversification

Model		Sum of Squares	Df	Mean Square	F	P-value
	Regression	10.940	1	10.940	31.658	0.000[b]
	Residual	39.394	114	0.346		
	Total	50.333	115			

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Geographical Diversification

To test the significance of the influence of geographical diversification strategy on firm performance, regression coefficients (β_2), intercept (β_0), and significance of all coefficients in the model were subjected to the t-test to test the null hypothesis that the coefficient is zero. The null hypothesis state that, β (beta) = 0, which meant geographical diversification strategy has no significant influence on firm performance as the slope β (beta) = 0.

The model $\mathbf{Y= \beta_0+ \beta_2X_2+\varepsilon}$ therefore became **Firm Performance = 1.484 + 0.381 (Geographical Diversification Strategy).** The beta coefficient results of the resulting model showed that the constant $\beta_0 = 1.484$ was significantly different from 0, since the p- value = 0.000 is less than 0.05. The coefficient $\beta_2 = 0.381$ similarly was significantly different from 0 with a p-value = 0.000 which was less than 0.05. The results revealed a positive and significant relationship between geographical diversification strategy and firm performance. These results implied that a unit change in geographical diversification strategy would result in 0.381 units change in performance of the non-financial companies listed at NSE in Kenya. This confirms that there is a significant positive influence of geographical diversification strategy on firm performance of listed non-financial firms in Kenya.

Table 4.32: Regression Coefficients for Geographical Diversification

	β	Std. Error	Beta	t	P-value
(Constant)	1.484	0.246		6.033	0.000
Geographical Diversification	0.381	0.068	0.466	5.627	0.000

a. Dependent Variable: Firm Performance Mean

The findings concur with those of Wan (1998) on Hong Kong Multinational Corporations (MNCs) which revealed that international diversification had a positive impact on profit stability and sales growth. They also concur with findings of Arasa (2014) in a study on the KCB Group which adopted a longitudinal research design. Using trend data analysis and content analysis the findings revealed that KCB group adopted geographical, product and unrelated diversification strategies. These diversification strategies had a positive effect on performance, as income increased the total profits of the banks also registered significant increment. While a study done by Kwena (2015) still on commercial banks in Kenya revealed a positive relationship between geographical diversification and firm performance when ROE was used as a measure of performance, however a negative relationship existed when ROA was used as a measure of performance.

4.5.3.3 Univariate Regression Result for Vertical Integration and Firm Performance

The study's third objective was to determine the influence of vertical integration on the performance of listed non-financial firms in Kenya. This section presents univariate regression results on influence of vertical integration on performance of listed non-financial firms in Kenya. The results presented in Table 4.33 indicated that the model had R = 0.441 indicating a strong positive association between vertical integration strategy and firm performance and R-squared of 0.195 which implied that this strategy accounted for 19.5% of the variation in performance of listed non-financial firms while the remaining percentage of 80.5% was explained by other variables not in the model.

Table 4.33: Model Summary for Vertical Integration

Model	R	R-Squared	Adjusted R-Squared	Std. Error of the Estimate
1	0.441	0.195	0.188	0.59620

a. Predictors: (Constant), Vertical Integration

As shown on Table 4.34 F-statistic obtained was 27.601 with a p-value of 0.000 which confirms a significant relationship between vertical integration and firm performance of listed non-financial firms in Kenya. The findings also implied that vertical integration was a significant predictor of firm performance of listed non-financial firms.

Table 4.34: ANOVA for Vertical Integration

Model		Sum of Squares	df	Mean Square	F	P-value
1	Regression	9.811	1	9.811	27.601	0.000[b]
	Residual	40.522	114	0.355		
	Total	50.333	115			

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Vertical Integration

As shown on Table 4.35 testing the significance of the influence of vertical integration strategy on firm performance, the regression coefficients (β_3), the intercept (β_0), and the significance of all coefficients in the model were subjected to a t-test to test the null hypothesis that the coefficient is zero. The null hypothesis state that, β (beta) = 0, which meant vertical integration strategy has no significant influence on firm performance as the slope β (beta) = 0.

The model $\mathbf{Y= \beta_0+ \beta_3X_3+\varepsilon}$ therefore became **Firm Performance = 1.691 + 0.306 (Vertical Integration Strategy).** The beta coefficient results of the model showed that the constant $\beta_0 = 1.691$ was significantly different from 0, since the p- value = 0.000 < 0.05. The coefficient $\beta_3 = 0.306$ similarly was significantly different from

zero with a p-value = 0.000 < 0.05. The results established a positive and significant relationship between vertical integration strategy and firm performance. The results implied that a unit change in vertical integration strategy would result in 0.306 units change in performance of the non-financial companies listed at NSE in Kenya. This confirms that there is a significant positive influence of vertical integration strategy on firm performance of listed non-financial firms in Kenya.

Table 4.35: Regression Coefficients for Vertical Integration

	β	**Std. Error**	**Beta**	**t**	**P-value**
(Constant)	1.691	0.224		7.537	0.000
Vertical Integration	0.306	0.058	0.441	5.254	0.000

a Dependent Variable: Firm Performance

These findings concurs with those of Oloda (2017) who carried out a study on the effect of vertical integration on organisational survival in selected manufacturing firms in Nigeria. The study's sample size was 205 managers who were selected from six firms. The relationship between the variables was tested using the Spearman Rank-order correlation coefficient. The findings of the study revealed a positive and significant relationship between the dimensions of vertical integration (both forward and backward) and organizational survival. Conclusion from this study was that vertical integration enhances organizational survival.

Findings also concur with assertions of Sudarsanam (2010) who found that vertical integration leads to increased technical efficiencies in coordinating, monitoring and enforcement of production process which subsequently implied that the firm performance would improve with the afore mentioned issues in check. These findings are also in agreement with Kimani *et al.,* (2016) whose findings revealed that vertical integration contributed significantly to the competitive performance of the firms.

4.5.3.4 Univariate Regression Result for Horizontal Integration and Firm Performance

The study's fourth objective was to determine the influence of horizontal integration on the performance of non-financial firms listed on NSE. This section presents the univariate regression results to test the relationship between horizontal integration strategy and firm performance of listed non-financial firms in Kenya. The results presented in Table 4.36 revealed that the model had R = 0.339 indicating a strong positive association between horizontal integration strategy and firm performance and R-squared of 0.115 which implied that this strategy accounted for 11.5% of the variation in performance of listed non-financial firms while the remaining 88.5% was explained by other factors not in the model.

Table 4.36: Model Summary for Horizontal Integration

Model	R	R Squared	Adjusted R Squared	Std. Error of the Estimate
1	0.339	0.115	0.107	0.62515

a. Predictors: (Constant), Horizontal Integration strategy

As shown on Table 4.37 the F-statistic obtained was 14.790, p-value of 0.000 which further confirmed a significant relationship between horizontal integration strategy and firm performance of listed non-financial firms in Kenya. The findings also implied that horizontal integration strategy was a significant predictor of firm performance of listed non-financial firms.

Table 4.37: ANOVA for Horizontal Integration

Model		Sum of Squares	df	Mean Square	F	P-value
1	Regression	5.780	1	5.780	14.790	0.000[b]
	Residual	44.553	114	0.391		
	Total	50.333	115			

a. Dependent Variable: Firm Performance
b. Predictors: (Constant), Horizontal Integration

As shown on Table 4.38 testing the significance of the influence of horizontal integration strategy on firm performance, the regression coefficients (β_4), the intercept (β_0), and the significance of all coefficients in the model were subjected to a t-test in order to test the null hypothesis that the coefficient is zero. The null hypothesis stated, β (beta) = 0, which meant horizontal integration strategy has no significant influence on firm performance as the slope β (beta) = 0.

