

**COMPETITIVE STRATEGY DRIVERS, ENTREPRENEURIAL  
ORIENTATION, MACRO ENVIRONMENT AND PERFORMANCE OF  
MANUFACTURING SMALL AND MEDIUM ENTERPRISES IN NAIROBI CITY  
COUNTY, KENYA**

**VICTOR LAIBUNI BAARIU**

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF DOCTOR  
OF PHILOSOPHY IN BUSINESS ADMINISTRATION, FACULTY OF  
BUSINESS AND MANAGEMENT SCIENCE, UNIVERSITY OF NAIROBI**

**2021**

## DECLARATION

I, Victor Laibuni Baariu, hereby declare that this PhD research thesis titled Competitive Strategy Drivers, Entrepreneurial Orientation, Macro Environment and Performance of Manufacturing Small and Medium Enterprises in Nairobi City County, Kenya is my original work and has not been submitted to any other college, institution or university for award of any certificate, diploma or degree.

Signed:  .....

Date: 25/08/2021

VICTOR LAIBUNI BAARIU

D80/73264/2012

PhD Programme

### SUPERVISORS APPROVAL

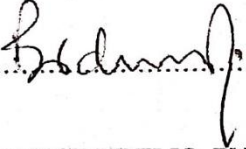
This PhD thesis prepared by Victor Laibuni Baariu has been submitted for examination with our approval as the appointed university supervisors

Signed:  .....

Date: 25<sup>TH</sup> AUGUST 2021.

**PROF. JAMES GATHUNGU, PhD, CPS (K)**

Department of Business Administration,  
Faculty of Business and Management Science  
University of Nairobi

Signed:  .....

Date: 25/8/21,

**PROF. BITANGE NDEMO, PhD**

Department of Business Administration,  
Faculty of Business and Management Science  
University of Nairobi

## **COPYRIGHT**

©

All rights reserved. No part of this research thesis may be reproduced or transmitted in any form or by any means, electronic, electrostatic, magnetic tape or mechanical, including photocopying or recording, on any information storage and retrieval system, without prior permission in writing from the University of Nairobi, or author on that behalf, except for short extracts in fair dealing, critical scholarly review or discourse with acknowledgement.

For information, contact Victor Laibuni Baariu at the following address.

P.O Box 11145 – 00100,

Nairobi- Kenya

Mobile: +254 722 635997

Email: [vlaibuni@hotmail.com](mailto:vlaibuni@hotmail.com)

## **DEDICATION**

I dedicate this Doctoral thesis to my late father Mr. Stanley Baariu Laibuni, for his encouragement all along my school life and whom I promised to pursue my education up to the doctorate level.

## **ACKNOWLEDGEMENT**

I thank the almighty God for reaching this far with my doctoral program. His grace has been sufficient in helping me stay focused and endure numerous challenges along the journey.

I also appreciate the support from my supervisors Prof. James Gathungu and Professor Bitange Ndemo for their guidance. Prof. Gathungu has been very thorough in his supervision while giving very constructive feedback, valuable insights and wise counsel that greatly enriched the entire process from proposal formulation all the way to the end. I am very thankful also to my other doctoral supervisor, Prof. Bitange Ndemo for his excellent counsel, very efficient feedback as well as valuable inputs in the whole process. Despite your very busy schedules, you were always available whenever I needed your attention. To both of you, I wholeheartedly thank you for believing in me.

To all my classmates and everyone else who took a part in this journey, I sincerely thank you for your moral support at different times which, for sure, played a critical role in the journey.

Lastly, I extend thanks to my family for cheering me all the way. God bless you all.

## TABLE OF CONTENTS

<b>DECLARATION.....</b>	<b>ii</b>
<b>COPYRIGHT .....</b>	<b>iii</b>
<b>DEDICATION.....</b>	<b>iv</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>v</b>
<b>LIST OF TABLES .....</b>	<b>xi</b>
<b>LIST OF FIGURES .....</b>	<b>xv</b>
<b>ABBREVIATIONS.....</b>	<b>xvi</b>
<b>ABSTRACT.....</b>	<b>xvii</b>
<b>CHAPTER ONE: INTRODUCTION.....</b>	<b>1</b>
1.1 Background of the Study .....	1
1.1.1 Competitive Strategy Drivers .....	4
1.1.2 Entrepreneurial Orientation (EO) .....	6
1.1.3 Macro Environment .....	7
1.1.4 Firm Performance .....	12
1.1.5 Manufacturing Sector in Kenya.....	15
1.1.6 Small and Medium Enterprises in the Manufacturing Sector in Kenya .....	17
1.2 Research Problem .....	19
1.3 Research Objectives.....	23
1.4 Value of the Study .....	23
1.5 Chapter Summary .....	24
<b>CHAPTER TWO: LITERATURE REVIEW.....</b>	<b>26</b>
2.1 Introduction.....	26
2.2 Theoretical Review .....	26
2.2.1 Resource-Based Theory.....	27
2.2.2 Game Theory .....	29
2.2.3 Open Systems Theory .....	31
2.2.4 Dynamic Capabilities Theory .....	34
2.3 Empirical Studies and Variable Relationships.....	36

2.3.1 Competitive Strategy Drivers and Firm Performance .....	36
2.3.2 Competitive Strategy drivers, Entrepreneurial Orientation and Firm Performance .....	39
2.3.3 Competitive Strategy drivers, Macro Environment and Firm Performance .....	40
2.3.4 Competitive Strategy drivers, Macro Environment, Entrepreneurial Orientation and Firm Performance .....	43
2.4 Summary of Knowledge Gaps .....	46
2.5 Conceptual Framework.....	50
2.6 Research Hypotheses .....	52
2.7 Chapter Summary .....	53
<b>CHAPTER THREE: RESEARCH METHODOLOGY .....</b>	<b>54</b>
3.1 Introduction.....	54
3.2 Philosophical Foundation of the Study.....	54
3.3 Research Design.....	55
3.4 Research Setting.....	56
3.5 Population of Study.....	56
3.6 Sampling Design.....	57
3.7 Sample Size.....	57
3.8 Data Collection .....	59
3.9 Reliability of the Research Instrument .....	59
3.10 Validity of the Research Instrument .....	61
3.10.1 Test of Validity .....	62
3.11 Operationalization of Study Variables.....	62
3.12 Data Analysis .....	64
3.13 Chapter Summary .....	69
<b>CHAPTER FOUR: DATA ANALYSIS AND RESULTS.....</b>	<b>70</b>
4.1 Introduction.....	70
4.2 Response Rate.....	70
4.3 Organizational Characteristics .....	71

4.4 Demographic Characteristics .....	74
4.5 Manifestations of Study Variables .....	75
4.5.1 Competitive Strategy Drivers .....	75
4.6 Macro Environment .....	85
4.7 Entrepreneurial Orientation .....	91
4.7.1 Innovativeness.....	91
4.7.2 Risk Taking.....	93
4.7.3 Pro-activeness .....	95
4.7.4 Competitive Aggressiveness.....	97
4.8 SME Performance.....	100
4.9 Sampling Adequacy .....	103
4.11 Tests of Statistical Assumptions .....	106
4.12 Collinearity Statistics .....	108
4.13 Hypotheses Testing.....	114
4.13.1. Relationship between Competitive Strategy Drivers and Performance.....	115
4.13.2 Relationship between Competitive strategy Drivers, Macro environment and Firm Performance .....	121
4.13.3 The Relationship between Competitive strategy Drivers, Entrepreneurial	142
4.13.4 The Relationship between Competitive Strategy Drivers, Macro Environment, Entrepreneurial Orientation and Performance of Manufacturing SMEs .....	159
4.14 Chapter Summary .....	171
<b>CHAPTER FIVE: DISCUSSION OF RESULTS.....</b>	<b>172</b>
5.1 Introduction.....	172
5.2 Preliminary Results.....	172
5.3 Discussion of Hypothesis Testing.....	174
5.3.1 Competitive Strategy Drivers and Performance of Manufacturing SMEs .....	174
5.3.2 The Influence of Macro Environment on the Relationship between Competitive Strategy drivers and performance of manufacturing SMEs.....	177
5.3.3 The Effect of Entrepreneurial Orientation on the Relationship between.....	181



Competitive Strategy Drivers and Performance of Manufacturing SMEs .....	181
5.3.4 Joint Effects of Competitive Strategy Drivers, Macro Environment and Entrepreneurial Orientation on performance of manufacturing SMEs .....	184
5.4 Empirical Model .....	186
5.5 Chapter Summary .....	188
<b>CHAPTER SIX: SUMMARY, CONCLUSION AND RECOMMENDATIONS...</b>	<b>189</b>
6.1 Introduction.....	189
6.2 Summary of the Study .....	189
6.2.1 Competitive Strategy drivers and performance of manufacturing SMEs .....	190
6.2.2 Competitive Strategy, Macro Environment and Firm performance .....	191
6.2.3 Competitive Strategy, Entrepreneurial Orientation and performance of manufacturing SMEs .....	192
6.3 Conclusion .....	193
6.4 Implications of the Study .....	195
6.4.1 Implications for Theory .....	195
6.4.2 Policy Implications .....	196
6.4.3 Implications to Management Practice.....	197
6.4.4 Implications to Methodology.....	198
6.5 Limitations of the study .....	199
6.6 Areas Suggested for Further Research.....	199
<b>REFERENCES.....</b>	<b>201</b>
<b>APPENDICES.....</b>	<b>215</b>
Appendix I: Letter of Full Registration .....	219
Appendix II: Letter of Authorization to Collect Data.....	221
Appendix III: Research Permit from NACOSTI .....	222
Appendix IV: Letter of Introduction to Respondent.....	223
Appendix V: Questionnaire .....	224
Appendix VI: List of Manufacturing SMEs in Nairobi County Building, Mining and Construction .....	233

Appendix VII: Factor Analysis .....	255
Appendix VIII: Similarity Index/Turn It In Report .....	278
Appendix IX: Map of the Area of Research .....	279

## LIST OF TABLES

<b>Table 2.1:</b> Summary of Empirical Studies and Knowledge Gaps.....	47
<b>Table 3.1:</b> Sample Size Determination.....	58
<b>Table 3.2:</b> Summary of Cronbach’s Alpha Reliability Coefficients .....	60
<b>Table 3.3:</b> Operationalization of Study Variables .....	63
<b>Table 3.4:</b> Regression Models Summary, Analysis and Interpretation of Results.....	68
<b>Table 4.1:</b> Number of years the firm has been in Operation` .....	71
<b>Table 4.2:</b> Respondents profiles .....	74
<b>Table 4.3:</b> Descriptive Statistics for Measures of Environmental Based Drivers.....	76
<b>Table 4.4:</b> Descriptive Statistics for Measures of Resource Based Drivers.....	79
<b>Table 4.5:</b> Descriptive Statistics for Measures of Hybrid Strategy Drivers.....	84
<b>Table 4.6:</b> Descriptive Statistics for Measures of Macro Environment (Political) .....	86
<b>Table 4.7:</b> Descriptive Statistics for Measures of Macro Environment (Economical) ....	86
<b>Table 4.8:</b> Descriptive Statistics for Measures of Macro Environment (Social) .....	87
<b>Table 4.9:</b> Descriptive Statistics for Measures of Macro Environment (Technological).....	88
<b>Table 4.10:</b> Descriptive Statistics for Measures of Macro Environment (Ecological/ Environmental).....	88
<b>Table 4.11:</b> Descriptive Statistics for Measures of Macro Environment (Legal) .....	908
<b>Table 4.12:</b> Descriptive Statistics for Measures of Innovativeness .....	89
<b>Table 4.13:</b> Descriptive Statistics for Measures of Risk Taking.....	942
<b>Table 4.14:</b> Descriptive Statistics for Measures of Pro-activeness .....	964
<b>Table 4.15:</b> Descriptive Statistics for Measures of Competitive Aggressiveness.....	986
<b>Table 4.16:</b> Descriptive Statistics for Measures of Non-Financial Performance .....	98
<b>Table 4.17:</b> Descriptive Statistics for Measures of Non-Financial Performance .....	99
<b>Table 4.18:</b> KMO and Bartlett’s Test .....	101
<b>Table 4.19:</b> Variables and Factor Statistics .....	103
<b>Table 4.20:</b> Results of Test of Statistical Assumptions.....	105
<b>Table 4.21:</b> Correlation between Competitive Strategy Drivers and Performance of Manufacturing SMEs in Nairobi City County.....	107

<b>Table 4.22:</b> Correlation between Macro Environment and Performance.....	108
<b>Table 4.23:</b> Correlation between Entrepreneurial Orientation and Performance.....	110
<b>Table 4.24:</b> Regression Results for Effect of Competitive Strategy Drivers on Firm Performance .....	113
<b>Table 4.25:</b> Regression Results for Effect of Competitive Strategy Drivers on Return on Investment .....	114
<b>Table 4.26:</b> Regression Results for Effect of Competitive Strategic Drives on Return on Assets .....	115
<b>Table 4.27:</b> Regression Results for Effect of Competitive Strategy Drives on Return on Equity.....	116
<b>Table 4.28:</b> Regression Results for Effect of Components of Competitive Strategy Drivers on Firm Performance (non -financial) .....	117
<b>Table 4.29:</b> Regression Results for Moderation Results of the Effect of Macro Environment on Competitive Strategy Drivers and Performance .....	120
<b>Table 4.30:</b> Regression Results for Moderating Influence of Political Environment on the Relationship between Competitive Strategy Drivers and Performance .....	122
<b>Table 4.31:</b> Regression Results for Moderating Influence of Economic Environment on the Relationship between Competitive Strategy Drivers and performance.....	124
<b>Table 4.32:</b> Regression Results for Moderating Influence of Social environment on the Relationship between Competitive Strategy Drivers and Performance .....	126
<b>Table 4.33:</b> Regression Results for Moderating Influence of Technological Environment on the Relationship between Competitive Strategy Drivers and Performance.....	128
<b>Table 4.34:</b> Regression Results for Moderating Influence of Environmental/Ecological Environment on the Relationship between Competitive Strategy Drivers and Performance.....	130
<b>Table 4.35:</b> Regression Results for Moderating Influence of Legal Environment on the Relationship between Competitive Strategy Drivers	

and Performance of manufacturing SMEs.....	132
<b>Table 4.36:</b> Results for Moderation Results of the Effect of Macro Environment on competitive strategy drivers and Return on Investment.....	134
<b>Table 4.37:</b> Results for Moderating Effect of Macro Environment on the Relationship between Competitive Strategy Drivers and Return on Assets.....	135
<b>Table 4.38:</b> Results for Moderating Effect of Macro Environment on The Relationship between Competitive Strategy Drivers and Return on Equity.....	137
<b>Table 4.39:</b> Regression Results for Intervening effect of Entrepreneurial Orientation on the relationship between Competitive strategy Drivers and Performance of Manufacturing SMEs (Non-financial).....	141
<b>Table 4.40:</b> Regression Results for Intervening effect of Innovation on the relationship Between Competitive strategy Drivers and Performance of Manufacturing SMEs.....	143
<b>Table 4.41:</b> Regression Results for Intervening effect of Proactivity on the relationship between Competitive strategy Drivers and Performance of Manufacturing SMEs (Non – financial).....	145
<b>Table 4.42:</b> Regression Results for Intervening effect of Risk Appetite on the relationship between Competitive strategy Drivers and performance of manufacturing SMEs .....	147
<b>Table 4.43:</b> Regression Results for Intervening effect of Competitive Aggressiveness on the relationship between Competitive strategy Drivers and performance of manufacturing SMEs.....	149
<b>Table 4.44:</b> Regression Results for Intervening effect of Entrepreneurial Orientation on the relationship between Competitive Strategy Drivers and Return on Investment of Manufacturing SMEs .....	151
<b>Table 4.45:</b> Regression Results for Intervening Effect of Entrepreneurial Orientation on the Relationship between Competitive Strategy Drivers and Return on Assets of Manufacturing SMEs .....	152
<b>Table 4.46:</b> Regression Results for Intervening Effect of Entrepreneurial Orientation	

on The Relationship Between Competitive Strategy Drivers and Return on Equity of Manufacturing SMEs .....	154
<b>Table 4.47:</b> Result of The Joint Effect of Competitive Strategy Drivers, Macro Environment and Entrepreneurial Orientation on Non-Financial Performance of Manufacturing SMEs .....	157
<b>Table 4.48:</b> Result of the Joint Effect of Competitive Strategy Drivers, Macro Environment and Entrepreneurial Orientation on Return on Investment.....	158
<b>Table 4.49:</b> Results of Joint Effect of Competitive Strategy Drivers, Macro Environment and Entrepreneurial Orientation on Return on Assets.....	161
<b>Table 4.50:</b> Results of Joint Effect of Competitive Strategy Drivers, Macro Environment and Entrepreneurial Orientation on Return on Equity .....	162
<b>Table 4.51:</b> Summary of Research Objectives, Hypotheses, Analytical Models and Conclusions.....	164

## LIST OF FIGURES

<b>Figure 2.1: Conceptual Model</b> .....	51
<b>Figure 5.1: Empirical Research Model</b> .....	187

## **ABBREVIATIONS**

<b>AfDB</b>	African Development Bank
<b>EO</b>	Entrepreneurial Orientation
<b>EU</b>	European Union
<b>GDP</b>	Gross domestic Product
<b>KAM</b>	Kenya Association of Manufacturers
<b>KIRDI</b>	Kenya Industrial Research Development Institute
<b>KITP</b>	Kenya Industrial Transformation Programme
<b>KNBS</b>	Kenya National Bureau of Statistics
<b>MSE</b>	Micro and Small Enterprises
<b>RBV</b>	Resource Based View
<b>ROA</b>	Return on asset
<b>ROS</b>	Return on sales
<b>ROE</b>	Return on equity
<b>ROI</b>	Return on Investment
<b>SME</b>	Small and Medium Enterprises
<b>UNDP</b>	United Nations Development Programme



## ABSTRACT

The main study objective was to determine the impact of entrepreneurial orientation and macro environment on the relationship between competitive strategy drivers and performance of manufacturing small and medium enterprises (SMEs) in Nairobi City County in Kenya. SMEs are critical players in most economies, the world over. They provide synergies within economies through creation of job opportunities and provision of market linkages, boost government revenue and support wealth creation among many entrepreneurs. With evidence indicating limited studies seeking and providing answers on how competitive strategy drivers influence performance of manufacturing SMEs, this gap influenced the need for this research study. The resource-based theory was the overarching theory in this research study supported by game theory, open systems theory, dynamic capability theory and the resource-dependency theory. These theories helped articulate the variables in this study by providing a comprehensive framework for examining the link between the research variables. A cross-sectional survey was done covering 334 manufacturing SMEs in Nairobi City County. Data collection was through structured questionnaires distributed to business owners or senior managers in the participating firms which yielded 89.82 percent rate of response. Both descriptive and inferential measurements were utilized to analyze collected data. Pearson correlation coefficient was used to measure the direction and magnitude of the relationship between the study variables. Hypotheses were formulated from the specific objectives of the study. Simple regression analysis was used to test for the direct relationship between the study's variables while the moderating effect was tested using stepwise regression analysis. The intervening influence was tested using path analysis and the joint effect was tested through multiple regression technique. The study hypotheses were all supported. The study found that the three competitive strategy drivers namely, the environment-based drivers, and resource-based drivers and the hybrid strategy drivers had significant impact on performance of manufacturing SMEs. It was also noted that firm performance was significantly and positively influenced by entrepreneurial orientation illustrated by the degree at which the manufacturing SMEs innovates, takes risks, proactively pursues market opportunities and adopts competitive aggressiveness. Macro environment demonstrated significant moderating effect in the relationship between competitive strategy drivers and performance of the manufacturing SMEs. The study also generated an integrated model that examined the joint effect of the study variable which positively influenced performance of the manufacturing SMEs collectively. The study concluded that performance of manufacturing SMEs are influenced by competitive strategy drivers, macro environment and entrepreneurial orientation. The results support resource-based theory, game theory, open system theory and dynamic capabilities theory. The study results offered direction for policy guidelines touching on manufacturing SMEs operations and enable business owners and managers employ appropriate strategies in their business operations.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Performance of Small and Medium Enterprises (SMEs) remains particularly important especially when it comes to practicing entrepreneurship as well as undertaking research in the same. SMEs are key drivers to successful economic growth. They support innovations, creation of employment opportunities, perfecting of entrepreneurship skills and supporting social integration (Dahmen & Rodriguez, 2014). Universally, it is agreed that SMEs enhance economic growth across economies the world over hence the need to safeguard their performance so that economic development can be sustained (Sidik, 2012).

One of the ways through which performance can be best achieved is through the adoption of a combination of competitive strategy drivers (Gómez, 2006). It is therefore expected that owners and managers of these enterprises should maximize wealth not only to the owners but also to the society and other stakeholders. There exists a strong correlation between competitive strategy drivers and firm performance (Kristiansen, Furuholt & Wahid, 2003).

Nevertheless, the impact of competitive strategy drivers on organization performance ought to be evaluated on the foundation of the organization's macro environment and the entrepreneurial aspects adopted by the owners or managers of firms. Accurate information from the macro environments enables organizations to undertake effective

entrepreneurial orientation aspects and also evaluate competitive strategic models that can cope with the usual turbulent business environments that help develop winning strategies (Peng, Wang, & Jiang, 2008)

This study is anchored on Resource-Based Theory and supported by game theory, open systems theory, and dynamic capabilities theory, all of which provide a framework for examining the relationship between competitive strategy drivers, entrepreneurial orientation, macro environment, and sme business performance. The resource-based view (RBV) claims that a company's substantial pool of resources provides a constant competitive advantage (Barney, 1991).

In the open business environment, the behaviors of competing organizations influence each other in their quest to command a superior market share, thus game theory is the science of strategy that involves rational decision-making of self-sufficiency and with competing actors in a strategic setup (Netessine & Shumsky, 2001). According to Ansoff and McDonell (1990), the theory proposes that any alterations in business entities' macro environ influence their company's undertakings, since firm entities are notably reliant on the environment.

On the other hand, the dynamic capability theory describes firm's innovativeness and responsiveness to macro environment dynamics influence through firms' entrepreneurial agilities to make them adapt to their current market (Barreto, 2010; Di Stefano, Peteraf & Verona, 2010). Resource dependence theory of entrepreneurship articulates how

external resources of organizations impact the behavior of organizations. Pfeffer and Salancik (1978) proposed the resource dependency theory as a way to explain the behavior of organizations by looking at the contexts within which they function. Consequently, these theories present a basis for articulating the interconnection between the variables in the research.

Performance of manufacturing SMEs has become an area of interest especially in a country like Kenya simply because of the significant role that they play in stimulating economic development. The Kenyan government has mainstreamed a number of initiatives through its agencies to support manufacturing SMEs growth. These agencies include the Micro and Small Enterprises Authority (MSEA), the Kenya Association of Manufacturers (KAM) and the Ministry of Industrialization and Enterprise Development.

Such bodies offer manufacturing SMEs with solutions to deal with challenges that they encounter in their operations by creating avenues for capital mobilizations, operational efficiencies, access to domestic, regional and international markets, including negotiating consensual ties with several multilateral trade players and also economic blocs. Manufacturing SME's performance is largely a function of how entrepreneurs choose strategies that work with their respective macro environmental conditions.

Studies that linked macro environment, competitive strategy entrepreneurial configuration with organizational performance relative to manufacturing SMEs in Nairobi City County are very limited. Nairobi City County commands the highest concentration of Manufacturing SMEs that consequently provide a minimum of 25% of all the job opportunities within manufacturing industry (KNBS, 2013). Scholars may have shied away from studying and constructively linking the aforementioned variables. Particularly how entrepreneurial orientations have influenced performance of these SMEs through selection of appropriate competitive strategy drivers in the prevailing environmental conditions geared towards improved performance.

### **1.1.1 Competitive Strategy Drivers**

Competitive strategy refers to deliberately choosing different set of activities that form the basis of competitive advantage to deliver a unique mix of value (Porter, 1996). Competitive strategy drivers are forces that shape an organization strategy. Competitive strategy drivers ought to be aligned to an organization's long-term plan in an endeavor to improve and consolidate a more superior market share and by extension a possible long-lasting profitability (Peteraf, 1993). Competitive strategy drivers are meant to offer advantages over competitors. Pulaj, Kume and Cipi (2015) emphasized the essence of strategy drivers in determining strategic objectives, implementing clear paths of actions and aligning resources required for achieving the desired firm objectives. Justinian (2015) refers to strategy drivers as the firm's blueprint of planned strategic activities that are aimed at achieving sustainable competitive advantage applicable to their respective macro environments.

Competitive strategy drivers vary according to firms' internal and external factors. Competitive strategy drivers in this study are categorized into three main strategic drivers namely the environmental based strategy drivers, resource based strategy drivers and hybrid strategy drivers. The environment-based strategy drivers are explained using porter's generic strategies of cost leadership, differentiation and focus. Shigang (2010) noted that Porter's framework as a principal tool when analyzing policies of enterprises. Resource-based strategy drivers revolve around possession of strategic resources which provide organizations with strategic opportunities that help them develop competitive advantages over their rivals (Barney, 1991). Generally, firms' resources include firm physical assets, Human Resources, capabilities, organizational processes, firm attributes, and information and also knowledge controlled by a firm that enable the firm to conceive of and implement strategies.

A resource is deemed to be strategic if it is valuable, scarce, difficult to imitate, un substituted. Strategic resources are valuable if there is a relatively high cost of acquiring them or they are simply scarce (Chi, 1994). The hybrid strategy drivers are categorized as a blend of (i) low cost and differentiation (ii) high cost and differentiation. The hybrid strategy, variously referred to as mixed, dual, integrated, combination or blended strategy, is a more complex strategic driver compared to generic strategic approaches because it involves a number of strategic focuses. The idea was first argued for by Miller (1992), who indicated that a firm that implements a hybrid strategic approach will benefit from a non-

imitation advantage as compared to other competitors who employ pure strategic approach.

### **1.1.2 Entrepreneurial Orientation (EO)**

There are many ways in which entrepreneurial orientation has been defined by researchers. According to Leitoa and Franco (2011), the behaviors of the entrepreneurs in the organization are driven by their practices which include entrepreneurial orientation. Researchers agree, however, that a firm's level of entrepreneurship is determined by how much it innovates, takes risks, and acts dynamically. The latter is used to assess how well a company's dangers are managed.

Numerous researchers have considered EO definition as similar to that of Leitoa and Franco (2011). Chen, Du and Chen (2011) position is that the focus is more concentrated on proactivity and self-development and while being risk averse. Leitoa and Franco (2011) maintain that EO includes the following measurements: inventiveness, risk-taking, staying ahead of competition and practicing aggressiveness. Further, Nyasetia (2013) notes that EO implies the methodology, practices and essential administration practices within a firm that are guided by entrepreneurial customs. Going by Lumpkin and Dess (1996), EO has no critical or generally universally recognized ways as to how the EO development can or ought to be conceptualized.

Many academics have previously been interested in the role of EO in businesses. Entrepreneurially oriented businesses are forward-thinking, risk-takers, who reach out to

markets before their opponents. EO is a company behavior that encourages a company to experiment, take chances, and be aggressive (Callaghan & Venter, 2011). Firms can use EO to innovate in new ways. Firms can use EO to develop new products and make significant modifications to existing processes and products. Firms can use EO to make uncertain and high risk investments and reach markets ahead of competitors, resulting in large profits (Okeyo, Gathungu, & K'Obonyo, 2016). EO is an important phenomenon that aids in the alignment of organizations with market demands.

As a result, these variables could cause discrepancies in previous experiential investigations on the entrepreneurial orientation – firm performance relationship. Another possible reason for variances has been highlighted in previous investigations is the method of determining EO. While some research has viewed EO as a three-factor one-dimensional model that includes innovation, risk taking, and proactiveness, Machirori and Fatoki (2013) have taken a different approach of EO include creativity, risk-taking, proactivity, autonomy, and competitive aggressiveness. For the sake of this study, EO will be defined as creativity, proactiveness, risk appetite, and competitive aggressiveness.

### **1.1.3 Macro Environment**

According to Hitt, Ireland, and Hoskisson (2011), a firm's macro environment is a combination of business environmental elements that influence the firm's operations or functioning. It's basis of limitations, contingencies, problems, and business possibilities that influence how businesses conduct their operations. According to Hitt, Ireland, and Hoskisson (2011), a firm's macro environment is a combination of



business environmental elements that influence the firm's operations or functioning. It is the source of limitations, contingencies, problems, and business possibilities that influence how businesses conduct their operations.

The macro environment is important to SMEs because it provides chances for growth. In the macro environment, risks and opportunities exist in the form of various threats and challenges that SMEs face. The risks are amplified by the complexity and dynamism of the environment, which can severely block SMEs' positive performance. Many variables make up the macro environment, according to Goll and Rasheed (2004), and their challenges in terms of numbers and dynamism in terms of changes offer a severe risk to the success of a firm's operations. The macro environment is also an essential source of resources for businesses in their day-to-day operations.

Political, Economic, Social, Technological, Ecological, and Legal aspects affecting manufacturing SME enterprises were applied in this study to describe the macro environment. The macro environment's complexity has been recognized as a key element affecting enterprises in numerous previous studies (Gathungu, Aiko, & Machuki, 2014). The dynamic nature of today's macro environment will affect business operations hence SMEs should endeavor to align accordingly for them to survive. Manufacturing SMEs should always be cognizant of these dynamics for them to survive, as well as ensure the timing of their operations and activities, and how to deal with environmental difficulties. To thrive in this ever-changing environment, companies must be adaptable (McMahon & Carr, 1999).

The amount to which government actions affect the economy has a political impact on the macro environment. Taxation policies, commerce, political stability as well as tariffs are examples of political factors. These considerations may also encompass commodities and services that the government desires or does not desire (Chen et al., 2011). The political context in the region or country where manufacturing SMEs operate has a stronger impact on their survival. As a market regulator, promoter, and planner, the government authorities play a key role. The current administration has a significant influence in determining the political environment and political stability, which is still an important element influencing the development of manufacturing SMEs (Gathungu & Baariu, 2018). Mindset championed by the ruling class has an impact on corporate operations. It's worth noting that the pro-business mentality enables for transactions like mergers, acquisitions, joint ventures, business allowances, and sourcing the SMEs involved in manufacturing.

Technology and business dynamism are intertwined and interconnected. Technological advancements create several new opportunities while also posing a threat by rendering existing systems obsolete. The demand for SME products and services, as well as the manufacturing process and raw materials, may be affected by changing technologies. Research and development, activity automation, technology incentives, and the rate of technological change are all technical aspects. These factors can influence entrance barriers, minimum efficient production levels, and outsourcing decisions. Costs, quality, and innovation can all be affected by technological advancements. Technology advancements can either limit or

extend a company's options (Okeyo et al., 2016). Many new items will be introduced as a result of these developments, while many existing products will become outdated.

The entire state of a country's economy is part of manufacturing SMEs macro environment. The environment-based strategy drivers are explained using porter's generic strategies of cost leadership, differentiation and focus. Shigang (2010) noted that Porter's framework as a principal tool when analyzing policies of enterprises. Resource-based strategy drivers revolve around possession of strategic resources which provide organizations with strategic opportunities that help them develop competitive advantage over their rivals (Barney, 1991). Generally, firms' resources include firm physical assets, Human Resources, capabilities, organizational processes, firm attributes, and information and also knowledge controlled by a firm that enable the firm to conceive of and implement strategies. A resource is deemed to be strategic if it is valuable, scarce, not easily imitable, and un-substitutable. Strategic resources are valuable if there is a relatively high cost of acquiring them or they are simply scarce (Chi, 1994). The hybrid strategy drivers are categorized as a blend of low cost and differentiation. The hybrid strategy, variously referred to as mixed, dual, integrated, combination or blended strategy, is a more complex strategic driver compared to generic strategic approaches because it involves a number of strategic focuses.

Environmental generosity refers to shortage or abundance of basic assets by at least one venture working inside a domain (Castrogiovanni, 1991) and in this manner an essential variable that influences a company's activities. At the point when assets are bounteous,

undertakings would effectively survive, however, when they turn out to be rare, competitiveness would escalate influencing productivity, overall performance and firm slack (Porter, 1980). The dynamic and continuously changing environment in which businesses compete forces organizations' assessment and comprehension of the macro environment to play a significant role in strategic management.

Though macro environment always impacts on manufacturing SMEs' performance, it will mostly be driven by firms capability to retort to uncertainties present in their respective environments. Macro environment provides SMEs with needed resources for them to achieve any success (Pfeffer & Salancik, 1978). Environmental dynamism is the severity levels of changes in the macro environment and their unpredictability (Goll & Rasheed, 2004). Unpredictability, instability, and fluid nature of macro environment exert erratic changes to organizations (Machuki & Aosa, 2011). Dynamism refers to the rate at which market players like consumers and competitors change and innovate; also, it can be defined as the unpredictability and uncertainty of their activities and choices. The amount of resources available impacts whether or not a company can innovate and compete in the market place. Munificence, according to Goll and Rasheed (2004), is the ability of an environment to assist a firm's growth.

How manufacturing SMEs function is also influenced by the legislative structure of a country or region. Legal factors include laws that govern the general operations of SMEs, such as labor management (Chen et al., 2011). These factors can have an impact on a company's operations, costs, and product demand. Environmental considerations

include ecological and environmental features including weather, climate, and climate change, which can have a significant impact on businesses like tourism, agriculture, and insurance (Castrogiovanni, 1991). Growing awareness of the possible effects of climate change is changing how businesses function and the products they offer, creating new markets in the process.

#### **1.1.4 Firm Performance**

Firm or company performance is a general term whose definition remains open, broad and varied. The lack of consensus on the definition firm performance has limited the possibility of having a generalized definition as many researchers have attempted in their own different ways (Navickas, Skackauskiene, & Navikaite, 2014). To simplify the understanding of business performance, According to Moullin (2003), it is necessary to develop indicators which can be quantifiable by identifying aspects of firm operations or objectives needing evaluation or improved on a regular basis, and of which end results facilitate the main outcomes at the year end. Depending on the value, importance, and specific business circumstances, both financial and non-financial factors are included in these assessments.

Firm performance refers to company's capacity to accomplish intended results in the form of market, financial and shareholder return, as measured against proposed yields and expected outcomes (Richard, Devinney, Yip, & Johnson, 2009). The discussion on business performance has been informed by a variety of theoretical ideas. The work of Penrose (1959), who hypothesized that business performance was significantly impacted

by the firm's resources and competences, gave rise to classical economic theory on firm performance. Her research paved the way for resource-based theory of business development (Barney, 1991; Dierickx & Cool, 1989; Rumelt, 1984).

Resource-based theory argue that assets and other resources available to manufacturing SMEs are crucial in enabling them attain competitive edge (Peteraf & Barney, 2003). According to industrial economists, performance disparities between businesses can be explained by characteristics that are specific to both the company and the firm (Capon, Farley, & Hoenig, 1990). Porter (1979) pioneered management theories of business performance, arguing that the driving force of company performance is competitive strategy which is derived from the industry the company is operating in and the firm's position in the industry drives firm performance. It's also questionable how to evaluate a company's performance.

Despite the fact that measuring company performance has sparked substantial debate, so yet, there is no agreement on performance processes. Common measurements of SME performance, on the other hand, include both monetary and non-monetary indicators. Benefit pointers such as ROA, equity and investments are examples of money-related markers. Operational efficiency, market share, staff turnover, entrepreneur happiness, and the firm's longevity are all non-financial procedures (Gentry & Vaidyanathan, 2010). Because the focus in many manufacturing SMEs is primarily on bottom-line performance, it makes more logical to monitor performance using indicators related to the tasks being performed.

These activities are usually classified as either financial or non-financial. Scholars who utilize the financial approach frequently utilize a combination of accounting metrics including sales turnover, profitability, earnings per share, and return on assets (Odhiambo, 2015). The rationale for this decision is based on finance theorists and practitioners who have frequently emphasized that the primary goal of manufacturing SMEs should be to maximize shareholder wealth. Kaplan and Norton's balanced score card (BSC) demonstrates the use of non-financial measures to judge corporate performance (2008).

As a result, BSC has become one of the most extensively utilized performance measurement methods. Customer-related indicators such as loyalty and on-time delivery are included in BSC, as are internal business processes, quality and cycle-time, and learning and growth, particularly in employee skills (Iveta, 2012). Kaplan and Norton (2008) stated that the value derived from intangible assets is indirect when using BSC as a holistic measure of performance. Such assets like expertise and technology, for example, rarely have a direct impact on revenue or profit. However, their cause-and-effect linkages at two or more intermediary stages have an impact on financial results, they will improve as these and other intangible assets improve (Kaplan, 2010) and, as a result, overall performance. These intangible measures include entrepreneur satisfaction, growth in employment and business longevity.

Manufacturing SMEs also employ financial measures to assess their performance. Some of the financial measures commonly used include return on investment (ROI), return on assets (ROA) and return on equity (ROE). The return on investment (ROI) is one of the most often used financial metrics for evaluating the financial outcomes of individual investments by shareholders. A high return on investment (ROI) indicates that the investment rewards outweigh the investment expense. In most cases, the return on investment (ROI) is computed by dividing the income by the investment. Kabiru (2016) opines that in business, the purpose of the ROI metric is to assess, in a given time frame, rates of return on resources invested in a profit run entity in order to decide whether or not to undertake an investment. To differentiate among the three financial measures ROI focuses on paid up capital and is individual investment specific. Manufacturing SMEs' performance was evaluated using both financial and non-financial measures in this study. ROI, ROE and ROA were utilized for financial indicators, whereas entrepreneurial satisfaction, growth in employment and business longevity were employed for non-financial measures.

### **1.1.5 Manufacturing Sector in Kenya**

Manufacturing industry has continued to perform an essential part in supporting economic development around the world by driving and maintaining high productivity growth, expanding employment prospects for semi-skilled labor, and improving country competitiveness through exports. Few countries have been able to industrialize and prosper without the manufacturing sector playing a significant role. Kenya, like many other developing countries, has struggled to create a strong manufacturing sector, relying



instead on agriculture and services to drive growth (KAM, 2017). The manufacturing industry is that which consists of processing of raw materials, and restoring of manufactured products (Agus, 2000). KIRDI (1993) describes it as the section of the economy which produces or makes finished goods from raw materials by means of a comprehensive and structured system of labour under a control, mainly through use of machinery. In this research, all firms that converts the form of any raw material to a finished product through a process before selling to the end user qualified to be categorized a manufacturing firms. These firms included those involved in carpentry, leatherwork, textile, paint processing, body building and fabrication and food processing.

Manufacturing sector is an important enabler of economic prosperity through creation of employment, enhancing market linkages across various industries, minimizing poverty levels and positively boosting the economy in many other ways in both developed and developing countries (Cole, Robert, & Supreeya, 2010). Many entrepreneurs in Kenya lack appropriate capacities to formulate and implement effective competitive strategy drivers to thrive in their respective business environments (Njoroge, 2013). As a result, the rate of new venture creation has remained constrained, graduation to a fully-fledged manufacturing SMEs or higher status has remained low and also the failure rates have been high among manufacturing enterprises (Mengich, Ndalira, & Juma, 2013).

In the previous 15 years, Kenya's industrial sector has faced significant hurdles. As a result, its contribution to GDP has decreased significantly, raising concerns about a premature deindustrialization issue. Despite targeted governmental initiatives seeking to

improve the manufacturing sector's structure, little has changed over the years. The manufacturing sector's contribution of GDP has been relatively constant over the last three decades, delivering an average of 10% from 1964 to 1973, growing slightly to 13.6 percent from 1990 to 2007, and averaging below 10% in recent years. The manufacturing sector's production is mostly focused on consumer items (KAM, 2017).

### **1.1.6 Small and Medium Enterprises in the Manufacturing Sector in Kenya**

SMEs are diverse groups with no agreed-upon definition. While some have used the number of employees to identify SMEs, others have used the business type and paid up capital. SME is defined by the European Union (EU) as a company that employs fewer than 250 people and has a yearly sale of less than 50 million euros and/or a yearly balance sheet total of less than 43 million euros. The World Bank, the United Nations Development Programme (UNDP), and the African Development Bank (AfDB) all have upper limits of 300, 200, and 50 employees, respectively (Gibson & Van der Vaart, 2008). The Micro and Small Enterprise Act of 2012 in Kenya defines micro enterprises as having a maximum of five employees.

The MSE act 2012, the Sessional Paper No. 2 of 2005: Development of Micro and Small Enterprises for Wealth and Employment creation, and the Ernst Young 2009 research commissioned by the East African Community guide the definition of medium enterprises (EAC). Firms with 51-100 people and a capital investment of less than Kshs. 30 million are classified as medium companies. Manufacturing SMEs employ around 240,000 people in Kenya, accounting for 13% of the overall workforce. Kenya has had an

early deindustrialization, as indicated by the manufacturing sector's contribution to GDP falling to a pitiful 8.4 percent in 2017 and 9.2 percent in 2016. (KAM, 2017). Deindustrialization has been marked by a rising share of the services sector in GDP, sparking discussion over whether services can replace manufacturing as a source of economic growth. Kenya's government has been enacting policies aimed at improving the country's economic and social climate (KAM, 2016).

Manufacturing SMEs today face many challenges due to factors such as globalization and regional free trade agreements, which have had a direct impact on their performance (KAM, 2016). Nairobi County has Kenya's highest concentration of manufacturing SMEs, accounting for roughly 25% of the sector's total employment (KNBS, 2013). It may therefore be argued that the reason why manufacturing SMEs subjected to similar macro environments and have posted different performances could be explained by how they have crafted their competitive strategy drivers in terms of improving efficiencies, endeavors to add value, minimize wastages and maintain good productivity.

The government has established Vision 2030, the Kenya Industrial Transformation Programme (KITP), and, most recently, the Big 4 Agenda to revitalize the industrial sector. 'The low and declining outputs by the manufacturing, industrial, and exporting sectors in GDP present a major impediment to economic growth,' according to the Medium-Term Plan 3 Concept Note. One of the goals is to expand the country's manufacturing industry, with an emphasis on exports Government of Kenya's Big Four Agenda areas.

## **1.2 Research Problem**

Describing and predicting firm effectiveness is the main reason for entrepreneurship in formulating, aligning and achieving organizations objectives (Nunoo & Andoh, 2012). Firm performance is influenced directly by its competitiveness in their operations (Hieltjes & Petrova, 2013). A study by Nunoo and Andoh (2012) rejected the argument that firm performance is only determined by the competitive strategy drivers it adopts; and added that firm performance also is influenced by its entrepreneurial orientation and the environment in which they function. Hieltjes and Petrova (2013) argue that without the insertion of a mediator or a moderator variable, or both, discovering a direct relationship between variables in the competitive strategy drivers and firm performance relationship would not provide a comprehensive understanding.