The model $\mathbf{Y= \beta_0+ \beta_4X_4+\varepsilon}$ therefore became **Firm Performance = 1.777 + 0.264 (Horizontal Integration Strategy).** The beta coefficient results of the model showed that the constant β_0 = 1.777 was significantly different from 0, since the p- value = 0.000 < 0.05. The coefficient β_4 = 0.264 was also significantly different from zero with a p-value = 0.000 < 0.05. The results established a positive and significant relationship between horizontal integration strategy and firm performance. The results implied that a unit change in horizontal integration strategy would result in 0.264 units change in performance of the non-financial companies listed at NSE in Kenya. This confirms that there is a significant positive influence of horizontal integration strategy on firm performance of listed non-financial firms in Kenya.

Table 4.38: Regression Coefficients for Horizontal Integration

	β	Std. Error	Beta	t	P-value
(Constant)	1.777	0.281		6.33	0.000
Horizontal Integration	0.264	0.069	0.339	3.846	0.000

a. Dependent Variable: Firm Performance

The study findings concur with those of Ravichandran and Bhaduri (2015) which revealed that performance (Tobin's Q) of the highly diversified firms performed poorly on account of vertical diversification while horizontal diversification had a positive effect on performance. These findings are also in agreement with those by Kimani *et al.* (2016) which that revealed that vertical and horizontal integration contributed significantly to the competitive performance while diagonal integration was found to be insignificant.

4.5.3.5 Multivariate Correlation and Regression Analysis Results

A multivariate regression analysis was carried out to test the joint relationship of all the independent variables and the dependent variable. The results showed (Table 4.39) that jointly product diversification strategy, geographical diversification strategy, vertical integration strategy and horizontal integration strategy had a significant association with performance of listed non-financial firms in Kenya (R = 0.751). The results further revealed that product diversification strategy, geographical diversification strategy vertical integration strategy and horizontal integration strategy accounted for 56.3% of the variation in performance of non-financial firms listed at the Nairobi Securities Exchange in Kenya.

Table 4.39: Model Summary for Multivariate Regression

Model	R	R-Squared	Adjusted R-Squared	Std. Error of the Estimate
1	0.751	0.563	0.548	0.56234

a. Predictors: (Constant), Product Diversification, Geographical Diversification, Vertical Integration, Horizontal Integration,

The results of ANOVA indicated that product diversification strategy, geographical diversification strategy, vertical integration strategy and horizontal integration strategy, were significant predictor variables of performance of non-financial firms listed at the Nairobi Securities Exchange in Kenya. This was indicated by the F-statistic results (F = 35.808, p = 0.000) indicating that the model used to link the independent variables and dependent variable was statistically significant.

Table 4.40: ANOVA for Multivariate Regression

Model		Sum of Squares	df	Mean Square	F	P-value
1	Regression	45.293	4	11.323	35.808	0.000[b]
	Residual	35.101	111	.316		
	Total	80.395	115			

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Product Diversification, Geographical Diversification, Vertical Integration, Horizontal Integration

In multivariate regression analysis product diversification strategy, geographical diversification strategy, vertical integration strategy and horizontal integration strategy were found to have positive significant influence on performance of listed non-financial firms in Kenya.

The multivariate equation $Y = \beta_o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$ therefore became

Firm Performance = 0.266 + 0.252 (*Product Diversification Strategy*) + 0.199 (*Geographical Diversification Strategy*) + 0.179 (*Vertical Integration Strategy*) + 0.274 (*Horizontal Integration Strategy*)

The equation above implies that a unit increase in product diversification strategy will result to 0.252 units increase in firm performance. It further shows that unit increase in geographical diversification strategy will cause a positive change of 0.199 units in firm performance. Similarly as shown by the results a unit change in vertical integration and horizontal integration will cause a positive change of 0.179 and 0.274 units respectively in firm performance.

In the multivariate regression analysis as shown on Table 4.41 the coefficient for product diversification strategy was $\beta_1 = 0.252$ which was also significantly different from 0 with a p-value= 0.031 which was less than 0.05. This established a significant positive relationship between product diversification strategy and performance of listed non-financial firms. The null hypothesis H_{01}: product diversification strategy has no significant influence on performance of non-financial companies listed at NSE in Kenya was rejected and hence the study concluded that product diversification strategy significantly influenced the performance of these firms.

The coefficient for geographical diversification strategy was $\beta_2 = 0.199$ which was also significantly different from 0 with a p-value= 0.021 which was less than 0.05. This also revealed a significant positive relationship between geographical diversification strategy and performance of listed non-financial firms in Kenya. The study therefore rejected the null hypothesis H_{02}: Geographical diversification strategy has no significant influence on the performance of non-financial companies listed at NSE in Kenya; hence the study concluded that geographical diversification strategy

significantly influenced the performance of listed non-financial firms in Kenya. This result concurs with Johnson *et al.* (2008) who found that geographical diversification strategy enabled a firm to stabilize its earnings across markets whereby a drop in one region is offset by increased earnings in another region.

The results also revealed a positive and significant relationship between vertical integration strategy and performance of listed non-financial firms in Kenya (β_3=0.179, p=0.019). The study rejected the null hypothesis H_{03}: vertical integration strategy has no significant influence on performance of non-financial companies listed at NSE in Kenya; hence the study concluded that vertical integration strategy significantly influenced the performance of listed non-financial firms in Kenya. These findings concur with those of Sudarsanam (2010) who found that vertical integration leads to increased technical efficiencies in coordinating, monitoring and enforcement of production process.

The results finally revealed a positive and significant relationship between horizontal integration strategy and performance of listed non-financial firms in Kenya (β_4=0.274, p=0.000). The study rejected the null hypothesis H_{04}: horizontal integration strategy has no significant influence on performance of non-financial firms listed at NSE in Kenya; hence the study concluded that horizontal integration strategy significantly influenced the performance of listed non-financial firms in Kenya. These findings concur with Besanko *et al.* (2007) who found that the production process for specific good or service during merger and acquisition exhibits economies of scale over a range of output when average cost declines over that range.

Table 4.41: Regression Coefficients for Multivariate Regression

Model		Unstandardized Coefficients		Standardized Coefficients	t	P-value
		β	Std. Error	Beta		
1	(Constant)	0.266	0.382		0.697	0.487
	Product Diversification	0.252	0.116	0.178	2.181	0.031
	Geographical Diversification	0.199	0.085	0.192	2.346	0.021
	Vertical Integration	0.179	0.075	0.204	2.376	0.019
	Horizontal Integration	0.274	0.075	0.330	3.646	0.000

a. Dependent Variable: Firm Performance

4.5.4 Hypothesis Testing

Hypothesis One: Product Diversification Strategy and Firm Performance

H_{01}: Product diversification strategy has no significant influence on performance of non-financial firms listed at NSE in Kenya.

To test this null hypothesis F-test was carried out. The results of ANOVA showed that F value 20.466 with p-value = 0.000 which is less than 0.05 meaning that the null hypothesis is rejected and conclusion made that product diversification strategy significantly influence performance of listed non-financial firms in Kenya. The results of the beta coefficient in the resulting model from the regression analysis indicated that the constant $\beta_0 = 1.002$ was significantly different from zero since p-value = 0.016 which is less than 0.05. The results imply that a unit change in value of product diversification strategy will result in 0.437 units change in firm performance. This confirms a positive significant influence of product diversification strategy on the firm performance of listed non-financial firms in Kenya.

Hypothesis Two: Geographical Diversification Strategy and Firm Performance

H_{02}: Geographical diversification strategy has no significant influence on performance of non-financial firms listed at NSE in Kenya.

To test this null hypothesis F-test was carried out. The results of ANOVA showed that F value 31.658 with p-value = 0.000 which is less than 0.05 meaning that the null hypothesis is rejected and conclusion made that geographical diversification strategy significantly influence performance of listed non-financial firms in Kenya. The results of the beta coefficient in the resulting model from the regression analysis indicated that the constant $\beta_0 = 1.484$ was significantly different from zero since p-value = 0.000 which is less than 0.05. The results implied that a unit change in value of geographical diversification strategy will result in 0.381 units change in firm performance. This confirms a positive significant influence of geographical diversification strategy on the performance of listed non-financial firms in Kenya.

Hypothesis Three: Vertical Integration Strategy and Firm Performance

H_{03}: Vertical integration strategy has no significant influence on performance of non-financial firms listed at NSE in Kenya.

F-test was carried out to test this null hypothesis. The results of ANOVA showed that F value 27.601 with p-value = 0.000 which is less than 0.05 meaning that the null hypothesis is rejected and conclusion made that vertical integration strategy significantly influence performance of listed non-financial firms in Kenya. The results of the beta coefficient in the resulting model from the regression analysis indicated that the constant $\beta_0 = 1.691$ was significantly different from zero since p-value = 0.000 which is less than 0.05. The results imply that a unit change in value of vertical integration strategy will result in 0.306 units change in firm performance. This confirms that there is a positive significant influence of vertical integration strategy on the firm performance of listed non-financial firms in Kenya.

Hypothesis Four: Horizontal Integration Strategy and Firm Performance

H_{04}: Horizontal integration strategy has no significant influence on performance of listed non-financial companies at NSE in Kenya.

To test the null hypothesis that horizontal integration strategy has no significant influence on performance of non-financial companies listed at NSE in Kenya the F-test was carried out. The results of ANOVA showed that F value 14.790 with p-value = 0.000 which is less than 0.05 meaning that the null hypothesis is rejected and conclusion made that there is significant influence of horizontal integration strategy on performance of listed non-financial firms in Kenya. The results of the beta coefficient in the resulting model from the regression analysis indicated that the constant $\beta_0 = 1.777$ was significantly different from zero since p-value = 0.000 which is less than 0.05. The results imply that a unit change in value of horizontal integration strategy will result in 0.264 units change in firm performance. This confirms a positive significant influence of horizontal integration strategy on the firm performance of listed non-financial firms in Kenya.

Hypothesis Five: Moderating effect of Capital Structure Attributes

H_{05}: Capital structure has no moderating effect on the relationship between diversification strategies and performance of the non-financial companies listed at the NSE in Kenya.

According to the findings, all the independent variables (product diversification, geographical diversification, vertical integration and horizontal integration) were positively moderated by the capital structure. From the level of significance of the ANOVA of the four variables, regression analysis results reveal that capital structure moderated the effect of product diversification, geographical diversification, vertical integration and horizontal integration on performance of non-financial companies listed in Kenya. The findings imply that the null hypothesis that capital structure no moderating effect on the relationship between diversification strategies and performance of non-financial firms listed at NSE in Kenya was rejected at a significant level of 0.05.

4.5.5 Regression Analysis with the moderator variable

Moderation according to Judd, Kenny and McClelland (2001) means an interaction effect where the introduction of a variable changes the direction and magnitude of the relationship between two variables. In a linear causal relationship where X the predictor (independent variable) is presumed to cause Y dependent variable, Z is a moderator variable which alters the relationship between X and Y. The moderation effect could be enhancing where an increase in the moderator would increase the effect of the independent variable on the dependent variable, buffering where increasing the moderator would reduce the effect of independent variable on the dependent variable or antagonism where increasing the moderator reverses the effect of independent variable on the outcome.

Capital structure was considered the moderator in the study. Kim *et al*., (2001) and Holmbeck (1997) alluded that if the variation in coefficient of determination (R^2) for the interacting variable is positive and significant then it is said to have a moderating effect hence the support of the moderation hypothesis. The regression analysis was therefore performed for each independent variable and dependent variable to investigate the individual moderating influence of each diversification strategy on firm performance.

4.5.5.1 Moderating Effect of Capital Structure on Product Diversification and Firm Performance

Regression analysis was performed to determine the moderating effect of capital structure on product diversification strategy and firm performance. The interaction between product diversification and capital structure (PD*CS) was calculated and used in the regression model $Y = \beta_o + \beta_1 (PD*CS) + \beta_2 PD + \varepsilon$. According to the results on Table 4.42 the value of the R^2 without consideration of capital structure 0.152. The R^2 improved to 0.388 implying that it has changed by 0.236 when capital structure is considered.

Table 4.42: Model Summary for Product Diversification Strategy

Model	R	R-Squared	Adjusted R-Squared	Std. Error of the Estimate
Without moderator	0.390	0.152	0.145	0.61182
With moderator	0.623	0.388	0.377	0.65995

a. Predictors: (Constant), Product Diversification

a. Predictors: (Constant), Product Diversification*capital structure, Product Diversification

The findings of ANOVA as shown on Table 4.43 showed that the moderated regression model used to test the relationship between product diversification strategy, PD*CS and firm performance was statistically significant (F=35.795, p=0.000<0.005). This implied that the coefficients of the model are not equal to zero thus indicating a good fit.

Table 4.43: ANOVA Results for Product Diversification

Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**P-value**
Without moderator	Regression	7.661	1	7.661	20.466	0.000[b]
	Residual	42.673	114	0.374		
	Total	50.333	115			
With moderator	Regression	31.180	2	15.590	35.795	0.000[b]
	Residual	49.215	113	.436		
	Total	80.395	115			

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Product Diversification

b. Predictors: (Constant), Product diversification*Capital Structure, Product Diversification

The regression coefficient results on Table 4.44 revealed that the moderating variable's coefficient, PD*CS is 0.058. The interaction variable coefficient was significant since its p-value was 0.002 which is less than 0.05. Since the coefficient of PD*CS was significant it therefore implied that capital structure moderated the relationship between product diversification and firm performance.

Table 4.44: Regression Coefficients for Product Diversification

		β	Std. Error	Beta	t	P-value
With moderator	(Constant)	0.291	0.469		0.621	0.536
	Product Diversification	0.478	0.151	0.338	3.172	0.002
	PD*CS	0.058	0.018	0.333	3.133	0.002

a. Dependent Variable: Firm Performance

The study findings are consistent with those of Militao (2015) as the reseacher's arguments are that capital structure moderated the relationship between product diversification and firm performance in the sense that equity capital was preffered for related diversification while debt for unrelated diversification. However, they in contrast with findings of Menendez –Alonso (2003) who established that diversification did not influence the leverage ratios which means that capital structure did not moderate this relationship ad also that product diversity in unconnected to debt as revealed by Singh *et al*., (2003) though there are some circumstances where the two are nagatively related.

4.5.5.2 Moderating Effect of Capital Structure on Geographical Diversification and Firm Performance

Regression analysis was also performed to determine the moderating effect of capital structure on geographical diversification strategy and firm performance. The interaction between geographical diversification and capital structure (GD*CS) was calculated and used in the regression model $Y = \beta_o + \beta_1 (GD*CS) + \beta_2 GD + \varepsilon$. According to the results on Table 4.45 the value of the R^2 without consideration of capital structure is 21.7%. The R^2 improved to 35.7% when capital structure was

considered implying a 14% change. This therefore implied that capital structure had a moderating effect on the relationship between geographical diversification and firm performance.