There is evidence of limited studies seeking and providing answers on how competitive strategic drivers influence outputs of manufacturing SMEs in Nairobi City County. Notably, debate that business environment in which organizations operates determines the choice of competitive strategy drivers and subsequently influence performance remains inconclusive (Capuano & Ramsay, 2011) and also the influence that results from competitive strategy drivers in determining the performance through entrepreneurial orientation hasn't been exhausted yet (Okeyo, 2013; Wanjohi & Mugure, 2008). SMEs are key enablers of economic development in Kenya.

The Government's SME legal framework recognizes and enjoins regulatory bodies, including MSE Kenya Association of Manufacturers, Kenya Industrialization and Enterprise Development Ministry. These organizations create a favorable policy and legal climate for manufacturing businesses. Manufacturing SMEs benefit from the legal framework in terms of access to funds, knowledge, local and worldwide markets, and even negotiated bilateral relations in the forms of cooperation.

Notwithstanding their enormous capabilities, such businesses are poorly organized, with the majority remaining uncompetitive and unorganized. Studies on SMEs in the manufacturing sector have paid less attention, resulting in the majority of them functioning without the benefit of homegrown solutions for enhanced competitiveness and performance. Studies have not clearly demonstrated how to integrate factors such as competitive strategy drivers, entrepreneurial orientation, and the macro environment into their performance, and the sector continues to be marked by low graduation and high failure rates, limiting their ability to contribute to economic development (Bowen, Morara, & Mureithi, 2009).

Weak competitive strategy drivers are recognized as indicators of the poor performance among SMEs (Hieltjes & Petrova, 2013). Based on research, there exists substantial connection between competitive strategy drivers and organizational performance (Maalu, 2010). Studies by Okeyo (2013), Wanjohi and Mugure (2008), Waema et al. (2009), and Bowen et al. (2009) investigated the impact of entrepreneurial orientation on company performance as well as the macro environment and found a favorable link. Environmental

factors influenced firm performance, according to Wanjohi and Mugure (2008). As a result, studies present methodological, conceptual and contextual gaps that this study sort to bridge.

At conceptual level, even though there is a lot of literature on the study variables, the outcomes from the numerous researches that have been conducted has been very diverse probably because of the differing nature of viewpoints adopted by the researchers. Contextually, the debate on the influence of competitive strategy drivers, macro environments and link between knowledge management and performance of manufacturing SMEs in Nairobi County is not documented hence the need for more studies. Further, the studies reviewed were carried out mostly in the context of other sectors of the economy. This study was carried out in Kenya with specific focus on manufacturing SMEs located or operating within Nairobi City County. Several factors have influenced the choice of Nairobi City County based manufacturing SMEs as the context of this study. First, no known studies have been carried out in this context of the relationship between the four variables considered that is; competitive strategy drivers, entrepreneurial orientation, macro environment and performance of manufacturing SMEs. Secondly, manufacturing SMEs apply different competitive strategy drivers to survive, they exhibit different entrepreneurial orientation dimensions as per the skills and experience of the owners and are also located in different locations within Nairobi City County exhibiting different operational environment. Thirdly, the enterprises are subjected to similar laws and regulations governing their operations.

Further at methodological level different scholars have adopted different study methodologies with varied results and also used different research designs and analytical techniques to come up with conclusions. For instance, Gathungu et al. (2014) examined Entrepreneurial Orientation, Macro Environment, Networking and Firm Performance. Moorthy et al. (2012), seeking to establish factors affecting performance of SMEs used descriptive study to ascertain the implication of each independent factor towards the performance of SMEs and also through factor analysis to extract important factors that influence firm performance, while the study by Maalu (2010) seeking to determine the nature of firm's succession plans and their effect on business performance engaged two-pronged research design which consisted both descriptive cross-sectional and case study.

This study deviated from them by using a cross sectional study design, purely quantitative data and a regression analysis to test the significance levels along the stated hypothesis. In addition, the current study used stepwise regression analysis and path analysis when it came to examining the role of the macro environment and entrepreneurial orientation in moderating and mediating link between competitive strategy drivers and manufacturing SMEs' success. Furthermore, none of the research examined employed an integrated model to look at the interactions between the study variables plus how they interact to influence performance of manufacturing SMEs. It is from this perspective that the study intends to fill the gap by noting accompanying examination question: What is the effect of entrepreneurial orientation and macroenvironment on the relationship between competitive strategy drivers and performance of manufacturing SMEs in Nairobi City County, Kenya?

### **1.3 Research Objectives**

The main study objective was to determine the impact of entrepreneurial orientation and macro environment on the relationship between competitive strategy drivers and performance of manufacturing SMEs in Nairobi City County, Kenya. Specific objectives were:

- i. Examine the relationship between competitive strategy drivers and performance of manufacturing SMEs.
- ii. Assess the effect of macro environment on the relationship between competitive strategy drivers and the performance of manufacturing SMEs
- iii. Establish the influence of entrepreneurial orientation on the relationship between competitive strategy drivers and performance of manufacturing SMEs.
- iv. Determine the joint effect of competitive strategy drivers, entrepreneurial orientation and macro environment on the performance of manufacturing SME's.

### **1.4 Value of the Study**

This study aimed at enriching relevant and respective theories by validating or denying theoretical statements, assumptions, and criticisms coming from theories such as open systems theory, dynamic capabilities theory, resource dependence theory, and resource-based theory, which provide the study's theoretical foundation. This could be accomplished by developing a framework for understanding the joint relationship between competitive strategy drivers, the macro environment, and entrepreneurial orientation on the performance of manufacturing SMEs, as well as improving on the studies conducted under these variables, thereby adding to the body



of theory, knowledge for learning, improved creativity, innovativeness, and improved productivity.

The study is expected to make a substantial contribution to policy and management practices in the entrepreneurial sector. At the policy level, the government understands that manufacturing SMEs are important determinants of economic empowerment and as a result, it is working to design policies, raise awareness among policymakers, and support them in using integrated models in policy creation. Policymakers would mix policies boosting competitive strategy drivers and the operational environment, for example. This would boost SMEs' ability to scale up their operations in order to address the economy's "missing middle" gap.

This study would also benefit managers of all cadres by making contributions to the competitive strategy drivers in manufacturing SMEs. The SMEs generally lack best competitive strategy drivers and entrepreneurial orientation as well as good responses to the ever-turbulent macro environment. The findings of this study offered suggestions that could be beneficial to application of best or combination of competitive strategy drivers for Manufacturing SMEs in Nairobi City County.

### **1.5 Chapter Summary**

Chapter one highlights the background of the study then summarizes the variables of the study. These are competitive strategy drivers as the independent variable with the macro environment as the moderating variable whereas the entrepreneurial orientation is the

intervening variable. The dependent variable is the performance of manufacturing SME's. The chapter then gives background of the manufacturing sector in Kenya after which the researcher goes deeper to describe manufacturing SMEs in Nairobi City County and the country. The chapter articulates the research problem, research objective as well as expected outcomes.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews scholarly work that is relevant to the variables of the study. Literature review, according to Gay, Mills, and Airasian (2006), necessitates the logical identification, sorting, and analysis of papers that are relevant to the given variables. The chapter first discusses the theories anchoring this study. This chapter also provides empirical evidence on the relationships of study variables and identifies the research knowledge gaps based on reviewed studies and also presents conceptual framework that the study will use.

#### **2.2 Theoretical Review**

This section discusses theories upon which this study is anchored. Stewart, Harte and Sambrook (2011) state that a theory is an assumption or an arrangement of thoughts planned to clarify something. Competitive strategy drivers' as an independent variable anchored on game theory, macro environment as a moderating variable anchored on open system theory, entrepreneurial orientation as an intervening variable anchored on dynamic capability theory, and performance of manufacturing SMEs as a dependent variable anchored on resource based theory are the variables considered in this study.

### **2.2.1 Resource-Based Theory**

Resource Based Theory (RBT) is the anchor theory and it encompasses all of the variables in the study. Entrepreneurs, for example, design tactics on the basis of available resources in the organization, as well as environmental conditions and the entrepreneurs' proactivity and imaginative inclination. RBT contends that a firm's unique set of resources generates a competitive advantage that lasts (Barney, 1991; Conner & Prahalad, 1996). Entrepreneurs develop firms out of available resources and competencies, according to this theory (Dollinger, 1999).

Critics of this theory claim that it recognizes that assets are allocated differently between organizations and that this may be managed over time. It provides many resource variables while ignoring other elements, such as the concept of variable co-alignment, which has the potential to improve performance (Chathoth, 2002). The theory hypothesizes the idea that company outputs are improved when it uses distinctive resources which it possesses as enabler in achieving competitive advantage position. Of importance is that, resources available to a firm must be utilized in a manner that will give competitive edge over other competitors in the business environment.

On account of SMEs in manufacturing segment, RBT is basic since it tends to demonstrate that assets and abilities of a firm are critical to its potential success. Sustainable competitive advantage can be achieved by enterprises through resources such as strategic management planning (Michalisin, Smith, & Kline, 1997), tacit knowledge (Polanyi, 1966), capital, management skills (Castanias & Helfat, 1991) and acquisition of

appropriate skilled human resources (Wernerfelt, 1984). Entrepreneurship is a complex aspect of the resource-based framework, according to early work on resource-based theory. A company's competitive position is determined by a collection of distinctive assets and relationships. According to Alvarez and Barney (2002), if an entrepreneur has access to all resources required and capitalize on an opportunity, the focus will move to coordinating and executing rather than organizing. This circumstance is comparable to taking advantage of arbitrage opportunities provided by business environment dynamics.

When an entrepreneur lacks one or more important resources, however, substantially more entrepreneurial initiative is required to take advantage of market opportunities. While strategic management studies and industrial economics have traditionally addressed competitive advantage, the latter topics focus on entrepreneurship and the economics of entrepreneurship, which are tied to the notion of seeking opportunities (Foss, 2011). Entrepreneurs have one-of-a-kind resources that help them identify emerging opportunities and mobilize funding for their enterprise.

By concentrating on resources, from identifying a gap in the market to being able to mobilize resources into a firm and then to the creation of unique and viable solutions that are dominant in the market, we help identify issues that begin to address the distinctive domain of entrepreneurship. According to Conner (1991), firm's ability to attain and maintain competitiveness in their markets depends on its ability to gain and defend a superior position by optimal deployment of resources key to production and distribution. Entrepreneurial possibilities can be defined as an entrepreneur's unique insight into the

value of specific resources that other competing businesses may not have yet. Resources that are valuable, uncommon, and difficult to replicate or replace are considered crucial enough to provide a long-term competitive advantage (Barney, 1991). Organizations' ability to differentiate their products or services is strengthened by strategic resources like these.

RBT stresses on the need for uniqueness as opposed to shinning across all business areas. Examples of resources that are important for entrepreneurs include, human resources, special information, leadership capabilities, linkages and experience embodied in the entrepreneurs or their social networks, all of which may help to make their ventures difficult to imitate. The RBT has been linked with stakeholder perspective in recent works by Barney (2018).

### **2.2.2 Game Theory**

The game theory model is a general framework for strategic relations in a contention state with two players, each of whom is focused on the rival's behavior in an attempt to predict their likely action in order to make their own decisions (Furrer & Thomas, 2000). Strategic reasoning entails selecting how to act in order to attain a goal while also considering how others will respond and the knowledge that they will reason in a rational manner as well. The theory's fundamental notions include decisions, tactics, and the alternatives that each player chooses, as well as payoffs, which can be numerical representations of the players' preferences among the game's possible outcomes.

The model is built on the premise of rational behavior, which is common to the majority of microeconomic models. Game theory models, on the other hand, go beyond the limiting rationality assumption of microeconomic models to include a wide range of strategic intent (Saloner, 1991). The theory's basic assumptions are that all players have predictable preferences and are instrumentally rational in the sense that they always choose the option that maximizes their individual payoffs, given their current knowledge and beliefs, and that the game's specification and the players' preferences and rationality are well-known among the players.

Game theory strives to enlighten and offer a normative guide for logical behavior of players faced with strategic resolves or participating in social relationships by generating decisions by contestants in opposing or cooperating circumstances (Netessine & Shumsky, 2001). Game theory is the study of the consequences of these assumptions in certain types of games in order to predict how rational players will behave. Psychology is the study of the nature, functions, and phenomena of behavior and mental experience. Two branches of psychology provide links to game theory: cognitive psychology, which studies all forms of cognition, including decision making; and behavioral psychology, which studies the nature, functions, and phenomena of behavior and mental experience. Social psychology is concerned with how other people impact individual behavior and

mental experiences, while cognitive psychology is concerned with all forms of cognition, including decision making.

This theory has been criticized since it implies that enterprises in a competition have finest strategic behavior, well-adjusted circumstances, unchanging results, dealing, alliance formation, fair supply, and other concepts related to reducing group variances. The procedures of various disciplines of study, such as financial and administrative sciences, are influenced by game theory (Rasmusen, 2001).

As a result, dilemma and rivalry are the order of the day for manufacturing SMEs, and their expected performance must be analyzed in terms of differentiating their competitive strategy drivers based on how well opportunities are exploited and challenges are overcome, just as this theory suggests. Human decision makers have restricted rationality and are rarely endowed with complete common knowledge as a result, they do not always adopt strategies that maximize their payoffs, even when determinate game-theoretic solutions exist (Mcafee & McMillan, 1996). Human decision-makers have other-centered preferences and don't always attempt to maximize their own payoffs, regardless of the payoffs of others, and this is psychological.

### **2.2.3 Open Systems Theory**

The proponents of this theory suggest that as enterprises perform their trades, they will be subjected to events and changes in their macro environments. This is so because enterprises are environment serving and dependent (Ansoff & McDonnell, 1990). Organizations are open schemes that need careful management



to gratify and stabilize internal needs and adapt to macro circumstances (Burnes, 2000). According to open systems theory, organizations are strongly influenced by the environment they operate in for change and survival.

This theory explains how strategy helps a firm to achieve sustainable competitive advantage. Thus, survival of organizations relies on its affiliation with the environment. Macro environment dynamics have a huge influence on firm performance with the ever-evolving nature of the factors that play out in short, medium and long term (Machuki & Aosa, 2011). The theory however only concentrates on the environmental effects but does not explain how competitive strategy drivers help the firm to achieve performance.

It only emphasizes that the survival of firms is dependent upon its relationship with the environment. However, the survival of a firm must embrace continuous interaction with the always changing macro-environment and adopt competitive strategy drivers that align with the environmental forces. It can therefore be conceptualized that this theory explain the relationship that arises from the interaction between competitive strategy drivers that arises from the macro influence in terms of norms, culture and policies on environment and also the entrepreneurial nature of the owners.

Organizations are reliant on external actors to get needed resources for them to survive. An actor is an entity or a group of entities with particular objectives and has a certain degree of autonomy in relation to other actors. The open systems view assumes

that firms are forced to act under situations of constrained freedom and that they tend to serve those actors which afford them resources. Consumers, suppliers and proprietors can be regarded as such actors that will have major indirect control over a firm (Christensen, 1997). While organizations rely on their environment for critical resources, the environment is considered to be unpredictable as it is beyond the firm's administrative control.

Consequently, firms strive to develop linkages with immediate stakeholders so as to minimize ambiguity (Dubois, 1998). Additionally, the environment comprises of heterogeneousness in terms of incentives. Every actor has their own likings and criteria for evaluating the actions of a firm, and hence, any actions undertaken by an organization are likely to imply negotiations or conflicts. As firms interact with stakeholders, they often become obliged to operate within the prescribed rules of interrelationship. Interrelationship is a condition in which results of an act depends on multiple of actors (Pfeffer & Salancik, 1978).

As firms control varying bundles of resources and undertake various activities, networks of firms come up, where no one is in total control over their own operations. This value network view varies from the more traditional illustrations of firms found in the dichotomous view of markets and hierarchies (Powell, 1991). While hierarchies are characterized by executive control and markets adopt independence and arms-length distance between suppliers and customers, a network perspective instead adopts restricted freedom and

interdependence between firms. Though networks of firms are held together by mutual benefit, there is always a mixture of intersecting and conflicting demands in these relationships.

#### **2.2.4 Dynamic Capabilities Theory**

This theory elaborates how an entrepreneurially oriented firm's flexibility and innovation results in timely, quick, and adaptable outcomes in changing marketplaces. The theory of Dynamic capability is defined as an organization's ability to analytically solve difficulties caused by its proclivity to detect opportunities and ultimatums, implement appropriate market-oriented policies, and adjust its resource basis (Barreto, 2010; Di Stefano et al., 2010).

In 1994, the dynamic capability theory was first proposed (Gizawi, 2014). By improving the more general resource base theory, dynamic capabilities theory strives to be vibrant. Even though resource-based approach is a popular management theory, critics have challenged the theory for being technically ambiguous and contradictory, with a lack of attention on how capabilities add value to competitive advantage (Eisenhardt & Martin, 2000). Teece and Pisano (1994) agreed, that the resource-based view's foundation is incapable of ensuring sustained competition. In this way, the dynamic capability theory complements the resource-based approach by aiming to strengthen the theory by elucidating the nature of long-term competitive advantage, as well as informing managerial practices.

The term "dynamic" refers to a firm's capacity to keep up with changing business conditions through refreshing skills. This is critical in situations when speed to market is critical and establishing the nature of competition is difficult. Strategic management's important functions in adapting, consolidating, and reconfiguring internal and external organizational skills, resources, and functional competences to meet the needs of changing environments are known as capabilities (Teece, Pisano & Schuen, 1997). According to Easterby-Smith, Lyles, and Peteraf (2009), dynamic capabilities are higher-level capabilities that help with "knowledge convention and sharing, constant modification of operational procedures, interrelationship with the environment, and application of appropriate entrepreneurial orientation practices."

In light of a survey and mix of business enterprise writing, a dynamic capacity is the company's capability to strategically address issues shaped by its attraction to detect opportunities and threats, select suitable and showcase arranged choices and to change its asset base (Barney, 1991; Conner & Prahalad, 1996). In the case of manufacturing SMEs, management strategies such as changing culture, re-engineering business processes, empowerment, total quality, and significant changes in the environment may be driving theoretical perspective. The dynamic capabilities theory strives to acquire competitive advantage by utilizing firm-specific competencies and gives insight on how these competencies are produced, used, and preserved (Teece et al., 1997). In order to deal with quickly changing conditions, a company's ability to build, integrate, and reconfigure internal and external competences is vital (Gathungu & Mwangi, 2012).

This approach considers; Processes, which constitute organizational operational procedures, roles; which represent the kind of jobs that people undertake, are two categories of characteristics that help identify where competitive advantages are derived resources available in the firm and relations of a firm and paths; which refer to the organizations past activities and the strategic direction. In summary, competitive advantage and dynamic capabilities are a term used to describe an organization's operations, asset positions, and past and future courses (Teece et al., 1997).

### **2.3 Empirical Studies and Variable Relationships**

This section discusses the empirical review of the study variables and the relationship of the variables as well as the gaps.

#### **2.3.1 Competitive Strategy Drivers and Firm Performance**

Studies revealed that strategy influences business performance. According to researchers, firm strategies have a direct and significant impact on firm performance (Gibcus & Kemp, 2003; Peng et al., 2008). Additionally, companies that have a precise and consistent plan outperform those that do not (Gibcus & Kemp, 2003).

Classically a strategy usually has a favorable correlation with a company's success. Porter (1980) proposed three arrangements of cost leadership, focus, and distinction to connect competitive methodology with execution. Pelham (1999) opined that following a low-cost strategy would have a less impact than focusing on a differentiation approach, which would result in greater results for manufacturing SMEs. Differentiation strategy has both

indirect and direct significant impact on firm performance through financial measurements. It has been established that the type of approach employed makes a significant impact in performance. Bowen et al. (2009) evaluated tactics used by SMEs in Nairobi to deal with business issues in their research.

Scholars opined that, if a firm wants to use a differentiation strategy, it should focus on innovative design and a flexible manufacturing system to achieve differentiation in goods or manufacturing processes. New product design based on proper information and analysis gives goods and processes with increased features and capabilities (Kharub & Sharma, 2015). When data is used in the form of information and analysis, design and development have a strong link to performance. The flexibility of the manufacturing system allows for distinction and variation in product qualities, as well as client loyalty, which is critical for small and medium manufacturing enterprises because many of them produce similar items, increasing rivalry.

Firms' cost management strategies do not have direct impact on business performance. Cost leadership indirectly and significantly influence financial performance. Bowen et al. (2009) used stratified random sampling to collect data via questionnaires from 198 businesses, and the results were analyzed descriptively. The findings revealed that SMEs used the following strategies to address flaws: discounts and special offers, fair pricing, better customer service, presenting a diverse range of services and goods, and consistently increasing service delivery superiority.

Bowen et al. (2009), in support of the findings, revealed that embracing a mix of policies leads to corporate prosperity. The impact of Porter's competitive advantage techniques on company performance has been empirically studied by several scholars. According to Akintokunbo (2018), the market focus approach in telecommunication businesses has a substantial impact on organizational profitability, market share, and firm efficiency. Based on a sample of non-diversified manufacturing enterprises, Dess and Davis (1984) investigated the performance effects of competitive advantage tactics. They revealed that businesses may be divided into four groups based on their business strategies, that is, corporate strategy, stuck in the middle, differentiation and focus.

The four groups differed considerably in terms of sales growth. The emphasis cluster saw the most sales growth, followed by cost leadership, distinctiveness, and categories stuck in the middle. There was no significant difference between the four groups when it came to return on total assets. The focus group registered the lowest return, while the cost leadership group registered the highest return. Other scholars revealed weak association between organization's strategy and performance. According to Teach and Schwartz (2000), there is insignificant correlation between strategy and organization performance. Kemp and Verhoeven (2002), revealed no relationship between strategy and performance. The impact of strategy on performance is still uncertain based on previous arguments. Business management, however, ought to verify that the firm's strategies are precise in order to remain competitive.

### **2.3.2 Competitive Strategy drivers, Entrepreneurial Orientation and Firm Performance**

Companies cannot overlook the vital impacts of value for their targeted position in the current business environment (Rohitratana & Boon-Itt, 2011). Lechner and Gudmundsson (2014) investigated the impact of individual entrepreneurial orientation dimensions on the relationship between competitive strategy and firm performance and found that the individual dimensions of entrepreneurial orientation had a variety of effects on competitive advantage, as well as the different effects the two generic types of competitive advantage, that is, differentiation and cost leadership. Differentiation and business performance were significantly influenced by innovativeness. Both generic stratagems were negatively influenced by risk taking and competitive aggressiveness.

While competitive strategy drivers look at how a company runs in order to improve its performance (Porter, 1980), both entrepreneurial orientation and competitive strategy drivers are business unit-level ideas (Covin & Lumpkin, 2011): Competitive strategy drivers describe the substance, whereas EO plays the role of strategy formulation. Focus isn't a stand-alone tactic, and it can't provide a competitive edge. Competitive strategy and EO are distinct concepts at the business unit level. Competitive strategy aids EO and directs it in the right direction. Without a competitive strategy, EO would not be sufficient for company performance (Ireland et al., 2003).



Understanding the relationship between competitive strategy drivers and EO is crucial for small business performance (Lumpkin & Dess, 1996; Wales, Gupta, & Mousa, 2011). Both EO and competitive strategy drivers have their own internal logic, each with its own set of theoretical constructions (Lumpkin & Dess, 1996). Their conceptual separation should aid in improving our knowledge of how EO is translated into company outputs (Wales et al., 2011). Because cost leadership strategy and differentiation strategy are considered conflicting logics (Porter, 1985), a universal EO cannot be presumed to have a same impact on differentiation or cost leadership.

It is appropriate to employ an empirical method that uses EO as a multidimensional term and focuses on how the various EO dimensions influence these two types of competitive strategy positively or negatively (Wales et al., 2011). According to a meta-analysis (Rauch, Wiklund, Lumpkin, & Frese, 2009) and a comprehensive review of EO research (Wales et al., 2011), research has primarily focused on the direct EO–performance relationship, with less attention paid to indirect effects and the relationship between EO and other variables.

### **2.3.3 Competitive Strategy drivers, Macro Environment and Firm Performance**

Every firm's competitive strategy drivers and performance are influenced by how it perceives, understands, and responds to environmental situations. Empirical data on the impact of the macro business environment on organizations' competitive strategy drivers and firm performance shows that the environment is both a source of opportunities and challenges for all businesses. Environmental scanning is a crucial part

of strategy design because it identifies relevant aspects and forces that exist outside the firm that can influence the focused procedures and execution directly or indirectly (Pearce & Robinson, 2011).

In order to gain a competitive advantage, businesses must make critical decisions about the type of competitive advantage they seek and the extent to which they will obtain it. There are few studies which linked the macro environment to firm performance, yet performance is dependent on organizations' ability to adapt to changes in the environment (Machuki & Aosa, 2011). There is documented literature on the macro environment of organizations and its direct and indirect impact on business operations and outcomes (Osborn & Hunt, 1974). However, several researchers have handled macro environment as an independent variable and performance as a dependent variable (Machuki & Aosa, 2011; Venkatraman & Prescott, 1990).

In deciding competitive advantage, choice of niche market or the scope of the organizations activities is very important. The performance outcomes of major decisions that are made in relation to macro environmental conditions are of interest to business strategy researchers. The macro environment has played several roles in research including that of the independent, co alignment and moderating to impacting performance (Simerly & Mingfang, 2000). Contingent upon the aggressive condition undertakings pick methodologies that can give them reasonable focused advantage. Firm responses to

environmental changes may result to variations in competitive strategy drivers and firm performance.

Strategic management scholars urged that macro environmental assessment is a prerequisite for developing effective corporate strategies. Furthermore, the alignment of competitive strategy drivers with macro environmental dynamics and the attainment of excellent performance are regarded to be dependent on effective analysis of the business environment. According to Beal (2000), obtaining knowledge on a variety of features of specific environmental sectors, such as customers, competitors, and suppliers, makes it easier to align competitive strategy drivers and macro environments.

Manufacturing SMEs must be able to perceive and respond to any stimulus from the macro environment in order to remain competitive. The ability of an organization to adapt to changes in the macro environment will determine its success, sustainability, and survival. The macro global economy is rapidly changing, and manufacturing SMEs are always confronted with new issues every day. There are numerous competitive pressures and hazards that organizations face in order to achieve their objectives (Akdogan & Cingoz, 2012). Muhammad (2014) posits that any manufacturing SME is an open system between itself and its macro environment, involving a number of interdependent relationships.

Small and medium enterprises significantly impact the environment because of their service/product offerings, and they're all about building partnerships with other businesses and putting their mark on the communities they live in. The analysis of the competitive environment is a difficult task since it entails defining, identifying, and quantifying the primary characteristics and intensity of competing forces. Organizations must analyze their competition and position in order to achieve long-term competitive advantages (Selvam, Vanitha, Gayathri, Bennet, & Nageswari, 2010). Organizations in the industry that generate similar products, suppliers, customers, possible new entrants, and product manufacturers constitute the macro environment.

#### **2.3.4 Competitive Strategy drivers, Macro Environment, Entrepreneurial Orientation and Firm Performance**

Various factors inform selection of competitive strategy drivers' Entrepreneurial orientation and the macro environment as seen by decision makers are key factors considered by an organization. Finally, the competitive strategy drivers that are established and applied will determine an organization's level of performance. When the macro environment is relatively stable, Stalk, Evans, and Shulman (1992) suggest that strategy can afford to remain static.

In a volatile, dynamic corporate environment, strategy must also become more dynamic. A firm's competitive strategy drivers must ensure that resources are coordinated through combination, reconfiguration, co-evolution, and integration in specific designs (Teece et al., 1997). This is usually accomplished by combining

the firm's processes, procedures, skills, and competencies to match requirements in the changing environment in order to improve performance (Grant, 1991; Teece et al., 1997). Market dynamics awareness and real-time reactivity to competition strategy drivers influence competitive advantage and performance. The essential statute of organizational management is that climate change similarities and strategic planning drivers are crucial to achievement of set goals (Bourgeois, 1985). The relevance of an organization's strategy option can be described in terms of the firm's fit, equivalence, or consistency with the natural or association's influencing possibilities (Grant, 1991; Teece et al., 1997). Entrepreneurial attitude has been opined to have a positive effect on performance (Ansoff & McDonnell, 1990; Teece et al., 1997). As a result, it appears that competitive strategy drivers, the macro environment, and entrepreneurial orientation have an impact on business performance.

General firm performance concept is not the same from the larger concept of organizational efficiency. Venkatraman and Ramanujam (1986), proposed that there consist three overlapping concentric circles, the largest of which represents organizational efficacy. The efficacy of an organization extends to all facets of the company's life (Cameron, 1986). Organizational effectiveness includes both financial and non-financial measures.

According to Venkatraman and Ramanujam (1986), non - financial performance encampuses mediating effect of resources as well as precursor of financial performance. While customer happiness is a precursor financial performance, it is not a performance

outcome in and of itself. This is determined by how a researcher defines company performance in his or her research (Combs, Crook, & Shook, 2005). Stakeholders satisfaction is key in defining firm performance, since it aids in separation of antecedents from performance results (Zammuto, 1984). Customer happiness from the point of view of stakeholder has been taken as an outcome in this study hence part and parcel of firm performance.

According to Selvam et al. (2010), corporate development originates from internal expansion measures firm performance. Performance assessment, in this context, entails identifying stakeholders and creating a set of performance outcomes that quantify their satisfaction (Zammuto, 1984). Profit is the goal of most business operations in order to expand and survive in the market. The industrial sector's social goal could be linked to the quality of service which attracts customers/passengers. According to Clement & Selvam, (2007), expectations, firm performance and perceptions defines service quality.

In a competitive market, highly competitive quality is critical for a firm's sustainability and existence (Isaiah, Selvam, Vinayagamoorthi, Kasilingam & Mariappan, 2015). A macro environment is regarded as multifaceted if it delivers an overly diverse and or numerous dimensional units of information, which necessitates considerable cognitive integration and thus multidimensional (Miller, 1993). The interplay of macro environmental risks, reliance, and inter-firm connections is referred to as macro environmental complexity (Osborn & Hunt, 1974).

Manufacturing SMEs seek generous surroundings and make an effort to make their current surroundings more generous (Dess & Beard, 1984). The abundance or scarcity of key resources by one or more companies functioning within a macro setting defines environmental generosity (Castrogiovanni, 1991). Due to the dynamic nature of most business macro environments, organizations need to attain greater performance, create goals, negotiate, and agree on performance indicators for execution. However, macroeconomic realities may show themselves in a way that speeds up or slows down the connection amongst market orientation drivers' and organizational performance of manufacturing SMEs.

#### **2.4 Summary of Knowledge Gaps**

Factors in this examination have been utilized as a part of different investigations in previous studies. Table 2.1 summarizes past investigations, featuring their discoveries and information gaps as far as methodological, conceptual and contextual. The focal point of the present investigation is additionally brought up in Table 2.1.

**Table 2.1: Summary of Empirical Studies and Knowledge Gaps**

Study	Methodology	Key Results	Knowledge Gaps	How the current study has addressed the Gaps
Global entrepreneurial introduction: Conceptual contemplations, look into subjects, estimation issues, and future research headings (Covin& Miller, 2017).	Literature Review	Entrepreneurial orientation and performance relate positively	Environmental factors and individual characteristics not considered	This study tries to find the insight of how macro environment and individual characteristics affect the link in between drivers of competition strategy and organizational performance
Entrepreneurial traits, strategy formulation, organization frameworks, and effectiveness of non-timber forest resources small and medium firms in Kenya. Chesoli et al., 2015).	Cross sectional survey of SMEs	The use of competitive strategy was high in businesses headed by relatively young and talented entrepreneurs, and improved performance calls for policy measures to boost SMEs growth.	Did not link competitive strategy drivers directly to performance of manufacturing SMEs	Aims to link competitive strategy drivers directly to SMEs performance moderated and intervened by macro environment and entrepreneurial orientation respectively
Technologies And products, Entrepreneurship development Perspective, Communication, and the Emerging Phenomenon A critical review of the literature (Gathungu et al., 2014).	Review of relevant literature	Depicted presence of a link amongst the Impact of Entrepreneurship development Attitude, Communication, and the Component Of social work on Business Performance	Did not consider competitive strategy drivers	Aims to consider competitive strategy drivers as the independent variable



<b>Study</b>	<b>Methodology</b>	<b>Key Results</b>	<b>Knowledge Gaps</b>	<b>How the current study has addressed the Gaps</b>
Linking competencies with Strategies. The case of SMEs In Kenya (Namusonge, 2014).	Review of relevant literature	Capabilities of the company are crucial in achieving competitive advantages.	Did not link macro environment with competitive strategy drivers	Aims to link macro environment with competitive strategy drivers
A Comprehensive Review Of the literature of Entrepreneurship Education, Entrepreneurship, Economic Environment, and Effectiveness. (Okeyo, 2013).	Review of relevant literature	The study established the impact of an entrepreneurial mindset on a company's performance is actually varied. Entrepreneurial mindset sometimes reported negative or insignificant link between entrepreneurial mindset and corporate performance. In the link between entrepreneurial orientation and firm performance, business development services play a role. In the entrepreneurial orientation – performance relationship, the external environment has a moderating function.	Did not consider competitive strategy drivers with firm performance	Aims to include competitive strategy drivers as an independent variable
Factors affecting performance of SMEs (Moorthy et al., 2012).	Descriptive study	Expertise and knowledge will result in increased business inventiveness and competitiveness	The impact of socioeconomic and interpersonal context factors on performance was not addressed.	Study effect of demographic and individual background characteristics

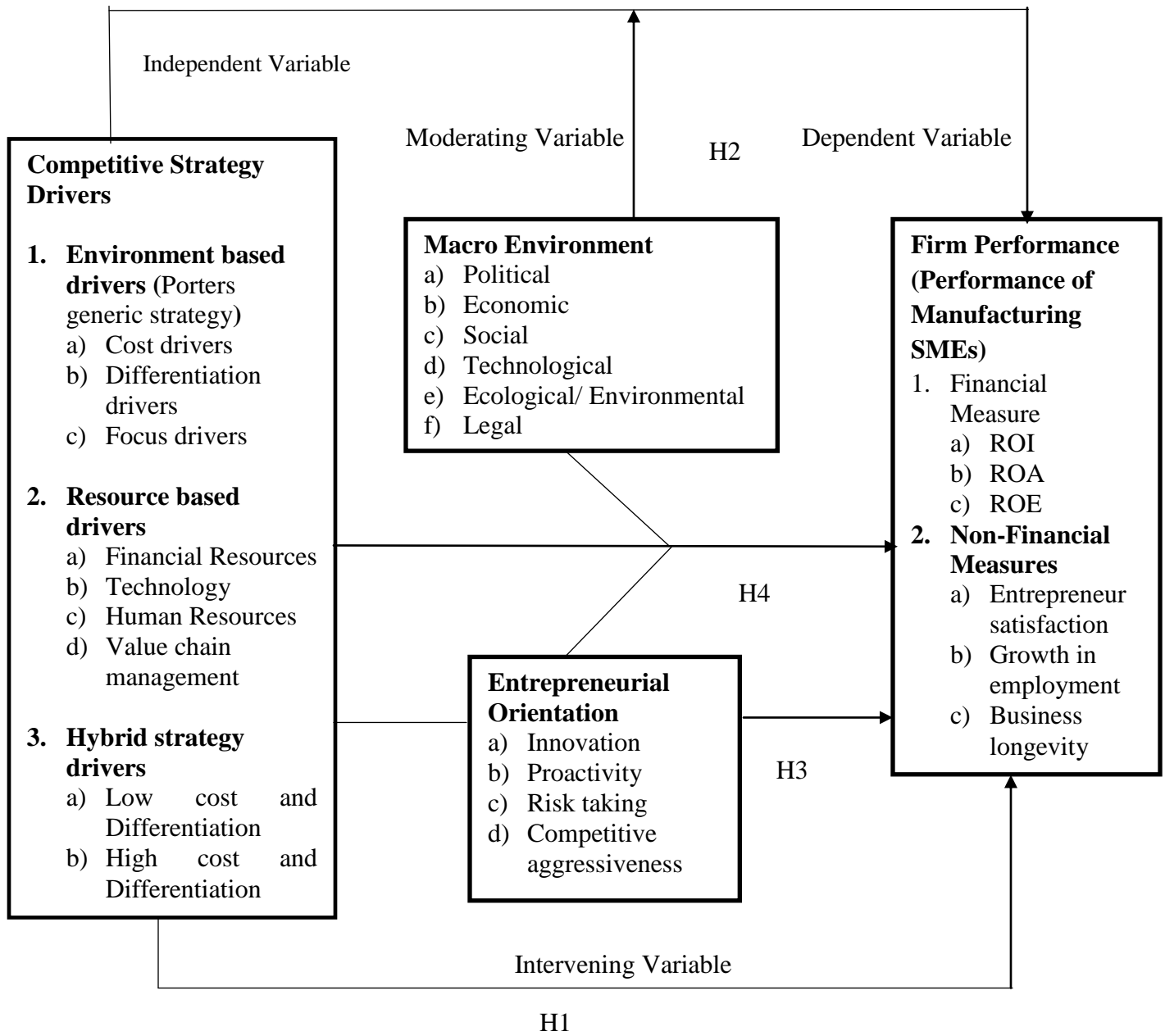
<b>Study</b>	<b>Methodology</b>	<b>Key Results</b>	<b>Knowledge Gaps</b>	<b>How the current study has addressed the Gaps</b>
Small and medium family firms in Nairobi, Kenya's succession strategy and performance (Maalu, 2010).	The study used descriptive cross-sectional and case study.	Because the findings on the moderating effect of family and firm level institutions were varied, no definite conclusion could be drawn.	Did not include entrepreneurial orientation into different categories  to explore the intervening effect	Use entrepreneurial orientation to study intervening effect
Examine personality attributes on growth (Oroko & Ondigi, 2017).	Factor analysis and descriptive analysis,	Personality attributes highly influencing growth	Limited to personality attributes	Key entrepreneur Orientation attributes to be studied
Governance of SMEs' complex problems in Nairobi, Kenya (Bowen et al., 2009).	Employed stratified random sampling.	The adoption of a variety of strategies leads to business success.	Did not study impact of the impact of business environment on manufactured SMEs' effectiveness	Study effect of Competitive strategy drivers on Performance of manufacturing SMEs

Source: Researcher (2019)

## **2.5 Conceptual Framework**

This is a structure of concepts for incorporating and interpreting data. Competitive strategy drivers are represented in the framework by environment-based, resource-based, and hybrid strategy drivers. Differentiation drivers, focus drivers, and cost drivers explain environment-based drivers, whereas resource-based drivers are explained by manufacturing small and medium entrepreneur's capital raising capacity, technology, human capital and value chain management. Low-cost & differentiation and high cost & differentiation were indicators of hybrid strategy drivers.

The macro environment was assessed through political, economic, social, technological, ecological and legal considerations on how they affected the manufacturing SMEs operations. Entrepreneurial orientation on the other hand was guided by the manufacturing SMEs' innovation, proactivity, risk appetite and their competitive aggressiveness. Performance of manufacturing SMEs was assessed through financial and non-financial measures. The relationship between competitive strategy drivers and firm performance is moderated by macro environment and mediated by entrepreneurial orientation. The conceptual model is summarized in Figure 2.1.



**Figure 2.1: Conceptual Model**

Source: Researcher (2019)

## 2.6 Research Hypotheses

From the relationship summarized in the conceptual model in Figure 2.1 the researcher derived the following hypotheses:

- H<sub>01</sub>:** Competitive strategy drivers have no significant influence on the performance of manufacturing SMEs in Nairobi City County
- H<sub>1</sub>:** Competitive strategy drivers have significant influence on the performance of SMEs in Nairobi City County.
- H<sub>02</sub>:** Macro environment has no moderating effect on the relationship between competitive strategy drivers and performance of manufacturing SMEs in Nairobi City County, Kenya.
- H<sub>2</sub>:** Macro environment moderates the effect of competitive strategy drivers on the performance of manufacturing SMEs in Nairobi City County.
- H<sub>03</sub>:** Entrepreneurial orientation has no intervening influence on the relationship between competitive strategy drivers and performance of manufacturing SMEs in Nairobi City County.
- H<sub>3</sub>:** Entrepreneurial orientation intervenes the relationship between competitive strategy drivers and performance of manufacturing SMEs in Nairobi City County.
- H<sub>04</sub>:** Competitive strategy drivers, macro environment and entrepreneurial orientation jointly have no significant influence on performance of manufacturing SMEs in Nairobi City County.
- H<sub>4</sub>:** Competitive strategy drivers, macro environment and entrepreneurial orientation jointly have significant influence on the performance of manufacturing SMEs in Nairobi City County.

## **2.7 Chapter Summary**

Chapter two presents theoretical review, empirical review that connects competitive strategy drivers, entrepreneurial orientation and macro environment and performance of manufacturing SMEs. The chapter details the research gaps, proposed conceptual framework model of the study and the research hypotheses.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter outlines the research methods that were applied in the research study. The chapter provides information on the study population, the selection criteria, the description of the participants and the sampling techniques. The researcher further articulates the research design chosen. The instrument used in the processes used to conduct this study are also discussed, as are the methods used to collect data. The researcher's procedures for analyzing the research data are also described in this chapter.

#### **3.2 Philosophical Foundation of the Study**

In general terms, the two basic philosophical methods that form the basis of knowledge where expectations and predispositions of a study are concerned are positivism and phenomenology. More specifically, the positivist approach is quantitative. While on the other hand phenomenology is qualitative based (Cooper & Schindler, 2003). Positivism suggests that knowledge exists spontaneously and is based on solid facts, clarity, logic validation of outcome and unbiased interpretation.

Phenomenology philosophy is subjective as it is biased towards personage's perspective or interpretation of facts based on one's experiences as well as knowledge (Saunders, Lewis & Thornhill, 2007). It originated from interdependency and connectivity of alternative frameworks (Grandori, 2001). The positivistic paradigm anchored the

research. It entailed looking into the theoretical underpinnings of organizational performance and its variables. It guided the collecting of data utilized in testing empirical re-affirmations of theory in an objective and unbiased manner.

### **3.3 Research Design**

The cross-sectional study design was used in the investigation. The cross-sectional design comprises collecting data and making observations of a study's population or sample at a single point in time (Babbie, 2012). Because it recognizes aspects of an observable occurrence or investigates hypothesized links between two or more phenomena, the design is appropriate (Leedy & Ormrod, 2001). This study design allowed the researcher to examine literature through in-depth interviews, a pilot study and actual survey. Such strategies aid in the collection of reliable and non-biased data (Creswell, 1998). This methodology was suitable for because it allowed researcher to investigate the occurrence of the variables studied in cross – sectional research populace at one time in point.