Table 4.45: Model Summary for Geographical Diversification Strategy

Model	R	R-Squared	Adjusted R-Squared	Std. Error of the Estimate
Without moderator	0.466	0.217	0.210	0.58784
With moderator	0.598	0.357	0.346	0.67625

a. Predictors: (Constant), Geographical Diversification

a. Predictors: (Constant), Geographical Diversification*Capital Structure, Geographical Diversification

The findings of ANOVA presented in Table 4.46 showed that the moderated regression model used to fit the relationship between geographical diversification strategy, GD*CS and firm performance was statistically significant as shown by F=31.397 and p=0.000 which was less than significance level of 0.05 implying that the coefficients in the model were not equal to zero and therefore the model exhibited a good fit.

Table 4.46: ANOVA Results for Geographical Diversification

Model		Sum of Squares	Df	Mean Square	F	P-value
Without moderator	Regression	10.940	1	10.940	31.658	0.000[b]
	Residual	39.394	114	0.346		
	Total	50.333	115			
With moderator	Regression	28.717	2	14.359	31.397	0.000[b]
	Residual	51.677	113	.457		
	Total	80.395	115			

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Geographical Diversification

b. Predictors: (Constant), Geographical diversification*Capital Structure, Geographical Diversification

The regression coefficient results on Table 4.47 revealed that the moderating variable's coefficient, GD*CS is 0.041. The interaction variable coefficient was insignificant since its p-value was 0.134 which is greater than 0.05. Since the coefficient of GD*CS was insignificant it therefore implied that capital structure did not significantly moderate the relationship between geographical diversification and firm performance.

Table 4.47: Regression Coefficients for Geographical Diversification

		β	Std. Error	Beta	t	P-value
With moderator	(Constant)	1.365	0.341		4.002	0.000
	Geographical Diversification	0.366	0.177	0.354	2.06	0.042
	GD*CS	0.041	0.027	0.259	1.508	0.134
	a. Dependent Variable: Firm Performance					

The study findings are in contradiction with the findings of a study done by Jouida and Hellara (2017) whose results established a negative relationship among the geographical diversification, capital structure and firm performance of 412 French financial institutions. This findings implied that these firms may have problems of information processing and coordination of activities which would in turn impair firm performance.

4.5.5.3 Moderating Effect of Capital Structure on Vertical Integration Strategy and Firm Performance

Regression analysis was performed to determine the moderating effect of capital structure on vertical integration strategy and firm performance. The interaction

between vertical integration and capital structure (VI*CS) was calculated and used in the regression model $Y = \beta_o + \beta_1 (VI*CS) + \beta_2 VI + \varepsilon$. According to the results on Table 4.48 the value of the R^2 without consideration of capital structure was 0.195. The R^2 improved to 0.395 when capital structure is considered implying a change of 0.2.

Table 4.48: Model Summary for Vertical Integration Strategy

Model	R	R-Squared	Adjusted R-Squared	Std. Error of the Estimate
Without moderator	0.441	0.195	0.188	0.59620
With moderator	0.629	0.395	0.385	0.65594

a. Predictors: (Constant), Vertical Integration

a. Predictors: (Constant), Vertical Integration *Capital Structure, Vertical Integration

The findings of ANOVA presented in Table 4.49 showed that the moderated regression model used to fit the relationship between vertical integration, VI*CS and firm performance was statistically significant as shown by F=36.926 and p=0.000 which was less than significance level of 0.05. This therefore implied a good fit since the coefficients in the model were not equal to zero.

Table 4.49: ANOVA Results for Vertical Integration

Model		Sum of Squares	Df	Mean Square	F	P-value
Without moderator	Regression	9.811	1	9.811	27.601	0.000[b]
	Residual	40.522	114	0.355		
	Total	50.333	115			
With moderator	Regression	31.775	2	15.888	36.926	0.000
	Residual	48.619	113	0.430		
	Total	80.395	115			

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Vertical Integration

b. Predictors: (Constant), Vertical Integration *Capital Structure, Vertical Integration

The regression coefficient results on Table 4.50 revealed that the moderating variable's coefficient, vertical integration*capital structure is 0.044. The interaction variable coefficient was significant since its p-value was 0.048 which is less than 0.05. Since the coefficient of vertical integration*capital structure was significant it therefore implied that capital structure moderated the relationship between vertical integration and firm performance.

Table 4.50: Regression Coefficients for Vertical Integration

		β	Std. Error	Beta	t	P-value
With moderator	(Constant)	1.467	0.275		5.332	0.000
	Vertical Integration	0.299	0.135	0.342	2.22	0.028
	VI*CS	0.044	0.022	0.307	1.995	0.048

a. Dependent Variable: Firm Performance

The findings are in agreement with those of Kersting and Gorg (2014) as from their study they established that vertically integrated firms had a better access to finance and covered a larger share of their costs using funds raised internally in a firm. This is to show that capital structure had a moderation effect on the relationship between vertical integration and firm performance, because with adequate financing the activities of a firm would be run smoothly thereby increasing their profit levels.

4.5.5.4 Moderating Effect of Capital Structure on Horizontal Integration Strategy and Firm Performance

Regression analysis was performed to determine the moderating effect of capital structure on horizontal integration strategy and firm performance. The interaction between horizontal integration and capital structure (HI*CS) was calculated and used in the regression model $Y = \beta_o + \beta_1 (HI*CS) + \beta_2 HI + \varepsilon$. According to the results the value of the R squared without consideration of capital structure 0.115. The R squared improved to 0.468 when capital structure was considered. This implies that the R squared changed by 0.353.

Table 4.51: Model Summary for Horizontal Integration Strategy

Model	R	R-Squared	Adjusted R-Squared	Std. Error of the Estimate
Without moderator	0.339	0.115	0.107	0.62515
With moderator	0.684	0.468	0.458	0.61537

a. Predictors: (Constant), Capital Structure, Horizontal Integration

a. Predictors: (Constant), Horizontal Integration *Capital Structure, Horizontal Integration

The findings of ANOVA presented in Table 4.52 showed that the moderated regression model used to fit the relationship between horizontal integration, HI*CS and firm performance was statistically significant as shown by F=49.652 and p=0.000 which was less than significance level of 0.05. This implied a good fit because the coefficients of the model were not equal to zero.

Table 4.52: ANOVA Results for Horizontal Integration

Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**P-value**
Without moderator	Regression	5.780	1	5.780	14.790	0.000[b]
	Residual	44.553	114	0.391		
	Total	50.333	115			
With moderator	Regression	37.604	2	18.802	49.652	0.000[b]
	Residual	42.791	113	0.379		
	Total	80.395	115			

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Product Diversification

b. Predictors: (Constant), Product diversification*Capital Structure, Product Diversification

The regression coefficient results on Table 4.53 revealed that the moderating variable's coefficient, horizontal integration *capital structure is 0.033. The interaction variable coefficient was insignificant since its p-value was 0.091 which is greater than 0.05. Since the coefficient of HI*CS was insignificant it therefore implied that capital structure did not significantly moderate the relationship between horizontal integration and firm performance.

Table 4.53: Regression Coefficients for Horizontal Integration

		β	Std. Error	Beta	t	P-value
With moderator	(Constant)	1.212	0.245		4.954	0.000
	Horizontal Integration	0.394	0.113	0.474	3.481	0.001
	HI*CS	0.033	0.019	0.232	1.702	0.091

a. Dependent Variable: Firm Performance

4.5.5.5 Moderated Multiple Regression Results

In this model the moderating variable (capital structure) was interacted with each independent variable using the products (*PD*CS, GD*CS, VI*CS, HI*CS*). A moderated multiple regression analysis was carried out to establish the moderating effect of capital structure on relationship between each independent variable and the dependent variable.

The model summary results on Table 4.54 showed moderated multiple regression analysis had an R^2 of 0.419 which implied that when independent variables were interacted with the moderator (capital structure) they accounted for 41.9% of the variation on performance of listed non-financial firms in Kenya. However, the resultant R^2 was less compared to the R^2 in the multivariate regression analysis before interaction (0.563). The study therefore concluded that an increase in gearing ratio negatively affected the relationship between diversification strategies and firm performance.

Table 4.54: Model Summary for Moderated Multiple Regression

Model	R	R-Squared	Adjusted R-Squared	Std. Error of the Estimate
With moderator	0.647	0.419	0.398	0.64857
Without moderator	0.751	0.563	0.548	0.56234

a. Predictors: (Constant), HD*CS, GD*CS, VD*CS, PD*CS

Table 4.55 presented the results of ANOVA for the moderated multivariate regression model linking (*PD*CS, GD*CS, VI*CS, HI*CS*) and firm performance of listed non-financial firms in Kenya. The F-statistic obtained was 20.031 with a p-value of 0.000 which is less than 0.05. The findings implied that moderated multivariate model used to link the interaction variables (*PD*CS, GD*CS, VI*CS, HI*CS*) and performance of listed non-financial in Kenya exhibited a good fit.

Table 4.55: ANOVA for Moderated Multiple Regression

Model		Sum of Squares	df	Mean Square	F	P-value
With moderator	Regression	33.704	4	8.426	20.031	0.000[b]
	Residual	46.691	111	.421		
	Total	80.395	115			

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), HD*CS, GD*CS, VD*CS, PD*CS

In the moderated multivariate regression analysis, the results on Table 4.56 showed that capital structure significantly moderated the relationship between horizontal integration strategy and performance of listed non-financial firms. This because the interaction variable (HI*CS) had a p-value of 0.007 which was less than 0.05. The moderating effect of capital structure on the relationship between product diversification strategy, geographical diversification strategy and vertical integration strategy and performance of listed non-financial firms in Kenya was statistically insignificant.

Table 4.56: Regression Coefficients for Moderated Multiple Regression

	β	Std. Error	Beta	t	Sig.
(Constant)	1.900	0.224		8.492	0.000
PD*CS	0.016	0.034	0.091	0.46	0.647
GD*CS	0.002	0.028	0.011	0.059	0.953
VI*CS	0.032	0.026	0.224	1.227	0.222
HI*CS	0.072	0.026	0.515	2.746	0.007

a Dependent Variable: Firm Performance

4.5.5.6 Overall OLS Regression for Moderating Effect of Capital Structure

To further establish the joint moderating effect of capital structure on the relationship between diversification strategies and firm performance, the study adopted OLS regression model. This includes computing a composite variable by combining all the independent variables into one variable using their product (Baron & Kenny, 1986). An interaction variable is then computed by multiplying the composite variable and the moderating variable.

A regression was therefore conducted the composite variable, interaction variable and the moderating variable were considered independent variables while performance as the dependent variable. The result of the model summary (Table 4.57) showed that interaction variable (X*Z), composite variable X= (X_1*X_2*X_3*X_4) and the moderating variable capital structure accounted for 53.3% of the variation in performance of listed non-financial firms in Kenya.

Table 4.57: Model Summary for Overall OLS Regression for Moderating Effect

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.730	0.533	0.521	0.57883

a. Predictors: (Constant), Interaction Variable, Capital Structure, Composite Variable

The findings presented in Table 4.58 shows the ANOVA result for OLS model testing the joint moderating effect of capital structure on the relationship between diversification strategies and performance of listed non-financial companies in Kenya. The F-statistic obtained was 42.652 with a p-value of 0.000 which is less than 0.05. The findings implied that multivariate model used to link the interaction variable, composite variable and the moderating variable capital structure and performance of listed non-financial companies in Kenya was statistically significant.

Table 4.58: ANOVA for Overall OLS Regression for Moderating Effect

Model		Sum of Squares	df	Mean Square	F	P-value
1	Regression	42.870	3	14.290	42.652	0.000
	Residual	37.525	112	0.335		
	Total	80.395	115			

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Interaction Variable, Capital Structure, Composite Variable

The results presented in Table 4.59 revealed that capital structure significantly moderated the relationship between diversification strategies and performance of listed non-financial firms in Kenya. This is because the interaction variable was significant at 0.05 significant level therefore H_{05}: capital structure has no moderating effect on the relationship between diversification strategies and performance of listed non-financial firms in Kenya was rejected at 0.05 significant level.

Table 4.59: Regression Coefficients for Overall OLS Model for Moderating Effect

	β	Std. Error	Beta	t	P-value
(Constant)	1.73	0.51		3.389	0.001
Capital Structure	0.102	0.148	0.105	0.687	0.494
Composite Variable	0.009	0.003	1.603	3.445	0.001
Interaction Variable	0.141	0.051	0.979	2.768	0.006

a. Dependent Variable: Firm Performance

The study therefore concluded that capital structure significantly moderated the relationship between diversification strategies and performance of listed non-financial firms in Kenya. This study findings concurs with Poddar and Mittal (2014) who asserted that bad capital structure decisions may lead to a firm's financial distress and eventually to bankruptcy and due to this management of firms need to set the capital structure in a way that the firm's value will be maximized.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study's general objective was to investigate influence of diversification strategies on performance of listed non-financial firms. The study specifically sought to determine the influence of product diversification strategy, geographical diversification strategy, vertical integration strategy and horizontal integration strategy on the performance of these firms. The study further sought to analyse the moderating effect of capital structure on the relationship between diversification strategies on firm performance of afore mentioned firms. Chapter five presents the summary of research findings based on the specific objectives. Conclusions and recommendations relating to specific objectives and areas suggested for future studies are also highlighted.

5.2 Summary of the Findings

The study's main objective was to investigate the influence of diversification strategies on listed non-financial firms' performance. The study was anchored on resource based view theory, transaction cost theory, agency theory, Ansoff theory and make-or-buy decision. The dependent variable was firm performance which was represented by accounting measures; return on total assets, return on capital employed and profit margin. The independent variables were product diversification strategy, geographical diversification strategy, vertical integration strategy and horizontal integration strategy. The moderating variable was capital structure represented by the gearing ratio. Descriptive correlational survey was adopted in the study as its research design. The target population comprised of all listed non-financial firms in NSE which were 45 firms as per the NSE (2015-2016) handbook.

Since the population was small census approach design was adopted. Primary and secondary data were collected; primary data was obtained through the use of a semi-structured questionnaire given to 135 departmental managers of the firms using the

drop and pick method. Through the researcher's follow ups 116 questionnaires were collected giving 85.9% response rate. Secondary data was obtained from the published audited financial reports of the firms. Descriptive statistics, correlation and regression analyses were carried out to do data analysis. A multivariate linear regression model and t-statistic were used to establish the relative importance of each independent variable in influencing the firm performance.

5.2.1 Product Diversification Strategy and Firm Performance

The study's first objective was to determine influence of product diversification on non-financial firms' performance. Descriptive results revealed that majority (over 85%) of the listed non-financial firms produced more than one type of product meaning they were diversified in terms of products produced. The products offered by the non-financial firms had implications on supplies to the local demand and competition within the industry on raw materials used in the production process.

Further implications of these findings revealed that due to challenges faced in different industries to which these firms belong in terms of cost of production, companies are opting to diversify into other product or service offerings in order to improve their profit margin and also capacity utilization. The listed non-financial firms diversified especially where there were opportunities to reduce costs and also when they felt that they had powerful and well-known brands and they could spread risk across a range of businesses. The respondents were also in agreement as shown by the aggregate mean that product diversification influenced performance of the non-financial firms.