This methodology allowed the researcher to pool quantitative data and find patterns of correlation among the variables, confirming the broad interpretation of the study variables' relationships. Because it allows the researcher to make conclusions about the population of interest, cross-sectional design is consistent with the positivist research theory that guided this study. Cross-sectional study designs, as proposed in this research, are commonly used in entrepreneurship research (Davidsson, 2004).



### **3.4 Research Setting**

The study was concentrated on the manufacturing SMEs in Nairobi City County, Kenya. The Micro, Small and Medium Enterprises Act 2012 defines a small enterprise as a firm, trade, service, industry and business entity whose annual turnover lies between Kshs 0.5-5 million and whose total employees are between 10 and 50 people (Republic of Kenya, 2012). The act professes two primary purposes, that is, to provide for the promotion, development and regulation of micro and small enterprises and to establish the Macro and Small Enterprises Authority. Kenyan SMEs are divided into four sectors; trade, agriculture, provision of services and manufacturing. The setting of this study was on the manufacturing sector. The manufacturing sector was selected because it is the largest creator of employment in Kenya in both formal and informal sectors.

### **3.5 Population of Study**

The study population comprised of all manufacturing SMEs in Nairobi City County. The research adopted the definition of the Micro and Small Enterprises Act 2012 whose categorization is Micro enterprises annual turnover does not exceed 500,000 Kenyan shillings (Kshs) and employing fewer than 10 people. Small enterprises annual turnover ranges between Kshs 500,000 and Kshs 5 million and employing between 10 and 50 people while Medium enterprises have an annual turnover that ranges between Kshs 5 million to Kshs 800 million and employing between 50 and 99 employees. The manufacturing enterprises were categorized into five vast sub-parts by Nairobi City County licensing office to be specific: Food, beverage, tobacco, textile and apparel and

leather products; Wood and wood items, paper production, printing and distributing; Chemicals, oil, elastic and plastics; Non-metallic mineral items apart from oil based commodities; Metal ventures, manufacture of metal items, apparatus and machinery.

Nairobi City County serves as the nation's economic and business center, capital city of Kenya and also the country's economic centre. Nairobi City County controls Kenya's greatest concentration of industry, accounting for more than half of the country's GDP (KNBS, 2013). In addition, the county has the greatest number of manufacturing SMEs in Kenya, accounting for 24.5 percent of total informal sector occupations (KNBS, 2016).

### **3.6 Sampling Design**

A detailed list of manufacturing SMEs operating in the study region was sought from the Nairobi City County licensing office. The list included 2,050 manufacturing SMEs. List from both Kenya Association of Manufacturers and the MSME Authority complimented the one from Nairobi city licensing office. The list from the Nairobi City County licensing office is categorized by nature of business based on permit expenses paid which is ascertained based on the kind of business. The study used the list from Nairobi City County licensing office as a sampling frame for drawing the required sample size.

### **3.7 Sample Size**

The sample size for the investigation was estimated using Israel's formular for known population size (2009).

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

Where:

n = Desired Sample Size

N= Population

e = Margin of Error at 5% (standard value of 0.05)

The size of the sample in this research would be:

$$n = \frac{2050}{1 + 2050(0.05)^2}$$

n = 334 Manufacturing SMEs

A stratified random sampling was used to establish proportionate sample from each strata as follows:

**Table 3.1: Sample Size Determination**

Strata	Sample	Percent
Building, Mining and Construction	10	3
Chemical and Allied	53	16
Energy, Electrical and Electronic	25	7
Agriculture and Fresh Produce	8	2
Food and Beverages	56	17
Leather and Footwear	4	1
Metal and Allied	49	15
Automotive	21	6
Paper and Board	28	8
Pharmaceutical and Medical Equipment	20	6
Plastics and Rubber	44	13
Textiles and Apparel	7	2
Timber, Wood and Furniture	9	3
Total	334	100

Source: Nairobi City County Licensing Office (2019)

### **3.8 Data Collection**

This study's primary data collecting technique was a questionnaire formulated in structured form using both nominal and ordinal scales (a five-point Likert scale where 1 was strongly disagree and 5 being Strongly agree). Data on performance was partially obtained using a table filled for the years 2013 to 2017. Respondents comprised of owners of SME or managers, who were in a better position to provide informed due to their roles in the organization. To increase rate of response, services of professional research assistants were used in questionnaire distribution and collection.

The questionnaire comprised of five sections. Section A covered both the entrepreneur's and the microenterprise's demographic data. Sections B on competitive strategy drivers, section C on macro environment, section D on entrepreneurial orientation and section E on firm performance. Secondary data were obtained from records of SMEs from 2013 through 2017.

### **3.9 Reliability of the Research Instrument**

Reliability is the measure of the extent to which a research instrument under the study yields the same results upon conducting several trials (Mugenda & Mugenda, 2003). According to Sekaran and Bougie (2010), reliability measures the degree to which an instrument yields insignificant inclination and consequently guarantees predictable estimation crosswise over time and over the different items. Its goal is the estimation of measurement errors which are normally random. Cronbach's alpha was used to measure internal consistency. The alpha coefficient value ranged from 0 to 1.

For dependability, various researchers propose different cutoff criteria of Cronbach alpha value. Cronbach values of 0.7 and higher, had been recommended by Nunnally (1978) and Gliem and Gliem (2003). Cooper and Schindler (2014) advocate a Cronbach's alpha coefficient range of 0.7 to 0.9 for reliability tests, whereas Asikhia (2010) suggested a reliability cutoff value of 0.6. On the other side, Hair, Black, Babin, and Anderson (2010) and Bagozzi and Yi (2012) suggest a consistency cutoff criterion of 0.5 for further investigation.

Based on Gliem & Gliem (2003), a cutoff Cronbach value of 0.7 was used in this study as a strong indicator of the investigation instrument's dependability. After the pilot study, the necessary modifications were made to the questionnaire. The results of the reliability tests are summarized in Table 3.2

**Table 3.2: Summary of Cronbach's Alpha Reliability Coefficients**

<b>Variable</b>	<b>Components of Variables</b>	<b>Cronbach's Alpha</b>	<b>Number of items</b>	<b>Decision</b>
Competitive strategy drivers	Environmental Based Drivers, Resource Based Drivers and Hybrid Strategy Drivers	.812	14	Reliable
Macro environment	Political, Economic, Social, Technological, Ecological, Legal	.909	32	Reliable
Entrepreneurial orientation	Innovativeness, Proactivity, Risk taking and Competitive aggressiveness	.731	18	Reliable
Performance	Financial measures; ROI, ROA, ROE Non-financial measures; Entrepreneur satisfaction, Growth in Employee numbers, business longevity	.910	12	Reliable

Source: Field Data (2019)

As shown in Table 3.2, Cronbach's alpha coefficient ranged from 0.731(competitive strategy drivers) to 0.910 (firm performance). The reliability coefficient for all variables were more than 0.7 cutoff, indicating that the instrument was reliable. Since all constructions had high reliability coefficients, the study confirmed data dependability. As a result, the study concluded that the instrument was good enough and could be utilized for further investigation.

### **3.10 Validity of the Research Instrument**

Validity refers to the degree to which the processed data accurately represents the phenomena under investigation. It reflects the idea that an instrument should produce accurate findings in order to assess the desired objective by allowing the researcher to hit the target in the study sample (Mugenda & Mugenda, 2003). In addition, validity is mostly comprehended as how much a sample of items gives a satisfactory operational meaning of the construct of interest (Polit & Beck, 2006). Material and factor structure are two types of research validity that must be satisfied before the tool can be used. The questionnaire's validity was improved by pre-testing it with a few respondents. In additional effort of improving research tool's substantive credibility, the researcher solicited input and criticism from professionals in the field. The questionnaire was developed with the help of the supervisor, who ensured that the data collected appropriately addressed the study's questions. Triangulation of data sources also enhanced validity of the findings.

### **3.10.1 Test of Validity**

To enhance validity of the questionnaire, it was first pre-tested with a few responders from the research population. The instrument was subjected to both construct and criterion validity by randomly pilot testing eight managers from various departments of the companies to see if they could answer the questions. This pilot group was excluded in the final survey. Questions that were unclear, inadequate or sensitive were cleaned, sorted or dropped.

The study took into account the opinions of subject specialists, which included a few professors and supervisors from the University of Nairobi's Faculty of Business and Management Science. An improved instrument, specific instructions, with consistency on the measures to be recorded resulted from the pilot test, all of which helped to prevent erroneous findings. The construct validity of an instrument demonstrates how well it measures the target concept (Zapolski, Guller, & Smith, 2012). Construct validity was tested using factor analysis. Principal Component Analysis and the Varimax technique were used to extract the components. The factors ascribed to the variables were all one-dimensional, indicating that the research components were accurately measured. The findings of the factor are shown in Appendix VII.

### **3.11 Operationalization of Study Variables**

Competitive strategic planning drivers, Entrepreneurial orientation, macro environment and firm performance were the study variables. The variables were transformed into multi-dimensional constructs. Environmental based drivers, resource-based drivers, and

hybrid strategy drivers were constructs of competitive strategy drivers. Macro environment constructs were; political, economic, social, technological, legal, ecological. Entrepreneurial Orientation constructs included Innovation, Proactivity, Risk appetite and Competitive Aggressiveness. Firm performance constructs were financial measures and non-financial measures.

**Table 3.3: Operationalization of Study Variables**

<b>Variable</b>	<b>Operational Indicators</b>	<b>Measurement scale</b>	<b>Questions</b>
<b>Independent Variable:</b> Competitive Strategy Drivers	Environmental Based Drivers Resource Based Drivers Hybrid Strategy Drivers	5-point Likert Scale	Section B
<b>Moderating Variable:</b> Macro environment	PESTEL Model Political Economic Social Technological Ecological Legal	5-point Likert Scale	Section C
<b>Intervening Variable:</b> Entrepreneurial Orientation	Innovativeness Proactivity Risk taking Competitive aggressiveness	5-point Likert Scale	Section D
<b>Dependent Variable:</b> Firm Performance	Financial Measures: ROI, ROA, ROE Non-Financial Measures Entrepreneurial satisfaction Employment growth Business longevity	Ratio Scale  5-point Likert Scale	Section E

Source: Researcher (2018)



### **3.12 Data Analysis**

Data collected from manufacturing SMEs in Nairobi City County was analyzed using descriptive as well as inferential measures. Frequency and percentages, are examples of descriptive statistics and were employed in analysing the demographic features of the respondents. The research variables' manifestations were evaluated using mean, standard deviation, coefficient of variation, skewness, and kurtosis. Measures of dispersion (SD) were employed to assess the data's normality and factor analysis was utilized in data reduction test. Inferential statistics were used to draw out the linkages between the study variables and hypothesis testing.

The direction and degree of the association between the research variables were measured using the Pearson product moment correlation coefficient. The value ranged from -1 to 1. Coefficient of determination denoted by ( $R^2$ ) was used to measure model's power of explanation. It varied between zero percent to 100 percent.  $H_1$  was tested applying basic simple linear regression model.  $H_2$  was tested using stepwise relapse examination;  $H_3$  was based on path analysis as proposed by Barron and Kenny (1986) while  $H_4$  focused on the joint effect, thus utilizing the multiple linear regression model for testing it.

### **Descriptive Statistics**

These are frameworks for compressing and demonstrating the essential data about a variable. Clear encounters are essentially used to graph a specific enlightening gathering, which can be either a delineation of the whole individuals or a case of it. Entrancing experiences are organized into measures of focal inclination and measures of

changeability, spread. Measures of central inclination were done and furthermore the spread measures utilizing the applicable strategies for figuring, it was checked if the information is symmetrical. Realistic bits of knowledge give clear delineation about the people test and the measures used to which makes it less asking for to decipher the information features (Wonnacott & Wonnacott, 1990). Enchanting estimations were utilized to give profiles of the respondents.

### **Inferential statistics**

Inferential insights insinuate real examination in regards to a generous mass using test information. The purpose of inferential measurements is to establish whether the revelations from the example can be summed up - or be associated - to the entire population. The strategy for thinking behind inferential insights is to contemplate the masses using tests which are ordinarily smaller subsets of the goal populace. The insights contain measures that check or make judgments about colossal volumes of data in light of truthful traits of a smaller set or test (Wonnacott & Wonnacott, 1990).

Inferential measures were employed in this study to assess the data collected from manufacturing SME's in Nairobi County in line with the study formulated hypotheses. In order to comprehend the link between multiple variables and support or invalidate ideas, the researchers performed inferential tests. The hypotheses were modeled as follows:

**H<sub>1</sub>**: Competitive strategy drivers have no significant influence on the performance of manufacturing SMEs in Nairobi City County. **H<sub>1</sub>** was modelled using simple linear regression as;

$$Y_1 = \beta_0 + \beta_1 X_1 + \varepsilon$$

$Y_1$  = performance of manufacturing SMEs.

$\beta_0$  = constant (intercept),

$\beta_1$  = coefficients of competitive strategy drivers

$X_1$  = composite index of competitive strategy drivers

$\varepsilon$  = Error term

**H<sub>2</sub>**: Macro environment moderates the effect of competitive strategy drivers on the performance of manufacturing SMEs in Nairobi City County. **H<sub>2</sub>** was modelled using stepwise multiple linear regression as follows;

Step 1: Regress performance of manufacturing SMEs on competitive strategy drivers

$$Y_2 = \beta_0 + \beta_1 X + \varepsilon$$

Step 2: Regress performance of manufacturing SMEs on competitive strategy drivers and macro environment both as independent variables

$$Y_3 = \beta_0 + \beta_1 X + \beta_2 Z + \varepsilon$$

Step 3: Regress performance of manufacturing SMEs on competitive strategy drivers

\*macro environment

$$Y_4 = \beta_0 + \beta_1 X + \beta_2 Z + \beta_3 X * Z + \varepsilon$$

Where;

$Y_2$ ,  $Y_3$  and  $Y_4$  = Performance

$X$  = Competitive strategy drivers

$Z$  = macro environment

$X * Z$  = Competitive strategy drivers and macro environment interaction term

$\varepsilon$  = Error term.

**H<sub>3</sub>:** Entrepreneurial orientation intervenes the relationship between competitive strategy drivers and performance of manufacturing SMEs in Nairobi City County.

H<sub>3</sub> was modelled using path analysis as follows;

Step1: Regress performance of manufacturing SMEs on competitive strategy drivers

$$Y_5 = \beta_0 + \beta_1 X + \varepsilon$$

Step 2: Regress entrepreneurial orientation on competitive strategy drivers

$$W = \beta_0 + \beta_1 X + \varepsilon$$

Step3: Regress performance of manufacturing SMEs on entrepreneurial orientation

$$Y_6 = \beta_0 + \beta_1 W + \varepsilon$$

Step 4: Regress performance of manufacturing SMEs on competitive strategy drivers and entrepreneurial orientation and determine the significance of intervening variable

$$Y_7 = \beta_0 + \beta_1 X + \beta_2 W + \varepsilon$$

Where;

$Y_5, Y_6$  and  $Y_7$  = Performance

$X$  = Competitive strategy drivers

$W$  = Entrepreneurial orientation

$\varepsilon$  = Error term.

**H<sub>4</sub>:** Competitive strategy drivers, macro environment and entrepreneurial orientation jointly have significant influence on the performance of SMEs in Nairobi City County. H<sub>4</sub> was modelled using multiple linear regression as follows;

$$Y_8 = \beta_0 + \beta_1 X + \beta_2 Z + \beta_3 W + \varepsilon$$

**Table 3.4: Regression Models Summary, Analysis and Interpretation of Results**

<b>Objective</b>	<b>Hypothesis</b>	<b>Analytical</b>	<b>Interpretation</b>
<p><b>Objective One:</b> Establish the relationship between competitive strategy drivers and performance of manufacturing small and medium enterprises.</p>	<p><b>H<sub>1</sub>:</b> Competitive strategy drivers have significant influence on the performance of manufacturing small and medium enterprises in Nairobi City County.</p>	<p>Simple Régression analysis  <math>Y_1 = \beta_0 + \beta_1 X_1 + \varepsilon</math>  <math>Y_1 =</math> performance of manufacturing small and medium enterprises.  <math>\beta_0 =</math> constant (intercept),  <math>\beta_1 =</math> coefficients  <math>X_1 =</math> composite index for competitive strategy drivers  <math>\varepsilon =</math> Error term</p>	<p><math>R^2</math> for goodness of fit,  P-value for overall and individual significance  <math>\beta</math> for marginal change analysis</p>
<p><b>Objective Two:</b> Establish the influence of macro environment on the relationship between competitive strategy drivers and performance of manufacturing small and medium enterprises.</p>	<p><b>H<sub>2</sub>:</b> Macro environment moderates the effect of competitive strategy drivers on the performance of manufacturing small and medium enterprises in Nairobi City County.</p>	<p>Stepwise Regression analysis  <math>Y_2 = \beta_0 + \beta_1 X + \varepsilon</math>  <math>Y_3 = \beta_0 + \beta_1 X + \beta_2 Z + \varepsilon</math>  <math>Y_4 = \beta_0 + \beta_1 X + \beta_2 Z + \beta_3 X.Z + \varepsilon</math>  <math>\beta_0 =</math> constant/intercept  <math>\beta_1, \beta_2, \beta_3 =</math> coefficients  <math>Y_2, Y_3</math> and <math>Y_4 =</math> Performance ;  <math>X =</math> Competitive strategy drivers,  <math>Z =</math> macro environment  <math>\varepsilon =</math> Error term;  <math>X.Z =</math> Competitive strategy drivers and macro environment interaction term</p>	<p><math>R^2</math> for goodness of fit,  P-value for overall and individual significance  <math>\beta</math> for marginal change analysis</p>
<p><b>Objective Three:</b> Assess the influence of entrepreneurial orientation on the relationship between competitive strategy drivers and performance</p>	<p><b>H<sub>3</sub>:</b> Entrepreneurial orientation intervenes the relationship between competitive strategy drivers and performance</p>	<p>Path Analysis  <math>Y_5 = \beta_0 \alpha + \beta_1 X_s + \varepsilon</math>  <math>W = \beta_0 + \beta_1 X_s + \varepsilon</math>  <math>Y_6 = \beta_0 + \beta_1 W + s\varepsilon</math>  <math>Y_7 = \beta_0 \alpha + \beta_1 X_s + \beta_2 W + \varepsilon</math>  <math>\beta_0 =</math> constant (intercept)  <math>\beta_1, \beta_2 =</math> coefficients  <math>X_s =</math> Competitive</p>	<p><math>R^2</math> for goodness of fit,  P-value for overall and individual significance  <math>\beta</math> for marginal change analysis</p>

of manufacturing small and medium enterprises.	of manufacturing small and medium enterprises in Nairobi City County.	strategy drivers, $Y_5$ , $Y_6$ and $Y_7$ = Performance $W$ = Entrepreneurial orientation $\epsilon$ = Error term	
<b>Objective Four:</b> Determine the joint effect of competitive strategy drivers, entrepreneurial orientation and macro environment on the performance of manufacturing small and medium enterprises.	<b>H<sub>4</sub>:</b> Competitive strategy drivers, macro environment and entrepreneurial orientation jointly have significant influence on the performance of manufacturing small and medium enterprises in Nairobi City County	Multiple Regression analysis $Y_8 = \beta_0 + \beta_1 X + \beta_2 Z + \beta_3 W + \epsilon$ $Y_8$ = performance $\alpha$ = constant (intercept) $X$ = Competitive strategy drivers $Z$ = macro environment $W$ = Entrepreneurial orientation $\beta_1, \beta_2, \beta_3$ are the coefficients $\epsilon$ is the error term	$R^2$ for goodness of fit, P-value for overall and individual significance $\beta$ for marginal change analysis

Source: Researcher (2018)

### 3.13 Chapter Summary

This chapter describes the research methodology used in the study. It captured the research philosophy, research design, research setting and population of study, sampling design, sample size, data collection, reliability, validity, operationalization of study variables, data collection and data analysis.

## **CHAPTER FOUR**

### **DATA ANALYSIS AND RESULTS**

#### **4.1 Introduction**

This chapter covers findings of the study and interpretation. The goal of the study was to determine how Entrepreneurial orientation and macro environment affects competitive strategic drivers and performance of manufacturing SMEs' in Nairobi City County. The study formulated specific objectives and hypotheses. This chapter presents the foundation for subsequent statistical operations and analyses to evaluate the research statements through the use of descriptive statistics. A well-structured questionnaire was used to collect the data for analysis. Respondents were given descriptive statements on a 5-point Likert scale for each research variable and were asked to indicate how much they applied in their businesses. The details of descriptive analysis of the study variables using frequencies, percentages, means, standard deviations and coefficient of variations were computed, presented and are discussed in this chapter.

#### **4.2 Response Rate**

Three hundred and thirty-four (334) manufacturing small SMEs in Nairobi City County were considered in a descriptive cross-sectional survey. The questionnaires were self-administered to the owners or one of the managers reporting directly to the owner. Out of the target of 334 respondents, the researcher received response from 305. Further scrutiny established that five questionnaires were not properly filled and hence omitted from analysis. The effective returned and usable

questionnaires dropped to 300 respondents forming 89.82 percent response rate, this was deemed sufficient for analysis. Oly Ndubisi (2007) had a response rate of 75%, Njeru (2013) had a response rate of 60%, Njuguna (2014) had a response rate of 99.22%, and Owino (2014) had a response rate of 96%.

Leverin and Liljander (2006) had a response rate of 33.7 percent, Sin, Tse, Yau, Lee, and Chow (2002) had a response rate of 27.9 percent, and Morgan and Hunt (1994) had a response rate of 14.6 percent. Based on these response rate from the previous studies, the response rate 89.82% for this study was extremely good for survey research as suggested by Punch (2003), who recommends a response rate of 80-85 percent. According to Mugenda & Mugenda (1999), a response rate of 50% is sufficient, 60% is good, and 70% or more is excellent.

On their part, Fowler (1984), quoted by Njeru (2013), a response rate of 60% is typical of the research population. The use of introduction letters from the University of Nairobi and NACOSTI explaining the objective and nature of the study may have contributed to the high response rate achieved in this study. The assistance and utilization of well-trained research assistants who could connect with the respondents could also have contributed to the high response rate.

#### **4.3 Organizational Characteristics**

The study was concerned with two key firm factors; the age of the firm defined in terms of the number of years the company has been in business, and the ownership structure of the company measured in terms of whether it is a single proprietorship, partnership, or corporation. The results are summarized in Table 4.1.





**Table 4.1: Number of Years of Operation**

<b>Firm Age</b>	<b>Frequency</b>	<b>Percentage (%)</b>
1-5 years	54	18.16
5-10 years	167	55.50
10-15 years	47	15.60
Over 15 years	32	10.74
<b>Total</b>	<b>300</b>	<b>100%</b>
<b>Ownership</b>		
Sole proprietor	266	88.75
Partnership	28	9.21
Company	6	2.05
<b>Total</b>	<b>300</b>	<b>100</b>

Source: Field Data (2019)

The respondents' years of operation for the companies are listed in Table 4.1. The firm's age can help it become more efficient by allowing it to understand best practices and learn how to do things differently. Firm's age was determined by the number of years it had been in business, which was assumed to reflect the firm's industry experience. According to the findings, 167 (55.50 percent) of the businesses have been in operation for 5-10 years, 54 (18.16 percent) have been in operation for 1-5 years, 47 (15.60 percent) have been in operation for 10-15 years, and 32 of the selected respondents have been in business for over 15 years. These findings are in line with

earlier research, which suggests that SMEs that survive longer than five years do not enlarge, but rather retain their pre-inception features.

Business ownership was defined by classifying the manufacturing SMEs in three categories namely sole proprietor, partnership and company. The results indicate that 266(88.75 percent) of the firms surveyed were sole proprietors, 28(9.21 percent) were partnership and 6(2.05 percent) indicated as companies, thus majority of manufacturing SME in Nairobi County were individual owned.

#### 4.4 Demographic Characteristics

Gender, marital status, and age distribution were among the characteristics of the respondents the study sort to know. The study's target respondents were the firm's owners or any other management in a similar position. The results are summarized as follows.

**Table 4.2: Respondents profiles**

<b>Sex</b>	<b>Frequency</b>	<b>Percent</b>
Male	96	32.0
Female	204	68.0
<b>Total</b>	<b>300</b>	<b>100</b>
<b>Marital status</b>		
Married	225	74.94
Single	41	13.81
Separated/divorced	25	8.18
Widowed	9	3.07
<b>Total</b>	<b>300</b>	<b>100</b>
<b>Age distribution</b>		
18-24	25	8.44
25-34	197	65.73
35-44	48	15.86
45-54	20	6.65
55-64	10	3.32
<b>Total</b>	<b>300</b>	<b>100</b>

Source: Field Data (2019)

Demographic findings are shown in Table 4.2. Most responders (68%) were female, while 32 percent were male. This means that in Nairobi City County, there were more females than males running manufacturing SMEs. Significant proportion of the research participants (74.94 percent) are married, with (13.81 percent) and (8.18 percent) being single and separated/divorced, respectively. Furthermore, just 3.07 percent of those polled are widowed. This suggests that the respondents had family obligations which drive their decision to work for a living. According to the findings, the majority (65.73 percent) stated that they were between 25 and 34 years old, followed by (15.86 percent) who were between 35 and 44 years old, and a few (8.44 percent), (6.65 percent), and (3.32 percent) who stated that they were between 18 and 24, 45 to 54, and 55 to 64 years old, respectively. The findings show that the majority of manufacturing SME participants were too young to actively manage their tasks and responsibilities.

#### **4.5 Manifestations of Study Variables**

The study evaluated how key variables were manifested in different manufacturing SMEs in Nairobi City County. This was determined through presenting statements in each variable. The study variables were; competitive strategy drivers, entrepreneurial orientation, macro environment and firm performance.

##### **4.5.1 Competitive Strategy Drivers**

The study determined the manifestation of competitive strategy drivers. This is in the notion that competitive strategy drivers are important in determining the course of the firm through acquisition of competitive edge. Competitive strategy drivers, according to both theoretical and empirical data, improve and increase business performance.

In this study, competitive strategy drivers' measurements were recorded along the three dimensions. To capture data on the various competitive strategy driver's dimensions, descriptive statements derived from literature on a 5-point Likert scale were offered to responders. Respondents were asked to rate how true the claims were in their manufacturing businesses. The mean scores, standard deviation, and coefficient of variations were obtained by the test. The standard deviation is a measure of dispersion that illustrates how data is distributed around the mean. The coefficient of variation (CV) is a statistical measure of how data points in a data series are distributed around the mean. It represents the standard deviation to the mean ratio. The coefficient of variation is a useful statistic for comparing the amount of variance between two data sets. The subsequent subsections present the findings.

#### 4.5.1.1 Environmental Based Drivers

The study evaluated the influence of environmental based drivers (differentiation drivers, focus drivers and cost drivers) on the effectiveness of Nairobi City County's manufacturing SMEs. Results are presented in Table 4.3.

**Table 4.3: Descriptive Statistics for Measures of Environmental Based Drivers.**

Statements	Mean	Std. Dev	CV	Skewness	Kurtosis
<b>Differentiation drivers</b>					
We have the ability to deliver high quality products and services	3.69	0.56	0.15	0.26	0.11
We have effective sales and marketing team	3.46	0.79	0.23	0.08	0.35
The market understands the benefits offered by the differentiated offerings	3.78	0.77	0.2	0.34	0.76

Products and services different from and more attractive than those of our competitors	3.7	0.62	0.17	0.14	0.33
<b>Overall</b>	<b>3.66</b>	<b>0.69</b>	<b>0.19</b>	<b>0.21</b>	<b>0.39</b>
<b>Focus Drivers</b>					
We have brand image that our customers value	3.13	0.76	0.24	0.71	0.67
We concentrate on particular niche markets	3.2	0.88	0.28	0.46	0.81
We understand the dynamics of the niche market and the unique needs of customers within it	3.87	0.65	0.17	0.45	0.81
We build strong brand loyalty amongst our customers thus making our particular market segment less attractive to competitors	3.79	0.81	0.21	0.21	0.64
We offer unique features that fulfill the demands of a narrow market	3.68	0.92	0.25	0.89	0.55
The firm concentrates on a particular market	3.81	0.33	0.09	0.22	0.23
<b>Overall</b>	<b>3.58</b>	<b>0.73</b>	<b>0.2</b>	<b>0.49</b>	<b>0.62</b>
<b>Cost Drivers</b>					
The firm charges low prices relative to other firms that compete within the target market	4.06	0.76	0.19	0.56	0.39
The firm practices the lowest cost of operation in the industry	3.63	0.84	0.23	0.77	0.76
Our production process is backed by innovation	2.91	0.99	0.34	0.65	0.99
The firm acquires quality raw materials at the lowest price	4.16	0.88	0.21	0.26	0.05
The firm produces highly standardized product using advanced technology	3.61	0.67	0.19	0.22	0.19
<b>Overall</b>	<b>3.68</b>	<b>0.83</b>	<b>0.23</b>	<b>0.49</b>	<b>0.48</b>
<b>Grand Overall</b>	<b>3.64</b>	<b>0.75</b>	<b>0.21</b>	<b>0.39</b>	<b>0.49</b>

Source: Field Data (2019)

The results of environmental-based drivers are presented in Table 4.3. The analysis revealed that the firm understands the benefits offered by differentiated offerings to a great extent (mean = 3.78, std dev = .77), products and services are different from and more attractive than those of competitors (mean = 3.70, std dev = 0.62), and the firm can deliver high quality products and services (mean = 3.69, std dev = 0.62).

The scores showed that firms understood the dynamics of the niche market and the unique needs of customers within it to a great extent (mean = 3.87, std dev = 0.65), firms concentrated on a particular market (mean = 3.81, std dev = 0.33), and firms built strong brand loyalty among customers, making their particular market segment less competitive (mean = 3.81, std dev = 0.33). The analysis revealed that, to a great extent, firms acquired quality raw materials at the lowest price (mean = 4.16, std dev = 0.88), charged low prices relative to other firms in the target market (mean = 4.06, std dev = 0.76), practiced the lowest cost of operation in the industry (mean = 3.63, std dev = 0.84), and produced highly

std dev. Low-cost leadership is represented by environmental-based strategy drivers (differentiation drivers, focus drivers, and cost drivers) across the activity cost chain (Tehrani, 2003; Beheshti, 2004). Differentiation that works is anchored on understanding buyers' requirements/behaviors so as to determine that which is significant/treasured. To increase consumer preference for the product, the desirable traits are then included into the product. Low costs enable a company to deliver relatively uniform products with characteristics that appeal to a wide range of customers at the lowest possible price,

giving it a competitive edge and increasing market share. A cost leadership firm's decision maker is forced to analyze the cost efficiency of the firm's processes. The cost leadership strategy's primary determinant becomes maintaining a low-cost basis. To be effective at low-cost leadership, a company must have a large market share (Gongera, 2007). Skewness and kurtosis have values within the range of -1 and +1 thus the distribution is normal. The findings demonstrate that respondents were moderately in agreement on differentiation drivers, focus drivers and hybrid drivers. This leaves a gap to be filled by improvement of the entire components of environmental based drives.

#### 4.5.1.2 Resource Based Drivers

The study sought to establish the influence of resource-based drivers on the productivity of manufacturing Enterprises in Nairobi County (capital raising capabilities, technologies, social resources, and business process management). The results are shown in Table 4.4.

**Table 4.4: Descriptive Statistics for Measures of Resource Based Drivers**

Statements	Mean	Std. Dev	CV	Skewness	Kurtosis
<b>Financial Resources (Capital Raising Capacity)</b>					
Our firm can easily mobilize resources	3.36	0.94	0.28	0.11	0.54
Our firm has a strong business plan	3.91	1.08	0.28	0.23	0.25
Our firm has a clear strategy and competitive edge	3.71	0.95	0.26	-0.34	0.92
Our firm has a strong asset base and sound financial performance.	4.02	0.98	0.24	0.67	0.67
Our business valuation and scalability are in line with investors needs	3.57	0.84	0.24	0.9	0.27



<b>Overall</b>	<b>3.72</b>	<b>0.96</b>	<b>0.26</b>	<b>0.31</b>	<b>0.53</b>
<b>Technology (production)</b>					
Our firm operation systems are automated	3.95	0.98	0.25	0.22	0.05
Technology has assisted our firm in altering the price structure through the development of more efficient and flexible processes	4.15	1.00	0.24	-0.16	0.22
Technology facilitates a culture of continuous feedback thus everyone knows where they stand on a regular basis	4.33	0.94	0.22	-0.41	0.31
Technology enables collection of more objective performance data on a real time basis	3.96	0.97	0.25	0.76	0.44
<b>Overall</b>	<b>4.10</b>	<b>0.97</b>	<b>0.24</b>	<b>0.1</b>	<b>0.26</b>
<b>Human Resources/Capital</b>					
Our firm has high skilled labour so as to produce economic value	4.19	0.89	0.21	0.19	0.62
Human capital is the most essential capital in our firm	3.98	1.05	0.29	0.08	0.17
The firm values knowledge, experience, skill, attitude, ability, behaviour and obligation of employees	4.10	0.92	0.22	0.45	0.13
The ability to effectively acquire, control and utilize knowledge in every business activity is the differentiator between our firm and competitors	3.99	0.95	0.24	0.67	0.27
<b>Overall</b>	<b>3.99</b>	<b>0.95</b>	<b>0.24</b>	<b>0.35</b>	<b>0.29</b>
<b>Value Chain Management</b>					
A tool of managing increasingly complex global value chain networks	3.72	1.01	0.27	0.33	0.22

The firm focuses on optimizing volumes and value based on cross functional management	3.74	1.00	0.27	0.87	0.30
The firm integrates decision making throughout the value chain	3.34	1.16	0.35	0.34	0.29
<b>Overall</b>	<b>3.6</b>	<b>1.06</b>	<b>0.29</b>	<b>0.51</b>	<b>0.27</b>
<b>Grand Overall</b>	<b>3.85</b>	<b>0.99</b>	<b>0.26</b>	<b>0.32</b>	<b>0.34</b>

Source: Field Data (2019)

Overall, participants agree that resource-based variables impact the performance of manufacturing SMEs in Nairobi City County (mean = 3.85, standard deviation = 0.99, CV= 26%). The results showed that firms had a strong asset base and sound financial performance (mean = 4.02, std = 0.98), a strong business plan (mean = 3.91, std = 1.08), a clear strategy and competitive edge (mean = 3.71, std = 0.95), and business valuation and scalability were in line with investor needs (mean = 3.57, std dev = 0.95) in the capital raising capacity category.

The study revealed that, to a great extent, technology facilitated a culture of continuous feedback, ensuring that everyone knew where they stood on a regular basis (mean = 4.33, std dev = 0.94), technology had aided the firm in altering the price structure through the development of more efficient and flexible processes (mean = 4.15, std dev = 1.00), and technology had aided the firm in changing the price structure through the development of more efficient and flexible processes. The results showed that firms valued knowledge, experience, skill, attitudes, abilities, behavior, and obligation of employees (mean = 4.10, std dev = 0.92), the ability to effectively acquire, control, and utilize knowledge in a variety of ways (mean =

4.19, std dev = 0.89), and the ability to effectively acquire, control, and utilize knowledge in a variety of ways (mean = 4.19, std dev = 0.89).

The study found that firms focused on optimizing volumes and value based on cross functional management (mean = 3.74, std dev = 1.00) and value chain management as a tool for managing increasingly complex global value chain networks (mean = 3.72, std dev = 1.01) in the value chain management subscale of resource based drivers. The development and maintenance of innovativeness, creativity, and firm learning inside a business is a critical success element for resource-based divers in terms of plan implementation (Pennathur, 2001). A product with qualities that differ considerably from those of competitors is the foundation for competitive advantage. According to Kotter (2001), whatever a company can do to increase buyer value is a possible basis for distinction. Once it has identified a good source of buyer value, it must capitalize on it by incorporating features into its products/services at a reasonable cost. These features might improve the product's performance or make it more cost-effective to use. Differentiation possibilities might arise from actions taken at any point along the cost chain of an activity. This implies that there is a short fall in value chain management and capital raising capacity hence the need to build capacity and review value chain management and capital raising capacity structure.

#### **4.5.1.3 Hybrid Strategy Drivers**

The study evaluated statements on hybrid strategy drivers (differentiation and low cost). The results are presented in Table 4.5.



**Table 4.5: Descriptive Statistics for Measures of Hybrid Strategy Drivers**

Statements	Mean	Std. Dev	CV	Skewness	Kurtosis
<b>Low Cost and Differentiation</b>					
Our firm achieve both high quality and productivity at the same time	3.81	0.99	0.26	0.11	0.31
Our firm embraces mass customizations	3.20	1.19	0.37	-0.24	0.26
Our firm makes consistent low-cost strategic decisions on how to pursue competitive advantages and align resources and capabilities	4.02	0.97	0.24	0.33	0.28
Our firm has achieved higher performance than our competitors	3.93	0.96	0.24	0.25	0.17
<b>Overall</b>	<b>3.74</b>	<b>1.03</b>	<b>0.28</b>	<b>0.11</b>	<b>0.26</b>

Source: Field Data (2019)

Table 4.5 shows the results of hybrid strategy drivers (low cost and differentiation and high cost and differentiation). Low cost and differentiation had a mean of 3.74 and a standard deviation of 1.03. To a great extent; firms made consistent low-cost strategic decisions on how to pursue competitive advantages and aligned resources and capabilities (mean = 4.02, std dev= 0.97), firms outperformed their competitors (mean = 3.93, std dev = 0.96), and firms achieved both high quality and productivity at the same time (mean = 3.81, std dev = 0.99). Respondents (SMEs). did not rate the statements on high cost and differentiation as this strategy is commonly used by large/big firms. This implies that

hybrid strategy drives are moderate indicators of competitive strategy drivers. There is need to relook at the components of hybrid strategy.

#### **4.6 Macro Environment**

The macro environment of a company is the collection of macro variables that have an influence on its operations. It is the basis of restrictions, possibilities, difficulties, and opportunities which influence how companies do business. Environmental limitations, or restraints imposed by the firm's surroundings, are unavoidable in any business. Because the process of making decisions in the environment is never-ending, a constant review of the state of the strategic variables in this environment is required.

To survive in the environment, firms have to pay attention and match their activities to the environmental conditions. These conditions exist both in the macro environment and the industry in which the firm operates. The macro environment consists of forces like political, legal, economic, socio-cultural, ecological, technological forces and legal forces. Firms have no capability to influence the macro environment and other dimensions like complexity, dynamism and munificence but may have an influence in the industry environment. Tables below give the mean, standard of deviation and coefficient of variation on statements depicting aspects of macro environment (PESTEL).

**Table 4.6: Descriptive Statistics for Measures of Macro Environment (Political)**

Statements	Mean	Std. Dev	CV	Skewness	Kurtosis
The political stability of the country	3.14	0.97	0.31	0.40	0.66
Change of political regime	3.90	0.95	0.24	0.35	0.25
The country's overall political stability	3.61	0.98	0.27	-0.23	0.65
<b>Overall</b>	<b>3.55</b>	<b>0.97</b>	<b>0.27</b>	<b>0.17</b>	<b>0.52</b>

Source: Field Data (2019)

Table 4.6 presents findings on political aspect of macro environment. The highest mean was change of political regime (Mean = 3.90, SD = 95 and CV = 0.24) followed by the country's overall political stability (Mean = 3.61, SD = 98 and CV = 0.27) and political stability of the country (Mean = 3.14, SD = 97 and CV = 0.31). Skewness and kurtosis are all within the range of -1 and +1, thus, the distribution is normal. This implies that the respondents were divide on the political indicators.

**Table 4.7: Descriptive Statistics for Measures of Macro Environment (Economical)**

Statements	Mean	Std. Dev	CV	Skewness	Kurtosis
Inflationary trends in the country	3.34	0.99	0.30	-0.09	0.28
Level of the country's overall economic development	3.34	1.03	0.31	0.17	0.26
Foreign exchange rates	3.08	1.09	0.35	-0.10	0.68
Interest rates	3.28	1.17	0.36	-0.03	0.39
Availability of credit	3.45	1.10	0.32	0.04	0.84
Changes in the taxation regime	3.15	1.12	0.36	0.08	0.52
Annual budget allocations to the firm	3.49	0.92	0.26	0.05	0.06
Intermittent budget reviews and re-allocations by government	3.19	1.12	.0.35	-0.13	0.68
<b>Overall</b>	<b>3.29</b>	<b>1.07</b>	<b>0.32</b>	<b>0.00</b>	<b>0.46</b>

Source: Field Data (2019)

Table 4.7 presents findings on economical aspect of macro environment. The statement with the highest mean was annual budget allocations to the firm (Mean = 3.49, SD = 0.92 and CV = 0.26), followed by availability of credit (Mean = 3.45, SD = 1.10 and CV = 0.32), level of the country's overall economic development (Mean = 3.34, SD = 1.03 and CV = 0.31), inflationary trends in the country (Mean = 3.34, SD = 0.99 and CV = 0.30), interest rates (Mean = 3.28, SD = 1.17 and CV = 0.35), intermittent budget reviews and re-allocations by government (Mean = 3.19, SD = 1.12 and CV = 0.35), changes in the taxation regime (Mean = 3.15, SD = 1.12, CV = 0.36) and foreign exchange rates (Mean = 3.08, SD = 1.09 and CV = 0.35). This means that economical aspect of micro environment is not fully appreciated.

**Table 4.8: Descriptive Statistics for Measures of Macro Environment (Social)**

Statements	Mean	Std. Dev	CV	Skewness	Kurtosis
Societal norms and values	3.10	0.14	0.37	0.01	0.77
Customs of various communities	3.09	0.19	0.38	-0.08	0.83
Religion of host communities	2.84	0.21	0.42	0.11	0.87
Demands of host communities	3.01	0.09	0.36	0.05	0.52
Cultural practices e.g. land demarcation, farming practices, pastoralism, etc.	2.98	0.09	0.36	0.00	0.58
Population growth rate	2.91	0.12	0.38	0.09	-0.67
Crime rates and terrorism	3.14	0.15	0.37	0.03	-0.79
Tribal inclinations	3.15	0.17	0.45	0.02	-0.87
Gender issues	2.85	0.01	0.39	0.20	-0.23
<b>Overall</b>	<b>3.00</b>	<b>0.13</b>	<b>0.39</b>	<b>0.05</b>	<b>0.11</b>

Source: Field Data (2019)



Table 4.8 presents findings on social aspect of macro environment. The highest mean was in tribal inclinations (Mean = 3.15, SD = 17 and CV = 0.55) followed by crime rates and terrorism (Mean = 3.14, SD = 12 and CV = 0.37), societal norms and values (Mean = 3.10, SD = 0.14 and CV = 0.37), demands of host communities (Mean = 3.01, SD = 09 and CV=0.36) and cultural practices e.g. land demarcation, farming practices, pastoralism (Mean = 2.98, SD = 09 and CV = 0.36). This implies that social aspect of macro environment plays insignificant role. There is need to review the social aspect.