The results of correlation analysis indicated that product diversification strategy had a positive and significant correlation with performance. The correlation findings implied that a positive increase in product diversification strategy would result to a corresponding positive change in firm performance. The univariate regression results established a positive and significant relationship between product diversification strategy and firm performance. The results implied that a change in product diversification strategy would result to an increase in performance of the non-financial firms listed at NSE in Kenya. The null hypothesis was rejected and

conclusion made that product diversification strategy had a significant influence on performance of the listed non-financial firms. The moderation results revealed that capital structure had a significant moderation effect on the relationship between product diversification and firm performance.

5.2.2 Geographical Diversification Strategy and Firm Performance

The study's second objective was to examine the relationship between geographical diversification strategy and the listed non-financial firms' performance. Decriptive analysis results clearly indicated that majority of the listed non-financial firms had diversified geographically to regional market and global markets. Geographical divesification was made easy through globalisation and advancement in technology.

The correlation results indicated that geographical diversification strategy had a positive and significant association with firm performance. This association was stronger than that of product diversification. The findings implied that a positive increase in geographical diversification strategy would result to a corresponding positive change in firm performance. To test the null hypothesis that geographical diversification strategy has no significant influence on performance of listed non-financial firms, F test was undertaken. Results revealed that the null hypothesis was rejected and conclusion made that there was indeed a significant influence of geographical diversification strategy on firm performance. Regression analysis results indicated that a unit change in geographical diversification strategy would result in 0.381 units change in firm performance. This established the existence of significant influence of geographical diversification strategy on firm performance. According to moderation results of this study, capital structure did not significantly moderate the relationship between geographical diversification strategy and performance of the non-financial listed firms.

5.2.3 Vertical Integration Strategy and Firm Performance

The study's third objective was to evaluate the influence of vertical integration strategy on the listed non-financial firms' performance. The descriptive analysis findings revealed that majority of listed non-financial firms had adopted vertical

integration strategy. They had adopted both variants of vertical integration i.e. backward and forward. Some of the advantages of vertical diversification strategy as cited by the respondents included timely distribution, good contact with customer and maintenance of quality products. The study findings showed that majority of the respondents cited improved efficiency as one of the advantages of firms distributing products through established wholesale or retail outlets. Timely distribution was also cited by majority of the respondents as an advantage of firms owning wholesale/retail outlets.

Correlation analysis done to test the strength of the association between vertical integration strategy and performance of listed non- financial firms at NSE, the results established a positive and moderately strong association between the two variables. The findings also implied that an increase in vertical integration strategy would result to an increase in firm performance. Results also established that a unit change in vertical integration strategy would result in 0.306 units change in performance of the non-financial firms listed at the NSE. This confirmed the significant influence of vertical integration strategy on firm performance. The null hypothesis was rejected and a conclusion made that vertical integration strategy had a significant influence on performance of listed non-financial firms. The results on moderation revealed that capital structure significantly moderated the relationship between vertical integration and firm performance.

5.2.4 Horizontal Integration Strategy and Firm Performance

The study's fourth objective was to assess the influence of horizontal integration strategy on performance of listed non-financial firms. The overall summary of descriptive findings was that listed non-financial firms diversified horizontally through mergers and acquisitions to increase their market share in other regions where they initially lacked presence. The correlation analysis conducted was aimed at testing the association between the horizontal integration strategy and firm performance. These results revealed a significant positive association between horizontal integration strategy and firm performance, though positive, it was found to

have the weakest association with firm performance of listed non-financial firms in NSE in comparison to other forms of diversifications.

The null hypothesis was rejected and conclusion made that horizontal integration strategy significantly influenced the listed non-financial firms' performance. The results established that a unit change in horizontal integration strategy would result in 0.264 change of firm performance. This was a confirmation also that there was a significant positive influence of horizontal integration strategy on performance of listed non-financial firms in Kenya. Moderation test results showed that capital structure did not significantly moderate firm performance and horizontal integration.

5.2.5 Moderating Effect of Capital Structure

The study's fifth objective was to determine the moderating effect of capital structure on relationship between diversification strategies and the listed non-financial firms' performance. The trend analysis for capital structure further revealed that on average there was a reduction in the gearing ratios among the listed non-financial firms on NSE. These findings confirmed that firms reduced their long term debt and relied on equity to fund their operations.

In the moderated multiple regression analysis, the results showed that capital structure significantly moderated the relationship between horizontal integration strategy and the firm performance. However, the results established a statistically insignificant moderation effect of capital structure on the relationship between product diversification strategy, geographical diversification strategy and vertical integration strategy and the listed non-financial firms' performance.

The overall regression for moderating effect revealed that capital structure significantly moderated the relationship between diversification strategies and listed non-financial firms' performance. This is because the interaction variable was significant at the level of significance adopted in this study. Therefore H_{05}: capital structure has no moderating effect on relationship between diversification strategies and performance of listed non-financial firms in Kenya was rejected. The study

therefore concluded that capital structure significantly moderated the relationship between diversification strategies and the listed non-financial firms' performance.

5.3 Conclusion of the Study

This section provides the conclusions that the study made founded on the findings and discussions of the study. Conclusions were made as per the research objectives.

5.3.1 Product Diversification Strategy

This study concluded that diversification strategies are essential strategies for firms to use in widening the market. The most commonly used diversification strategy is product diversification. Firms that face intense competition can diversify their products to produce less competitive products. Product diversification can be achieved through production of different classes of product, intensification in the number of products a firm currently has in the market through introduction of new products in the market often. Product diversification can lead to economies of scale which would enhance the overall firm performance.

5.3.2 Geographical Diversification Strategy

Similarly, geographical diversification strategy positively enhances the performance of the firms. This is achieved through introduction of the firm's product in new geographical areas hence new market. Similarly, having access to different areas whether regionally or globally through branches or subsidiaries exposed products to new market which in turn increased total sales and consequently profit margins.

5.3.3 Vertical Integration Strategy

The study also concluded that vertical integration contributed positively on the overall performance of the firm. This is because the adoption of this strategy enabled firms to lower their transaction costs and increase their market power. The firms were also in a position to increase their technical efficiencies in the coordination, monitoring and enforcement in product process. A firm that adopts the vertical integration variants i.e. backward and forward is better placed to outdo its

competitors. Through vertical integration firms are able to maintain a close contact with customers and clients, reduce time taken to supply raw materials and distribute their output.

5.3.4 Horizontal Integration Strategy

Finally the study concluded that horizontal integration is effective in reducing competition since firms can merge or form strategic alliances with other firms in less competitive environment. The net effect of such mergers and acquisition is positive growth in performance.

5.4 Recommendations of the Study

This section provides the recommendations that study made founded on the findings and discussions of the study. Recommendations were made as per the research objectives.

5.4.1 Product Diversification Strategy

The study established a positive and significant relationship between product diversification strategy and performance of listed non-financial firms. The study therefore recommended that managers and shareholders of the firms that are yet to diversify their product portfolio should diversify to remain competitive and profitable in this turbulent business environment. These firms can diversify in related products which ensure no additional costs but an intensification in the number of product in the market.

For practicing managers the study also recommends that a firm should establish cautiously which product diversification to formulate and implement in order to improve their firm's performance. A firm's management can decide to adopt related diversification strategy in order to capitalise on the synergies derived from the use of such a strategy. These firms can also diversify in related products which ensure no additional costs but an increase in the number of product offerings in the market. The study further recommended that the non-financial firms should indeed adopt product

diversification strategy in order for them to optimally use any under-utilised resources and also put slack resources into good use.