**Table 4.9: Descriptive Statistics for Measures of Macro Environment  
(Technological)**

<b>Statements</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>CV</b>	<b>Skewness</b>	<b>Kurtosis</b>
Developments in Information Communication & Technology e.g. internet, digitization of services etc.	2.93	1.14	0.32	0.15	-0.68
<b>Overall</b>	<b>2.93</b>	<b>1.14</b>	<b>0.32</b>	<b>0.15</b>	<b>-0.68</b>

Source: Field Data (2019)

Table 4.9 presents findings on technological aspect of macro environment. The average mean score on developments in Information, Communication, and Technology, such as the internet and service digitalization, had CV = 0.32, SD = 1.14, and mean = 2.93.

**Table 4.10: Descriptive Statistics for Measures of Macro Environment  
(Ecological/Environmental)**

Statements	Mean	Std. Dev	CV	Skewness	Kurtosis
Interest from various stakeholders	3.16	0.84	0.27	-0.17	-0.68
Government pronouncements on changes in policy from time to time	3.91	1.00	0.25	0.54	0.39
Devolved Government structure	3.28	0.03	0.31	0.11	-0.80
Occurrences in the natural environment e.g. floods, drought etc.	3.11	0.20	0.33	-0.15	0.86
Civil society firm's agitation for rights	3.18	0.17	0.40	-0.01	-0.86
<b>Overall</b>	<b>3.33</b>	<b>0.45</b>	<b>0.31</b>	<b>0.06</b>	<b>-0.22</b>

Source: Field Data (2019)

Table 4.10 presents findings on environmental aspect of macro environment. The highest mean was in from time to time, the government makes announcements on policy changes. (Mean = 3.91, SD = 1.00 and CV = 0.25), followed by devolved government structure (Mean = 3.28, SD = 0.03 and CV = 0.31), civil society firm's agitation for rights (Mean = 3.18, SD = 17 and CV = 0.40), interest from various stakeholders (Mean = 3.16, SD = 0.84 and CV = 0.27) events in the natural environment, such as floods and droughts (Mean = 3.11, SD = 02 and CV = 0.33). Ecological aspect of macro environment is not well appreciated in by the MSEs. There is need to review the same.

**Table 4.11: Descriptive Statistics for Measures of Macro Environment (Legal)**

Statements	Mean	Std. Dev	CV	Skewness	Kurtosis
Government's fiscal policies	3.36	0.99	0.29	0.29	-0.50
Taxation policies	3.43	1.23	0.36	0.06	-0.30
Changes in the Kenya Constitution 2010 and subsequent legislation	2.96	1.19	0.39	0.23	-0.82
The legal framework prescribing the mandate of the firm	2.98	1.19	0.38	0.06	-0.81
Legislative activities touching on the firm's business	3.19	1.25	0.39	-0.19	-0.90
Environmental legislation	3.05	1.18	0.36	-0.04	-0.89
<b>Overall</b>	<b>3.16</b>	<b>1.17</b>	<b>0.36</b>	<b>0.07</b>	<b>-0.70</b>

Source: Field Data (2019)

Table 4.11 presents findings on legal aspect of macro environment. The highest mean was in taxation policies (Mean = 3.43, SD = 1.23 and CV = 0.36), followed by government's fiscal policies (Mean = 3.36, SD = 0.99 and CV = 0.29), legislative activities touching on the firm's business (Mean = 3.19, SD = 1.25 and CV = 0.39), environmental legislation (Mean = 3.05, SD = 1.18 and CV = 0.36), legal framework prescribing the mandate of the firm (Mean = 2.98, SD = 1.19 and CV = 0.38) and changes in the Kenya Constitution 2010 and subsequent legislation (Mean = 2.96, SD = 1.19 and CV = 0.39). This implies that respondents did not understand fully the importance of legal aspect of the environment in their businesses. There is need to sensitive entrepreneurs on the importance of legal aspect of the environment.

## 4.7 Entrepreneurial Orientation

To establish the existence and influence of entrepreneurial orientation on performance of manufacturing SMEs, descriptive statements derived from the literature representing the behavior of entrepreneurial firms were presented to respondents. The respondents were asked to rate the factors considered during the firm's decision-making process on a Likert scale of 1 (not at all) to 5 (very large extent) in the last five years. In this study, entrepreneurial orientation was depicted as innovativeness, risk taking, pro-activeness and competitive aggressiveness.

### 4.7.1 Innovativeness

Respondents were asked to rate the statements on innovativeness. Table 4.12 gives the mean, standard of deviation and coefficient of variation on statements depicting innovativeness in influencing performance of manufacturing SMEs in Nairobi City County.

**Table 4.12: Descriptive Statistics for Measures of Innovativeness**

Statements	Mean	Std. Dev	CV	Skewness	Kurtosis
Employees frequently come up with new products or ways of doing new things	3.56	.88	0.25	-.17	-1.07
Manager favours own original approaches to problem solving	3.50	1.14	0.33	-.17	-.99
Firm has marketed new lines of products or services in last five years	3.46	1.06	0.31	.08	-.92
Employees have strong tendency to follow the leader in introducing new products	3.66	1.06	0.29	.34	-.82
Firm often first to introduce new products and services	3.48	.90	0.26	.250	-.35
<b>Average mean score</b>	<b>3.53</b>	<b>1.01</b>	<b>0.29</b>	<b>0.07</b>	<b>-.83</b>

Source: Field Data (2019)

Table 4.12 presents results on innovativeness. Statements depicting innovation had a mean of 3.53, standard deviation of 1.01 and coefficient of variation of 0.29. These results indicate that innovativeness as a factor contributing to firm performance, had a moderately high influence. The statement with the highest mean was that employees had a strong tendency to follow the leader in introducing new products (Mean = 3.66, SD = 1.06, CV = 0.29), followed by employees frequently come up with new products or ways of doing new things (Mean = 3.56, SD = .89, CV = 0.25), manager favours own original approaches to problem solving (Mean = 3.50, SD = 1.14, CV = 0.33), firms are often first to introduce new products and services (Mean = 3.48, SD = .90, CV = 0.26). The average score for skewness was 0.07 which is positively skewed and near to zero which clarified that the constructs are symmetrical. Kurtosis values indicated that all the sub constructs had a sharp peak thus normally distributed (-.829). This demonstrate moderate attachment of innovativeness to business performance from the view of the entrepreneurs. The respondents are undecided to use innovativeness.

Innovativeness is a continuous process. Because of the relative word "newness," innovation may be classified according to the amount of new information and the perspective from which it is seen. According to literature review on entrepreneurial innovation, both radical and incremental breakthroughs contribute to a corporation's profitability. This indicates that a company that focuses on technological changes may not have a worse position in the market and would therefore be more profitable than a company that does not use innovation process. According to findings, it is indicated that employees are more reserved in innovativeness and are only willing to follow their

leaders instead of them coming up with the innovativeness required in the firm. Even firms that do competition analysis sometimes overlook the possibility that a competitor would opt not to answer to a defensive method. The strategist reduces his assessment of the expected value of his firm's move by disregarding that possibility: the higher the perceived chance of rival counteraction, the lower the expected reward. The company is less inclined to take aggressive action if the expected reward is smaller.

Certainly, innovativeness, defined as a company's preparedness to seek out and support creative solutions to issues and requirements, is critical to improving performance. Innovative performance is the sum total of a company's accomplishments in renewal and improvement efforts that take into account different areas of the company's innovativeness, such as processes, products, marketing and structure. As a result, innovative performance (Hagedoorn & Cloudt, 2003) is a composite construct based on different performance indicators such as new patents, new product launches, new initiatives, new processes, and new firm arrangements.

#### **4.7.2 Risk Taking**

Risk-taking refers to a company's willingness to take calculated commercial risks in the marketplace, even if the results are unknown. Risk-takers are regarded as brave and aggressive in their pursuit of possibilities, since they are willing to make significant and hazardous resource commitments in the hopes of reaping great returns. Borrowing significantly, entering unfamiliar markets, and devoting a large amount of resources to initiatives with unclear results are all examples of risk-taking behavior. In order to establish the level of risk-taking dimension, statements were posed to the respondents

they had to say how much of these statements related to their small businesses. Table 4.13 presents the results.

**Table 4.13: Descriptive Statistics for Measures of Risk taking**

<b>Statements</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>CV</b>	<b>Skewness</b>	<b>Kurtosis</b>
Manager has strong preference for high risk projects	2.95	1.23	0.42	.16	-.38
Firm often first in the market in introducing new products and services	3.59	1.04	0.29	.06	-.56
Firm has strong tendency to be ahead of competitors in introducing new products	3.29	1.25	0.38	.09	-.31
Firm initiates actions to which competitor's then respond	3.41	1.27	0.37	.13	-.53
<b>Average mean score</b>	<b>3.31</b>	<b>1.19</b>	<b>0.37</b>	<b>0.11</b>	<b>-.44</b>

Source: Field Data (2019)

Table 4.13 presents results on risk taking. The average score of the statements that depicted risk taking behaviors of the surveyed firms was mean of 3.31, standard deviation of 1.19 and coefficient of variation of 0.37. The statement with the highest mean was firms were often the first in the market in introducing new products and services (Mean = 3.59, SD = 1.05, CV = 0.29) followed by firms had a strong tendency to be ahead of competitors in introducing new products (Mean = 3.41, SD = 1.27, CV = 0.37), firms has strong tendency to be ahead of competitors in introducing new products decision's (Mean = 3.29, SD = 1.25, CV = 0.38) and manager had strong preference for high risk projects (Mean = 2.95, SD = 1.23, CV = 0.42). This implies that

entrepreneurs less of risk taking are moderate. This is in line with the fact that most of the respondents were female and would adopt a wait and see approach in terms of risk taking.

Avlonitis and Salavou (2007) found that businesses with significant social entrepreneurship are drawn to projects with higher levels of risk in order to achieve larger levels of return. A risk-averse business, on the other hand, will avoid undertaking anything that has an unclear payoff and is less flexible to changing conditions. The average score for skewness was 0.112 and kurtosis was -.444, which lies within the range of -1 and +1 hence normal distribution.

When risks are properly evaluated, controlled, and managed, possibilities that previously seemed to be frightening and excessively dangerous become more appealing. Furthermore, a company may realize that improving its ability to detect and manage risk allows it to seize opportunities that competition alone cannot. Risk mitigation procedures are still necessary to implement even if there isn't an obvious opportunity to exploit. They put hazards back within the tolerance threshold of the firm's risk appetite (Dess & Lumpkin, 2005). Firms therefore tasks managers with the responsibility of successfully exploiting new ventures that are risky while protecting the present opportunities. This too may help in avoiding finger pointing among employees if the new venture undertaken does not take off as successfully as it was expected.

#### **4.7.3 Pro-activeness**

Proactivity entails spotting and assessing new possibilities as well as keeping an eye on market trends. Proactive businesses may offer new products and services to the market ahead of the competition by engaging in these actions. As a result, a proactive company



is regarded a leader rather than a follower, because it has the will and insight to seize fresh possibilities. At different phases of a company's growth, pro-activity plays a distinct role in its performance.

Proactivity is therefore a critical component throughout the early stages of a company's development; nevertheless, it becomes less important as the company matures. Proactivity allows a developing new company to cement its position in its chosen industry, ensuring long-term success. Statements were asked to the respondents, and they were expected to identify the amount to which these statements related to their SMEs, in order to evaluate their level of pro-activity. The findings are shown in Table 4.14.

**Table 4.14: Descriptive Statistics for Measures of Pro-activeness**

<b>Statements</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>CV</b>	<b>Skewness</b>	<b>Kurtosis</b>
In dealing with competitors the firm is often the first business to introducing new products and services	3.56	1.09	0.30	.11	-.67
Firm adopts a cautious wait-and-see attitude to minimize costly decisions	2.97	1.12	0.38	.270	-.58
The firm typically initiates actions to which competitors then respond to them	2.91	1.29	0.45	.07	.48
<b>Average mean score</b>	<b>3.15</b>	<b>1.17</b>	<b>0.38</b>	<b>.15</b>	<b>.57</b>

Source: Field Data (2019)

Table 4.14 presents findings on proactivity. The average mean score for proactive behaviors of the surveyed firms was 3.15, standard deviation of 1.17 and coefficient

of variation of 0.38. The statements with the highest mean was that in dealing with competitors the firm is often the first business to introducing new products and services (Mean = 3.56, SD = 1.09, CV = 0.30), followed by firms adopt a cautious wait-and-see attitude to minimize costly decisions (Mean = 2.97, SD = 1.12, CV = 0.38) and the firms typically initiates actions to which competitors then respond to them (Mean = 2.91, SD = 1.29, CV = 0.45) respectively. The average score for skewness was 0.15 and kurtosis value of 573, thus normal distribution. There is moderate less of proactiveness. This implies that there is need to address entrepreneurs' proactiveness in order to enhance performance.

In general, a company's capacity to acquire more knowledge about the resources and possibilities accessible in its sector is positively connected to its pro-activeness. This means that proactive businesses are better equipped to examine the environment more closely in order to spot and exploit gaps. As a result, businesses were more informed in terms of acquiring information and resources than less proactive organizations, and as a result, they perform better than their less proactive rivals.

#### **4.7.4 Competitive Aggressiveness**

Competitive aggressiveness refers to a company's willingness to actively and vehemently attack its competitors in order to gain entrance or enhance its position in the marketplace, i.e., to surpass industry rivals. Firms that exhibit this demeanor are more likely to take a confrontational stance against competitors in an attempt to defeat those who threaten their existence or market position in the sector. Responsive or reactive conduct can be used to execute a firm's aggressiveness.

When a company joins a market where a rival already exists, it embraces responsiveness which might include head-to-head competitiveness or outright attacks on competitors. Reactiveness, on the other hand, is an immediate action to a rival's activity; for example, when a competitor offers a new product to the target market, a business may lower prices and forgo profits to keep its market share. Because the focus on outmaneuvering and undermining competitors increases the business's competitiveness at the expense of competitors, aggressiveness leads to improved firm performance. The findings are shown in Table 4.15.

**Table 4.15: Descriptive Statistics for Measures of Competitive Aggressiveness**

<b>Statements</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>CV</b>	<b>Skewness</b>	<b>Kurtosis</b>
In general, our business takes a bold and aggressive approach when competing	3.25	1.18	0.36	.22	-.48
Our business competes intensely in the industry	3.18	1.17	0.37	.16	-.41
We try to undo and out maneuver the competition as best as we can	3.05	1.17	0.38	.47	-.10
The firm is very seldom the first business to introduce new products/services	3.24	1.14	0.35	.21	-.10
The firm makes no special effort to take business from its competitors	2.91	1.16	0.40	.023	-.10
When confronted with decision making situation involving uncertainty the firm adopts a cautious wait-and see attitude to minimize the probability of making costly decisions	3.35	1.14	0.34	.21	-.22
<b>Average mean score</b>	<b>3.16</b>	<b>1.16</b>	<b>0.37</b>	<b>0.22</b>	<b>-0.24</b>

Source: Field Data (2019)

Table 4.15 presents findings on competitive aggressiveness. The findings show that the averages of competitive aggressiveness were 3.16, standard deviation of 1.16 and coefficient of variation of 0.37. A coefficient of variation of 0.37 indicates that the response from the respondents were more or less similar. A mean of above 3 indicates that the statements depicting competitive aggressiveness influenced firm performance moderately. The statement with the highest mean was; when confronted with decision making situation involving uncertainty firms adopt a cautious wait-and see attitude to minimize the probability of making costly decisions (Mean = 3.35, SD =1.14, CV= 0.34) followed by businesses takes a bold and aggressive approach when competing (Mean = 3.25, SD=1.18, CV= 0.36), firms very seldom are the first to introduce new products/services (Mean = 3.24, SD =1.14, CV= 0.35), businesses compete intensely in the industry (Mean = 3.18, SD =1.17, CV = 0.37) and firms try to undo and out maneuver the competition as best as they can (Mean = 3.05, SD =1.17, CV = 0.38). This demonstrate that entrepreneurs are aggressive in their undertakings.

The statement with the lowest mean was firms make no special effort to take business from its competitors (Mean = 2.91, SD = 1.16, CV= 0.40). This indicated that the firms adopted a softer way on competitive aggressiveness. They were not okay with just letting their competitors win in the business, but they were not ready to fight for customer share. The average score for skewness was 0.216 while kurtosis values -0.236. The values were within the range of -1 and +1, thus, confirmation of normal distribution.

According to Lyon, Lumpkin, and Dess (2000), competitive maneuvers plays a significant role in gaining a competitive edge. Being aggressive in competition helps a company to gain a competitive advantage by weakening its rivals. It also allows

businesses to react swiftly to potentially detrimental rival acts. This suggests that taking more forceful and frequent steps can improve performance. However, this may not be the best approach for SMEs to compete. Because SMEs have little resources, they are unlikely to engage in expensive aggressive and frequent competitive actions.

#### **4.8 SME Performance**

Firm performance entails achieving targets set by firm in question with the objective of maximizing stakeholders' wealth. It involves converting available resources into output efficiently and effectively so as to realize the goals of the firm both in the present and future opportunities. In this study, performance of manufacturing SMEs in Nairobi City County was measured in terms of non-financial and financial indicators. Participants will be given standards are designed to ensure based on the literature review to measure quasi performance. In the previous five years, respondents were asked to assess performance indicators on a Likert scale of 1 (not at all) to 5 (very). Return on investment (ROI) was used to assess financial performance. Table 4.16 presents the mean, standard deviation and coefficient of variation on statements measuring financial performance. while table 4.17 presents mean, standard deviation, coefficient of variation, skewness and kurtosis for non-financial measures.

**Table 4.16: Descriptive Statistics for Measures of Financial Performance**

	Mean	Std. Deviation	CV	Skewness	Kurtosis
ROI	0.468	0.135	0.288	0.905	0.745
ROA	0.418	0.114	0.273	0.677	0.114
ROE	0.397	0.107	0.269	0.811	0.172

The findings in Table 4.16 indicated that return on investment (ROI) had a mean of 0.468, std dev of 0.135 and CV of 28.8 percent. return on assets (ROA) had a mean of 0.418 with std dev of 0.114 and CV of 27.3 percent while return on equity (ROE) had a mean of 0.397, std dev of 0.107 and CV of 26.9 percent. Skewness and kurtosis values were within the range of  $\pm 1$ , thus the measures were normally distributed.

**Table 4.17: Descriptive Statistics for Measures of Non-Financial Performance**

Statements	Mean	Std. Dev	CV	Skewness	Kurtosis
<b>Entrepreneur Satisfaction</b>					
You are generally satisfied with your current business	3.78	0.45	14	-0.13	-0.34
Your current business meets your expectations	4.09	0.67	13	-0.04	-0.24
Your current business is your most ideal	3.77	0.13	10	-0.002	-0.12
<b>Overall</b>	<b>3.88</b>	<b>0.42</b>	<b>11</b>	<b>-0.002</b>	<b>-0.12</b>
<b>Growth in Employment</b>					
Number of employees have significantly increased in line with our business expansion	3.96	1.14	29	1.07	.13
Local market plays a role in employment growth	3.31	1.13	34	.51	-.77
Our firm promotes and hires new employees annually	3.35	1.25	37	.54	-.88
Our firm experiences low employee turnover annually	3.98	1.26	32	-.12	-1.09
<b>Overall</b>	<b>3.65</b>	<b>1.19</b>	<b>33</b>	<b>.77</b>	<b>-0.65</b>
<b>Business longevity</b>					
Financial strength influences our longevity	3.71	.99	27	-1.13	.92
Customer orientation determine business lifespan	3.35	0.67	20	-.459	-.81
Internal capabilities influence our longevity	3.80	0.46	12	-.09	-1.05
Strategic perspective defines our firm lifespan	3.84	0.62	16	-.06	-1.11
Learning and growth influences our firm longevity	3.74	0.82	22	.39	-1.01
<b>Overall</b>	<b>3.69</b>	<b>0.71</b>	<b>19</b>	<b>-0.27</b>	<b>-0.61</b>
<b>Grand overall</b>	<b>3.74</b>	<b>0.77</b>	<b>21</b>	<b>-0.35</b>	<b>-0.57</b>

Source: Field Data (2019)

Table 4.17 presents findings on non-financial performance. SMEs non-financial effectiveness of manufacturing Enterprises was rated 3.74 on average, with std dev of 0.77 and CV of 21%. CV of 21% shows that the respondents' responses were not substantially different. In the Entrepreneur Satisfaction subscale, “Current business meets expectations had the highest mean” (Mean = 4.09, SD = 0.67, CV= 13) followed by firms are generally satisfied with current business (Mean =3.78, SD = 0.45, CV = 14) and current business is the most ideal (Mean = 3.77, SD = 10). This implies that respondents were satisfied with the performance of their businesses. Thus, they are likely to inject more capital in them.

In the Growth in employment subscale, the respondents agreed that firms experience low employee turnover annually (Mean =3.98, SD = 1.26, CV = 32) and number of employees had significantly increased in line with business expansion (Mean =3.96, SD = 1.14, CV = 29). On a moderate extent the respondents were of the opinion that firms promote and hire new employees (Mean = 3.35, SD = 1.25, CV = 37) and local market plays a role in employment growth (Mean = 3.31, SD = 1.13, CV = 34). This implies that there is significant growth in employment which are signs of growth in business.

The business longevity subscale analysis showed that to a great extent strategic perspective defines a firm's lifespan (Mean = 3.84, SD = 0.62, CV = 16), internal capabilities influence longevity (Mean = 3.80, SD = 0.456, CV = 12), learning and growth influences longevity (Mean=3.74, SD = 0.82, CV = 22) and financial strength influences longevity (Mean = 3.71, SD = 0.99, CV = 27). This demonstrate that businesses have a long-life span, thus new investors are likely to join the manufacturing sector.

#### 4.9 Sampling Adequacy

The Kaiser-Meyer-Olkin (KMO) test is a criterion for sample adequacy, or how well data is suited to factor analysis. It examines the appropriateness of sampling for each variable in the model. If KMO is more than 0.5, the sample is sufficient. The test for the null hypothesis that the correlation matrix has an identity matrix is Bartlett's Test of Sphericity. The factor analysis is valid if the p-value is less than 0.05.

**Table 4.18: KMO and Bartlett's Test**

Variables	Indicators	Value	
Competitive strategy drivers	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.688	
	Bartlett's Test of Sphericity	Approx. Chi-Square	244.017
		Df	3
		Sig.	.000
Macro environment	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.864	
	Bartlett's Test of Sphericity	Approx. Chi-Square	754.376
		Df	15
		Sig.	.000
Entrepreneurial orientation	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.712	
	Bartlett's Test of Sphericity	Approx. Chi-Square	244.888
		Df	6
		Sig.	.000
Performance (non-financial)	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.758	
	Bartlett's Test of Sphericity	Approx. Chi-Square	368.394
		Df	6
		Sig.	.000

Source: Field Data (2019)

Table 4.18 shows a sampling adequacy for the study variables. The sampling adequacy for competitive strategy drivers was significant (KMO = .688 > .5, p < .05) hence factor



analysis is valid. The sampling adequacy for macro environment was significant ( $KMO = .864 > .5$ ,  $p < .05$ ) hence factor analysis is valid. The sampling adequacy for entrepreneurial orientation was significant ( $KMO = .712 > .5$ ,  $p < .05$ ) hence factor analysis is valid. The sampling adequacy for performance was significant ( $KMO = .758 > .5$ ,  $p < .05$ ) hence factor analysis is valid. Factor analysis is considered as an appropriate technique for further analysis of the data. This leads to the test of confirmatory factor analysis.

#### **4.10 Confirmatory Factor Analysis**

The structures for the four research variables, competitive strategy drivers, entrepreneurial orientation, macro environment, and performance of manufacturing SMEs in Nairobi City County, were confirmed using confirmatory factor extraction. For competitive strategy drivers, the confirmatory factor analysis yielded three factors, namely environmental based drivers, resource-based drivers and hybrid-based drivers. For macro environment, the confirmatory factor analysis resulted into six factors namely political, economic, social, technological, ecological and legal. For entrepreneurial orientation, confirmatory factor analysis yielded four factors namely innovativeness, proactivity, risk taking and competitive aggressiveness. For non-financial performance, confirmatory factor analysis produced three factors namely entrepreneurial satisfaction, growth in employment and business longevity. Table 4.19 indicates the variables and factor statistics.

**Table 4.19: Variables and Factor Statistics**

<b>Variable</b>	<b>Dimension/Structure/Factor</b>	<b>No of Items</b>	<b>Scale Mean Scores</b>
<b>Competitive Strategy Drivers</b>	<b>Overall Competitive Strategy Drivers</b>	<b>35</b>	<b>3.78</b>
	Environmental Based Drivers	15	3.87
	Resource Based Drives	16	3.55
	Hybrid Based Drivers	4	3.92
<b>Macro Environment</b>	<b>Overall Macro Environment</b>	<b>32</b>	<b>3.76</b>
	Political	3	4.12
	Economical	8	3.74
	Social	9	3.61
	Technological	1	3.57
	Environmental/Ecological	5	3.82
	Legal	6	3.67
<b>Entrepreneurial Orientation</b>	<b>Overall Entrepreneurial Orientation</b>	<b>18</b>	<b>3.45</b>
	Innovativeness	5	3.78
	Proactivity	3	2.90
	Risk Taking	4	3.45
	Competitive Aggressiveness	6	3.68
Firm Performance (Non-financial)	<b>Overall Firm Non-Financial Performance</b>	<b>12</b>	<b>3.74</b>
	Entrepreneurial Satisfaction	3	3.88
	Growth in Employment	4	3.65
	Business Longevity	5	3.69

**Source: Field Data (2019)**

#### **4.11 Tests of Statistical Assumptions**

Linear regression makes assumptions about the data used. The assumptions are; normally distributed data, linearity, non- multicollinearity, independency and homoscedasticity. It is necessary to test assumptions to ensure that data meets important assumptions (Nimon, Zientek, & Henson, 2012). It was judged fit to meet the basic premise of the classical linear regression model in order for the study's regression results to be robust and legitimate.

Statistical assumptions were checked prior to undertaking inferential analysis to ensure that the data met the assumptions. If the fundamental assumptions are fulfilled, all data is deemed to have been incorporated in the model (Bolker et al., 2009). Otherwise, information about violations of these assumptions would have been left unresolved. The model was used to assess the results of the regression and significance testing of the slopes after multicollinearity, homoscedasticity, independency, and normality were tested. The regression analysis' goal was to forecast the degree and direction of the link between the studied variables. The results in Table 4.20 confirmed that all the assumptions of regression analysis were met thus further statistical analysis could be done.

**Table 4.20: Results of Test of Statistical Assumptions**

Tests	N	Results	Interpretation
Normality (Shapiro Wilks Test)	300	Competitive strategy drivers: P-Value = 0.340>0.05 Macro environment: P-Value = 0.571>0.05 Entrepreneurial orientation :P-Value = 0.064>0.05 Firm performance: P- Value = 0.060>0.05	Threshold of the assumption is met
Linearity (Anova Test)	300	Competitive strategy drivers: P-Value = 0.064>0.05 Macro environment: P- Value = 0.213>0.05 Entrepreneurial orientation: P- Value = 0.335>0.05	Threshold of the assumption is met
Independency (Durbin Watson test)	300	Competitive strategy drivers: P-Value = 0.08>0.05 Macro environment: P- Value = 0.135>0.05 Entrepreneurial orientation: P- Value = 0.07>0.05	Threshold of the assumption is met
Homoscedasticity (Levene Test)	300	Competitive strategy drivers: P-Value = 0.11>0.05 Macro environment: P- Value = 0.10>0.05 Entrepreneurial orientation: P- Value = 0.17>0.05	Threshold of the assumption is met
Multicollinearity (VIF, Tolerance test)	300	Competitive strategy drivers: VIF=3.446<10 Macro environment: VIF=3.158<10 Entrepreneurial orientation: VIF=4.405<10	Threshold of the assumption is met

Source: Field Data (2019).

Data obeyed a linear relationship, that is, Anova test p-value  $> 0.05$ . Test of independency was based on Durbin Watson. The results indicated that there was no autocorrelation as p-value  $> 0.05$ . Homoscedasticity test was carried out using Levene test. The results showed that p-value  $> 0.5$ , thus, the assumption of homoscedasticity/constant variance of errors was satisfied. In terms of multicollinearity which test on the existence of high correlation between the independent variable. The results showed that variance inflation factor values were less than 10 and tolerance values greater than 0.1. Thus, there was no high correlation between the independent variables. All the linear regression assumptions were met thus further statistical analysis could be done.

#### **4.12 Collinearity Statistics**

This section presents and discussed the findings of the association amongst dependent and independent variables. The size and direction of the link between the variables is measured by coefficient of correlation. It ranges from -1 to +1. The greater the connection, the closer it is to  $\pm 1$ . The association is weaker when coefficient gets closer to zero.

**Table 4.21: Correlation between Competitive Strategy Drivers and Performance of Manufacturing SMEs in Nairobi City County**

		Environment Based Drivers	Resource Based Drivers	Hybrid Strategy	Performance
Environment Based Drivers	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	300			
Resource Based Drivers	Pearson Correlation	-.154**	1		
	Sig. (2-tailed)	.007			
	N	300	300		
Hybrid Strategy drivers	Pearson Correlation	.187**	.090	1	
	Sig. (2-tailed)	.001	.125		
	N	300	300	300	
Firm Performance	Pearson Correlation	.167**	-.273**	-.187**	1
	Sig. (2-tailed)	.005	.000	.002	
	N	300	300	300	300

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Source: Field Data (2019)**

The relationship between environment-based drivers, resource-based drivers, hybrid strategy drivers, and performance is shown in Table 4.21. The Pearson correlation between environmental based drivers and performance ( $r = .167$ ,  $p = 0.005 < .05$ ) was significant. There was a strong connection between resource-based drivers and performance ( $r = -.273$ ,  $P = 0.000 < .05$ ). The Pearson connection between hybrid strategy drivers and performance ( $r = -.187$ ,  $P =$

0.002<.05) was also significant. The independent and dependent variables had a positive significant association.

**Table 4.22: Correlation between Macro Environment and Performance**

		Performance	Political	Economic	Social	Technological	Ecological	Legal
Performance	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	300						
Political	Pearson Correlation	.709**	1					
	Sig. (2-tailed)	.000						
	N	300	300					
Economic	Pearson Correlation	.533**	.225**	1				
	Sig. (2-tailed)	.000	.000					
	N	300	300	300				
Social	Pearson Correlation	.498**	.185**	.670**	1			
	Sig. (2-tailed)	.000	.000	.000				
	N	300	300	300	297			
Technological	Pearson Correlation	.513**	.386**	.286**	.446**	1		
	Sig. (2-tailed)	.000	.000	.000	.000			
	N	300	300	300	300	295		
Ecological	Pearson Correlation	.588**	.312**	.390**	.394**	.498**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000		
	N	300	300	300	300	300	300	
Legal	Pearson Correlation	.300**	.417**	.314**	.416**	.346**	.315**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	300	300	300	300	300	300	300

Source: Field Data (2019)



Table 4.22 shows correlation the between political, economic, social, technological, ecological, legal aspects and performance. The Pearson correlation for political and economic aspects on performance was significant ( $r = .709$ ,  $p = 0.000 < .05$  and  $r = .533$ ,  $P = 0.00 < .05$  respectively). The correlation for social and technological aspects on performance was significant ( $r = .498$ ,  $P = 0.00 < .05$  and  $R = .513$ ,  $P\text{-value} = 0.00 < .05$  respectively). The Pearson correlation for ecological and legal aspects on performance was also significant ( $r = .588$ ,  $P = 0.000 < .05$  and  $r = .300$ ,  $P = 0.000 < .05$ ). There exists a strong positive correlation between the independent and dependent variables.

**Table 4.23: Correlation between Entrepreneurial Orientation and Performance**

		Performance	Innovation	Proactivity	Risk Taking	Competitive Aggressiveness
Performance	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	300				
Innovation	Pearson Correlation	.139**	1			
	Sig. (2-tailed)	.005				
	N	300	298			
Proactivity	Pearson Correlation	.184**	.371**	1		
	Sig. (2-tailed)	.001	.000			
	N	300	300	300		
Risk Taking	Pearson Correlation	.398**	.287**	.329**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	300	300	300	300	
Competitive Aggressiveness	Pearson Correlation	.267**	.396**	.370**	.358**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	300	300	300	300	300

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: Field Data (2019)

The link between innovation, proactivity, risk-taking, competitive aggressiveness, and performance is shown in Table 4.23. The Pearson association between innovation and performance was substantial ( $R = .139$ ,  $P\text{-value} = 0.005 < .05$ ,  $R = .184$ ,  $P\text{-value} = 0.001 < .05$ ). Risk taking and competitive aggressiveness had a substantial Pearson connection on performance ( $R = .398$ ,  $P\text{-value} = 0.000 < .05$  and  $R = .267$ ,  $P\text{-value} = 0.000 < .05$ ), respectively. The independent and dependent variables have a favorable association.

#### **4.13 Hypotheses Testing**

The findings of the hypotheses as obtained from the study's particular objectives are presented and discussed in this section. Four particular objectives were defined, with matching hypotheses created, to attain this goal ( $H_1$ ,  $H_2$ ,  $H_3$ , and  $H_4$ ). The hypotheses are a representation of the hypothesized and stated link between the studied variables in the conceptual model. Simple, hierarchical, and stepwise regression, as well as multiple regression, were used to validate or disprove the hypotheses.

The hypotheses were tested using; simple linear regression analysis for hypothesis one (direct effect), stepwise multiple regression analysis for hypothesis two (moderating effect), path analysis/hierarchical regression analysis approach as proposed by Baron and Kenny (1986) for hypothesis three (intervening effect) and multiple linear regression analysis for hypothesis four (joint effect). Choice of analytical tools was guided by the study objective, type of data as well as the measurement scales.

The hypotheses were examined at a 95% confidence level ( $\alpha=0.05$ ), therefore the p-values served as decision points for rejecting or failing to reject a hypothesis. When  $p\text{-value} < 0.05$ , the study failed to reject the hypotheses, and when p-value is more than 0.05, the study rejected the hypotheses. The correlation coefficient (R), coefficient of determinations ( $R^2$ ), F-Statistic values (F), t-statistic values (t-test), and beta values ( $\beta$ ) were all included in the interpretation of the results and subsequent discussions. The size and direction of the link between the variables are represented by the R-value. The percentage change in the dependent variable explained by changes in the independent variables combined was denoted by  $R^2$ . The F test was used to determine the model's overall significance. Further, the higher the F-Statistic or  $p\text{-value} < 0.05$ , the more the overall significant the model was. The negative or positive effect of the independent variable on the dependent was explained by the sign of beta ( $\beta$ ), t-values represent the individual significance of the variables. The findings were provided in conjunction with the study's aims and hypotheses. The results of the regression analysis are shown in the subsections below.

#### **4.13.1. Relationship between Competitive Strategy Drivers and Performance**

##### **Hypothesis One Test**

Objective one was to look at the association between competitive strategy drivers and performance of manufacturing SMEs'. The following hypothesis was developed to attain this goal;

*H<sub>1</sub>: Competitive strategy drivers have no significant influence on the performance of manufacturing SMEs in Nairobi City County, Kenya.*

A simple linear regression analysis was used to assess the impact of competitive strategy drivers on performance.  $H_1$  was examined using the following equation:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

The results are summarized in Table 4.24.

**Table 4.24: Regression Results for Effect of Competitive Strategy Drivers on Firm Performance**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.352 <sup>a</sup>	.124	.121	.61984		
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.180	1	16.180	42.113	.000 <sup>b</sup>
	Residual	114.492	298	.384		
	Total	130.671	299			
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.849	.202		9.143	.000
	Competitive strategy drivers	.390	.060	.352	6.489	.000

Dependent Variable: Firm performance

Predictors: (Constant), Competitive strategy drivers

Source: Field Data (2019)

The results of the association between firm performance and competitive strategy drivers are presented in Table 4.24. The study discovered a positive association ( $R = .352$ ) between competitive strategy drivers and firm performance. Competitive strategy drivers explained 12.4% of variance in firm performance, according to the coefficient of determination ( $R^2 = .124$ ). Firm performance is

substantially influenced by competitive strategy drivers (F-value = 42.113, P = 0.0000<.05).

The coefficient of competitive strategy drivers is ( $\beta = 0.390$ , p-value<0.05), suggesting that every unit increase in competitive strategy drivers leads to a 0.390 rise in firm performance. Furthermore, unique competitive strategy drivers have a substantial impact on company success. The findings show that competitive strategy drivers have a substantial impact on the performance of manufacturing SMEs, thus supporting hypothesis one.

**Table 4.25: Regression Results for Effect of Competitive Strategy Drivers on Return on Investment**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
Competitive strategy drivers	0.323	0.104	0.081	0.0374771		
ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
Competitive strategy drivers	Regression	0.006	1	0.006	4.418	0.042
	Residual	0.298	298	0.001		
	Total	0.304	299			
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	-0.006	0.032		-0.182	0.857
	Competitive strategy drivers	0.019	0.009	0.323	2.102	0.042
Dependent Variable: Return on Investment						
Predictors (Constant), Competitive strategy drivers						

Source: Field Data (2019)

The study revealed that competitive strategy drivers and return on investment had a moderate association ( $R = .323$ ). Competitive strategy drivers explain 10.4 percent of variance in ROI, as shown by coefficient of determination ( $R^2 = .104$ ). ROI model on competitive strategy drivers was significant in overall ( $F\text{-value} = 4.418$ ,  $p = 0.0000 < .05$ ). The correlation of competitive strategy drivers on ROI is ( $\beta = 0.0190$ ,  $p\text{-value} < 0.05$ ), suggesting that one unit increase in competitive strategy drivers leads to a 0.0190 rise in ROI. The findings show that competitive strategy drivers have a substantial impact on the ROI of Manufacturing SMEs in Nairobi City County.

**Table 4.26: Regression Results for Effect of Competitive Strategic Drives on Return on Assets**

Model Summary								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2
1	.401 <sup>a</sup>	.160	.259	.66581	.158	555.831	1	290
ANOVA <sup>a</sup>								
Model		Sum of Squares	df	Mean Square	F	Sig.		
1	Regression	246.401	1	246.401	555.831	.000 <sup>b</sup>		
	Residual	128.558	290	.443				
	Total	374.959	291					
Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.392	.092		4.264	.000	.211	.573
	competitive strategy drivers	.847	.336	.811	2.521	.000	.776	.918
a. Dependent Variable: return on assets								
b. Predictors: (Constant), competitive strategy drivers								

**Source: Field Data, 2019**

Competitive strategy drives and return on assets were found to have positive and moderate relationship with a coefficient of correlation of 0.401. Competitive strategy drives accounted for 16 percent of the variation on return on assets ( $R^2 = 0.160$ ). the predictive model was significant in overall ( $F = 555.831$ ,  $P\text{-value} = 0.000$ ). Beta coefficient of competitive strategy driver ( $\beta = 0.811$ ,  $t = 2.521$ ,  $P\text{-value} = 0.000$ ) was individually significant. Thus, competitive strategy drivers had a significant effect on ROA amongst manufacturing SMEs in Nairobi city county.

**Table 4.27: Regression Results for Effect of Competitive Strategy Drives on Return on Equity**

Model Summary								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2
1	.336 <sup>a</sup>	.113	.112	.78404	.113	344.426	1	291
ANOVA <sup>a</sup>								
Model		Sum of Squares	df	Mean Square	F	Sig.		
1	Regression	211.725	1	211.725	344.426	.000 <sup>b</sup>		
	Residual	178.883	291	.615				
	Total	390.608	292					
Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.459	.108		4.244	.000	.246	.672
	competitive strategy drivers	.382	.142	.336	2.691	.000	.339	.565
a. Dependent Variable: return on equity								
b. Predictors: (Constant), competitive strategy drivers								

Source: Field Data, 2019



As shown in Table 4.26, competitive strategy drivers accounted for percent of the variation in return on equity ( $R^2 = 0.113$ ). the model was overall significant ( $F = 344.426$ ,  $P\text{-value} = 0.000$ ). The coefficient of competitive strategy drivers on return on equity was statistically significant ( $\beta = 0.336$ ,  $t = 2.691$ ,  $P\text{-value} = 0.000$ ). The results further indicated that competitive strategy driver individually statistically significantly influence return on equity in manufacturing SMEs in Nairobi City County.

**Table 4.28: Regression Results for Effect of Components of Competitive Strategy Drivers on Firm Performance (non -financial)**

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.365 <sup>a</sup>	.133	.131	.65293	.133	78.359	3	268	.000
ANOVA <sup>a</sup>									
Model		Sum of Squares	df	Mean Square	F	Sig.			
1	Regression	100.217	3	33.406	78.359	.000 <sup>b</sup>			
	Residual	126.190	296	.426					
	Total	226.407	299						
Coefficients <sup>a</sup>									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics		
		B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	0.153	.015		10.12	.000			
	Hybrid Strategy Drivers	.225	.066	.351	3.440	.001	.191	5.227	
	Environmental Based Drivers	.122	.060	.156	2.029	.002	.190	5.260	
	Resource Based Drivers	.198	.050	.243	3.964	.000	.531	1.884	

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Environmental based drivers, Resource Based Drivers, Hybrid strategy Drivers

Source: Field Data (2019)

The results of the link between components of competitive strategy drivers and firm performance are presented in Table 4.27. Environmental-based drivers, resource-based drivers, and hybrid strategy drivers all had a moderate association with firm performance ( $R = 0.365$ ). Environmental-based drivers, resource-based drivers, and hybrid strategy drivers account for 13.3% of the variation in firm performance, according to the coefficient of determination ( $R^2 = 0.133$ ). The model was statistically significant in overall ( $F = 78.359$ ,  $P\text{-value} = 0.000 < .05$ ). Hybrid strategy drivers ( $\beta = 0.225$ ) had the greatest beneficial impact on company performance, followed by resource-based strategy drivers ( $\beta = 0.198$ ), and environmental strategy drivers ( $\beta = 0.122$ ). Environmental-based drivers ( $p\text{-value} = 0.0020 < .05$ ), resource-based drivers ( $p\text{-value} = 0.000 < .05$ ), and hybrid strategy drivers ( $p\text{-value} = 0.0010 < .05$ ) significantly statistically individually influenced company performance. The findings show that each component of competitive strategy drivers has a substantial impact on the performance of manufacturing SMEs in Nairobi City County.