The positive influence of product diversification strategy on firm performance of listed non-financial companies is a motivating factor for firms seeking to venture into new products whether related or unrelated. Its positive impact on performance also proposes that governments, particularly the Kenyan government should put in place policies that will encourage firms to undertake these expansion operations. The regulatory authorities should also formulate policies that ensure that there is a fair play in the market by all relevant market players in the different industries. This is by ensuring that the non-financial firms have strong corporate governance mechanisms put in place to protect the interests of different stakeholders.

5.4.2 Geographical Diversification Strategy

The study recommended that firms should diversify in regions where competition is not stiff and intense and also capitalize on the freedom to determine prices that are optimal enough to ensure profitability. Therefore firms should always engage in research to identify new strategic regions to introduce their products. The study also recommends that the non-financial firms should endeavour to build core competencies in their area of specialisation before gradually making entry into new markets. The study further recommended that management of the listed firms should develop sound policies to guide them when diversifying.

The positive impact of geographical diversification strategy on firm performance should be a motivating factor for firms that have not adopted this strategy. Adoption of this strategy will lead these firms to expand their operations to other markets locally, regionally and globally. This in turn would ensure that the firms increase their market share and thus improve their profit margins.

5.4.3 Vertical Integration Strategy

The study established a positive significant relationship between vertical integration strategy and performance of listed non-financial companies. The study therefore recommends that the management of the firms that have not adopted vertical integration strategy should put in place internal organizational policy and culture to encourage vertical integration adoption. These firms can adopt the vertical integration strategy as a competitive tool to achieve technical efficiencies in coordination, monitoring and enforcement of the production process, lower their transaction costs and increase the firm's market power which will enhance the firm's performance.

The managers should also create some initiative in the firms with regard to vertical integration. This initiative should consider vertical integration issues as part of their performance review. The study recommended that the vertical integration strategy adopted by these firms included backward integration and forward integration. This study also recommends that firms should be careful when adopting vertical integration to avoid conflict of interest and increase in operational costs through hiring of additional labour force to manage extra activities.

5.4.4 Horizontal Integration Strategy

The study recommended that the management of listed firms should formulate and implement relevant horizontal integration strategies that uphold the desired firm performance and shed off excess competition. Similarly, the study recommended that regulatory authorities should assess the suitability of the current investment regulations for listed firms to ensure the firms have enough legislation protection when pursuing any diversification strategies. Relevant government authorities should formulate policies to guide companies and protect consumers during diversification.

5.4.5 Moderating Effect of Capital Structure

The study established that capital structure significantly moderated the relationship between diversification strategies and firm performance. The study recommended that management of the listed firms should first consider an optimal structure between debt and equity financing before adopting diversifications strategies.

5.5 Areas for Further Study

The findings of this study revealed that product diversification strategy, geographical diversification strategy and vertical integration strategy and horizontal integration strategy, accounted for 56.3% of the variation in the listed non-financial firms' performance. The study suggests that future studies should focus on establishing other factors that account for the remaining 43.7%. Further studies can also focus on a comparative analysis of firms that have adopted diversification strategies and those that have not to clearly bring out the difference in terms of their performance. Further studies should focus on the role of management in adoption of diversification strategies.

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APPENDICES

Appendix I: Letter of Introduction

Dear Respondent,

My name is Videlis Njeri Njuguna a PhD student of Jomo Kenyatta University of Agriculture and Technology. The topic of my study is, "Influence of Diversification Strategies on Performance of Firms Listed at the Nairobi Securities Exchange in Kenya". The research is in partial fulfillment of the requirements for the award of the degree of Doctor of Philosophy in Business Administration, Strategic Management. As part of my research, I wish to engage you as a participant in carrying out this study.

The information you provide will be for academic purposes only and will be treated with utmost confidentiality. Neither your name nor that of your firm will be used in any document based on this study. The questionnaire should take about 20 - 25 minutes to complete, and I hope that you will be in a position to spare me this time.

Thank you for kind assistance and contribution as I look forward to receiving your response.

Your's faithfully,

Njeri Njuguna.

Post Graduate Student

Appendix II: Research Questionnaire

This questionnaire is designed to collect data from companies listed at NSE on influence of diversification strategies on their performance. The data collected will be used for academic purposes only and will be treated with strict confidence. Your participation in facilitating the study is greatly appreciated.

PART A: Firm and Respondent Profile

1. State the year of incorporation of your firm

   ……

   ……

   ……

2. Gender (tick as appropriate)
   - □ Male
   - □ Female
3. What is your age? (tick as appropriate)
   - □ Between 25 and 34
   - □ Between 35 and 44
   - □ Between 45 and 54
   - □ Above 55

PART B: DIVERSIFICATION STRATEGIES

In this study these strategies are represented by product diversification, geographical diversification, vertical integration and horizontal integration. In answering the questions in this section please use such decisions made by your company in the last five years as the frame of reference.

PRODUCT DIVERSIFICATION

4. In your company, which of the following product classes is produced? (Tick as many as is appropriate)
   - □ Substitutes
   - □ Complementary
   - □ Independent

5. Indicate the approximate number of products your firm currently has in the market?
   - 1
   - 2-3
   - 4-5
   - 6-7
   - Over 7

Please indicate the level of agreement with the following about your company indicating your position with a tick on the scale ranging from "*strongly agree*" to "*strongly disagree*". Where **5- Strongly Agree, 4– Agree, 3– Neutral 2 - Disagree 1 - Strongly Disagree.**

	5	**4**	**3**	**2**	**1**
6. The firm introduces new products in the market often.					
7. It is significant for the firm to introduce products related to existing products in the market.					
8. To what extent would you agree that your firm embarked on the introduction of related products on the strength of existing brand products?					
9. The firm advertises related products together.					
10. To what extent would you agree that your firm delivers/distributes related products together?					
11. To what extent would agree that your firm utilizes the same expertise in the development and marketing of related products?					
12. To what extent would you agree that introduction of related products has resulted in reduction of cost of doing business?					
13. The firm has introduced products that are unrelated to current products.					

14. Which of the following are the reasons for engaging in products not similar to current products? (Tick as many as is appropriate)
    - Better sales in unrelated products
    - Less competition faced by unrelated products
    - High profit margin in unrelated products
    - Low operational costs in unrelated products
    - Others.

      Specify……

15. How would generally describe your firm with regard to product diversification?

- Highly diversified
- Moderately diversified
- Undiversified

GEOGRAPHICAL DIVERSIFICATION

16. Has the company ventured into any new markets for the last five (5) years?

Yes ☐ No ☐

a) If **YES** proceed to answer the following section.

Markets entered over the period	None	1-3	4-6	7-9	Over 10
17. Local branches in Kenya (domestic market)					
18. Branches in the East Africa region (regional market)					
Branches or affiliates in the world (global market)					

Please indicate the level of agreement with the following about your company indicating your position with a tick on the scale ranging from "*strongly agree*" to "*strongly disagree*". Where **5- Strongly Agree, 4– Agree, 3– Neutral 2 - Disagree 1 - Strongly Disagree.**

	5	**4**	**3**	**3**	**1**
19. The firm frequently ventures into marketing of its products in new geographical areas.					
20. The firm has expanded its operations to different regions through branches or subsidiaries.					
21. The branches or subsidiaries are found within the country's borders.					
22. The branches or service outlets are found outside the country's borders.					
23. To what extent would you agree that your firm has established related firms in other regions within Kenya?					
24. To what extent would you agree that your firm has established unrelated firms across the country?					
25. To what extent would you agree that it is important for your firm to establish branches or subsidiaries in different regions?					

26. What would you say are the advantages of establishing related firms in other regions within Kenya? (Tick as many as is appropriate)
    - □ Reduced labour costs
    - □ Reduced distribution costs
    - □ Reduced cost of raw materials
    - □ Reduced overhead costs
    - □ Others. ……
27. What advantages would you say your firm is likely to enjoy by establishing branches or services outlets outside the country? (Tick as many as is appropriate)
    - □ Lower cost of labour
    - □ Lower taxation
    - □ Low cost of raw materials
    - □ Lower overhead costs
    - □ Others. …….
28. What mode of entry does your firm most prefer to reach foreign markets? (Tick as many as is appropriate)
    - □ Export
    - □ Appointed agents
    - □ Foreign direct investments
    - □ Franchise
    - □ Others.……
      ……

VERTICAL INTEGRATION STRATEGY

29. What percentage of inputs does your firm obtain from a business unit that it owns?

    - No input at all
    - Between 0% and 80% of inputs
    - More than 80% of the inputs

30. What proportion of output does your firm sell to (or through) its own outlets?

    - No sales to (or through) a business unit
    - Between 0% and 80% of output sold (or through)
    - More than 80% of output sold to (or through)

31. What percentage of ownership of suppliers or distributors does your firm own?

    - 0% ownership (contracts)
    - Less than 95% ownership (quasi-integration)
    - 95% or more of ownership (full ownership)

Please indicate the level of agreement with the following about your company indicating your position with a tick on the scale ranging from "*strongly agree*" to "*strongly disagree*". Where **5- Strongly Agree, 4– Agree, 3– Neutral 2 - Disagree 1 - Strongly Disagree.**

	5	**4**	**3**	**2**	**1**
32. To what extent would you agree that the firm supplies its own input materials?					
33. To what extent would you say that your firm distributes its own output?					
34. To what extent would you agree that it is important for your firm to distribute its products through established wholesale or retail outlets?					
35. To what extent would you say it is important for your firm to have own wholesale/retail outlets?					

36. What are the advantages of your firm supplying own input materials?
    - Affordability
    - High quality
    - Timely supply
    - Reliable supply
    - Others.……

37. In your opinion how has the supply of own raw materials influenced the performance of your firm?

    .....

    .....

38. What are the advantages of your firm distributing own products? (Tick as many as is appropriate)
    - Maintenance of product quality
    - Timely distribution
    - Contact with customers/clients
    - Others.……..…

39. What are the advantages of your firm distributing products through established wholesale or retail outlets? (Tick as many as is appropriate)
    - Cost reduction on labour
    - Cost reduction on overheads
    - Improved efficiency
    - Wider coverage
    - Others. ……

40. What are the advantages for your firm to have own wholesale/retail outlets? (Tick as many as is appropriate)
    - Maintenance of product quality
    - Timely distribution
    - Contact with customers/clients
    - Others.……...

HORIZONTAL INTEGRATION

41. The firm has ventured into new regional areas at the same stage of production as its current operations?

    - ☐ Yes
    - ☐ No

    a) If **YES** in your opinion how has this influenced the performance of your firm?

    .....
    .....……
    ……..

    b) If **NO**, in what ways, in your opinion would performance of your firm improve had it ventured in new regional areas at the same stage of production as its current operations?

    ……
    ……
    ……

42. Which of the following method of combining businesses is preferred by your firm? (Tick as Many as is Appropriate)

    - ☐ Subsidiary
    - ☐ Hostile Takeover
    - ☐ Acquisition
    - ☐ Merger
    - ☐ Strategic Alliance
    - ☐ Joint Ventures
    - ☐ Others.……
      …….……
      ……

Please indicate the level of agreement with the following about your company indicating your position with a tick on the scale ranging from "*strongly agree*" to "*strongly disagree*". Where **5- Strongly Agree, 4– Agree, 3– Neutral 2 - Disagree 1 - Strongly Disagree.**

	5	**4**	**3**	**2**	**1**
43. The firm has combined with another company to form a new company through merging or acquiring.					
44. To what extent would you say that it is significant for your firm to engage in a business merger?					
45. To what extent do you agree that it is important for your firm to acquire other firms with similar products/services?					
46. The merger or acquisition has led to reduction in operation and marketing costs.					
47. The merger or acquisition has enabled the firm to achieve economies of scale.					
48. The merger or acquisition has influenced the increase in market share of the firm.					
49. The merger or acquisition had led to the firm gaining better distribution or marketing network.					
50. The firm has eliminated competition and protected existing market by obtaining new market outlets.					

PART C: CAPITAL STRUCTURE

This subsection is concerned with investigation of the moderating effect of capital structure on the diversification – firm performance relationship. Please indicate the level of agreement with the following about your company indicating your position with a tick on the scale ranging from "strongly agree" to "strongly disagree". **Where 5- Strongly agree, 4– agree, 3- Moderately agree 2- disagree 1- Strongly disagree.**

	5	4	3	2	1
51. To run business activities the firm relies on loans.					
52. The company has a huge burden of short-term liabilities compared to long term liabilities.					
53. The company keeps leverage level under control.					
54. The cost of equity is more than cost of debt.					

PART D: FIRM PERFORMANCE

The following subsection is concerned with investigation of the firm performance of the company. Please indicate the level of agreement with the following about your company indicating your position with a tick.

	Rising	Fluctuating	Constant	Declining
How would you describe your firm's return on total assets for the last five years?				
How would describe your firm's return on capital employed for the last five years?				
How would describe your firm's profit margin for the last five years?				

Appendix III: Secondary Data Collection Sheet

Name of company: _____

Year	EBIT	TA	CE	TS	EC	DC	ROTA=$\frac{EBIT}{TA}$	ROCE=$\frac{EBIT}{CE}$	PM=$\frac{EBIT}{TS}$	GR=$\frac{DC}{EC}$
2011										
2012										
2013										
2014										
2015										

Appendix IV: Listed Companies at NSE as at January 2018

INDUSTRY	FIRMS
Agricultural	1. Eaagads Ltd
	2. Kakuzi Ltd
	3. Kapchorua Tea Co. Ltd
	4. The Limuru Tea Co. Ltd
	5. Sasini Ltd
	6. Williamson Tea Kenya Ltd
Automobiles & Accessories	7. Car & General (K) Ltd
	8. Marshalls (E.A.) Ltd
	9. Sameer Africa Ltd
Commercial & Services	10. Atlas African Industries Ltd
	11. Deacons (East Africa) Plc
	12. Express Kenya Ltd
	13. Kenya Airways Ltd
	14. Longhorn Publishers Ltd
	15. Nation Media Group Ltd
	16. Standard Group Ltd
	17. TPS Eastern Africa Ltd
	18. Uchumi Supermarket Ltd
	19. WPP Scangroup Ltd
Construction & Allied	20. ARM Cement Ltd
	21. Bamburi Cement Ltd
	22. Crown Paints Kenya Ltd
	23. E.A.Cables Ltd
	24. E.A.Portland Cement Co. Ltd
Energy & Petroleum	25. KenGen Co. Ltd
	26. KenolKobil Ltd
	27. Kenya Power & Lighting Co Ltd
	28. Total Kenya Ltd

	29. Umeme Ltd
Investment	30. Centum Investment Co Ltd
	31. Home Afrika Ltd
	32. Kurwitu Ventures Ltd
	33. Olympia Capital Holdings Ltd
	34. Trans-Century Ltd
Manufacturing &	35. A. Baumann & co. ltd
Allied	36. B.O.C Kenya Ltd
	37. British American Tobacco Kenya Ltd
	38. Carbacid Investments Ltd
	39. Eveready East Africa Ltd
	40. East African Breweries Ltd
	41. Flame Tree Group Holdings Ltd
	42. Kenya Orchards Ltd
	43. Mumias Sugar Co. Ltd
	44. Unga Group Ltd
Telecommunicatio	45. Safaricom Ltd
n & Technology	

Source: NSE Handbook (2015-2016)