#### **4.13.2 Relationship between Competitive strategy Drivers, Macro environment and Firm Performance**

##### **Test of Hypothesis Two**

The second objective was to assess the effect of macro environments on the relationship between competitive strategy drivers and performance of manufacturing SMEs. To achieve this objective the following hypothesis was formulated.

*H<sub>2</sub>: Macro environment moderates the effect of competitive strategy drivers on the performance of manufacturing SMEs in Nairobi City County, Kenya.*

The equations used to measure H<sub>2</sub> were

$$Y_2 = \beta_0 + \beta_1 X + \varepsilon$$

$$Y_3 = \beta_0 + \beta_1 X + \beta_2 Z + \varepsilon$$

$$Y_4 = \beta_0 + \beta_1 X + \beta_2 Z + \beta_3 X.Z + \varepsilon$$

Composite index was computed for competitive strategy drivers, macro environment and firm performance. Hypothesis two was tested through path analysis/hierarchical regression analysis. In step one, firm performance was regressed on competitive strategy drivers. In step two, firm performance was regressed on competitive strategy drivers and macro environment treating both as independent variables. In step three the interaction term between competitive strategy drivers and macro environment was introduced. The moderation effect is confirmed when the effect of interaction term is statistically significant. The results were as presented in Tables 4.28 to 4.34 respectively.

**Table 4.29: Regression Results for Moderation Results of the Effect of Macro Environment on Competitive Strategy Drivers and Performance**

<b>Model Summary</b>										
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
						R Square Change	F Change	df1	df2	Sig. F Change
1	Competitive Strategy Drivers	.352 <sup>a</sup>	.124	.121	.61984	.124	42.113	1	298	.000
2	Competitive Strategy Drivers, Macro Environment	.447 <sup>a</sup>	.200	.197	.46321	.200	74.332	1	298	.000
3	Competitive Strategy Drivers, Macro environment interaction	.489 <sup>a</sup>	.239	.234	.57874	.239	46.568	2	297	.000
<b>ANOVA</b>										
Model					Sum of Squares	df	Mean Square	F	Sig.	
1	Competitive Strategy Drivers	Regression			16.180	1	16.180	42.113	.000 <sup>b</sup>	
		Residual			114.492	298	.384			
		Total			130.671	299				
2	Competitive Strategy Drivers, Macro Environment	Regression			15.949	1	15.949	74.332	.000 <sup>b</sup>	
		Residual			63.940	298	.215			
		Total			79.889	299				
3	Competitive Strategy Drivers, Macro environment interaction	Regression			31.195	2	15.597	46.568	.000 <sup>b</sup>	
		Residual			99.476	297	.335			
		Total			130.671	299				
<b>Coefficients</b>										
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics			
		B	Std. Error	Beta			Tolerance	VIF		
1	(Constant)	1.849	.202		9.143	.000				
	Competitive Strategy Drivers	.390	.060	.352	6.489	.000	1.000	1.000		
	(constant)	1.608	.151		10.646	.000				
2	Competitive Strategy Drivers, Macro Environment	.387	.045	.447	8.622	.000	1.000	1.000		
	Competitive Strategy Drivers, Macro environment interaction	.485	.072	.379	6.696	.000	.800	1.249		

a. Dependent Variable: Firm performance

b. Predictors: (Constant), Competitive strategy drivers, Macro environment  
**Source: Field Data (2019)**

The results of the moderating influence on the association between competitive strategy drivers and firm performance are presented in Table 4.28. The outcome of model one revealed a moderation relationship between competitive strategy drivers and performance ( $R = .352$ ,  $R^2 = 0.124$ ,  $P\text{-value} < 0.05$ ). A gradual rise in the value of the coefficient of determination in each stage is an indicator of the effect of the macro environment in model two ( $R = .447$ ,  $R^2 = .200$ ,  $P\text{-value} < 0.05$ ) and three ( $R = .489$ ,  $R^2 = 0.239$ ,  $P\text{-value} < 0.05$ ).

Explanatory power  $R^2 = 0.239$  indicates that competitive strategy drivers, macro environment and interaction term has 23.9 percent effect on firm performance. The interaction term (CSD\*ME) exhibited a significant moderating influence ( $\beta = .485$ ,  $P\text{-value} = .0000 < .05$ ), thus moderation has taken place. The findings supported the hypothesis that macro environment moderates the influence of competitive strategy drivers on manufacturing SMEs' performance in Nairobi County.

**Table 4.30: Regression Results for Moderating Influence of Political Environment on the Relationship between Competitive Strategy Drivers and Performance**

<b>Model Summary</b>							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	Sig. F Change
1	.352 <sup>a</sup>	0.124	0.121	0.61984	0.124	42.113	0.000
2	.389 <sup>b</sup>	0.151	0.147	0.53213	0.151	31.147	0.000
3	.421 <sup>c</sup>	0.177	0.163	0.51245	0.177	31.919	0.000
<b>ANOVA<sup>a</sup></b>							
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	16.18	1	16.180	42.113	.000 <sup>b</sup>	
	Residual	114.492	298	0.384			
	Total	130.671	299				
2	Regression	14.357	2	7.179	31.147	.000 <sup>c</sup>	
	Residual	68.45	297	0.230			
	Total	82.807	299				
3	Regression	28.291	3	9.430	31.919	.000 <sup>d</sup>	
	Residual	87.453	296	0.295			
	Total	115.744	299				
<b>Coefficients<sup>a</sup></b>							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
1	(Constant)	1.849	0.202		9.153	0.000	
	CSD	0.39	0.06	0.04	6.500	0.014	
2	(Constant)	1.512	0.675			0.000	
	CSD	0.361	0.12	0.111	3.008	0.000	
	MeP	0.245	0.113	0.109	2.168	0.001	
3	(Constant)	1.645	0.423			0.000	
	CSD	0.418	0.2	0.191	2.090	0.002	
	MeP	0.256	0.101	0.1	2.535	0.000	
	CSD, MeP, Interaction	0.005	0.002	0.001	2.500	0.001	

- a. Predictors: (Constant), CSD  
b. Predictors: (Constant), CSD, MeP  
c. Predictors: (Constant), CSD, MeP, CSD\_MeP\_Interaction  
d. Dependent Variable: OP  
Source: Field Data (2019)

Table 4.29 presents findings on the moderation effect of the political aspect on the relationships between competitive strategy drivers and firm performance. The findings show that in step one, CSD accounts for 12.4% of the variation in performance. The model in overall terms is significant ( $F = 42.113$ ,  $P\text{-Value} = 0.000 < 0.05$ ). Beta coefficients were statistically significant ( $\beta = 390$ ,  $t = 6.500$ ,  $P\text{-Value} = 0.014 < 0.05$ ). The results in step one were significant.

In step two, when the political environment was introduced, CSD and political environment explained 15.1 percent of the variation in performance. The model was in overall terms significant ( $F = 31.147$ ,  $P\text{-Value} = 0.000 < 0.05$ ). Beta coefficients for CSD were statistically significant ( $\beta = 361$ ,  $t = 3.008$ ,  $P\text{-Value} = 0.000 < 0.05$ ). Beta coefficients for MeP were statistically significant ( $\beta = 245$ ,  $t = 2.168$ ,  $P\text{-Value} = 0.001 < 0.05$ ). The results in step two were significant.

In step three, the interaction term was introduced. CSD, political environment and interaction term explained 17.7 percent of the variation in performance. The model was in overall terms significant ( $F = 31.919$ ,  $P\text{-Value} = 0.000 < 0.05$ ). Beta coefficients for interaction term were statistically significant ( $\beta = 0.005$ ,  $t = 2.500$ ,  $P\text{-Value} = 0.000 < 0.05$ ). The results in step three were significant, hence interaction took place.

**Table 4.31: Regression Results for Moderating Influence of Economic Environment on the Relationship between Competitive Strategy Drivers and performance**

<b>Model Summary</b>							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	Sig. F Change
1	0.352	0.124	0.121	0.61984	0.124	42.113	0.000
2	0.361	0.130	0.128	0.44231	0.130	34.285	0.000
3	0.362	0.131	0.130	0.45328	0.131	30.739	0.000
<b>ANOVA<sup>a</sup></b>							
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	16.18	1	16.180	42.113	.000 <sup>b</sup>	
	Residual	114.492	298	0.384			
	Total	130.671	299				
2	Regression	12.547	2	6.274	34.285	.000 <sup>c</sup>	
	Residual	54.346	297	0.183			
	Total	66.893	299				
3	Regression	23.231	3	7.744	30.739	.000 <sup>d</sup>	
	Residual	74.568	296	0.252			
	Total	97.799	299				
<b>Coefficients<sup>a</sup></b>							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
1	(Constant)	1.849	0.202		9.153	0.000	
	CSD	0.39	0.06	0.04	6.500	0.014	
2	(Constant)	1.342	0.675			0.000	
	CSD	0.278	0.12	0.111	2.317	0.000	
	MeE	0.211	0.105	0.101	2.010	0.001	
3	(Constant)	1.116	0.423			0.000	
	CSD	0.256	0.114	0.101	2.246	0.002	
	MeE	0.199	0.100	0.099	1.990	0.000	
	CSD_MeE_Interaction	0.115	0.031	0.028	3.710	0.001	

- a. Predictors: (Constant), CSD
- b. Predictors: (Constant), CSD, MeE
- c. Predictors: (Constant), CSD, MeE, CSD\_MeE\_Interaction
- d. Dependent Variable: OP



Source: Field Data (2019)

Table 4.30 presents results of the moderating effect of the economic aspect on the relationship between competitive strategy drivers and firm performance. The findings show that in step one, CSD accounts for 12.4% of the variation in performance. The model in overall terms is significant ( $F = 42.113$ ,  $P\text{-Value} < 0.05$ ). Beta coefficients were statistically significant ( $\beta = 390$ ,  $t = 6.500$ ,  $P\text{-Value} = 0.014 < 0.05$ ). The results in step one were significant.

In step two, when economic environment was introduced, CSD and economic environment explained 13 percent of the variation in performance. The model was in overall terms significant ( $F = 34.285$ ,  $P\text{-Value} < 0.05$ ). Beta coefficients for CSD were statistically significant ( $\beta = 278$ ,  $t = 2.317$ ,  $P\text{-Value} = 0.000 < 0.05$ ). Beta coefficients for MeE were statistically significant ( $\beta = 211$ ,  $t = 2.010$ ,  $P\text{-Value} = 0.001 < 0.05$ ). The results in step two were significant.

In step three, the interaction term was introduced. CSD, economic environment and interaction term explained 13.1 percent of the variation in performance. The model was in overall terms significant ( $F = 30.739$ ,  $P\text{-Value} = 0.000 < 0.05$ ). Beta coefficients for interaction term were statistically significant ( $\beta = 115$ ,  $t = 3.710$ ,  $P\text{-Value} = 0.001 < 0.05$ ). The results in step three were significant, hence interaction took place.

**Table 4.32: Regression Results for Moderating Influence of Social environment on the Relationship between Competitive Strategy Drivers and Performance**

<b>Model Summary</b>							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change		
1	0.352	0.124	0.121	0.61984	0.124	42.113	0.000
2	0.382	0.146	0.142	0.44231	0.146	37.567	0.001
3	0.388	0.151	0.149	0.45328	0.151	30.323	0.001
<b>ANOVA<sup>a</sup></b>							
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	16.18	1	16.180	42.113	.000 <sup>b</sup>	
	Residual	114.492	298	0.384			
	Total	130.671	299				
2	Regression	15.546	2	7.773	37.567	.001 <sup>c</sup>	
	Residual	61.453	297	0.207			
	Total	76.999	299				
3	Regression	19.569	3	6.523	30.323	.001 <sup>d</sup>	
	Residual	63.674	296	0.215			
	Total	83.243	299				
<b>Coefficients<sup>a</sup></b>							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
1	(Constant)	1.849	0.202		9.153	0.000	
	CSD	0.39	0.06	0.04	6.500	0.014	
2	(Constant)	1.678	0.675			0.000	
	CSD	0.334	0.111	0.111	3.009	0.000	
	MeS	0.297	0.112	0.101	2.652	0.000	
3	(Constant)	1.756	0.423			0.000	
	CSD	0.332	0.104	0.101	3.192	0.000	
	MeS	0.289	0.111	0.099	2.604	0.001	
	CSD_MeS_Interaction	0.221	0.103	0.028	2.146	0.002	

a. Predictors: (Constant), CSD

b. Predictors: (Constant), CSD, MeS

c. Predictors: (Constant), CSD, MeS, CSD\_MeS\_Interaction

d. Dependent Variable: OP

Source: Field Data (2019)

Table 4.31 presents results of the moderating effect of the social aspect on the relationship between competitive strategy drivers and firm performance. The findings revealed that in step one, CSD accounts for 12.4% of the variation in performance. The model is in overall terms significant ( $F= 42.113$ ,  $P\text{-Value} = 0.000 <0.05$ ). Beta coefficients were statistically significant ( $\beta = 390$ ,  $t = 6.500$ ,  $P\text{-Value} = 0.014 <0.05$ ). The results in step one were significant.

In step two, when the social environment was introduced, CSD and social environment explained 14.6 percent of the variation in performance. The model was in overall terms significant ( $F= 37.567$ ,  $P\text{-Value} = 0.001 <0.05$ ). Beta coefficients for CSD were statistically significant ( $\beta = 334$ ,  $t = 23.009$ ,  $P\text{-Value} = 0.000 <0.05$ ). Beta coefficients for MeS were statistically significant ( $\beta = 297$ ,  $t = 2.652$ ,  $P\text{-Value} = 0.000 <0.05$ ). The results in step two were significant.

In step three, the interaction term was introduced. CSD, social environment and interaction term explained 15.1 percent of the variation in performance. The model was in overall terms significant ( $F = 30.323$ ,  $P\text{-Value} = 0.001 <0.05$ ). Beta coefficients for interaction term were statistically significant ( $\beta = .221$ ,  $t = 2.146$ ,  $P\text{-Value} = 0.002 <0.05$ ). The results in step three were significant, hence interaction took place.

**Table 4.33: Regression Results for Moderating Influence of Technological Environment on the Relationship between Competitive Strategy Drivers and Performance**

Model Summary							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change		
1	0.352	0.124	0.121	0.61984	0.124	42.113	0.000
2	0.412	0.170	0.168	0.44231	0.170	46.088	0.002
3	0.457	0.209	0.206	0.45328	0.209	34.202	0.003
ANOVA <sup>a</sup>							
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	16.18	1	16.180	42.113	.000 <sup>b</sup>	
	Residual	114.492	298	0.384			
	Total	130.671	299				
2	Regression	19.453	2	9.727	46.088	.002 <sup>c</sup>	
	Residual	62.679	297	0.211			
	Total	82.132	299				
3	Regression	20.892	3	6.964	34.202	.003 <sup>d</sup>	
	Residual	60.269	296	0.204			
	Total	81.161	299				
Coefficients <sup>a</sup>							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
1	(Constant)	1.849	0.202		9.153	0.000	
	CSD	0.39	0.06	0.04	6.500	0.014	
2	(Constant)	1.432	0.423			0.000	
	CSD	0.376	0.125	0.369	3.008	0.000	
	MeT	0.342	0.111	0.339	3.081	0.000	
3	(Constant)	1.543	0.332			0.000	
	CSD	0.366	0.116	0.362	3.155	0.000	
	MeT	0.375	0.121	0.374	3.099	0.001	
	CSD_MeT_Interaction	0.322	0.101	0.319	3.188	0.000	

a. Predictors: (Constant), CSD

b. Predictors: (Constant), CSD, MeT

c. Predictors: (Constant), CSD, MeT, CSD\_MeT\_Interaction

d. Dependent Variable: OP

Source: Field Data (2019)

Table 4.32 presents findings on the moderating effect of the technological aspect on the relationship between competitive strategy drivers and firm performance. The results show that in step one, CSD accounts for 12.4% of the variation in performance. The model is in overall terms significant ( $F= 42.113$ ,  $P\text{-Value} = 0.000 < 0.05$ ). Beta coefficients were statistically significant ( $\beta = 390$ ,  $t = 6.500$ ,  $P\text{-Value} = 0.014 < 0.05$ ). The results in step one was significant.

In step two when the technological environment was introduced, CSD and technological environment explained 17 percent of the variation in performance. The model was in overall terms significant ( $F= 42.088$ ,  $P\text{-Value} = 0.002 < 0.05$ ). Beta coefficients for CSD were statistically significant ( $\beta = 376$ ,  $t = 3.008$ ,  $P\text{-Value} = 0.000 < 0.05$ ). Beta coefficients for MeT were statistically significant ( $\beta = 342$ ,  $t = 3.081$ ,  $P\text{-Value} = 0.001 < 0.05$ ). The results in step two were significant.

In step three, the interaction term was introduced. CSD, technological environment and interaction term explained 20.9 percent of the variation in performance. The model was in overall terms significant ( $F= 34.202$ ,  $P\text{-Value} = 0.003 < 0.05$ ). Beta coefficients for interaction term were statistically significant ( $\beta = 0.322$ ,  $t = 3.188$ ,  $P\text{-Value} = 0.000 < 0.05$ ).

**Table 4.34: Regression Results for Moderating Influence of Environmental/Ecological Environment on the Relationship between Competitive Strategy Drivers and Performance**

Model Summary							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	Sig. F Change
1	0.352	0.124	0.121	0.61984	0.124	42.113	0.000
2	0.438	0.192	0.187	0.35624	0.068	35.286	0.000
3	0.470	0.221	0.219	0.39657	0.029	27.992	0.000
ANOVA <sup>a</sup>							
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	16.180	1	16.180	42.113	.000 <sup>b</sup>	
	Residual	114.492	298	0.384			
	Total	130.671	299				
2	Regression	15.021	2	7.511	35.286	.000 <sup>c</sup>	
	Residual	63.215	297	0.213			
	Total	78.236	299				
3	Regression	18.222	3	6.074	27.992	.000 <sup>d</sup>	
	Residual	64.229	296	0.217			
	Total	82.451	299				
Coefficients <sup>a</sup>							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
1	(Constant)	1.849	0.202		9.153	0.000	
	CSD	0.390	0.060	0.040	6.500	0.014	
2	(Constant)	1.262	0.361		3.496	0.000	
	CSD	0.278	0.109	0.369	2.550	0.000	
	MeE	0.298	0.101	0.339	2.951	0.000	
3	(Constant)	1.116	0.292		3.822	0.000	
	CSD	0.295	0.104	0.362	2.837	0.000	
	MeE	0.287	0.142	0.374	2.021	0.001	
	CSD_MeE_Interaction	0.278	0.131	0.319	2.122	0.000	

a. Predictors: (Constant), CSD

b. Predictors: (Constant), CSD, MeE

c. Predictors: (Constant), CSD\_MeE\_Interaction

d. Dependent Variable: OP

Table 4.33 shows the moderating effect of the ecological aspect on the relationship.

The results show that in step one, CSD accounts for 12.4% of the variation in performance. The model is overall terms significant ( $F= 42.113$ ,  $P\text{-Value} = 0.000 < 0.05$ ). Beta coefficients were statistically significant ( $\beta = 390$ ,  $t = 6.500$ ,  $P\text{-Value} = 0.014 < 0.05$ ). The results in step one was significant.

In step two when ecological environment was introduced, CSD and ecological environment explained 19.2 percent of the variation in performance. The model was in overall terms significant ( $F= 35.286$ ,  $P\text{-Value} = 0.000 < 0.05$ ). Beta coefficients for CSD were statistically significant ( $\beta = 369$ ,  $t = 2.550$ ,  $P\text{-Value} = 0.000 < 0.05$ ). Beta coefficient for MeE was statistically significant ( $\beta = 339$ ,  $t = 2.951$ ,  $P\text{-Value} = 0.000 < 0.05$ ). The results in step two were significant.

In step three, the interaction term was introduced. CSD, ecological environment and interaction term explained 22.1 percent of the variation in performance. The model was in overall terms significant ( $F= 37.992$ ,  $P\text{-Value} = 0.000 < 0.05$ ). Beta coefficients for interaction term were statistically significant ( $\beta = .319$ ,  $t = 2.122$ ,  $P\text{-Value} = 0.000 < 0.05$ ).

**Table 4.35: Regression Results for Moderating Influence of Legal Environment on the Relationship between Competitive Strategy Drivers and Performance of manufacturing SMEs**

Model Summary							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change		
1	0.352	0.124	0.121	0.61984	0.124	42.113	0.000
2	0.331	0.110	0.109	0.44231	0.110	41.165	0.000
3	0.331	0.110	0.109	0.45328	0.110	33.544	0.000
ANOVA <sup>a</sup>							
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	16.18	1	16.180	42.113	.000 <sup>b</sup>	
	Residual	114.492	298	0.384			
	Total	130.671	299				
2	Regression	18.569	2	9.285	41.165	.000 <sup>c</sup>	
	Residual	66.987	297	0.226			
	Total	85.556	299				
3	Regression	19.564	3	6.521	33.544	.000 <sup>d</sup>	
	Residual	57.545	296	0.194			
	Total	77.109	299				
Coefficients <sup>a</sup>							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
1	(Constant)	1.849	0.202		9.153	0.000	
	CSD	0.39	0.06	0.04	6.500	0.014	
2	(Constant)	1.115	0.423			0.000	
	CSD	0.276	0.147	0.369	1.878	0.000	
	MeL	0.126	0.132	0.339	0.955	0.060	
3	(Constant)	1.109	0.234			0.000	
	CSD	0.288	0.164	0.362	1.756	0.061	
	MeL	0.131	0.133	0.374	0.985	0.055	
	CSD_MeL_Interaction	0.116	0.129	0.319	0.899	0.073	

a. Predictors: (Constant), CSD

b. Predictors: (Constant), CSD, MeL

c. Predictors: (Constant), CSD, MeL, CSD\_MeL\_Interaction

d. Dependent Variable: OP

Source: Field Data (2019)



Table 4.34 presents the findings on moderating effect of the legal aspect on the relationship between competitive strategy drivers and firm performance. The results show that in step one, CSD accounts for 12.4% of the variation in performance. The model is in overall terms significant ( $F= 42.113$ ,  $P\text{-Value} = 0.000 <0.05$ ). Beta coefficients were statistically significant ( $\beta = 390$ ,  $t = 6.500$ ,  $P\text{-Value} = 014 <0.05$ ). The results in step one was significant.

In step two when the legal environment was introduced, CSD and legal environment explained 11 percent of the variation in performance. The model was in overall terms significant ( $F= 41.165$ ,  $P\text{-Value} = 000 <0.05$ ). Beta coefficients for CSD were statistically significant ( $\beta = 369$ ,  $t = 1.878$ ,  $P\text{-Value} = 000 <0.05$ ). Beta coefficient for MeL was statistically significant ( $\beta = 339$ ,  $t = 0.955$ ,  $P\text{-Value} = 060 >0.05$ ). The results in step two were insignificant.

In step three, the interaction term was introduced. CSD, legal environment and interaction term explained 11 percent of the variation in performance. The model was in overall terms significant ( $F= 33.544$ ,  $P\text{-Value} = 000 <0.05$ ). Beta coefficient for interaction term was statistically insignificant ( $\beta = .319$ ,  $t = 0.899$ ,  $P\text{-Value} = 073 >0.05$ ).

**Table 4.36: Results for Moderation Results of the Effect of Macro Environment on competitive strategy drivers and Return on Investment**

<b>Model Summary</b>							
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	Competitive strategy drivers	0.323	0.104	0.081	0.0374771		
2	Competitive strategy drivers Macro environment	0.351	0.123	0.076	0.0375788		
3	Competitive strategy drivers Macro environment Interaction term	0.358	0.128	0.055	0.0379914		
<b>ANOVA</b>							
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Competitive strategy drivers	Regression	0.006	1	0.006	4.418	0.042
		Residual	0.298	298	0.001		
		Total	0.304	299			
2	Competitive strategy drivers Macro environment	Regression	0.007	2	0.004	2.594	0.088
		Residual	0.297	297	0.001		
		Total	0.304	299			
3	Competitive strategy drivers Macro environment Interaction term	Regression	0.008	3	0.003	1.759	0.001
		Residual	0.296	296	0.001		
		Total	0.304	299			
<b>Coefficients</b>							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
1	(Constant)	-0.006	0.032		-0.182	0.857	
	Competitive strategy drivers	0.019	0.009	0.323	2.102	0.042	
2	(Constant)	-0.027	0.04		-1.669	0.007	
	Competitive strategy drivers	0.015	0.01	0.26	1.936	0.003	
	Macro environment	0.009	0.011	0.151	0.891	0.379	
3	(Constant)	0.038	0.151		0.254	0.801	
	Competitive strategy drivers	-0.006	0.048	-0.094	-2.117	0.008	
	Macro environment	-0.009	0.042	-0.144	-2.212	0.003	
	Interaction term	0.006	0.013	0.552	2.448	0.007	
Model 1 Predictors (Constant) Competitive strategy drivers							
Model 2 Predictors: (Constant) Competitive strategy drivers and macro environment							

Model 3 Predictors: (Constant) Competitive strategy drivers, macro environment and Interaction term.  
 Dependent Variable: Return on Investment

Source: Field Data (2019)

The results in Table 4.35 present the moderating effect of macro environment on the relationship between competitive strategy drivers and return on investment. In model one, the result shows that the association between competitive strategy drivers and ROI was significant ( $R = 323$ ,  $R^2=0.104$ ,  $P\text{-value}<0.05$ ). In model two ( $R = 351$ ,  $R^2 = .123$ ,  $P\text{-value}<0.05$ ) and in model three ( $R = 358$ ,  $R^2 = 0.128$ ,  $P\text{-value}<0.05$ ), thus a progressive increase in the value of the coefficient of variation in each step is an indication of the moderating influence of macro environment.

Coefficient of determination  $R^2 = 0.128$  implies that macro environment influences the relationship between competitive strategy drivers and ROI by 12.8%. The value of the interaction term (CSD \* ME) had a significant influence ( $\beta = 006$ ,  $P\text{-value} = 007<0.05$ ) thus confirming a moderation effect of the macro environment.

**Table 4.37: Results for Moderating Effect of Macro Environment on The Relationship between Competitive Strategy Drivers and Return on Assets.**

Model Summary								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2
1	.401a	0.16	0.158	0.6648	0.16	559.893	1	287
2	.461b	0.212	0.211	0.5816	0.052	88.989	1	286
3	.484c	0.234	0.231	0.5764	0.022	6.182	1	285
ANOVA <sup>a</sup>								
Model		Sum of Squares	df	Mean Square	F	Sig.		
1	Regression	247.449	1	247.449	559.893	.000 <sup>b</sup>		

	Residual	126.842	287	.442				
	Total	374.291	288					
2	Regression	277.550	2	138.775	410.267	.000 <sup>c</sup>		
	Residual	96.741	286	.338				
	Total	374.291	288					
3	Regression	279.604	3	93.201	280.528	.000 <sup>d</sup>		
	Residual	94.687	285	.332				
	Total	374.291	288					
<b>Coefficients<sup>a</sup></b>								
		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta			t	Sig.
1	(Constant)	.386	.092		4.201	.000	.205	.567
	competitive strategy drivers	.847	.036	.811	23.662	.000	.779	.920
2	(Constant)	.120	.085		1.402	.162	-.048	.288
	competitive strategy drivers	.638	.039	.611	16.547	.000	.562	.714
	macro environment	.332	.035	.348	9.433	.000	.263	.401
3	(Constant)	.391	.138		2.832	.005	.119	.663
	competitive strategy drivers	.614	.040	.587	15.526	.000	.536	.691
	macro environment	.239	.051	.251	4.672	.000	.138	.339
	Interaction	.155	.062	.135	2.486	.013	.032	.277
a. Dependent Variable: return on assets								
b. Predictors: (Constant), competitive strategy drivers								
c. Predictors: (Constant), competitive strategy drivers, macro environment								
d. Predictors: (Constant), competitive strategy drivers, macro environment, interaction								

The findings in Table 4.36 indicated that in model one significant association exist ( $R = 0.401$ ,  $R^2 = 0.160$  P-value = 0.000) In model two ( $R = 0.461$ ,  $R^2 = 0.212$ , P-value = 0.000). in model three ( $R = 0.484$ ,  $R^2 = 0.234$ , P-value = 0.000). the results showed significant R squared change in each step. the interaction term (CSD\*ME) had a statistically significant influence ( $\beta = 0.135$   $t = 2.486$ , p-value = 0.13). Thus, macro environment moderate's the relationship between competitive strategy drives and return on assets.

**Table 4.38: Results for Moderating Effect of Macro Environment on The Relationship between Competitive Strategy Drivers and Return on Equity.**

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	
1	.336 <sup>a</sup>	.113	.112	.77896	.113	346.647	1	287	
2	.342 <sup>b</sup>	.117	.115	.62474	.004	160.180	1	286	
3	.384 <sup>c</sup>	.147	.146	.62024	.030	5.165	1	285	
ANOVA <sup>a</sup>									
Model		Sum of Squares	df	Mean Square	F	Sig.			
1	Regression	210.339	1	210.339	346.647	.000 <sup>b</sup>			
	Residual	174.146	287	.607					
	Total	384.484	288						
2	Regression	272.858	2	136.429	349.545	.000 <sup>c</sup>			
	Residual	111.627	286	.390					

	Total	384.484	288					
3	Regression	274.845	3	91.615	238.146	.000 <sup>d</sup>		
	Residual	109.640	285	.385				
	Total	384.484	288					
<b>Coefficients<sup>a</sup></b>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.450	.108		4.177	.000	.238	.662
	competitive strategy drivers	.783	.042	.740	18.618	.000	.701	.866
2	(Constant)	.061	.092		.667	.505	-.119	.242
	competitive strategy drivers	.482	.041	.455	11.666	.000	.401	.563
	macro environment	.476	.038	.494	12.656	.000	.402	.550
3	(Constant)	.319	.146		2.193	.029	.033	.606
	competitive strategy drivers	.460	.042	.435	10.937	.000	.378	.543
	macro environment	.385	.055	.399	7.039	.000	.278	.493
	interaction	.148	.065	.129	2.273	.024	.020	.277
a. Dependent Variable: return on equity								
b. Predictors: (Constant), competitive strategy drivers								
c. Predictors: (Constant), competitive strategy drivers, macro environment								
d. Predictors: (Constant), competitive strategy drivers, macro environment, interaction								

The results in Table 4.37 revealed that in model one the relationship was significant ( $R = 0.336$ ,  $R^2 = 0.113$ ,  $P\text{-value} = 0.000$ ). In model two ( $R = 0.342$ ,  $R^2 = 0.117$ ,  $P\text{-value} = 0.000$ ). In model three ( $R = 0.384$ ,  $R^2 = 0.147$ ,  $P\text{-value} = 0.000$ ). Further in model three the interaction term (CSD\*ME) was significant ( $\beta = 0.129$   $t = 2.273$ ,  $p\text{-value} = 0.24$ ). Thus, macro environment moderates the relationship between competitive strategy drivers and return on equity.

### 4.13.3 The Relationship between Competitive strategy Drivers, Entrepreneurial Orientation and Firm Performance

#### Test of Hypothesis Three

The third objective was to establish the influence of entrepreneurial orientation on the relationship between competitive strategy drivers and performance of manufacturing SMEs. To achieve this objective the following hypothesis was formulated.

*H<sub>3</sub>: Entrepreneurial orientation intervenes the relationship between competitive strategy drivers and performance of manufacturing SMEs in Nairobi City County, Kenya.*

To establish the influence of entrepreneurial orientation on the relationship between competitive strategy drivers and performance of manufacturing SMEs, path analysis (Baron & Kenny, 1986) four step method was used. The equations used to measure H<sub>3</sub> were;

$$Y_5 = \beta_0 + \beta_1 X + \varepsilon$$

$$W = \beta_0 + \beta_1 X + \varepsilon$$

$$Y_6 = \beta_0 + \beta_1 W + \varepsilon$$

$$Y_7 = \beta_0 + \beta_1 X + \beta_2 W + \varepsilon$$

Step one involved regressing competitive strategy drivers with performance. The process moves to step two if step one yields statistically significant results and if not significant, the process terminates and would be concluded that entrepreneurial

orientation do not intervene the relationship between competitive strategy drivers and performance.

In step two, competitive strategy drivers were regressed against entrepreneurial orientation. If the results are significant, the process moves to step 3 because the necessary condition for an intervening effect exists. In step three the influence of entrepreneurial orientation on performance is tested using a simple linear regression model. A statistically significant effect of entrepreneurial orientation on firm performance is a necessary condition in testing for the intervening effect. Finally, step four tests the influence of competitive strategy drivers on firm performance while controlling for the effect of entrepreneurial orientation. These tests were done using multiple linear regression analysis. The influence of competitive strategy drivers on firm performance should be statistically insignificant when entrepreneurial orientation is controlled. Results are presented in Tables 4.38, 4.39, 4.40, 4.41, 4.42, 4.43 and 4.44 respectively.



**Table 4.39: Regression Results for Intervening effect of Entrepreneurial Orientation on the relationship between Competitive strategy Drivers and Performance of Manufacturing SMEs (Non-financial)**

<b>Model Summary</b>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.352	0.124	0.121	0.61984		
2	0.137	0.019	0.015	0.7207		
3	0.579	0.335	0.333	0.54		
4	0.641	0.411	0.407	0.50916		
<b>ANOVA</b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.180	1	16.180	42.113	0.000
	Residual	114.492	298	0.384		
	Total	130.671	299			
2	Regression	2.946	1	2.946	5.672	0.018
	Residual	154.784	298	0.519		
	Total	157.730	299			
3	Regression	43.767	1	43.767	150.080	0.000
	Residual	86.904	298	0.292		
	Total	130.671	299			
4	Regression	53.676	2	26.838	103.525	0.000
	Residual	76.995	297	0.259		
	Total	130.671	299			
<b>Coefficients</b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.849	0.202		9.153	0.000
	CSD	0.39	0.06	0.04	6.500	0.014
2	(Constant)	2.056	0.235		8.749	0.000
	CSD	0.166	0.070	0.531	2.371	0.018
3	(Constant)	1.767	0.116		15.233	0.000
	EO	0.527	0.043	0.403	12.256	0.000
4	(Constant)	1.849	0.202		9.153	0.000
	CSD	0.390	0.060	0.151	1.500	0.055
	EO	0.492	0.241	0.322	2.041	0.065

Model 1 Predictors (Constant) Competitive strategy drivers

Model 2 Predictors: (Constant) Competitive strategy drivers

Model 3 Predictors: (Constant) entrepreneurial orientation

Model 4 Predictors: (Constant) competitive strategic drivers, entrepreneurial orientation  
Source: Field Data (2019)

The impact of entrepreneurship education on the association between competitive strategy drivers and performance were presented in Table 4.38. The results show that competitive strategy drivers had a substantial impact on firm performance in step one ( $R^2 = .124$ ,  $F = 42.113$ ,  $P = .000 < .05$ ,  $\beta = .39$ ,  $t = 6.500$ ,  $P = 0.0140 < .05$ ). Step one of intervening effect, which stipulates that in without mediating variables, independent variable should be significantly related with dependent variable was met.

Step two revealed that competitive strategy drivers had a significant impact on EO ( $R^2 = .019$ ,  $F = 5.672$ ,  $P = .018 < .05$ ,  $\beta = .166$ ,  $t = 2.371$ ,  $P = 0.018 < 0.05$ ). This means that step two was met. The third step indicated that EO has a significant effect on business performance ( $R^2 = .335$ ,  $F = 150.08$ ,  $P = .000 < .05$ ,  $\beta = .527$ ,  $t = 12.256$ ,  $P = 0.000 < 0.05$ ), satisfying the third condition that the intervening variable must be significantly related to the dependent variable.

The fourth step revealed that by controlling EO, the influence of competitive strategy drivers on firm performance was insignificant ( $R^2 = .411$ ,  $F = 103.525$ ,  $P = .000 < .05$ ,  $\beta = .390$ ,  $t = 1.500$ ,  $P = 0.055 > 0.05$ ). Hence step four was met. EO intervenes in the association between competitive strategy drivers and performance since the four requirements were met.

**Table 4.40: Regression Results for Intervening effect of Innovation on the relationship Between Competitive strategy Drivers and Performance of Manufacturing SMEs**

<b>Model Summary</b>						
Model	R	R Square		Adjusted R Square	Std. Error of the Estimate	
1	0.352	0.124		0.121	0.61984	
2	0.359	0.129		0.127	0.54324	
3	0.366	0.134		0.132	0.02659	
4	0.389	0.151		0.148	0.02226	
<b>ANOVA</b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.180	1	16.180	42.113	0.000
	Residual	114.492	298	0.384		
	Total	130.671	299			
2	Regression	12.452	1	12.452	144.509	0.001
	Residual	25.678	298	0.086		
	Total	38.130	299			
3	Regression	5.342	1	5.342	92.249	0.010
	Residual	17.257	298	0.058		
	Total	22.599	299			
4	Regression	9.121	2	4.561	95.080	0.026
	Residual	14.246	297	0.048		
	Total	23.367	299			
<b>Coefficients</b>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.006	0.032		-0.188	0.857
	CSD	0.019	0.009	0.015	2.111	0.042
2	(Constant)	0.277	0.122		2.266	0.000
	CSD	0.326	0.138	0.317	2.362	0.000
3	(Constant)	1.658	0.428		3.874	0.000
	I	0.452	0.128	0.439	3.531	0.010
4	(Constant)	0.025	0.011		2.227	0.000
	CSD	0.045	0.029	0.043	1.559	0.075

	I	0.033	0.042	0.031	0.786	0.060
--	---	-------	-------	-------	-------	-------

Source: Field Data (2019)

The results show that market orientation components had a substantial impact on firm performance in step one ( $R^2 = .124$ ,  $F = 42.113$ ,  $P = .000 < .05$ ,  $\beta = .39$ ,  $t = 6.500$ ,  $P = 0.0140 < .05$ ). Condition one of mediation was satisfied, that is, dependent variable is significantly related with independent variable in the absence of intervening variable.

Step two of mediation revealed that competitive strategy drivers have a significant impact on EO ( $R^2 = .129$ ,  $ANOVA = 144.509$ ,  $P\text{-value} < 0.05$ ,  $\beta = 0.317$ ,  $t = 2.362$ ,  $P\text{-value} = 0.000 < .05$ ), thus, condition is met. The third step indicated that EO has a significant effect on firm performance ( $R^2 = .134$ ,  $ANOVA = 92.249$ ,  $P\text{-value} = .000 < .05$ ,  $\beta = .439$ ,  $t = 3.531$ ,  $P = 0.000 < 0.05$ ), satisfying the third condition that the intervention variable must be significantly related to the dependent variable.

The fourth step revealed that by controlling EO, the involvement of competitive strategy drivers on firm performance was insignificant ( $R^2 = .151$ ,  $F = 95.08$ ,  $P\text{-value} < .05$ ,  $\beta = .031$ ,  $t = 0.786$ ,  $P\text{-value} = 0.060 > 0.05$ ), hence condition four of mediation was met. EO intervenes in the association between competitive strategy drivers and firm performance .

**Table 4.41: Regression Results for Intervening effect of Proactivity on the relationship between Competitive strategy Drivers and Performance of Manufacturing SMEs (Non – financial)**

<b>Model Summary</b>						
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	
1		0.352	0.124	0.121	0.61984	
2		0.312	0.097	0.095	0.43426	
3		0.382	0.146	0.144	0.15623	
4		0.402	0.162	0.156	0.23157	
<b>ANOVA</b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.180	1	16.180	42.113	0.000
	Residual	114.492	298	0.384		
	Total	130.671	299			
2	Regression	7.349	1	7.349	64.653	0.001
	Residual	33.873	298	0.114		
	Total	41.222	299			
3	Regression	9.453	1	9.453	123.628	0.010
	Residual	22.786	298	0.076		
	Total	32.239	299			
4	Regression	11.891	2	5.946	67.919	0.026
	Residual	25.999	297	0.088		
	Total	37.890	299			
<b>Coefficients</b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.006	0.032		-0.188	0.857
	CSD	0.019	0.009	0.016	2.111	0.042
2	(Constant)	0.005	0.122		0.041	0.000
	CSD	0.145	0.138	0.144	1.051	0.000
3	(Constant)	0.035	0.428		0.082	0.000
	P	0.327	0.128	0.319	2.555	0.010
4	(Constant)	0.044	0.011		4.000	0.000
	CSD	0.026	0.029	0.024	0.897	0.080
	P	0.022	0.042	0.020	0.524	0.150

Source: Field Data (2019)

The findings show that CSD influences performance of manufacturing SMEs significantly ( $R^2 = 124$ ,  $F = 42.113$ ,  $P\text{-value} < 0.05$ ,  $\beta = 0.39$ ,  $P\text{-value} < 0.05$ ). Condition one of mediation has been met, thus, the analysis proceeds to step two. In step two the model of proactivity on competitive strategy drivers was significant ( $R^2 = 0.097$ ,  $\beta = 0.145$ ,  $P\text{-value} < 0.05$ ). This further confirmed that condition of mediation in step two was satisfied hence the analysis proceeded to step three.

In the third step non-financial performance was regressed on proactivity. The results indicated a significant explanatory power of  $R^2 = 0.146$ . Further beta coefficient ( $\beta = 0.327$ ,  $P\text{-value} < 0.05$ ) of proactivity was significant. This confirmed that step three of mediation was met hence the analysis proceeded to step four. In step four nonfinancial performance was regressed on CSD and proactivity. The results revealed that by controlling proactivity, the association between CSD and non-financial performance become insignificant, thus partial mediation took place.

**Table 4.42: Regression Results for Intervening effect of Risk Appetite on the relationship between Competitive strategy Drivers and performance of manufacturing SMEs**

<b>Model Summary</b>						
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	
1		0.352	0.124	0.121	0.61984	
2		0.388	0.151	0.148	0.37865	
3		0.403	0.162	0.158	0.32357	
4		0.413	0.171	0.17	0.33236	
<b>ANOVA</b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.180	1	16.180	42.113	0.000
	Residual	114.492	298	0.384		
	Total	130.671	299			
2	Regression	11.675	1	11.675	139.177	0.001
	Residual	24.998	298	0.084		
	Total	36.673	299			
3	Regression	8.432	1	8.432	183.747	0.010
	Residual	13.675	298	0.046		
	Total	22.107	299			
4	Regression	22.564	2	11.282	73.361	0.002
	Residual	45.675	297	0.154		
	Total	68.239	299			
<b>Coefficients</b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.006	0.032		-0.188	0.857
	CSD	0.019	0.009	0.018	2.111	0.042
2	(Constant)	0.231	0.117		1.974	0.000
	CSD	0.227	0.100	0.225	2.270	0.000
3	(Constant)	0.324	0.121		2.678	0.000
	RA	0.428	0.179	0.427	2.391	0.010
4	(Constant)	0.331	0.117		2.829	0.000
	CSD	0.387	0.265	0.386	1.460	0.150
	RA	0.356	0.278	0.355	1.281	0.090

Source: Field Data (2019)

Using four steps of testing mediation, in step one non-financial performance was regressed on CSD. The results revealed a statistically significant association ( $R^2 = 0.124$ ,  $\beta = 0.39$   $P$ -value  $< 0.05$ ). In step two when risk appetite was regressed on CSD, the results were significant ( $R^2 = 0.151$ ,  $\beta = 0.227$ ,  $P$ -value  $< 0.05$ ). Condition in this step was satisfied hence the analysis moved to step three.

In step three non-financial performance was regressed on risk appetite, the findings indicated a statistically significant association with explanatory power of  $R^2 = 0.162$  and beta coefficient of 0.428. This necessitated step four analysis. The fourth step regressed non-financial performance on both CSD and risk appetite the explanatory power improved to 17.1 percent. Beta coefficient of risk appetite was insignificant  $p$ -value = 0.150  $> 0.05$ . Hence partial mediation took place.



**Table 4.43: Regression Results for Intervening effect of Competitive Aggressiveness on the relationship between Competitive strategy Drivers and performance of manufacturing SMEs**

Model Summary						
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	
1		0.352	0.124	0.121	0.61984	
2		0.417	0.174	0.172	0.56423	
3		0.403	0.162	0.16	0.54378	
4		0.478	0.228	0.226	0.51675	
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.180	1	16.180	42.113	0.000
	Residual	114.492	298	0.384		
	Total	130.671	299			
2	Regression	6.564	1	6.564	47.172	0.000
	Residual	41.467	298	0.139		
	Total	48.031	299			
3	Regression	3.459	1	3.459	18.995	0.000
	Residual	54.267	298	0.182		
	Total	57.726	299			
4	Regression	8.453	2	4.227	18.770	0.000
	Residual	66.876	297	0.225		
	Total	75.329	299			
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.006	0.032		-0.188	0.857
	CSD	0.019	0.009	0.018	2.111	0.042
2	(Constant)	0.004	0.117		0.034	0.000
	CSD	0.178	0.100	0.225	1.780	0.000
3	(Constant)	0.034	0.121		0.281	0.000
	CA	0.245	0.111	0.427	2.207	0.010
4	(Constant)	0.056	0.010		5.600	0.000
	CSD	0.437	0.214	0.386	2.042	0.070
	CA	0.449	0.312	0.355	1.439	0.080

Model 1 Predictors (Constant) competitive strategy drivers

Model 2 Predictors: (Constant) competitive strategy drivers

Model 3 Predictors: (Constant) competitive aggressiveness

Model 4 Predictors: (Constant) competitive strategic drivers, competitive aggressiveness

Source: Field Data (2019)

In order to test the mediating effect of competitive aggressiveness, the study followed four steps of testing mediation in the first step, non-financial performance was regressed on CSD. This direct relationship was significant ( $R^2 = 0.124$ ,  $\beta = 0.39$ ,  $p\text{-value} < 0.05$ ). The second step regressed competitive aggressiveness on CSD. The findings indicated a significant association, hence the analysis moved to step three.

In the third step, when non-financial performance was regressed on competitive aggressiveness, the beta coefficient ( $\beta = 0.245$ ,  $P\text{-value} < 0.05$ ) was significant, thus fulfilling the requirement for condition three. This necessitated fourth step analysis. In the fourth step, by controlling the effect of competitive aggressiveness on the relationship between CSD and non-financial performance, the association become insignificant. Thus, competitive aggressiveness mediated the association between CSD and non-financial performance.

**Table 4.44: Regression Results for Intervening effect of Entrepreneurial Orientation on the relationship between Competitive Strategy Drivers and Return on Investment of Manufacturing SMEs**

Model Summary							
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	CSD	0.323	0.104	0.081	0.0374771		
2	CSD	0.531	0.282	0.263	0.72446		
3	EO	0.403	0.162	0.14	0.0362395		
4	CSD & EO	0.423	0.179	0.134	0.0363638		
ANOVA							
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	CSD	Regression	0.006	1	0.006	4.418	0.042
		Residual	0.298	298	0.001		
		Total	0.304	299			
2	CSD	Regression	7.847	1	7.847	14.951	0
		Residual	156.45	298	0.525		
		Total	164.297	299			
3	EO	Regression	0.01	1	0.01	7.364	0.01
		Residual	0.298	298	0.001		
		Total	0.308	299			
4	CSD & EO	Regression	0.011	2	0.005	4.027	0.026
		Residual	0.297	297	0.001		
		Total	0.308	299			
Coefficients							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
1	(Constant)	-0.006	0.032		-0.182	0.857	
	CSD	0.019	0.009	0.323	2.102	0.042	
2	(Constant)	1.273	0.628		2.028	0.05	
	CSD	0.676	0.175	0.531	3.867	0	
3	(Constant)	-0.007	0.026		-0.274	0.786	
	EO	0.019	0.007	0.403	2.714	0.01	
4	(Constant)	-0.025	0.033		-0.751	0.458	
	CSD	0.009	0.01	0.151	0.861	0.395	
	EO	0.015	0.008	0.322	1.834	0.075	

Source: Field Data (2019)

The study tested the moderating effect of EO on the association between CSD and return on investment. Using four steps of testing mediation, in step one the effect of CSD on return on asset was significant ( $R^2 = 0.104$ ,  $\beta = 0.019$ ,  $p\text{-value} < 0.05$ ). Requirements in step one was satisfied hence analysis escalated to step two. In step two, EO was regressed on CSD, the findings confirmed a significant association with explanatory power of 28.2 percent and beta coefficient of 0.676. the analysis proceeded to step three.

The third step of mediation regressed return on investment on EO. It was revealed that EO statistically significantly influence return on assets, that is, goodness of fit of 16.2 percent and beta coefficient of 0.019. Condition for step three was satisfied hence analysis moved to step four. In the fourth step, the findings showed that when EO was controlled, the association between CSD and return on investment become insignificant. Thus, EO partially mediated the relationship between CSD and return on assets.

**Table 4.45: Regression Results for Intervening Effect of Entrepreneurial Orientation on the Relationship between Competitive Strategy Drivers and Return on Assets of Manufacturing SMEs**

Model Summary								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2
1	.401 <sup>a</sup>	.160	.159	.66581	.158	555.831	1	290
2	.366 <sup>a</sup>	.133	.131	.68854	.133	412.283	1	291
3	.333 <sup>a</sup>	.110	.108	.81854	.110	268.825	1	291
4	.417 <sup>a</sup>	.174	.172	.65785	.172	289.064	2	288

ANOVA <sup>a</sup>								
Model		Sum of Squares	df	Mean Square	F	Sig.		
1	Regression	246.401	1	246.401	555.831	.000 <sup>b</sup>		
	Residual	128.558	290	.443				
	Total	374.959	291					
2	Regression	195.460	1	195.460	412.283	.000 <sup>b</sup>		
	Residual	137.960	291	.474				
	Total	333.420	292					
3	Regression	180.114	1	180.114	268.825	.000 <sup>b</sup>		
	Residual	194.971	291	.670				
	Total	375.085	292					
4	Regression	250.195	2	125.097	289.064	.000 <sup>b</sup>		
	Residual	124.637	288	.433				
	Total	374.832	290					
Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.392	.092		4.264	.000	.211	.573
	competitive strategy drivers	.847	.036	.811	23.576	.000	.776	.918
2	(Constant)	.646	.095		6.824	.000	.460	.832
	competitive strategy drivers	.750	.037	.766	20.305	.000	.677	.822
3	(Constant)	.585	.118		4.956	.000	.353	.817
	EO	.739	.045	.693	16.396	.000	.650	.827
4	(Constant)	.284	.098		2.898	.004	.091	.476
	competitive strategy drivers	.715	.056	.685	12.690	.000	.604	.826
	EO	.173	.158	.162	1.095	.063	.060	.286
<b>Source: Field Data, 2019</b>								

The study used for steps of testing mediation effect. In step one the effect of CSD on ROA was significant ( $R = 0.401$ ,  $R^2 = 0.160$ ,  $\beta = 0.811$ ,  $P\text{-Value} = 0.000$ ). In step two the effect of CSD on EO was significant ( $R = 0.366$ ,  $R^2 = 0.133$ ,  $\beta = 0.766$ ,  $P\text{-value} = 0.000$ ). In step three the effect of EO on ROA was significant ( $R = 0.333$ ,  $R^2 = 0.110$ ,  $\beta = 0.693$ ,  $P\text{-value} = 0.000$ ). In step four, when EO was controlled, the relationship between CSD and ROA became insignificant ( $R = 0.417$ ,  $R^2 = 0.174$ ,  $\beta = 0.162$ ,  $P\text{-value} = 0.063$ ). Thus, EO partially significantly mediates the relationship between CSD and ROA

**Table 4.46: Regression Results for Intervening Effect of Entrepreneurial Orientation on The Relationship Between Competitive Strategy Drivers and Return on Equity of Manufacturing SMEs**

Model Summary								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2
1	.336 <sup>a</sup>	.113	.112	.78404	.113	344.426	1	291
2	.366 <sup>a</sup>	.133	.131	.68854	.133	412.283	1	291
3	.394 <sup>a</sup>	.155	.154	.93137	.155	158.900	1	292
4	.438 <sup>a</sup>	.192	.191	.78485	.192	172.498	2	289
ANOVA <sup>a</sup>								
Model		Sum of Squares	df	Mean Square	F	Sig.		
1	Regression	211.725	1	211.725	344.426	.000 <sup>b</sup>		
	Residual	178.883	291	.615				
	Total	390.608	292					
2	Regression	195.460	1	195.460	412.283	.000 <sup>b</sup>		
	Residual	137.960	291	.474				
	Total	333.420	292					
3	Regression	137.836	1	137.836	158.900	.000 <sup>b</sup>		
	Residual	253.293	292	.867				
	Total	391.129	293					
4	Regression	212.512	2	106.256	172.498	.000 <sup>b</sup>		
	Residual	178.019	289	.616				
	Total	390.531	291					

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.459	.108		4.244	.000	.246	.672
	competitive strategy drivers	.782	.042	.736	18.559	.000	.699	.865
2	(Constant)	.646	.095		6.824	.000	.460	.832
	competitive strategy drivers	.750	.037	.766	20.305	.000	.677	.822
3	(Constant)	.738	.134		5.520	.000	.475	1.001
	EO	.644	.051	.594	12.606	.000	.544	.745
4	(Constant)	.407	.117		3.490	.001	.178	.637
	competitive strategy drivers	.723	.065	.680	11.046	.000	.594	.852
	EO	.079	.067	.073	1.184	.237	-.052	.211

**Source: Field Data, 2019**

The results in Table 4.45, indicated that conditions for step one of testing mediation was satisfied ( $R = 0.336$ ,  $R^2 = 0.113$ ,  $\beta = 0.736$ ,  $P\text{-value} = 0.000$ ). In step two the effect of CSD on EO was significant ( $R = 0.366$ ,  $R^2 = 0.133$ ,  $\beta = 0.766$ ,  $P\text{-value} = 0.000$ ). The findings in step three was also significant ( $R = 0.394$ ,  $R^2 = 0.155$ ,  $\beta = 0.594$ ,  $P\text{-value} = 0.000$ ). In step four by controlling the influence of EO, the association between CSD and ROE became insignificant ( $R = 0.438$ ,  $R^2 = 0.192$ ,  $\beta = 0.073$ ,  $P\text{-value} = 0.237$ ). Hence EO partially mediates the relationship between CSD and ROE.

#### **4.13.4 The Relationship between Competitive Strategy Drivers, Macro Environment, Entrepreneurial Orientation and Performance of Manufacturing SMEs**

##### **Test of Hypothesis Four**

The fourth study objective was to determine the joint effect of competitive strategy drivers, macro environment and entrepreneurial orientation on performance of manufacturing SMEs. To achieve this objective the following hypothesis was formulated.

*H<sub>4</sub>: Competitive strategy drivers, macro environment and entrepreneurial orientation jointly have significant influence on the performance of manufacturing SMEs in Nairobi City County, Kenya.*

To determine the joint effect of competitive strategy drivers, macro environment and entrepreneurial orientation on performance, multiple linear regression analysis was conducted. The equation used to measure H<sub>4</sub> was:

$$Y_8 = \beta_0 + \beta_1 X + \beta_2 Z + \beta_3 W + \varepsilon$$



**Table 4.47: Result of The Joint Effect of Competitive Strategy Drivers, Macro Environment and Entrepreneurial Orientation on Non-Financial Performance of Manufacturing SMEs**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.352 <sup>a</sup>	0.124	0.121	0.6198		
2	.659 <sup>a</sup>	0.435	0.429	0.4995		
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.18	1	16.18	42.113	.000 <sup>b</sup>
	Residual	114.492	298	0.384		
	Total	130.671	299			
2	Regression	56.809	3	18.936	75.887	.000 <sup>b</sup>
	Residual	73.862	296	0.25		
	Total	130.671	299			
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.849	0.202	9.143	9.143	.000
	Competitive strategy drivers	0.39	0.06	0.352	6.489	.000
2	(Constant)	0.569	0.198		2.876	.004
	Competitive strategy drivers	0.225	0.054	0.203	4.158	.000
	Macro environment	0.238	0.067	0.186	3.543	.000
	Entrepreneurial orientation	0.437	0.043	0.48	10.132	.000

a. Dependent Variable: Firm performance

b. Predictors: (Constant), Entrepreneurial orientation, Competitive strategy drivers, Macro environment

Table 4.46 presents results of the joint effect of CSD, EO and macro environment on non-financial performance of manufacturing SMEs. The findings showed that the influence of competitive strategy drivers, macro environment and entrepreneurial orientation jointly on performance of manufacturing SMEs was significant ( $R^2 = 0.435$ ,  $F = 75.887$ ,  $P\text{-value} = 0.000 < 0.05$ ) implying that the predictor variables jointly explains 43.5% of variation in performance of manufacturing SMEs. The co-efficient  $\beta$  were also significant and  $P\text{-value} = 0.000 < 0.05$ ) suggesting that independently competitive strategy drivers, macro environment and entrepreneurial orientation are significant in explaining firm performance.

The joint effect was thus higher and significant ( $R^2 = 0.435$ ,  $F = 75.887$ ) compared to the individual effect of individual variables ( $R^2 = 124$ ,  $F\text{-value} = 80.195$ ). In view of this finding, the hypothesis was supported. From this regression model, it is thus confirmed that performance of manufacturing SMEs in Nairobi City County is influenced to a high degree by the combination of the competitive strategy drivers, macro environment and entrepreneurial orientation than the individual competitive strategy drivers.

**Table 4.48: Result of the Joint Effect of Competitive Strategy Drivers, Macro Environment and Entrepreneurial Orientation on Return on Investment**

Model Summary							
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	CSD	0.323	0.104	0.081	0.03748		
2	Joint effect	0.527	0.278	0.196	0.03506		
ANOVA							
Model			Sum of Squares	df	Mean Square	F	Sig.
1	Competitive strategy drivers	Regression	0.006	1	0.006	4.418	0.042
		Residual	0.298	298	0.001		
		Total	0.304	299			
2	Joint effect	Regression	0.017	4	0.004	3.37	0.02
		Residual	0.295	295	0.001		
		Total	0.312	299			
Coefficients							
Model		Unstandardized Coefficients		Standardized Coefficients			
		B	Std. Error	Beta	t	Sig	
1	Constant	-0.006	0.032		-0.182	0.857	
	Competitive strategy driver	0.019	0.009	0.323	2.102	0.042	
2	Constant	-0.112	0.051	0.117	-2.194	0.035	
	Competitive strategy driver	0.007	0.011	0.23	0.613	0.004	
	Macro environment	0.214	0.01	0.265	2.432	0.016	
	Entrepreneurial Orientation	0.012	0.008	0.273	1.481	0.008	

Source: Field Data (2019)

The findings showed that the influence of competitive strategy drivers, macro environment and entrepreneurial orientation jointly on return on investment was significant ( $R^2 = 0.278$ ,  $F = 3.37$ ,  $P\text{-value} = 0.02 < 0.05$ ) implying that the predictor variables jointly explains 27.8% of variation in return on investment. The co-efficient  $\beta$  were also significant and  $P\text{-value} < 0.05$ ) suggesting that independently competitive strategy drivers, macro environment and entrepreneurial orientation are significant in explaining return on investment.

The joint effect was thus higher and significant ( $R^2 = 0.278$ ,  $F = 3.37$ ,  $P\text{-value} = 0.02 < 0.05$ ) compared to the individual effect ( $R^2 = 0.104$ ,  $F\text{-value} = 4.418$ ,  $P\text{-value} = 0.042 < 0.05$ ). In view of this finding, the hypothesis was supported, thus joint effect is greater and significant than individual effect.

From this regression model, it is thus confirmed that ROI of manufacturing SMEs in Nairobi City County is influenced to a high degree by the combination of the competitive strategy drivers, macro environment and entrepreneurial orientation than the individual competitive strategy drivers.

**Table 4.49: Results of Joint Effect of Competitive Strategy Drivers, Macro Environment and Entrepreneurial Orientation on Return on Assets.**

Model Summary								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2
1	.401 <sup>a</sup>	.160	.259	.66581	.158	555.831	1	290
2	.563 <sup>b</sup>	.317	.315	.57853	.157	46.496	2	286
ANOVA <sup>a</sup>								
Model		Sum of Squares	df	Mean Square	F	Sig.		
1	Regression	246.401	1	246.401	555.831	.000 <sup>b</sup>		
	Residual	128.558	290	.443				
	Total	374.959	291					
2	Regression	278.693	3	92.898	277.554	.000 <sup>c</sup>		
	Residual	95.724	286	.335				
	Total	374.417	289					
Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.392	.092		4.264	.000	.211	.573
	competitive strategy drivers	.847	.036	.811	23.576	.000	.776	.918
2	(Constant)	.016	.103		.157	.875	-.187	.219
	competitive strategy drivers	.625	.039	.598	15.974	.000	.548	.702
	macro environment	.323	.035	.340	9.199	.000	.254	.393
	Entrepreneurial orientation	.053	.030	.057	1.804	.072	-.005	.111
a. Dependent Variable: return on assets								
b. Predictors: (Constant), competitive strategy drivers								
c. Predictors: (Constant), competitive strategy drivers, Entrepreneurial orientation, macro environment								

The results in table 4.48 revealed that the joint effect of corporate strategy drives, macro environment and Entrepreneurial orientation on return on assets ( $R = 0.563$ ,  $R^2 = 0.317$ ,  $P\text{-value} = 0.000$ ) was significantly greater than the individual effect of competitive strategy drives on return on assets ( $R = 0.401$ ,  $R^2 = 0.160$ ,  $P\text{-value} = 0.000$ ). Thus, corporate strategy drivers, macro environment and entrepreneurial orientation collectively significantly influence return on assets for manufacturing SMEs in Nairobi City County.

**Table 4.50: Results of Joint Effect of Competitive Strategy Drivers, Macro Environment and Entrepreneurial Orientation on Return on Equity.**

Model Summary								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1	df2
1	.336 <sup>a</sup>	.113	.112	.78404	.113	344.426	1	291
2	.542 <sup>b</sup>	.293	.290	.62512	.180	79.818	2	286
ANOVA <sup>a</sup>								
Model		Sum of Squares	df	Mean Square	F	Sig.		
1	Regression	211.725	1	211.725	344.426	.000 <sup>b</sup>		
	Residual	178.883	291	.615				
	Total	390.608	292					
2	Regression	272.792	3	90.931	232.690	.000 <sup>c</sup>		
	Residual	111.763	286	.391				
	Total	384.555	289					
Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.459	.108		4.244	.000	.246	.672
	competitive strategy drivers	.782	.042	.736	18.559	.000	.699	.865
2	(Constant)	.032	.111		.287	.775	-.187	.251
	competitive strategy drivers	.478	.042	.452	11.344	.000	.395	.561
	macro environment	.472	.038	.490	12.480	.000	.398	.547
	Entrepreneurial orientation	.017	.032	.018	.531	.596	-.046	.080
a. Dependent Variable: return on equity								
b. Predictors: (Constant), competitive strategy drivers								
c. Predictors: (Constant), competitive strategy drivers, Entrepreneurial orientation,								

The finding of the joint effect on return on equity showed that, collectively the effect of corporate strategy drivers, macro environment and entrepreneurial orientation on return on equity ( $R = 0.542$ ,  $R^2 = 0.293$ ,  $P\text{-value} = 0.000$ ) was significant and greater than the individual effect ( $R = 0.336$ ,  $R^2 = 0.113$ ,  $P\text{-value} = 0.000$ ). It therefore means that collectively corporate strategy drivers, macro environment and Entrepreneurial orientation significantly influence return on equity amongst SMEs in Nairobi City County.

The findings of hypothesis tests are summarized in Table 4.50.

**Table 4.51: Summary of Research Objectives, Hypotheses, Analytical Models and Conclusions**

Objective	Hypothesis	Results	Remarks hypothesis
To establish the relationship between competitive strategy drivers and performance of manufacturing small and medium enterprises.	<b>H<sub>1</sub></b> : Competitive strategy drivers have significant influence on the performance of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> =0.124 F= 42.113, P-Value= 0.000<0.05 β= 0.390, t= 6.489, P-Value=0.000<0.05	Supported
	<b>H<sub>1</sub></b> : Competitive strategy drivers have significant influence on return on investment of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> =0.104 F= 4.418, P-Value= 0.042<0.05 β= 0.0190, t= 2.102, P-Value=0.042<0.05	Supported
	<b>H<sub>1</sub></b> : Competitive strategy drivers have significant influence on return on assets of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> =0.160 F= 555.831, P-Value= 0.000<0.05 β= 0.811, t= 23.576, P-Value=0.000<0.05	Supported
	<b>H<sub>1</sub></b> : Competitive strategy drivers have significant influence on return on equity of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> =0.113 F= 344.426, P-Value= 0.000<0.05 β= 0.736, t= 18.559, P-Value=0.000<0.05	Supported
To assess the influence of macro environment on the relationship between competitive strategy drivers and performance of manufacturing small and medium enterprises.	<b>H<sub>2</sub></b> : Macro environment moderates the effect of competitive strategy drivers on the performance of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> =0.239 F = 46.568, P-Value = 0.000<0.05 B = 0.485, t = 6.696, P-Value = 0.000<0.05	Supported
	<b>H<sub>2a</sub></b> –Political environment moderates the effect of competitive strategy drivers on the performance of manufacturing SMEs in	R <sup>2</sup> =0.177 F = 31.919, P-Value = 0.000 < 0.05 B = 0.005, t = 2.500, P-Value = 0.001 < 0.05	Supported



	Nairobi City County, Kenya.		
	H <sub>2b</sub> - Economic environment moderates the effect of competitive strategy drivers on the performance of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> =0.131 F= 30.739, P-Value = 0.000 < 0.05 B = 0.115, t = 3.710, P-Value = 0.001 < 0.05	Supported
	H <sub>2c</sub> -Social environment moderates the effect of competitive strategy drivers on the performance of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> =0.151 F = 30.323, P-Value = 0.001 < 0.05 B = 0.221, t = 2.146, P-Value = 0.002 < 0.05	Supported
	H <sub>2d</sub> -Technological environment moderates the effect of competitive strategy drivers on the performance of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> = 0.209 F = 34.202, P-Value = 0.003 < 0.05 B = 0.322, t = 3.188, P-Value = 0.000 < 0.05	Supported
	H <sub>2e</sub> -Legal environment moderates the effect of competitive strategy drivers on the performance of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> =0.110 F= 33.544, P-Value= 0.000 < 0.05 $\beta$ =0.116, t=0.899, P-Value=0.073 > 0.05	Not supported
	<b>H<sub>2</sub></b> : Macro environment moderates the effect of competitive strategy drivers on return on investment of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> =0.128 F = 1.759, P-Value = 0.01 < 0.05 $\beta$ = 0.006, t = 2.448, P-Value = 0.007 < 0.05	Supported
	<b>H<sub>2</sub></b> : Macro environment moderates the effect of competitive strategy drivers on return on assets of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> =0.234 F = 280.528, P-Value = 0.000 < 0.05 $\beta$ = 0.135, t = 2.486, P-Value = 0.013 < 0.05	Supported
	<b>H<sub>2</sub></b> : Macro environment moderates the effect of competitive strategy drivers on return on equity of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> =0.147 F = 238.146, P-Value = 0.00 < 0.05 $\beta$ = 0.129, t = 2.273, P-Value = 0.024 < 0.05	Supported
To establish the influence of entrepreneurial orientation on the relationship between competitive strategy	<b>H<sub>3</sub></b> : Entrepreneurial orientation on the relationship between competitive strategy drivers and performance of manufacturing small and	R <sup>2</sup> =0.411 F= 103.525, P-Value= 0.000 < 0.05 $\beta$ = 0.390, t= 1.500, P-Value=0.055 > 0.05	Supported

drivers and performance of manufacturing small and medium enterprises.	medium enterprises.		
	H3a Innovation intervenes the relationship between competitive strategy drivers and performance of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> =0.151 F= 95.080, P-Value = 0.026 < 0.05  B = 0.045, t = 1.559, P-Value = 0.075 > 0.05	Supported
	H3b- Proactivity intervenes the relationship between competitive strategy drivers and performance of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> =0.62 F= 67.919, P-Value= 0.026 < 0.05  $\beta$ = 0.026, t= 0.897, P-Value=0.080 > 0.05	Supported
	H3c-Risk appetite intervenes the relationship between competitive strategy drivers and performance of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> = 0.171 F = 73.361, P-Value = 0.002 < 0.05  $\beta$ = 0.356, t = 1.281, P-Value = 0.090 > 0.05	Supported
	H3d-Competitive aggressiveness intervenes the relationship between competitive strategy drivers and performance of manufacturing SMEs in Nairobi City County, Kenya.	R <sup>2</sup> =0.179 F = 4.027, P-Value = 0.026 < 0.05  $\beta$ = 0.437, t = 2.042, P-Value = 0.070 > 0.05	Supported
	<b>H<sub>3</sub>:</b> Entrepreneurial orientation on the relationship between competitive strategy drivers and return on investment of manufacturing small and medium enterprises.	R <sup>2</sup> =0.179 F = 4.027, P-Value = 0.026 < 0.05  $\beta$ = 0.015, t = 1.834, P-Value = 0.075 > 0.05	Supported
	<b>H<sub>3</sub>:</b> Entrepreneurial orientation on the relationship between competitive strategy drivers and return on assets of manufacturing small and medium enterprises.	R <sup>2</sup> =0.174 F = 289.064, P-Value = 0.000 < 0.05  $\beta$ = 0.162, t = 1.095, P-Value = 0.063 > 0.05	Supported
	<b>H<sub>3</sub>:</b> Entrepreneurial orientation on the relationship between competitive strategy drivers and return on equity of manufacturing small and medium enterprises.	R <sup>2</sup> =0.192 F = 172.498, P-Value = 0.000 < 0.05  $\beta$ = 0.073, t = 1.184, P-Value = 0.237 > 0.05	Supported

To determine the joint effect of competitive strategy drivers, entrepreneurial orientation and macro environment on the performance of manufacturing small and medium enterprises.	<b>H<sub>4</sub>:</b> Competitive strategy drivers, entrepreneurial orientation and macro environment on the performance of manufacturing small and medium enterprises.	R <sup>2</sup> =0.435, F= 75.887, P-Value = 0.000 < 0.05	Supported
	<b>H<sub>4</sub>:</b> Competitive strategy drivers, entrepreneurial orientation and macro environment on the return on investment of manufacturing small and medium enterprises.	R <sup>2</sup> =0.278, F = 3.37, P-Value = 0.02 < 0.05	Supported
	<b>H<sub>4</sub>:</b> Competitive strategy drivers, entrepreneurial orientation and macro environment on the return on assets of manufacturing small and medium enterprises.	R <sup>2</sup> =0.317, F = 277.554, P- Value = 0.00 < 0.05	Supported
	<b>H<sub>4</sub>:</b> Competitive strategy drivers, entrepreneurial orientation and macro environment on the return on equity of manufacturing small and medium enterprises.	R <sup>2</sup> =0.293, F = 232.69, P-Value = 0.000 < 0.05	

Source: Field Data (2019)

Table 4.50, revealed quantitative relationship amongst competitive strategy drivers and manufacturer Enterprises' effectiveness (non-financial and financial) in Nairobi City County. The association between competitive strategy drivers and manufacturing SMEs' success is moderated by the macro environment. In addition, EO affects the association between CSD and output of SMEs in manufacturing sector.

Joint effects of competitive strategy drivers, macro environment and entrepreneurial orientation on performance of manufacturing SMEs was superior to the individual effect, therefore, all four study hypotheses were supported.

#### **4.14 Chapter Summary**

The chapter outlined results of hypotheses formulated from specific objectives of the study. Simple linear regression was used in testing direct association between the studies variables. Moderating effect was tested using hierarchical regression analysis and intervening effects were tested using path analysis. The joint influence was tested through multiple regression technique. The study hypotheses were all supported.

## **CHAPTER FIVE**

### **DISCUSSION OF RESULTS**

#### **5.1 Introduction**

This section addresses findings of the study in relation to research questions and study hypothesis. These were formulated using existing theoretical and empirical literature, and led to formulation of the conceptual model that described the variables linkages.

#### **5.2 Preliminary Results**

The study revealed that major statements on environmental-based-drivers were market was aware of the advantages of differentiated offers, companies were aware of the changes in the market niche as well as specific demands of customers, and firms were able to get high-quality raw materials at a cheap cost. On resource-based drivers, the study found that firms had a strong asset base and sound financial performance, technology facilitated a culture of continuous feedback by ensuring that everyone knew where they stood on a regular basis, technology aided firms in altering the price structure through the development of more efficient and flexible processes and the firm focuses on optimizing volumes and value based on cross-functional analysis.

On hybrid strategy drivers the study found that companies consistently made decreased strategic choices on how to seek significant position and align resources and skills, and firms outperformed their competitors. These statements justified the resource-based

theory. According to resource-based approach, a discrete collection of capabilities at businesses' choice gives a sustainable competitive advantage (Barney, 1991; Conner & Prahalad, 1996). Resource based theory describes how entrepreneurs create firms based on existing resources and skills (Dollinger, 1999).

The study indicated that government statements on policy changes and the country's general political stability were determinants of the macro environment. In a state of contention, game theory provides a simulation model for strategic interactions involving two people, each focusing on opponent's behavior with an aim of predicting opponents possible move in order to select best move (Furrer & Thomas, 2000). Entrepreneurial orientation was explained by workers showing a high inclination to follow the leader in presenting new goods/services, and employees regularly generate new items and how to do things differently, defines innovation indicator of entrepreneurial orientation, firms were the first to market when it came to offering new products and services, and they had a strong tendency to be ahead of their competition when it came to bringing fresh ideas or products indicated risk taking.

The study further revealed that firms were often the first businesses to introduce new products and services, firms adopted a cautious wait-and-see attitude to minimize costly decisions and competitive aggressiveness when faced with decision-making situations involving uncertainty presented pro activeness. The statements justified the psychological entrepreneurship theory by emphasizing personal traits (Cohen, 2004).

### **5.3 Discussion of Hypothesis Testing**

This section discusses findings from formulated hypothesis. It further links the results to the theories and empirical studies. Discussion has been presented on objective basis that Industrial production and strategic planning drivers. The impact of the macro environment on the relationship between competitive strategy drivers and manufacturing SMEs' performance, the impact of entrepreneurial orientation on the relationship between competitive strategy drivers and manufacturing SMEs' performance, and the combined effect of competitive strategy drivers and manufacturing SMEs' performance are all discussed. Strategy drivers, macro environment and entrepreneurial orientation on performance of manufacturing SMEs.

#### **5.3.1 Competitive Strategy Drivers and Performance of Manufacturing SMEs**

The first objective of this study was to determine the impact of competitive strategy drivers on the performance of manufacturing SMEs. This goal was accompanied by a hypothesis, H<sub>1</sub>, which itemized that CSD have a significant influence on performance of manufacturing SMEs'. Environmental, resource-based, and hybrid strategy drivers were among the competitive strategy drivers. The study evaluated the association between competitive strategy drivers and manufacturing SMEs' success. Other researchers have confirmed this direct association as supported by empirical literature review.

Moreover, the findings were not conclusive, since some research found a positive direct association while others found a negative direct connection, necessitating a retest. The

study revealed that the dimensions of competitive strategy drivers had a statistically significant impact on manufacturing SMEs' performance. Furthermore, each competitive strategy driver dimension (environmental based drivers, resource-based drivers, and hybrid-based drivers) had a statistically significant impact on manufacturing SMEs' performance. Though competitive strategy drivers have a substantial impact on manufacturing SMEs' performance, their three aspects (environmental based drivers, resource-based drivers, and hybrid-based drivers) account for 12.4 percent of the variation in manufacturing SMEs' performance. This suggests that business performance is determined by competitive strategy drivers. The first hypothesis was not rejected.

The resource-based theory of entrepreneurship supported conclusions of this study. According to the theory, a unique set of resources available at the firm's choice provides a lasting competitive advantage (Barney, 1991; Conner & Prahalad, 1996). RBV is fundamental because it recognizes firm's assets and talents to be critical to its execution. Enterprises can gain a long-term competitive edge by utilizing resources such as strategic planning management planning (Michalisinet al., 1997), tacit knowledge (Polanyi, 1966), capital, management skills (Castanias & Helfat, 1991) and hiring of trained workforce (Wernerfelt, 1984). According to Conner (1991), a firm's ability to attain and maintain competitiveness in their markets is contingent on its ability to acquire and defend its superior position in underlying resources key to production and distribution. The findings supported the resource-based theory's conceptualization, which states that companies perform better when they use and configure different resources, they have to gain a competitive edge. The relationship between CSD and organization success justified the



locus of control theory (Rotter, 1996), which refers to how strongly entrepreneurs see their efforts as being critical to achieving their intended outcomes. The activities of these business people have been shown to have a sense of self - efficacy, so those who ascribe the outcomes of their behaviors to outside factors are said to have an open circulatory system.

Previous research (Gibcus & Kemp, 2003; Peng et al., 2008) found that the tactics used by businesses had direct significant impact on their success. Specifically, businesses that have wide ranging and consistent plan outperform those that do not (Gibcus & Kemp, 2003). In general, a firm's performance is correlated with its strategy. The findings of this study also corroborate Pelham (1999), who stated that focusing on a low-cost strategy would have less effect than focusing on a differentiation strategy, which would result in higher performance for SMEs, necessitating the use of hybrid strategy drivers.

In their study of SMEs in Nairobi dealing with business problems, Bowen et al. (2009) evaluated the techniques they used to overcome the obstacles. The findings revealed that SMEs used the following strategies to overcome flaws: discounts and special offers, fair pricing, improved customer service, presenting a diverse range of services and products, and continuously improving superiority of service delivery, resulting in environmental based drivers. According to Teach and Schwartz (2000), strategy and performance are only loosely related. Similarly, (Kemp & Verhoeven, 2002) argue that strategy and performance have no link. Bowen et al. (2009) observed that accepting a variety of policies resulted in company prosperity, which further supports

hybrid strategy drivers. As a result, a company must constantly have a mix of strategies in place to deal with the changing problems it faces. The findings of this study differ with those of Dess and Davis (1984), who stated that businesses may be divided into four clusters depending on their strategies: cost leadership, stuck in the middle, focus, and innovation. This study used a three-model approach, which included environmental-based drivers, resource-based drivers, and hybrid strategy drivers. The study justifies game theory, which proclaims that all players have predictable preferences and are instrumentally rational in the sense that they always choose the option that maximizes their individual payoffs based on their current knowledge and beliefs, and that the game's specification as well as the players' preferences and rationality are well-known among the players. The essence of competitive strategic drivers.

### **5.3.2 The Influence of Macro Environment on the Relationship between Competitive Strategy drivers and performance of manufacturing SMEs**

Objective two was to determine the influence of macro environment on the association between competitive strategy drivers and manufacturing SMEs' performance. Manufacturing SMEs must be aware of any input and impact from the macro environment in order to remain competitive, and they must react regularly and appropriately. The capacity of a company to adapt to changes in the macro environment will decide its success, long-term viability, and survival. Hypothesis H<sub>2</sub>, which stated that the macro environment moderates the influence of competitive strategy drivers on the performance of manufacturing SMEs, was investigated in

order to attain this goal. Environmental scanning is a crucial part of strategy creation because it identifies relevant variables and forces that exist outside the organization and have the ability indirectly/directly affect manufacturing SMEs' competitive strategy drivers and performance.

Enterprises are required to formulate strategic decisions about the type of competitive advantage they want and the scope within which they will accomplish it in order to get a competitive edge. The study evaluated macro environment in terms of political, economic, social, technical, ecological, and legal components. If the interaction term between the moderator variable and the independent variable in the model is significant (p-value $\leq$ 0.05), then was assumed that moderation took effect.

The results of this study confirmed the premise that the macro environment moderates the association between competitive strategy drivers and the performance of manufacturing SMEs. The association between competitive strategy drivers and company performance was individually moderated by political, economic, social, technical, and ecological factors. The legal aspect did not moderate the association between competitive strategy drivers and business performance. As a result, it is critical for manufacturing SMEs to scan their political, economic, social, technological, and ecological environments as they implement competitive strategy drivers for performance improvement. Interaction term had a substantial influence in explaining the association as indicated by the relative change in  $R^2$ , thus Hypothesis two was supported.



Dynamic capacity is the company's capability to strategically address issues shaped by its affinity to identify opportunities and threats, select convenient and showcase arranged choices and to change its asset base (Barney, 1991; Conner & Prahalad, 1996). The results are also grounded on the resource-based theory of entrepreneurial, that is, firm's competitive position is defined by a bundle of unique and relationships at its disposal. Alvarez and Barney (2002) contends that if an entrepreneur has access to all the resources needed to exploit an opportunity, then the focus will shift to more of coordinating and executing and less of organizing. This situation can be considered similar to exploiting arbitrage opportunities availed by dynamics in the business environment.

Although the environment in which a firm or individual company competitive tactics impact how a firm performs in the same macro environment, firms in the same macro environment perform differently (Spanos, Zaralis, & Lioukas, 2004). The impact of the macro environment on the link between CSD and performance of manufacturing SMEs, according to empirical research, indicates that the environment presents both opportunities and challenges to all companies (Pearce & Robinson, 2011). Enterprises select strategy drivers that can provide long-term competitive advantage based on the competitive environment. Variations in competitive strategy drivers and firm performance may result from organizational reactions to environmental changes (Sermon, Hitt, & Ireland, 2006). Intensive, defensive, joint venture, and a combination of tactics are some of the strategic choices a company may use to get a competitive edge for growth (David, 2001).

The finding is in agreement with Machuki and Aosa (2011) who found that outcomes is a subject to firm orientation to the changes in the environment. Further, David (2001) posited that strategy drivers' choices that a firm seeks to adopt may help achieve competitive advantage through escalated, protective, joint venture and a mix of other approaches. The performance outcomes of major decisions that are made in relation to macro environmental conditions are of interest to business strategy researchers. In line with theoretical linkage, the study supports open system theory. The results brought out the importance of the environment in which the organization operates. This is anchored on the open system theory which states for transformation and survival, organizations are significantly impacted by the environment in which they function. The findings support Burnes' (2000) theory that firms are open systems which require cautious supervision to satisfy and soothe internal requirements while also adapting to macro conditions. While businesses rely on their surroundings for vital resources, the environment is unpredictable since it is outside the firm's administrative control.

### **5.3.3 The Effect of Entrepreneurial Orientation on the Relationship between Competitive Strategy Drivers and Performance of Manufacturing SMEs**

Third goal looked at the influence of entrepreneurial orientation on the association between competitive strategy drivers and manufacturing SMEs' performance. The study looked at how entrepreneurial attitude, as an intervening variable, influences the association between competitive strategy drivers and manufacturing SMEs' performance. Hypothesis H<sub>3</sub>, which stated that entrepreneurial attitude influences the link between competitive strategy drivers and manufacturing SMEs performance,

was developed and tested. The study followed Baron and Kenny's (1986) technique of assessing mediating impact in four phases. For the mediation relationship, all four requirements were met. The results of the study show that entrepreneurial orientation moderates the association between competitive strategy drivers and manufacturing SMEs' performance. The relative shift in  $R^2$  indicated that entrepreneurial orientation accounted for a considerable portion of the relationship's explanation. As manufacturing SMEs embrace competitive strategy drivers, it is critical that they also adopt entrepreneurial orientation in order to improve their performance.

The results contributed to the body of knowledge in resource-based theory. Competitive advantage, according to RBV, is built on a company's valuable and unique assets. Firms will compete based on their internal skills, competences, and resource capabilities, according to the new perspective (Hoskisson, Hitt, Wan, & Yiu, 1999). By developing a firm's resources and internal capabilities and applying them to a suitable external environment, Barney (1991) noted that, a firm can develop a viable and sustainable strategy. McEvily and Chakravarthy (2002) verified that a company could outperform competition if it could continually and swiftly learn, adapt, and offer unique requirements of stakeholders in a way that could not be replicated.

Game theory is important in strategic decision making because it highlights the need of analyzing decisions, the environment, and possible alternative actions of a business and other industry players, as well as the probable consequence (Myerson, 1991). The best potential advantage over competitors can be leveraged by choosing a plan of action. As

the game theory is implemented, valuable experience and learning are acquired, allowing for effective decision-making to aid in obtaining higher performance (Myerson, 1991).

SMEs must enhance their efficiency levels and adapt swiftly to market developments, including disruptions caused by new market entrants, increasing liberalization, technology progress, and high standards requirements. Furthermore, manufacturing SMEs may become increasingly integrated into the global economy, offering new opportunities to participate in global value chains and supply chains networks. Quality has undoubtedly emerged as a tactical competitive weapon for company success. Quality's strategic impacts on a company's competitive position cannot be overlooked in today's business climate (Rohitratana& Boon-Itt, 2011). Manufacturing SMEs who can use technology and expertise to manufacture high-value-added, high-quality items will be the only ones that can compete on a global basis (GoK, 2008). All of these things make it easier for manufacturing SMEs to advance up the value chain and adopt new technologies, particularly information and communication technology (ICT).

The findings contribute to knowledge building by bolstering dynamic capacities theory. dynamic capabilities explains how a firm's responsiveness and innovation are enhanced by entrepreneurial orientation concept, resulting in prompt, quick, and adaptable outcomes in changing marketplaces. Dynamic capabilities, according to Easterby-Smith, Lyles, and Peteraf (2009), are higher-level capabilities that help with "knowledge convention and sharing," "constant modification of operational procedures," "interrelation



with the environment," and "application of appropriate entrepreneurial orientation practices."

#### **5.3.4 Joint Effects of Competitive Strategy Drivers, Macro Environment and Entrepreneurial Orientation on performance of manufacturing SMEs**

Objective four was to determine the joint effect of Competitive Strategy Drivers, Macro Environment and Entrepreneurial Orientation on performance of manufacturing SMEs. **H<sub>4</sub>**, states that the joint effect of competitive strategy drivers, macro environment and entrepreneurial orientation has influence on the performance of manufacturing SMEs was tested. There exists significant joint effect over individual effect if the coefficient of determination for joint effect is greater than that of individual effect model. The study found that the results of the joint effect were statistically significant implying that the variables jointly significantly influence performance of manufacturing SMEs. Thus, there is need for manufacturing SMEs to collectively embrace competitive strategy drivers, macro environment and entrepreneurial orientation.

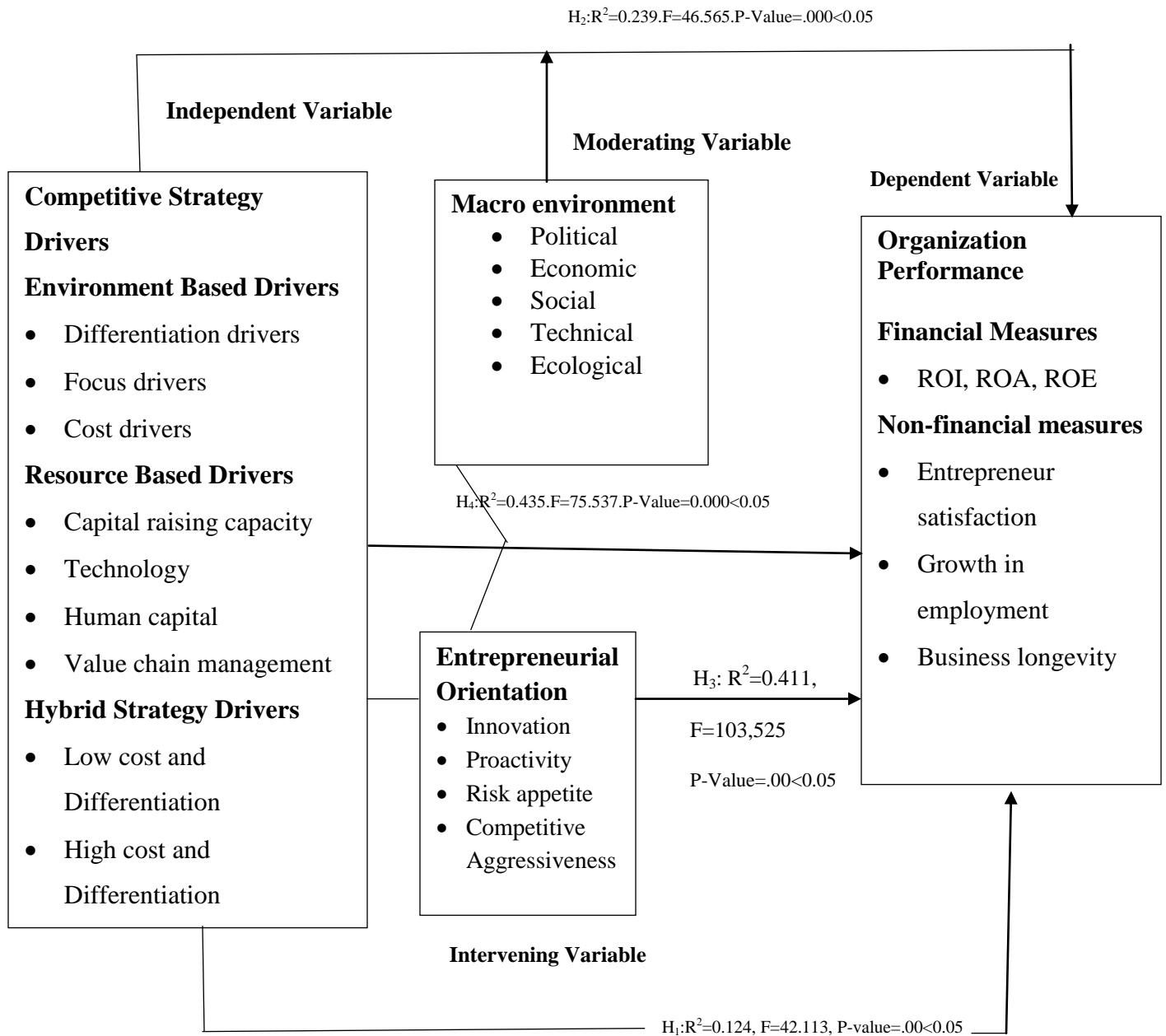
When the macro environment is relatively passive, Stalk et al. (1992) argue that strategy may afford to stay static. In a tumultuous, ever-changing corporate environment, however, strategy must become more dynamic as well. Through combination, reconfiguration, co-evolution, and integration in specific patterns, competitive strategy drivers enable resource cooperation and coordination teams (Teece et al., 1997). This is generally accomplished by combining the firm's processes, procedures, talents, and functional competencies to match demands to a changing environment and therefore improve performance (Grant, 1991; Teece et al., 1997).

Fundamental premise of strategic governance is that performance is dependent on environmental conditions and competitive strategy drivers (Bourgeois, 1985). The fit, equivalence, or congruence of a business's strategy decision with the environmental or firm's circumstances influencing firm can be demonstrated (Andrews, 1971; Hofer & Schendel, 1978). The resource-based theory, dynamic capacity theory, and open system theory of entrepreneurship are all part of the combined impact. Firms' survival depends on their relationship with the environment. The potential evolving character of fit between business environment and the company is substantially connected to organizational success (Machuki & Aosa, 2011). The findings corroborate resource-based theory, which states that businesses rely on a variety of resources to function, including financial capital, human resources, and raw commodities. In order to gain resources, a business must trade with other actors and organizations in its ecosystem (Casciaro & Piskorski, 2005).

The findings also demonstrate a link with resource-based theory, which states that entrepreneurs build strategies on the basis of resources at their disposal, as well as environmental conditions and the entrepreneurs' proactivity and inventive character. The findings also showed that businesses' performance improves when they employ distinctive resources that they own and arrange to provide them a competitive edge. It must be pointed out that for value, the resources available to a firm must be utilized in a manner that will give competitive edge over other competitors in the business environment.

#### **5.4 Empirical Model**

The hypothesis testing indicated that the direct connection between industrial performance and competitive strategy drivers the moderating impact of the macro environment on the connection between competitive strategy drivers and manufacturing SMEs' performance was also validated. It was also supported by the macro environment's subscales, notably political, economic, social, technical, and ecological, but fell short on the legal front. The impact of entrepreneurial attitude on competitive strategy drivers and manufacturing SMEs' performance was also validated. Aspects of entrepreneurial inclination also supported the idea. The impact of competitive strategy drivers, entrepreneurial attitude, the macro environment, and manufacturing SMEs' performance was also supported. The experimentally validated directional, moderation, and mediation connections are shown in Figure 5.1.



**Figure 5.1: Empirical Research Model**

**Source: Researcher (2019): Developed from the Research Results.**

## **5.5 Chapter Summary**

This chapter presents and discusses the findings of the study following analytical tests carried out to validate the research objectives and hypotheses formulated. Using 0.05 significance level, the results revealed statistical significance between competitive strategy drivers and performance, as well as the moderating influence of macro environment and intervening entrepreneurial attitude has an impact on the link between competitive strategy drivers and manufacturing SMEs' success. This chapter concluded by discussing the study findings in relation to existing theoretical and empirical studies, in which it was established that the findings in the current study were consistent with findings from previous studies.

## **CHAPTER SIX**

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

#### **6.1 Introduction**

On the basis of main and specific objectives, analysis of the results, conclusions, recommendations, and implications for theory, policy, practice, and procedure are presented in this chapter. In addition, the study's shortcomings are addressed, and topics for additional further studies are proposed.

#### **6.2 Summary of the Study**

The findings showed that hybrid strategies drivers had the highest average score amongst competitive strategy drivers, followed by environmental based drivers and resource-based drivers. This implies that CSD reinforce/improve performance of manufacturing SMEs. The findings imply that manufacturing SMEs could edge their operations by taking macro environmental dynamics into account while developing services and products. This is confirmed by the results of test of hypothesis which established that Macro environment have positive relationship on performance of manufacturing SMEs. The results reveal that performance of manufacturing SMEs is positively related to the study variables of competitive strategy drivers, macro environment and entrepreneurial orientation. From the results, manufacturing SMEs need to strive to constantly review changes in their niche market, updates its mandate in line with changes in the market as well as specialize on its target market to maintain the firm's competitive edge.

### **6.2.1 Competitive Strategy drivers and performance of manufacturing SMEs**

Results were meant to assess the impact of CSD on performance. Measurements for competitive strategy drivers were taken in three dimensions: environmental, resource-based, and hybrid strategy drivers. Selecting the competitive scope or diversity of the firm's undertakings will play a significant part in achieving performance since it seeks to build a lucrative and viable position against the forces that regulate your industry competition, hence firms use their competitive upper hand to attract more customers than their competitors and increase market share.

The findings show that competitive strategy drivers have an impact on manufacturing SMEs' financial and non-financial performance. This indicates that manufacturing SMEs must cultivate and maintain innovativeness, creativity, and continuous learning within their organizations, develop products with attributes that differ significantly from those of their competitors, research buyers' needs and behavior to learn what they value, and then incorporate the desired buyer features into the product to encourage buyer preference.

Secondly, a wide-ranging cost advantage may find it very simple to change its commodities in strategies to succeed immediately. The findings of the composite indices test of hypothesis revealed significant association between CSD and manufacturing SMEs' performance. As a result, companies should place a greater prominence on competitive strategy drivers that have a beneficial influence on success.

### **6.2.2 Competitive Strategy, Macro Environment and Firm performance**

The process of decision making within the environment is never ending and therefore a continual reassessment of the status of the strategic factors in this environment must take place. To survive in the environment, firms have to pay attention and match their activities to the environmental conditions. The results of the relationship to determine the influence of the macro environment on the relationship between competitive strategy drivers and performance of manufacturing SMEs were statistically significant. The findings indicated that the most influential macro environment attributes on the performance of manufacturing SMEs in Nairobi City County on the surveyed firms were the government pronouncements on changes in policy from time to time and changes of political regime. These results confirmed that Kenya has experienced a lot of changes in the market and hence, this has created a new and challenging competitive arena for all manufacturing SMEs.

Understanding the dynamics which guides industry competitiveness are the beginning point for formulating strategy. It highlights the most important features of the competitive landscape as well as the most important restrictions to overall profitability. These findings show that the macro environment for manufacturing SMEs offers possibilities to improve the competitive advantage of its resources. New markets, technical developments, and changing consumer tastes are just a few examples of driving forces that give manufacturing SMEs with value-adding possibilities. As a result, these



manufacturing SMEs should take use of these new chances to get a competitive edge and achieve excellent results.

### **6.2.3 Competitive Strategy, Entrepreneurial Orientation and performance of manufacturing SMEs**

The findings on impact of entrepreneurial attitude on association between competitive strategy and performance of manufacturing SMEs' were statistically significant. Entrepreneurial orientation was defined in this study as creativity, risk-taking, pro-activeness, and competitive aggressiveness. Introduce new products/services, develop new processes, or use new technology to exhibit a company's innovativeness. According to the findings, manufacturing SMEs must use their inventive abilities to refresh their market offerings in order to survive and develop in a world of fierce competition, rapid technological advancements, and resource constraint.

To be successful, these companies must also participate and promote creation of new ideas/ processes which bring forth new goods, services, technical processes, and markets. Furthermore, surveyed companies were perceived to be willing to take risks and offer new goods/services to the market with the goal of boosting earnings/sales. In general, this study suggests that Manufacturing SMEs need to regulate and manage risks in order for these potentially dangerous possibilities to be appealing. Furthermore, a company may discover that improving its ability to detect and manage risk allows it to seize opportunities that the competitors cannot.

The capacity of a company to acquire more knowledge about the resources and possibilities accessible in its industry is positively connected to its pro-activeness. As a result, manufacturing SMEs should be proactive in order to better scan the environment and discover and find possibilities in their macro environment. As a result, companies tend to be informed about acquiring information and resources than their less proactive rivals, and as a result, they perform better. Furthermore, aggression improves company performance by focusing on outmaneuvering and undermining competitors, which enhances the firm's competitiveness at the expense of competitors. As a result, manufacturing SMEs must embrace aggression. The findings of the test of hypothesis on composite indices revealed that entrepreneurial orientation had a statistically significant intervening influence on the connection between competitive strategy drivers and manufacturing SMEs' performance. As a result, companies should place a greater focus on entrepreneurial oriented aspects that have a favorable influence on their success.

### **6.3 Conclusion**

The study's major goal was to see how entrepreneurial attitude and the macro environment affected the link between CSD and entrepreneurial orientation SMEs in Nairobi City County. A model for testing these relationships was conceptualized and data was collected using a structured questionnaire on the study variables. To achieve this objective, tests were done using composite indices followed by individual effects.

The impact of competitive strategy drivers on the performance of manufacturing SMEs was shown to be statistically significant. Individual impacts of competitive

strategy drivers (environmental based drivers, resource-based drivers, and hybrid strategy drivers) on manufacturing SMEs' performance were also statistically significant, according to the research. The CSD strength and performance of manufacturing SMEs were both important. These market orientation factors have been shown to increase manufacturing SMEs' success. Individual predictors of environmental, resource-based, and hybrid approach drivers were statistically significant, according to the findings.

The results of analysis to establish the effect of macro environment, there was a substantial link between competitive strategy drivers and manufacturing SMEs' success. The findings also show that competitive strategy drivers and the macro environment have a substantial impact on manufacturing SMEs' success. This suggests that competitive strategy drivers are influenced by the macro environment when deciding the performance of manufacturing SMEs, confirming the premise that the macro environment moderates the effect of CSD on manufacturing SMEs performance.

The findings revealed that entrepreneurial attitude had a statistically significant impact on the link between competitive strategy drivers and manufacturing SMEs' performance. Entrepreneurial orientation (innovativeness, risk-taking, pro-activeness, and competitive aggression) has individual impacts on the connection between competitive strategy drivers and manufacturing SMEs' success were significant. These entrepreneurial orientation aspects were proven to improve performance of manufacturing SMEs. Finally, the joint effect of the variables on performance of manufacturing SMEs was

significantly greater than the individual effect of the same. Thus, synergy is created by considering the joint effect on performance of manufacturing SMEs in Nairobi City County, Kenya.

## **6.4 Implications of the Study**

The implication of the study focused on the implication for theory, policy implication, management practices and methodology. These are discussed below.

### **6.4.1 Implications for Theory**

This study was anchored on resource-based view, game theory, open systems theory and dynamic capabilities theory. The study findings are consistent with resource-based theory in offering the explanation of the link between competitive strategy drivers, the macro environment, and entrepreneurial attitude and performance. Entrepreneurs build enterprises out of existing resources and competencies, according to this notion (Dollinger, 1999). Enterprises can obtain a long-term competitive edge by utilizing resources such as strategic planning, management planning (Michalisin, Smith, & Kline, 1997), tacit knowledge (Polanyi, 1966), capital, management skills (Castanias & Helfat, 1991) and acquisition of appropriately skilled Human Resources (Wernerfelt, 1984).

The findings further support game theory. This theory explains the decisions, strategies and also the Players can pick from a variety of options, and payoffs can be numerical representations of the players' preferences among the game's various outcomes. This idea is backed up by evidence of the macro environment's moderating influence on

the link between competitive strategy drivers and performance. On them of dynamic capabilities, this study confirms that Entrepreneurial orientation mediates the relationship between competitive strategy drivers and performance. With proper Entrepreneurial orientations, entrepreneurs are capable of achieving competitive advantage. The study has demonstrated that Manufacturing SMEs Companies operate in competitive settings, and their success is influenced by entrepreneurial orientation characteristics and competitive strategy drivers, as proposed in numerous studies.

#### **6.4.2 Policy Implications**

The findings of this study offer suggestions that are useful to policy makers in this sector in Nairobi City County. Manufacturing SMEs in Nairobi City County have previously lacked best competitive strategy drivers and entrepreneurship management practices. The findings will guide policy makers to develop strategies, promotion of assistance scheme and education programmes appropriate for manufacturing SMEs in order to enhance their entrepreneurial culture.

Cost reduction strategies will enable manufacturing SMEs firm to sell relatively standardized products acceptable to many customers at the lowest competitive price, gain competitive advantage and increase their market share. The results of this study will assist policy makers to ensure Manufacturing SMEs give correct and timely data. The information will be a useful guide to current and potential investors, policy formulators, government and its state agencies in developing policies for

addressing the resource constraints affecting competitiveness of manufacturing SMEs in Nairobi City County, Kenya.

### **6.4.3 Implications to Management Practice**

The study identifies both macro environment and entrepreneurial orientation as key components of enhancing performance in manufacturing SMEs in Nairobi City County, Kenya. The study emphasizes that entrepreneurs should embrace entrepreneurial orientation and carry out macro environment scanning in order to improve their performance.

It is also important and necessary that SMEs understand the entrepreneurial dimensions in order to carry out frequent analyses and develop entrepreneurial orientation concepts relevant to their firms. Owners or Managers who develop resource strategies to either adapt to changing external environment conditions or to proactively influence their environments should find the results of this study useful.

The results of this study will assist management practitioners to develop long term strategies to address constraints that manufacturing SMEs encounter and could have led to low capacity utilization/productivity in the sector. They will be able to source funds for research and development of better-quality products. The management will also be able to address their internal weakness such as the inefficient use of resources.

#### **6.4.4 Implications to Methodology**

The hypothesized associations for the four research objectives yielded statistically significant outcomes in this study. The variables' causal connections were investigated and established. According to Lenz (1980), each link must be created by the other, either directly or indirectly, and there is a need to investigate further interactions. This necessitates a consideration of alternative operationalizations of the study research variables as well as interaction testing. The design was created with the goal of generalizing the study's findings. Case by case studies, on the other hand, would be used to advance the study's conclusions. The study yielded a variety of outcomes in terms of statistical significance and the connections between the independent and dependent variables.

Tests of validity and reliability test were applied on data operationalization of the study variables as well as on the study instrument. This was done in order to ensure that data collected would be error free and display significant results. Regression analysis was used as the analytical tool for the study. It's an extremely effective analytical approach for research with cause-and-effect connections between and among variables. This method was able to generate a variety of statistical reports that led this investigation in determining whether or not the various hypotheses were supported. It also enabled for judgments to be drawn based on verified empirical facts. Using a different analytical technique might cause statistically significant results to become statistically insignificant.

### **6.5 Limitations of the study**

The main objective of the study was to establish the relationship of variables that have an impact on performance of manufacturing SMEs in Nairobi City County. The study had a number of limitations. Having specific respondents in the organizations was a limitation. The study specified that owners/managers should respond to the questionnaire. However, owners/managers were not always available and did not have adequate time to respond. This introduced individual perceptions on the variables rather than a uniform generalization of the overall manufacturing SMEs. Another limitation was the study's focus only on manufacturing SMEs in Nairobi City County. This narrowing down to the manufacturing sector required the researcher to travel extensively in order to obtain responses from manufacturing SMEs that are in the manufacturing sector. Data collection through questionnaires allowed respondents to fill them at their own time and on voluntary basis.

The study operationalized firm performance in financial and non-financial aspect. This does not cover other aspect like the balanced scorecard among possible others. The study did not take into consideration the effect of the moderating variables like manufacturing SMEs resources possession and organization capabilities on the impact of resource endowment.

### **6.6 Areas Suggested for Further Research**

The current study cross-sectional purposive sampling allowed for the collection of data for something like the targeted manufacturing SMEs at a single moment in time. Future



study should thus concentrate on longitudinal techniques that allow for data collection at many points. Cross-sectional research is less likely to give further insights into the dynamic features of competitive strategy drivers, macro environment, entrepreneurial orientation, and manufacturing SMEs' success. Future research should concentrate on SMES in industries other than manufacturing, such as insurance, banking, retail/distribution, and so on, to see if the findings achieved are comparable to those found in this study. Additionally, research should be done on firms outside the SMEs, in order to determine whether the conclusions reached in this study are applicable in the context of other areas of Nairobi City County's business community. Future researchers may use Return on assets (ROA) and return on equity (ROE) as possible measures for performance of SMEs.

The study considered adoption of strategic planning for Nairobi City County is home to a number of manufacturing SMEs. Similar research should be conducted in other counties and the data evaluated for generalization reasons, according to the report. The current investigation depends on a single informant who was familiar with the businesses' operations and commitment levels. It is better to utilize many responders from each business because this will give more data. Future research should include numerous respondents from a variety of departments (such as marketing and finance) and management levels, allowing the analysis to be expanded to investigate how workers' reactions to the factors in this study change between departments and management levels.

## REFERENCES

- Acquaah, M. (2006). Does the implementation of a combination competitive strategy yield incremental performance benefit? A new perspective from transition economy in Sub-Saharan Africa. *Journal of Business Research*, 61, 346-354.
- Adeoye, A. O., & Elegunde, A. F. (2012). Impacts of external business environment on organizational performance in the food and beverage industry in Nigeria. *British Journal of Arts and Social Sciences*, 6(2), 56-65.
- Admen, P., & Rodriguez, E. (2014). *Financial Literacy and the Success of Small Businesses: An Observation from a Small Business Development Center. Numeracy*, 7(1), 3.
- Afiouni, F. (2007). Human Resource Management and Knowledge Management: A Road Map toward Improving Organizational Performance. *Journal of American Academy of Business, Cambridge*, 11(2), 124.
- Agarwal, R., & Ferratt, T. W. (2001). Crafting an HR strategy to meet the need for IT workers. Association for Computing Machinery. *Communications of the ACM*, 44(7), 58.
- Agus, A. (2000). TQM practices in manufacturing companies in Malaysia: An exploratory analysis. *Total Quality Management* 11(8), 104-51
- Akdogan, A. A., & Cingoz, A. (2012). An empirical study on determining the attitudes of small and medium sized businesses (SMEs) related to competition. *Social and Behavioral Sciences*, 58, 252-258.
- Akintokunbo, D.O. (2018). Market Focus Strategy and Organizational Performance of Telecommunication Companies in Port Harcourt. *International Journal of Innovative Research and Advanced Studies (IJIRAS)*, 5(3).
- Aldrich, H. E., & Pfeffer, J. (1976). "Environments of organizations". *Annual Review of Sociology*, 2(1), 79-105.
- Alvarez, S. A., & Barney, J.B. (2002). Resource-based theory and the entrepreneurial firm. *Journal of Management*, 27(6), 755.

- Andrews, K. R. (1971). *The concept of corporate strategy*. Homewood, Ill: Dow Jones-Irwin.
- Ansoff, H. I., & McDonnell, E. J. (1990). *Implanting Strategic Management*. (2<sup>nd</sup>Ed). NY: Prentice-Hall.
- Asikhia, O. A. (2010). Students' and teachers' perception of the causes of academic performance in Ogun state secondary schools, Nigeria. *European Journal of Social Sciences* 13(2).
- Aspelund, A., & Moen, O. (2004). "Internationalization of small high-tech firms: the role of information technology", *Journal of Euro marketing*, 13(2/3), 85-105.
- Avlonitis, G. J., & Salavou, H. (2007). Entrepreneurial Orientation of SMEs, Product Innovativeness, and Performance. *Journal of Business Research* 60(5), 566-575.
- Babbie, E. R. (2012). *The Practice of Social Research* (13th Ed). Boston, MA: Cengage Learning.
- Bagozzi, R. P., & Yi, Y. (2012). Specification, evaluation, and interpretation of structural equation models, *Journal of the Academy of Marketing Science* 40 (1), 8–34.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Barney, J. B. (2018). Why resource-based theory's model of profit appropriation must incorporate a stakeholder perspective. *Strategic Management Journal*, 39(13), 3305-3325.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 5, 1173-1182.
- Barreto, I. (2010). Dynamic capabilities: A review of past research and an agenda for the future. *Journal of Management*, 36(1), 256-280.
- Beal, R.M. (2000). Competing Effectively: Environmental Scanning, Competitive Strategy, and Organizational Performance in Small Manufacturing Firms. *Journal of Small Business Management*, 38(1), 27-47.
- Beheshti, H. M. (2004). Gaining and sustaining competitive advantage with activity based cost management system. *Industrial Management and Data Systems*, 104(5), 377-382.

- Bolker, B.M., Brooks, M.E., Clark, C.J., Geange, S. W., Poulsen, J.R., Stevens, M.H.H., & White, J.S.S. (2009). Generalized linear mixed models: A practical guide for ecology and evolution. *Trends in Ecology and Evolution*, 24(3), 127–135.
- Bolton, W.K., & Thompson, J.L. (2000). *Entrepreneurs: Talent, Temperament, Technique*. Oxford, England: Butterworth Heinemann.
- Bourgeois, L.J. (1985). Strategy and Environment: A Conceptual Integration. *Academy of Management Review*, 5(1), 25-39.
- Bowen, M., Morara, M., & Mureithi, S. (2009). Management of business challenges among small and micro enterprises in Nairobi. *KCA Journal of Business Management*, 2(1).
- Burnes, B. (2000). *Managing Change: A Strategic Approach to Organisational Dynamics*. Harlow: UK: Pearson Education.
- Callaghan, C., & Venter, R. (2011). An investigation of the entrepreneurial orientation, context and entrepreneurial performance of inner-city Johannesburg street traders. *Southern African Business Review*, 15(1), 28-48.
- Cameron, K. (1986). A Study of Organizational Effectiveness and its Predictors. *Management Science*, 32(1), 87-112.
- Cantillon, R. (1755). *Essay on the Nature of Trade in general* (Higgs Ed.). London: Macmillan.
- Capon, N., Farley, J. U., & Hoenig, S. E. (1990). Determinants of corporate performance: a meta-analysis. *Management Science*, 36(1), 1143-1159.
- Capuano, A., & Ramsay, I. (2011). *What causes sub-optimal financial behavior? An exploration of financial literacy, social influences and behavioural economics* (A research report). University of Melbourne, Centre for Corporate Law and Securities Regulation.
- Casciaro, T., & Piskorski, M. J. (2005). “Power imbalance, mutual dependence, and constraint, absorption: a close look at resource dependence theory,” *Administrative Science Quarterly*, 50(1), 167-199.
- Castanias, R., & Helfat, C. (1991). Managerial resources and rents. *Journal of Management*, 17(1), 155-171.

- Castrogiovanni, G. J. (1991). Environmental munificence: A theoretical assessment. *Academy of Management Review*, 16(3), 542-565.
- Chathoth, P.K. (2002). *Co-alignment between Environment Risk, Corporate Strategy, Capital Structure, and Firm Performance: An Empirical Investigation of Restaurant Firms* (Unpublished Thesis). Virginia Polytechnic Institute and University.
- Chen, G., Du, H., & Chen, Y. (2011). *Research on Entrepreneurial Orientation and Entrepreneurial Behavior: An Empirical Study*. In Management and Service Science (MASS), International Conference, 1-3.
- Chesoli, L. W. (2015). *Entrepreneur characteristics, competitive strategy, firm level institutions and performance of small and medium enterprises of non-timber forest products in Kenya* University of Nairobi, School of Business.
- Chi, T. (1994). Trading in strategic resources: Necessary conditions, transaction cost problems, and choice of exchange structure. *Strategic Management Journal*, 15(4), 271–290.
- Christensen, C. M. (1997). *The Innovator's Dilemma*. Cambridge, MA: Harvard Business School Press.
- Clement, S. J., & Selvam, M. (2007). Service Quality Scale Development in Indian Retail Banking Sector: An Empirical Investigation. *Journal of Applied Sciences*, 7(5), 766-771.
- Cohen, S. (2004). Social relationships and health. *American Psychologist*, 59, 676–684.
- Cole, M. A., Robert, J. R. E., &Supreeya, V. (2010). 'Firm Heterogeneity, Origin of Ownership and Export Participation', *the World Economy*, 33 (2): 264–91.
- Combs, J. G., Crook, T. R., & Shook, C. L. (2005). The Dimension of Organizational Performance and its Implications for Strategic Management Research. *Research Methodology in Strategy and Management*, 2, 259-286.
- Conner, K. R., & Prahalad, C. (1996). A resource-based theory of the firm: Knowledge versus opportunism. *Organization Science*, 7(5), 477-501.
- Conner, K. R. (1991). A historical comparison of resources-based theory and five schools of thought within industrial organization economics: do we have a new theory of the firm? *Journal of Management*, 17(1): 121–54.

- Cooper, D. R., & Schindler, P. S. (2003). *Business research methods* (8th end). Boston, MA: McGraw-Hill/Irwin.
- Cooper, D. R., & Schindler, P. S. (2014). *Business Research Methods* (12th end). Boston, MA: McGraw-Hill/Irwin.
- Coven, J. G., & Miller, D. (2017). International entrepreneurial orientation: Conceptual considerations, research themes, measurement issues, and future research directions. *Entrepreneurship Theory and Practice*, 38(1), 11-44.
- Coven, J. G., & Lumpkin, G. T. (2011). Entrepreneurial orientation theory and research: Reflections on a needed construct. *Entrepreneurship Theory and Practice* 35(5), 855–872.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: SAGE Publications.
- David, F. R. (2001). *Strategic Management* (18th end). Upper River, NJ: Prentice-Hall.
- Davidson, P. (2004). *Researching Entrepreneurship*. NY: Springer.
- Dess, G. G., & Beard, D. (1984). Dimensions of organizational task environments. *Administrative Science Quarterly*, 29(1), 52 – 73.
- Dess, G. G., & Davis, P. S. (1984). Porter's (1980) Generic Strategies as Determinants of Strategic Group Membership and Organizational Performance. *Academy of Management Journal*, 27, 467-488.
- Dess, G. G., & Lumpkin, G. T. (2005). The role of entrepreneurial orientation in stimulating effective corporate entrepreneurship. *Academy of Management Executive*, 19(1), 147–156.
- Di Stefano, G., Petered, M. A., & Verona, G. (2010). Dynamic capabilities deconstructed. *Industrial and Corporate Change*, 19(4), 1187–1204.
- Derrick, I., & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science*, 35, 1504–1511.
- Dollinger, M. J. (1999). *Entrepreneurship strategies and resources*. Upper Saddle River, NJ: Prentice-Hall.
- Dubois, A. (1998). *Organizing Industrial Activities across Firm Boundaries*. London: Rutledge.

- Easterly-Smith, M., Lyles, M. A., & Petered, M. A. (2009). Dynamic Capabilities: Current Debates and Future Directions. *British Journal of Management*, 20(1)
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic Capabilities: What Are They? *Strategic Management Journal*, 21(10-11), 1105-1121.
- Ensign, P.C. (2001). Value Chain Analysis and Competitive Advantage: Assessing Strategic Linkages and Interrelationships. *Journal of General Management*, 27(1), 18-42.
- Foss, N. J. (2011). *Theory of science perspectives on strategic management: Debates and a novel view*. In Dagnino, G. (Ed.), *Elgar handbook of research on competitive strategy*. Cheltenham, UK: Edward Elgar.
- Fowler, W. A. (1984). Experimental and theoretical nuclear astrophysics: The quest for the origin of the elements. *Reviews of Modern Physics*, 56(2), 149-179.
- Furrer, O., & Thomas, H. (2000). The rivalry matrix: Understanding rivalry and competitive dynamics. *European Management Journal*, 18(6), 68-76.
- Gathungu, J. M., & Mwangi, J. K. (2012). Dynamic Capabilities, Talent Development and Firm Performance. *DBA Africa Management Review* 2(3), 83-100.
- Gathungu, J. M., Aiko, D. M., & Machuki, V. N. (2014). Entrepreneurial Orientation, Networking, External Environment, and Firm Performance. *European Scientific Journal*, 10 (7).
- Gathungu, J., & Baariu, V. L. (2018). Competitive Strategies Entrepreneurial Orientation, External Environment and Performance of Small and Medium Enterprises in the Manufacturing Sector in Nairobi City County, Kenya. *Journal of Arts and Humanities*, 7(9).
- Gathungu, J., & Sabana, B. (2018). Entrepreneur Financial Literacy, Financial Access, Transaction Costs and Performance of Microenterprises in Nairobi City County in Kenya. *Global Journal of Management and Business Research: Administration and Management* 18, (6).
- Gay, L. R., Mills, G. E., & Airasian, P. (2006). *Educational research: Competencies for analysis and applications (8th Ed.)*. Upper Saddle River, NJ: Pearson Merrill Prentice-Hall.

- Gentry, J., & Vaidyanathan, R. (2010). A weighted cash conversion cycle. *Financial Management*, 19, 90-99.
- Gibcus, P., & Kemp, R. G. M. (2003). Strategy and small firm performance. *Research report financed by the Netherlands Ministry of Economic Affairs*.
- Gibson, T., & Van der Vaart, H. J. (2008). "Defining SMEs: A less imperfect way of defining small and medium enterprises in developing countries. *Brookings Global Economy and Development*, September.
- Gizawi, N. E. (2014). *The Dynamic Capabilities Theory: Assessment and Evaluation as a Contributing Theory for Supply Chain Management*. University of Twente, Enschede, The Netherlands.
- Gliem, J. A., & Gliem, R. R. (2003). Calculating, Interpreting, and Reporting Cronbach's Alpha Reliability Coefficient for Likert-Type Scales. *Midwest Research to Practice Conference in Adult, Continuing, and Community Education*.
- GoK. (2008). Baseline survey report on SMEs competitiveness project. *Improving Business Environment Component*. July, 2008.
- Goll, I., & Rasheed, A. A. (2004). The Moderating Effect of Business Environmental Munificence and Dynamism on the Relationship between Discretionary Social Responsibility and Firm Performance. *Journal of Business Ethics*, 49, 41- 54.
- Gómez, L. (2006). The process and problems of business start-ups. *Pensamiento and Gestión*, 22. Universidad Del Norte, 232-255.
- Gongera, K. (2007). *A tractor and labour-based routine maintenance system for unpaved and rural roads, Low Cost Road Surfacing Project*. Working Paper, 5.
- Grandori, A. (2001). Neither hierarchy nor identity: Knowledge governance mechanisms and the theory of the firm. *Journal of Management and Governance*, 5, 381–399.
- Grant, R. M. (1991). The resource based theory of competitive advantage: Implications for strategy formulation. *California Management Review*, 33(3), 114-135.
- Grant, R. M. (2010). *Contemporary Strategy Analysis* (Text and Cases Edition). Malde, MA: Blackwell
- Gulati, R., & Sytch, M. (2007). "Dependence asymmetry and joint dependence in Interorganizational relationships: effects of embeddedness on manufacturers'



- performance in procurement relationships”, *Administrative Science Quarterly*, 52, 32-69.
- Gunasekaran, A., Marri, H.B., MCGauahey, R., & Grieve, R. J. (2001). “Implications of organization and human behavior on the implementation of CIM in SMEs: an empirical analysis”, *International Journal of CIM*, 14(2), 175-85.
- Hagedoorn, J., & Cloudt, M. (2003). Measuring Innovative Performance: Is There an Advantage in Using Multiple Indicators? *Research Policy* 32(8), 1365-1379.
- Hair, J., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate Data Analysis*. Upper Saddle River, NJ: Prentice-Hall.
- Hieltjes, E. H., & Petrova, E. (2013). *The impact of financial literacy and transaction costs on bank account uptake and use A Randomized Controlled Trial in Ethiopia*. (Thesis). Stockholm School of Economics, Stockholm.
- Hillman, A., Shropshire, C., & Cannella, A. (2007). “Organizational predictors of women on corporate boards,” *Academy of Management Journal*, 50, 941-952.
- Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2011). *Strategic Management: Competitiveness and Globalization*. Boulevard: South Western Cengage Learning.
- Hofer, C., & Schendel, D. (1978). *Strategy formulation: Analytical concepts*. St. Paul, MN: West.
- Hoskisson, R. E., Hitt, M. A., Wan, W.P., & Yiu, D. (1999). Theory and research in strategic management: Swings of a pendulum. *Strategic Management Journal*, 25(3), 417-456.
- Ireland, R. D., Hitt, M. A., & Sirmon, D. G. (2003). A Model of Strategic Entrepreneurship: The Construct and its Dimensions. *Journal of Management*, 29(6), 963–989.
- Isaiah, O. M., Selvam, M., Vinayagamoorthi, V., Kasilingam, L., & Mariappan, R. (2015). Efficiency Measurement of Kenyan Commercial Banks. *Mediterranean Journal of Social Sciences*, 6(4), S2, 621-631.
- Israel, G. D. (2009). Determining sample size. University of Florida Cooperative Extension Service, Institute of Food and Agriculture Sciences, EDIS.

- Iveta, G. (2012). Human Resources Key Performance Indicators. *Journal of Competitiveness*, 4(1), 117-128
- Justinian, J. (2015). *Application of porter's generic competitive business strategies and their effect on performance in Zanzibar hotel industry*. Open University of Tanzania.
- Kabiru, J. R. (2016). Entrepreneurial Marketing Practices and Return on Investment Performance of SMES in Nigeria, *Sahel Analyst: Journal of Management Sciences*, 14(4).
- KAM. (2016). Annual Report
- KAM. (2017). Annual Report
- Kaplan, R. S. (2010). *Conceptual Foundations of the Balanced Scorecard*. Harvard Business School Accounting & Management Unit Working Paper 10.
- Kaplan, R., & Norton, D. (2008). Linking Strategy to Operation for Competitive Advantage. *Harvard Business Review*, 35-281.
- Katila, R., Rosenberger, J. D., & Eisenhardt, K. M. (2008). Swimming with sharks: Technology ventures, defense mechanisms and corporate relationships. *Administrative Science Quarterly*, 53(2), 295-332.
- Kemp, R., & Verhoeven, W. (2002). *Growth patterns of medium-sized, fast-growing enterprises*. EIM Business and Policy Research H200111. SCALES Research Reports.
- Kharub, M., & Sharma, R.K. (2015). Investigating the role of porter diamond determinants for competitiveness in MSMEs. *International journal of quality research*, 10(3).
- Kim, E., Nam, D., & Stimpert, J. (2004). Testing the applicability of porter's generic strategies in the digital age: a study of Korean cyber malls. *Journal of Business Strategies*, 21, 19-45.
- KNBS. (2013). Statistical abstract 2013
- Kotter, J. P. (2001). What Leaders Really Do? *Harvard Business Review*, May-June.
- Kristiansen, S., Furuholt, B., & Wahid, F. (2003). Internet cafe entrepreneurs: Pioneers in information dissemination. *International Journal of Entrepreneurship and Innovation*, 4(4), 251-263.

- Learning, O. (2009). Integrated Cost Leadership-Differentiation Strategy. Retrieved from <http://www.openlearningworld.com/olw/courses/books/Business%20Strategies/Business%20Strategy/Integrated%20Cost%20Leadership%20-%20Differentiation%20Strategy.html>.
- Lechner, C., & Gudmundsson, S. V. (2014). Entrepreneurial Orientation, Firm Strategy and Small Firm Performance. *International Small Business Journal* 32(1), 36-60.
- Leedy, P., & Ormrod, J. (2001). Practical research: Planning and design (7th Ed.). Upper Thousand Oaks, CA: SAGE Publications.
- Leitner, K. H., & Guldenberg, S. (2010). Generic strategies and firm performance in SMEs: a longitudinal study of Austrian SMEs. *Small Business Economics*, 35(2), 169-189.
- Leitoa, J., & Franco, M. (2011). Individual entrepreneurship capacity and small and medium enterprises' performance: A human and organizational capital approach. *African Journal of Business Management*, 5(15), 6350-6365.
- Lenz, R. T. (1980). "Environment, Strategy, Organization Structure and Performance: Patterns in One Industry", *Strategic Management Journal*, 1: 209-226.
- Leverin, A., & Liljander, V. (2006). Does relationship marketing improve customer relationship satisfaction and loyalty? *International Journal of Bank Marketing*, 24(4), 232 - 251.
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *The Academy of Management Review*, 21(1), 135-172.
- Lyon, D. W., Lumpkin, G. T., & Dess, G. G. (2000). Enhancing entrepreneurial orientation Research: Operationalizing and measuring a key strategic decision making process. *Journal of Management*, 26 (5), 1055-1085.
- Maalu, J. K. (2010). *Succession strategy and performance of small and medium family businesses in Nairobi, Kenya* University of Nairobi. School of Business
- Machirori, T., & Fatoki, O. (2013). The impact of firm and entrepreneur's characteristics on networking by SMEs in South Africa. *Journal of Economics*, 4(2), 113-120.

- Machuki, V. N., & Aosa, E. (2011). The Influence of external environment on the performance of publicly quoted companies in Kenya. *Business Administration and Management Journal*, 1(7), 205-2018.
- Mata, F. J., Fuerst, W. L., & Barney, J. B. (1995). Information technology and sustained competitive advantage: A resource-based analysis. *MIS Quarterly*, 19(4), 487.
- Mcafee, P. R., & McMillan, J. (1996). Competition and Game Theory, *Journal of marketing research*, 33,263-267
- McClelland, D.C. (1965). Toward a theory of motive acquisition. *American Psychologist*, 20, 321-333.
- McEvily, S. K., & Chakravarthy, B. (2002).The persistence of knowledge-based advantage: an empirical test for product performance and technological knowledge. *Strategic Management Journal*, 23(4), 285-305.
- McMahon, D., & Carr, J. C. (1999). The contributions of Chester Barnard to strategic management theory. *Journal of Management History*, 5, 228-240.
- Meyer, J. W., & Rowan, B. (1977). “Institutionalized organizations: formal structure as myth and ceremony,” *American Journal of Sociology*, 83, 41-62.
- Michalisin, M., Smith, R., & Kline, D. (1997). In search of strategic assets. *International Journal of Organizational Analysis*, 5, 360-387.
- Miller, D. (1992). Generic strategies: Classification, combination and context. In: *Srivasta, P. (Ed). Advances in Strategic Management*, 8, 391-408.
- Miller, K. D. (1993). Industry and country effects on managers’ perceptions of environmental uncertainties. *Journal of International Business Studies*, 24(4), 693–714.
- Moorthy, M. K., Tan, A., Choo, C., Wei, C. S., Ping, J.T., & Leong, T. K. (2012). A Study on Factors Affecting the Performance of SMEs in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 2(4), 224-239.
- Morgan, R. M., & Hunt, S. D. (1994). The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing*, 58(3), 20.
- Moullin, M. (2003). “Defining performance measurement”. *Perspectives on Performance*, 2(1/2), 3.

- Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative and Qualitative Approaches*. African Centre for Technology Studies, Nairobi, Kenya.
- Mugenda, O., & Mugenda, G. (1999). *Research Methods: Quantitative and Qualitative Approaches*. African Centre for Technology Studies, Nairobi, Kenya.
- Muhammad, W. J. K. (2014). Strategic Planning and Reality of External Environment of Organizations in Contemporary Business Environments. *Business Management and Strategy*, 5, 2.
- Myerson, R. (1991). *Game Theory: Analysis of Conflict*. Cambridge, MA.
- Namusonge, M. J. (2014). Linking competencies with strategies: The case of small and medium- sized exporting enterprises in Kenya. *International Journal of Social Sciences and Entrepreneurship*, 1 (11), 418-439.
- Narula, R. (2004). "R&D collaboration by SMEs: new opportunities and limitations in the face of globalization", *Technovation*, 24(2), 153-161.
- Navickas, V., Skackauskiene, I., & Navikaite, A. (2014). Theoretical investigation of trust in small and medium sized enterprises. *Business: Theory and Practice*, 15(2), 160-169.
- Ndife, C. F. (2014). Business Environment and Survival of the Tourism Industry. *Journal of Business and Management* 16, (10) Ver. III.
- Netessine, S., & Shumsky, R. (2001). *Revenue management games: horizontal and vertical competition*. University of Pennsylvania working paper.
- Nimon, K., Zientek, L., & Henson, R. (2012). The Assumption of a Reliable Instrument and Other Pitfalls to Avoid When Considering the Reliability of Data. *Frontiers in Psychology*, 3(1), 102.
- Njeru, G. W. (2013). *Market orientation, marketing practices, firm characteristics, external environment and performance of tour firms in Kenya*. University of Nairobi, School of Business.
- Njoroge, R. M. (2013). Relationship between financial literacy and Entrepreneurial Success in Nairobi County Kenya (MBA Thesis). University of Nairobi.
- Njuguna, N. J. (2014). *The effect of country of origin, consumer characteristics and attitudes on consumer behaviour towards foreign clothing brands in Nairobi, Kenya*. University of Nairobi, School of Business.

- Nunnally, J. C. (1978). *Psychometric Theory* (2<sup>nd</sup> Ed.), NY: McGraw-Hill
- Nunoo, J., & Andoh, F. (2012). *Sustaining Small and Medium Enterprises through Financial Service Utilization: Does Financial Literacy Matter?* Selected paper presented at the Agricultural & Applied Economics Association's 2012 AAEA Annual Meeting. Seattle, Washington.
- Nyasetia, O. B. (2013). *The Influence of Entrepreneurial Personality, Human Capital and Entry Barriers on Performance of Entrepreneurs in the Informal Transport Business in Nairobi, Kenya*. (Doctoral dissertation). University of Nairobi.
- Odhiambo, L.O. (2015). *The relationship between capital structure, performance and replacement of CEOs in firms listed on the Nairobi Securities Exchange*. (Unpublished PhD Thesis). University of South Africa, School of Business.
- Ogot, M. (2014). Evidence of Challenges Faced by Manufacturing Informal Sector Micro-Enterprises in Nairobi and their Relationship to Strategic Choice. *International Business Research*, 7(6), 119-128.
- Okeyo, W. O. (2013). *Entrepreneurial Orientation, Business environment, Business Development Services and Performance of Small and Medium Manufacturing enterprises in Kenya* University of Nairobi, School of Business
- Okeyo, W. O., Gathungu, J., & K'Obonyo, P. (2016). Entrepreneurial Orientation, Business Development Services, Business Environment, and Performance: A Critical Literature Review. *European Scientific Journal*, 12(28).
- Oly Ndubisi, N. (2007). Relationship marketing and customer loyalty. *Marketing Intelligence & Planning*, 25(1), 98–106.
- Oroko, H. K., & Ondigi, S. R. (2017). Personality attributes as influencers of micro enterprise growth at Kamukunji in Nairobi, Kenya. *DBA Africa Management Review*, 7 (1).
- Osborn, N. R., & Hunt, G. J. (1974). Environment and organizational effectiveness. *Administrative Science Quarterly Review*, 19(2), 231-246.
- Owino, J.O. (2014). *Organizational Culture, Marketing Capabilities, Market Orientation, Industry Competition and Performance of Microfinance Institutions in Kenya* University of Nairobi, School of Business.

- Ozcan, P., & Eisenhardt, K. (2009). "Origin of portfolios: entrepreneurial firms and strategic action," *Academy of Management Journal*, 52.
- Pearce, J., & Robinson, G. (2011). *Strategic Management: Formulation, Implementation and Control* (12<sup>th</sup> Ed.). NY: Irwin/McGraw-Hill.
- Pelham, A. M. (1999). Influence of environment, strategy, and market orientation on performance in small manufacturing enterprises. *Journal of Business Research*, 45, 33–46.
- Peng, M. W., Wang, D.Y., & Jiang, Y. (2008). An institution-based view of international business strategy: a focus on emerging economies. *Journal of Int. Business Studies* 39, 920–936.
- Pennathur, A. (2001). Quality improvement in manufacturing through human performance enhancement. *Integrated Manufacturing Systems*, 12(5), 360-367.
- Penrose, E. T. (1959). *The theory of the growth of the firm*. NY: John Wiley.
- Peter, Y., Lai, S.W., & Saw, C. K. (2019). An empirical investigation of green initiatives and environmental sustainability for manufacturing SMEs, *Journal of Manufacturing Technology Management*, 30, 1, (2-25).
- Peteraf, M. (1993). The Cornerstones of Competitive Advantage: A Resource-based View. *Strategic Management Journal*, 14, 179-191.
- Peteraf, M.A., & Barney, J.B. (2003). Unraveling the Resource-Based Tangle. *Managerial and Decision Economics*, 24(4), 309-323.
- Pfeffer, J., & Salancik, G. R. (1978). *The External Control of Organizations: A Resource Dependence Perspective*. NY: Harper and Row.
- Pittaway, L., Missing, C., Hudson, N., & Maragh, D. (2009). Entrepreneurial learning through action: a case study of the six-squared program, *Action Learning: Research and Practice*, 6(3): 265–288.
- Polanyi, M. (1966). *The tacit dimension*. London: Routledge and Kegan Paul
- Polit, D. F., & Beck, C. T. (2006). The Content Validity Index: Are you sure you know what's being reported? Critique and recommendations. *Research in Nursing & Health*, 29(5), 489-497.
- Porter, M. E. (1979). How competitive forces shape strategy. *Harvard Business Review*, 57(2), 137-145.

- Porter, M. E. (1980). *Competitive strategy: Techniques for analyzing Industries and competitors*. NY: Free Press.
- Porter, M. E. (1985). *Competitive Advantage*. NY: Free Press.
- Powell, W. W. (1991). 'Neither market nor hierarchy: network forms of organization', *Research in Organizational Behavior*, 12, 295–336.
- Prescott, C. E. (2001). Value chain analysis and competitive advantage. *Journal of general management*, 27(1).
- Pulaj, E., Kume, V., & Cipi, A. (2015). The impact of generic competitive strategies on organizational performance. The evidence from Albanian context. *European Scientific Journal*, 11(28).
- Punch, K. F. (2003). *Essential Resource Books for Social Research: Survey research*. London, England: SAGE Publications Ltd.
- Rakesh, C. (2014). PEST Analysis for Micro Small Medium Enterprises Sustainability, *JMC* 22, 1(1).
- Rasmusen, E. (2001). *Games and Information: An Introduction to Game Theory* (3<sup>rd</sup> Ed.). Oxford: Wiley-Blackwell.
- Rauch, A., Wiklund, J., Lumpkin, G., & Frese, F. (2009). Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. *Entrepreneurship Theory and Practice* 33(3), 761–787.
- Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring Organizational Performance: Towards Methodological Best Practice. *Journal of Management*, 35(3), 718-804.
- Rohitratana, K., & Boon-Itt, S. (2011). *The implementation of ISO 9000 in Thai Seafood Processing Industry: An empirical study*. Integrated Management: Proceedings of the 6th International Conference on ISO 9000 and TQM, 17- 19 April 2001 (477-482). Paisley, United Kingdom: University of Paisley.
- Rosa, H. (2013). Social Acceleration: A New Theory of Modernity. *The European Journal of Social Sciences*.
- Rotter, J. (1966). Generalized expectancies for internal versus external control of reinforcement, *Psychological Monographs*, 80(1), 1–28.



- Rumelt, R. P. (1984). *Towards a strategic theory of the firm*, in Lamb, R. B. (Ed.). *Competitive Strategic Management*. Englewood Cliff, NJ: Prentice Hall.
- Ryan, J. C., Tipu, S. A., & Zeffane, R. M. (2012). Need for achievement and entrepreneurial potential: a study of young adults in the UAE. *Education, Business and Society: Contemporary Middle Eastern Issues*, 4(3), 153-166.
- Salavou, H. (2015). Profitability in market -oriented SMEs: does product innovation matter? *European Journal of Innovation Management*, 5(3), 164-171.
- Saloner, G. (1991). Modelling, Game Theory and Strategic Management, *Strategic Management Journal*, 12.
- Saunders, M., Lewis, P., & Thornhill, A. (2007). *Research methods for business Students* (5th Ed). Essex, England: Pearson Education Limited.
- Schumpeter, J. A. (1965). Economic Theory and Entrepreneurial History. In: Aitken HG (Ed) Explorations in enterprise. *Harvard University Press, Cambridge, MA*.
- Sekaran, U., & Bougie, R. (2010). *Research methods for business: Skill building approaches* (5th ed.). West Sussex, UK: John Willey & Sons.
- Selvam, M., Vanitha, S., Gayathri, J., Bennet, E., & Nageswari, P. (2010). The Determinants of shareholders' wealth of acquiring firms in India. *Journal of Modern Accounting and Auditing*, 6(1), 46-54.
- Sermon, D. G., Hitt, M. A., & Ireland, R. D. (2006). Managing Firm Resources in Dynamic Environments to Create Value: Looking Inside the Box. *Academy of Management*, 32, 273-292.
- Shigang, Y. (2010). Competitive strategy and business environment: The case of small enterprises in China. *Asian Social Science*, 6(11).
- Sidik, I. G. (2012). Conceptual framework of factors affecting SME development: Mediating factors on the relationship of entrepreneur traits and SME performance. *Procedia Economics and Finance*, 4 (2012), 373 – 383.
- Simerly, R.L., & Mingfang, L. (2000). Environmental dynamism, capital structure and performance: A theoretical integration and an empirical test. *Strategic Management Journal*, 21(1), 31-49.
- Simpeh, K. N. (2011). Entrepreneurship theories and Empirical research: A Summary Review of the Literature. *European Journal of Business and Management*, 3, (6).

- Sin, L. Y. M., Tse, A. C. B., Yau, O. H. M., Lee, J. S. Y., & Chow, R. (2002). The effect of relationship marketing orientation on business performance in a service-oriented economy. *Journal of Services Marketing*, 16(7), 656–676.
- Spanos, Y., Zaralis, G., & Lioukas, S. (2004). Strategy and Industry Effects on Profitability: Evidence from Greece. *Strategic Management Journal*, 25(2), 139-165.
- Stalk, G., Evans, P., & Shulman, L.E. (1992). Competing on capabilities: The New Rules of Strategy. *Harvard Business Review*, March-April, 57-69.
- Stewart, J., Harte, V., & Sambrook, S. (2011). What is theory? *Journal of European Industrial Training*, 35(3), 221 – 229.
- Teach, R. D., & Schwartz, R. G. (2000). *The congruence game: A team building game for entrepreneurs*. Published in the ISAGA Proceedings.
- Teece, D. J., & Pisano, G. (1994). The Dynamic Capabilities of Firms: An Introduction. *Industrial and Corporate Change*, 3(3), 537-556.
- Teece, D. J., Pisano, G., & Schuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Tehrani, M. (2003). Competitive strategies, strategic alliances, and performance in international high-tech industries: Across-cultural study. *Journal of American Academy of Business*, 2(2), 610-617.
- Vargas, D.M., & Rangel, R.G. T. (2007). “Development of internal resources and capabilities as sources of differentiation of SME under increased global competition: a field study in México”. *Technological Forecasting and Social Change*, 74 (1), 90-99.
- Venkatraman, N., & Prescott, J. E. (1990). Environment-strategy co-alignment: An empirical test of its performance implications. *Strategic Management Journal*, 11(1), 1-23.
- Venkatraman, N., & Ramanujam, V. (1986). Measurement of Business Performance in Strategy Research: A Comparison of Approaches. *The Academy of Management Review*, 11(4)

- Vinas, B. C. B., Bessant, J., Perez, G. H., & Gonzales, A. A. (2001). "A conceptual model for the development of technological management processes in manufacturing companies in developing countries". *Technovation*, 21(6), 345-52.
- Waema, T. M., Odera, G., Adeya-Weya, C. N. A., Were, P., Masinde, E. M., & Chepken ... Kenduiywo, J. (2009). *Development of a business process outsourcing industry in Kenya: Critical success factors*. Policy Brief. IDRC Grant No. 104488-001.
- Wales, W., Gupta, V., & Mousa, F.T. (2011). Empirical research on entrepreneurial orientation: An assessment and suggestions for future research. *International Small Business Journal*. Epub ahead of print, 13.
- Wanjohi, A. M., & Mugure, A. (2008). *Factors affecting the growth of MSEs in rural areas of Kenya: A case of ICT enterprises in Kiserian Township, Kajiado District*.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5, 171-180.
- Wiklund, J., & Shepherd, D. (2005). Entrepreneurial orientation and small business performance: a configurational approach. *Journal of Business Venturing*, 20(1), 71-91.
- Wonnacott, T. H., & Wonnacott, R. J. (1990). *Introductory statistics for business and economics*. NY: John Wiley & Sons.
- Zammuto, R. F. (1984). A Comparison of Multiple Constituency Models of Organizational Effectiveness. *Academy of Management Review*, 9(4), 606-616.
- Zapolski, T. C. B., Guller, L., & Smith, G. T. (2012). Construct Validation Theory Applied to the Study of Personality Dysfunction. *Journal of Personality* 80(6), 1507-1531.

## APPENDICES

### APPENDIX I: LETTER OF FULL REGISTRATION



**UNIVERSITY OF NAIROBI  
GRADUATE SCHOOL**

Telephone: 3318262  
Fax Number: 243626  
Telegrams: "Varsity of Nairobi"  
Email: [gs@uonbi.ac.ke](mailto:gs@uonbi.ac.ke)  
Our Ref: D80/73264/2012

P. O. Box 30197, 00100  
NAIROBI, KENYA

4<sup>th</sup> October, 2018

Mr. Victor Laibuni Baariu  
C/o Dean,  
School of Business

Dear Mr. Baariu,

**FULL ADMISSION TO POSTGRADUATE STUDIES (DOCTORATE)**

Following your application for a higher degree at this University, I am pleased to inform you that the Director, Graduate School has approved your application for full registration for the degree of Doctor of Philosophy in Business Administration in the School of Business. He has also approved **Prof. James Gathungu** and **Prof. Bitange Ndemo** as the supervisors of your thesis entitled; **"Competitive Strategy Drivers, Entrepreneurial Orientation, Macro Environment and Performance of Manufacturing Small and Medium Enterprises in Nairobi County, Kenya."** The Guidelines on Postgraduate Supervision can be accessed on our website ([www.gs.uonbi.ac.ke](http://www.gs.uonbi.ac.ke)) while the Research Notebook is available at the University Bookstore.

The degree for which you are registered will be offered by coursework, research and thesis.

Your admission into the programme commenced on 9<sup>th</sup> January 2012 and your registration is governed by the common regulations for Doctorate degrees in all Faculties and the School of Business. **You will be expected to carry out supervised thesis research in your chosen area of study for a minimum period of four (4) semesters, with effect from the date of this letter, culminating in a doctoral thesis.**

Please note that all fees and other charges due shall be paid by **Direct Cash Deposits, EFT (Swift Code is "BARCKENX) or RTGS transfer to UON CESSP Collection Account No. 2032771362 at Barclays Bank, Barclays Plaza Nairobi, Kenya or at any Barclays Bank Branch countrywide using the Reference Number quoted above.** Personal Cheques, Bankers Cheques or Institutional Cheques are NOT acceptable. The student account will be updated the next working day after payment and can be accessed through the student online portal (<http://smis.uonbi.ac.ke>) available in the University website ([www.uonbi.ac.ke](http://www.uonbi.ac.ke)).

**You will also be required to provide evidence of 2 publications or 2 letters of acceptance from peer reviewed journals from your PhD work before the oral defence. The publication should be co-authored with the supervisors.**

Details regarding payment of fees and other charges remain as outlined in the attached fees structure.

Yours sincerely,

**CATHERINE NJUE (MS)  
FOR: DIRECTOR, GRADUATE SCHOOL**

c.c. Dean, School of Business  
PhD Programme Co-ordinator - School of Business  
Chairman, Department of Business Administration  
Prof. James Gathungu (Supervisor) – School of Business  
Prof. Bitange Ndemo (Supervisor) – School of Business

Encl. Fees structure  
CN/mv



## APPENDIX II: LETTER OF AUTHORIZATION TO COLLECT DATA



### UNIVERSITY OF NAIROBI GRADUATE SCHOOL

Telephone: 3318262 Ext. 28267  
Fax Number: 243626  
Telegrams: "Varsity of Nairobi"  
E-mail: gs@uonbi.ac.ke  
Your Ref:  
**OUR REF:** D80/73264/2012

P. O. Box 30197-00100  
NAIROBI, KENYA

2<sup>nd</sup> October, 2018

Mr. Victor Laibuni Baariu  
C/o Dean,  
**School of Business**

Dear Mr. Baariu,

#### **EXTENSION OF PhD REGISTRATION PERIOD (TERMINAL)**

Reference is made to your letter dated 13<sup>th</sup> September, 2018 on the above subject to the Director, Graduate School.

The Director, Graduate School has approved **terminal extension** of your registration in the Ph.D Programme for **eighteen (18) months** to enable you complete your studies. This extension will take effect from the date of this letter.

**Please note that this is the final extension and failure to complete your course within this period will lead to de-registration from the programme.**

Yours sincerely,


A handwritten signature in black ink, appearing to be 'Catherine Njue'.


CATHERINE NJUE (MS.)  
**FOR: DIRECTOR, GRADUATE SCHOOL**

c.c. Dean, School of Business  
Ph.D Programme Coordinator, SOB  
Chairman, Department of Business Administration


CN/mv

APPENDIX III: RESEARCH PERMIT FROM NACOSTI

  
REPUBLIC OF KENYA  
National Commission for Science, Technology and Innovation  
Ref No: 389032

  
NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY & INNOVATION  
Date of Issue: 16/March/2020

**RESEARCH LICENSE**




**This is to Certify that Mr. VICTOR LAIBUNI BAARIU of University of Nairobi, has been licensed to conduct research in Nairobi on the topic: COMPETITIVE STRATEGY DRIVERS, ENTREPRENEURIAL ORIENTATION, MACRO ENVIRONMENT AND PERFORMANCE OF MANUFACTURING SMALL AND MEDIUM ENTERPRISES IN NAIROBI COUNTY, KENYA for the period ending : 16/March/2021.**

License No: NACOSTI/P/20/3858

**Applicant Identification Number**  
389032

**Director General**  
NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY &  
INNOVATION

**Verification QR Code**



**NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.**

## APPENDIX IV: LETTER OF INTRODUCTION TO RESPONDENT

### APPENDIX IV: LETTER OF INTRODUCTION TO RESPONDENT

Dear Respondent,

I am a Doctor of Philosophy (Ph.D.) student studying in the University of Nairobi, School of Business, Department of Business Administration. As a component of the necessity for the honor of the degree, I am required to carry out a research on connection between competitive strategy drivers, entrepreneurial orientation, macro environment and the performance of manufacturing SMEs in Nairobi County, Kenya and I am looking for your support to fill the questionnaire. Fill the questionnaire as truthfully as possible. The study results will be used for scholarly purposes and will be treated with most extreme secrecy. Just summary results will be made open for public. Your support to fill the questionnaire will be highly valued.

Yours faithfully,

**Victor Laibuni Baariu**

Ph.D. Candidate



## APPENDIX V: QUESTIONNAIRE

The purpose of this questionnaire is to gather information. For each statement provided, you are required to circle the response that best describes your feelings. The information and study findings you submit will only be utilized for academic reasons and will be kept strictly confidential.

Your input is highly appreciated.

### SECTION A: ENTREPRENEUR AND ENTERPRISE PROFILE

#### Entrepreneur profile

1. What is your gender?

- Female
- Male

2. Indicate your marital status

- Married
- Single
- Separated/divorced
- Widowed

3. Please tick your appropriate age group

- 18-24yrs
- 25-34yrs
- 35-44yrs
- 45-54yrs
- 55 and over

4. Please indicate the highest level of educational qualification you attained

- KCPE
- KCSE
- Diploma

- Certificate
- University degree
- No formal education

**6. Enterprise profile**

i. Please indicate the how many years your enterprise has been in operation

- 1-5
- 5-10
- 10-15
- Over 15 years

ii. **Legal status of the business**

- Sole proprietor
- Partnership
- Limited Liability Company
- Others (specify)

**PART B: COMPETITIVE STRATEGY DRIVERS**

Please mark if you agree or disagree with the following assertions about your company's competitive strategy drivers. Where 1 = strongly disagree 2 = disagree 3 = neither disagree nor agree 4 = agree 5 = strongly agree.

Items	1	2	3	4	5
<b>Environmental Based Drivers</b>					
We have the ability to deliver high quality products and services					
We have effective sales and marketing team					
The market understands the benefits offered by the differentiated offerings					

Products and services different from and more attractive than those of our competitors					
We have brand image that our customers value					
We concentrate on particular niche markets					
We understand the dynamics of the niche market and the unique needs of customers within it					
We build strong brand loyalty amongst our customers thus making our particular market segment less attractive to competitors					
We offer unique features that fulfill the demands of a narrow market					
The firm concentrate on a particular market					
The firm charge low prices relative to other firms that compete within the target market					
The firm practice the lowest cost of operation in the industry					
Our production process is backed by innovation					
The firm acquire quality raw materials at the lowest price					
The firm produces highly standardized product using advanced technology					
<b>Resource Based Drivers</b>					
Our firm can easily mobilize resources					
Our firm has a strong business plan					
Our firm has clear strategy and competitive edge					
Our management team are competent and valuable					
Our business valuation and scalability are in line with investors needs					
Our firm embraces the development of individual and institutional ingenuity					
Digitization of performance management not only provides more precise data but also positively influences management process					
Technology facilitate a culture of continuous feedback thus everyone knows where they stand on a regular basis					
Technology enables collection of more objective performance data on a real time basis					
Our firm has high skilled labour so as to produce economic value					
Human capital is the most essential capital in our firm					
The firm value knowledge, experience, skill, attitudes, abilities, behaviour and obligation of employees					
The ability to effectively acquire, control and utilize knowledge in every business activity is the differentiator between our firm and competitors					
A tool of managing increasingly complex global value chain networks					
The firm focuses on optimizing volumes and value based on cross functional management					
The firm integrate decision making throughout the value chain					
<b>Hybrid Strategy Drivers</b>					

Our firm achieve both high quality and productivity at the same time					
Our firm embraces mass customizations					
Our firm makes consistent low-cost strategic decisions on how to pursue competitive advantages and align resources and capabilities					
It is a way of responding to changes in the competitive environment more flexibly and effectively and stay competitive					
Our firm offers quality products at a premium cost					
Our firm is known in the market due to the premium price as compared to its competitors					
Our firm is reputable for quality and technical capabilities of its products/services which comes with a cost					
Our prices are matched with value creation and value addition in the products					

**SECTION C: MACRO ENVIRONMENT**

Macro environment is part of the wider environment where a firm operates and consists of factors beyond the organizational control. On the basis of the implications of the macro environment to your organization, please answer the questions below.

To what extent have the following aspects of the macro-environment impacted on the operations of your organization? Use the key below and **TICK** as appropriate.

**Key:** 1-Not at all; 2-Less extent; 3-Moderate extent; 4-Large extent; 5-Very large extent.

Statement	1	2	3	4	5
The political stability of the country					
Change of political regime					
The country’s overall political stability					
Inflationary trends in the country					
Level of the country’s overall economic development					
Foreign exchange rates					
Interest rates					
Availability of credit					
Changes in the taxation regime					

Annual Budget allocations to the organization					
Intermittent budget reviews and re-allocations by government					
Societal norms and values					
Religion of host communities					
Demands of host communities					
Cultural practices e.g. land demarcation, farming practices, pastoralism, etc					
Population growth rate					
Crime rates and terrorism					
Tribal inclinations					
Gender issues					
Developments in Information Communication & Technology e.g. internet, digitization of services etc					
Interest from various stakeholders					
Government pronouncements on changes in policy from time to time					
Devolved government structure					
Occurrence in the natural environment e.g. floods, drought etc					
Civil society organizations agitation for rights					
Government fiscal policies					
Taxation policies					
Changes in the Kenya Constitution 2010 and subsequent legislation					
The legal framework prescribing the mandate of the organization					
Legislative activities touching on the organization's business					
Environmental legislation					

## SECTION D: ENTREPRENEURIAL ORIENTATION

Kindly indicate your agreement or disagreement with the following statements concerning entrepreneurial orientation in your firm where 1=strongly disagree 2= disagree 3=neither disagree nor agree 4=agree 5=strongly agree

<b>Innovativeness</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Employees are always coming up with new goods or methods to do things differently.					
The manager prefers to solve problems in his or her own unique way.					
In the previous five years, the company has launched new product or service lines.					
When it comes to launching new goods, employees have a strong inclination to follow the leader.					
Companies are frequently the first to market with innovative products and services.					
<b>Risk Taking</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The management does have a strong predilection for initiatives with a high level of risk.					
When it comes to innovative products and services, companies are frequently first to market.					
When it comes to releasing new goods, the company has a great propensity to be ahead of the competition.					
The business takes steps, with which competition retaliate.					
<b>Pro-Activeness</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
When dealing with competition, the company is frequently the first to provide new goods and services.					
To avoid making costly judgments, the company takes a careful wait-and-see approach.					
Typically, the business takes the initiative and rivals retaliate.					
<b>Competitive Aggressiveness</b>					

When it comes to competition, our company adopts a strong and aggressive strategy in general.					
Our company competes fiercely in the sector,					
We try to undo and outmaneuver the competition as much as possible.					
Our company is rarely first to initiate innovative products.					
The company makes no particular attempt to entice customers away from its rivals.					
When faced with a decision-making situation containing ambiguity, the company takes a careful wait-and-see approach to reduce the likelihood of ending up with costly judgments.					

**SECTION E: FIRM PERFORMANCE**

Kindly indicate your agreement or disagreement with the following statements concerning entrepreneurial orientation in your firm where 1=strongly disagree 2= disagree 3=neither disagree nor agree 4=agree 5=strongly agree

<b>Entrepreneur Satisfaction</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
You're happy with the way things are going in your present company.					
Your present company satisfies your requirements					
Your existing company is the most appropriate for you.					
<b>Growth in Employment</b>					
Our workforce has grown considerably in tandem with our company's growth.					
Employment growth is influenced by the local market.					
Every year, our company promotes and hires new personnel.					
Our company has a low staff turnover rate.					
<b>Business Longevity</b>					

Our financial well-being has an impact on our lifespan.					
The longevity of a firm is determined by its customer focus					
Our internal skills have an impact on our lifespan.					
Our company's longevity is defined by our strategic vision					
Our company's lifespan is influenced by our ability to learn and develop					

Please give the percentage (%) figure relating to the increase or decrease in the parameters in the table below for the period of five years. For increase or decrease the benchmark is 100% from the previous year

Constructs considered	Annual growth or decline as a percentage (%)					Overall Average growth
	2013	2014	2015	2016	2017	
Net profit						
Total Investment						
Total Assets						
Shareholder Equity						

***THANK YOU VERY MUCH FOR YOUR TIME.***

Our firm produces premium products for niche clientele					
There is high demand for our premium products					



Table 0.1

<b>Constructs</b>	<b>Average growth or decline as a percentage</b>				
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Net income</b>					
<b>Total Investment</b>					
<b>Total Assets</b>					
<b>Shareholders Equity</b>					

**APPENDIX VI: LIST OF MANUFACTURING SMEs IN NAIROBI COUNTY**

**BUILDING, MINING AND CONSTRUCTION**

<b>No.</b>	<b>Name of Company</b>
1	ARM Cement ltd
2	Bamburi Special Products ltd
3	Boyama Building Materials
4	Central Glass Industries
5	Flamingo Tiles (Kenya) Ltd
6	International Energy Technik Ltd
7	Kenbro Industries Ltd
8	Kenya Builders & Concrete ltd
9	VirjiVishram Patel & sons
10	Vallem Construction ltd

**CHEMICAL & ALLIED SECTOR**

<b>No.</b>	<b>Name of Company</b>
1	Anffi Kenya ltd
2	Blue Ring Products ltd
3	Chemicals and Solvents (EA) ltd
4	Chrysal Africa Ltd
5	Crown Gases Ltd
6	Darfords industries Ltd
7	Deluxe Inks Ltd
8	Doric Industries Ltd
9	Eastern Chemicals Industries
10	Elex Products ltd
11	Grand Paints Ltd
12	Hi- tech Inks and Coatings
13	Johnson Diversity East Africa Ltd
14	Kamili packers Ltd
15	Ken Nat ink & Chemicals ltd

16	Kip Melamine Co. Ltd
17	Kridha ltd
18	Leatherlife (EPZ) Ltd
19	Maroo Polymers Ltd
18	Match masters Ltd
19	MEA ltd
20	Metoxide Africa ltd
21	Murphy Chemicals Ltd
22	Norbrook Kenya Ltd
23	Odex chemicals Ltd
24	Osho chemicals Industries ltd
25	Polychem East Africa
26	Revolution Stores Ltd
27	Rok Industries Ltd
28	Rumorth Group of Companies Ltd
29	Rutuba Bio Agri & Organic Fertilizers Co. Ltd
30	Sanergy

31	SC Johnson and Son Kenya (Formerly Sara lee)
32	Seweco Paints Ltd
33	SoilexProsolve Ltd
34	Strategic Industries Ltd
35	Superfoam Ltd
50	Synresins Ltd
51	Tri – Clover Industries (K) ltd
52	Waridi Creations ltd
53	Westminister Paints and Resins Ltd

**ENERGY, ELECTRICALS AND ELECTRONICS**

No.	Name of company
1	Asano International Ltd
2	Assa Abloy East Africa
3	Aucma Digital Technology Africa Ltd
4	Avery East Africa Ltd
5	Baumann Engineering Ltd
6	Centurion Systems ltd

7	Daima Energy Services ltd
8	Digitech East Africa Ltd
9	East Africa Cables Ltd
10	Farm refrigerators & Electrical Systems Ltd
11	Ibera Africa Power (EA) ltd
12	International Energy Technik Ltd
13	Ken west cables Ltd
14	Manufacturers & Suppliers (K) ltd
15	Marshalls Fowler (Engineers) Ltd
16	Meltex International Ltd
17	Mestec ltd
18	Mustek East Africa Ltd
19	Nation Wide Electrical Industries Ltd
20	Oilzone (EA) ltd
21	Optimum Lubricants ltd
22	PCTL Automation Ltd
23	Pentagon Agencies

24	Synergy Pro.
25	Virtual city Ltd

**AGRICULTURE AND FRESH PRODUCE**

<b>No.</b>	<b>Name of Company</b>
1	Aquila Development Co. Ltd
2	Avoken Ltd
3	From Eden
4	Kankam Exporters ltd
5	Mahee Flowers
6	Kandia Fresh Produce Suppliers Ltd
7	MbogaTuu Limited
8	Evergreen Crops Limited

**FOOD AND BEVERAGES**

<b>No.</b>	<b>Name of Company</b>
1	African Spirits ltd
2	Agriner Agricultural Development

3	Al-Mahra Industries Ltd
4	Alphine Cooler Ltd
6	Bakers Corners Ltd
7	Belfast Mulers Ltd
8	Beverage Services (k) ltd
9	Bounty ltd
10	The Breakfast Cereal Company (k) ltd
11	Candy Kenya ltd
12	Chirag Kenya Ltd
13	Danone Baby Nutrition Ltd Africa & Overseas
14	Deepa Industries ltd
15	DPL Festive Ltd
16	East Africa Malt Ltd
17	East Africa Sea Food Ltd
18	East Africa Seed co. Ltd
19	Edible Oil Products
20	Elekea Ltd



21	Erdemann Co. (K) ltd
22	Europack Industries Ltd
23	Global Fresh ltd
24	Green Forest Foods Ltd
25	Highlands Cannery ltd
26	Kimili Packers Ltd
27	Kenafic Bakery
28	Kenya Sweats ltd
29	Koba Waters Ltd
30	Kwality Candies Sweets Ltd
31	Melvin Marsh International
32	Muritini Kenya Ltd
33	Nairobi Flour Mills Ltd
34	Norda Industries Ltd
35	Palmhouse Diaries Ltd
36	Pernod Ricard Kenya Ltd
37	Pearl Industries Ltd

38	Premier Flour Mills Ltd
39	Premier Foods Industries ltd
40	Pristine International ltd
41	Promasidor Kenya Ltd
42	Rafiki Millers Ltd
43	Re- Suns Spices Ltd
44	Salim Wazarani Kenya Com Ltd
45	SBC Kenya Ltd
46	Sigma Supplies Ltd
47	Selecta Kenya Gmbh & Sons. KG
48	Spice World Ltd
49	Trufoods Ltd
50	Trust Feeds Ltd
51	United Distillers and Vintners
52	Usafi Services Ltd
53	Valuepak Foods
54	W.E Tilley (Muthaiga) Ltd

55	Wanji Food Industries Ltd
56	Winnie's Pure Health

### **LEATHER & FOOTWEAR**

No.	Name of Company
1.	Budget Shoes Ltd
2.	C & P Shoe Industries Ltd
3.	Sandstorm Africa Ltd
4	Zingo Investments Ltd

### **METAL & ALLIED SECTOR**

No.	Name of Company
1	Agro- Irrigation & Pump
2	Allied East Africa Ltd
3	Alloy Steel Casting Ltd
4	Apex Steel Ltd
5	ASL Ltd Steel Division

6	ASP Company Ltd
7	Athi River Steel Plant Ltd
8	City Engineering Works (K) Ltd
9	Crystal Industries Ltd
10	East Africa Foundry Works (K) Ltd
11	East Africa Glassware Mart Ltd
12	Elite Tools Ltd
13	Fine Engineering
14	Farm Engineering Industries Ltd
15	Friendship Container Manufacturers Ltd
16	General Aluminum Fabricators ltd
17	Harveer Bas Body Builders Ltd
18	Heavy Engineering Ltd
19	Insteel ltd
20	Iron Art Ltd
21	Kens Metal Industries
22	Khetsi Dharamshi & Co. Ltd

23	Load Trailers
24	Marvel Lifestyle Ltd
25	Mecol Ltd
26	Metal Crowns Ltd
27	Modules Engineering Systems Ltd
28	Nail & Steel Products Ltd
29	Napro Industries Ltd
30	Ngeru Holdings Ltd
31	Northstar Packaging Ltd
32	Richfield Engineering co ltd
33	Rolmil Kenya Ltd
34	SafalMitek Ltd
35	Sheffield Steel Systems Ltd
36	Siya Industries (K) Ltd
37	Specialized Engineering G. (E.A) Ltd
38	St. Theresa Industries
39	Steel Structures ltd

40	Steelmakers Ltd
41	Steel wool (Africa) ltd
42	SuperfitSteelcon Ltd
43	Technoconstruct Kenya Ltd
44	Techno Steel Industries Ltd
45	Towertech Africa Ltd
46	Viking Industries Ltd
47	Warren Enterprises ltd
48	Welding Alloys Ltd
49	Wire Products Ltd

## **8. MOTOR VEHICLES AND ACCESSORIES**

No.	Name of Company
1	Alandar Trading Company Ltd
2	Auto Ancillaries Ltd
3	Auto Springs Manufacturers Ltd
4	Banbros Ltd

5	Bhachu Industries Ltd
6	BMG Holdings Ltd
7	Choda Fabricators Ltd
8	Chui Auto Springs Industries Ltd
9	Cica Motors
10	Dodi Autotech (K) ltd
11	Kenya Grange Vehicle Industries ltd
12	King Bird (K) Ltd
13	Mann Manufacture ring co ltd
14	Master Fabricators Ltd
15	Megh Cushions Industries Ltd
16	Mutsumoto Company ltd
17	Pipe Manufacturers Ltd
18	Sohansons Ltd
19	Songyi, Motorcycles International ltd
20	Soroya Motors spares
21	Theevan Enterprises Ltd

## 9. PAPER AND BOARD

No.	Name of company
1	Adpak International Ltd
2	Associated Paper & Stationary Ltd
3	Autolitho Ltd
4	Bag and Envelope Converts
5	Bags & Balers Manufacturers (K) Ltd
6	Brand Printers Ltd
7	Carton Manufacturers Ltd
8	Cempack Solutions
9	Chandaria Industries Ltd
10	Colour Packaging Ltd
11	Colourprint Ltd
12	D.L Patel Press Kenya Ltd
13	Dune Packaging Ltd
14	Economic Industries Ltd



15	Elite Offset Ltd
16	English Press Ltd
17	Essential Manufacturing
18	Euro Packaging Ltd
19	Flora Printers Ltd
20	Fortunes Printers & Stationers Ltd
21	Franciscan Kolbe Press
22	General Printers Ltd
23	Graphics and Allied Ltd
24	Guaca Stationers Ltd
25	Icons Printers Ltd
26	Interlabels Africa Ltd
27	International Paper & Board Suppliers Ltd
28	Kenya Stationers Ltd

**10. PHARMACEUTICAL AND MEDICAL EQUIPMENT**

<b>No.</b>	<b>Name of Company</b>

1	Alpha Medical Manufacturers Ltd
2	Autosterile (EA)
3	Beta Healthcare International
4	Biodeal Laboratories Ltd
5	Biopharma Ltd
6	Cosmos Ltd
7	Dawa Ltd
8	Elys Chemical Industries Ltd
9	Gesto Pharmaceutical Ltd
10	Global merchants Ltd
11	KAM Industries Ltd
12	Manhar Brothers (K)Ltd
13	Medivet Products Ltd
14	Novelty Manufacturing Ltd
15	Osschemie (K) Ltd
16	Pharm Access Africa Ltd
17	Pharmaceutical Manufacturing Co. Ltd

18	Questa Care Ltd
19	Regal Pharmaceuticals Ltd
20	Zain Pharmaceuticals

#### 11. PLASTIC AND RUBBER

No.	Name of Company
1	ACME Containers Ltd
2	Afro Plastic (k) Ltd
3	Betatrad (k) Ltd
4	Brush Manufacturers Ltd
5	Canaaneast Company Ltd
6	Complast Industries Ltd
7	Coninx Industries Ltd
8	Dune packaging Ltd
9	Dynaplas Ltd
10	Elgitread (Kenya) Ltd
11	Elgon Kenya Ltd

12	Eslon Plastics of Kenya Ltd
13	Five star industries Ltd
14	Flair Kenya Ltd
15	General Plastics Ltd
16	Jamlam Industries Ltd
17	Jumbo Chem
18	Jumbo Quality Products
19	Kamba Manufacturing (1986) Ltd
20	Kenrub ltd
21	Kinpash Enterprises Ltd
22	L.G Harris & Co Ltd
23	Laneeb Plastics Industries Ltd
24	Malplast Industries Ltd
25	Metro Plastics Kenya Ltd
26	Nairobi Plastics Ltd
27	Ombi Rubber Rollers Ltd
28	Packaging Industries Ltd

29	Packaging Masters Ltd
30	Plastic Electricons
31	Plastic & Rubber Industries Ltd
32	Polyblend Ltd
33	Polyflex Industries Ltd
34	Polythene industries ltd
35	Premier industries ltd
36	Princeware Africa (Kenya) Ltd
37	Prosel Ltd
38	Rubber Products Ltd
39	Safepak Ltd
40	Signode Packaging Systems Ltd
41	Sign Retread Ltd
42	Sprinbox Kenya Ltd
43	Super Manufacturers Ltd
44	Thermopak Ltd

## **12. TEXTILE AND APPARELS**

<b>No.</b>	<b>Name of Company</b>
1	Future (k) Ltd
2	Kema (E.A) Ltd
3	Le Stud Ltd
4	Ngecha Industries Ltd
5	Penny Galore Ltd
6	Straighline Enterprise
7	Wood tex Kenya Ltd

## **13. TIMBER, WOOD AND FURNITURE**

<b>No.</b>	<b>Name of Company</b>
1	Economic Housing Group Ltd
2	Fine Wood Works Ltd
3	Furniture International Ltd
4	Kenya Wood Ltd

5	Neo Interior Decorators ltd
6	Shah Timber Mart Ltd
7	Shamco Industries Ltd
8	Wood Makers (K) Ltd
9	Woodtex Kenya Ltd

## APPENDIX VII: FACTOR ANALYSIS

### Competitive Strategy Drivers

#### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.763
Bartlett's Test of Sphericity	Approx. Chi-Square	2470.721
	df	171
	Sig.	.000

#### Communalities

	Initial	Extraction
Our firm does costing of all products and services	1.000	.628
Our firm maximizes on profitability through cost reduction strategies	1.000	.781
Our firm improves on production/service delivery process to cut on waste and duplication	1.000	.633
Our firm minimizes cost through innovation	1.000	.705
Our firm has optimum level of personnel	1.000	.678
Our firm emphasizes on efficiency	1.000	.732
Our firm emphasizes on time management	1.000	.766
Our firm continuously trains staff on effective resource utilization	1.000	.599
Our firm offers products/services with unique characteristics	1.000	.746
Our firm creates and maintains products/services with appealing features	1.000	.718
Our firm does research to match products/services with customer needs	1.000	.680
Our firm offer products/services at affordable prices	1.000	.675



Our firm always strives to lead in product/service delivery in our sector	1.000	.767
Our firm always keeps our customers always aware of our product/service attributes	1.000	.609
Our firm understands its focus and mandate	1.000	.781
Our firm always updates its mandate in line with changes in the market	1.000	.649
Our firm specializes on its target market	1.000	.771
Our firm always strives to remain in its market	1.000	.732
Our firm always reviews changes in the niche market	1.000	.759

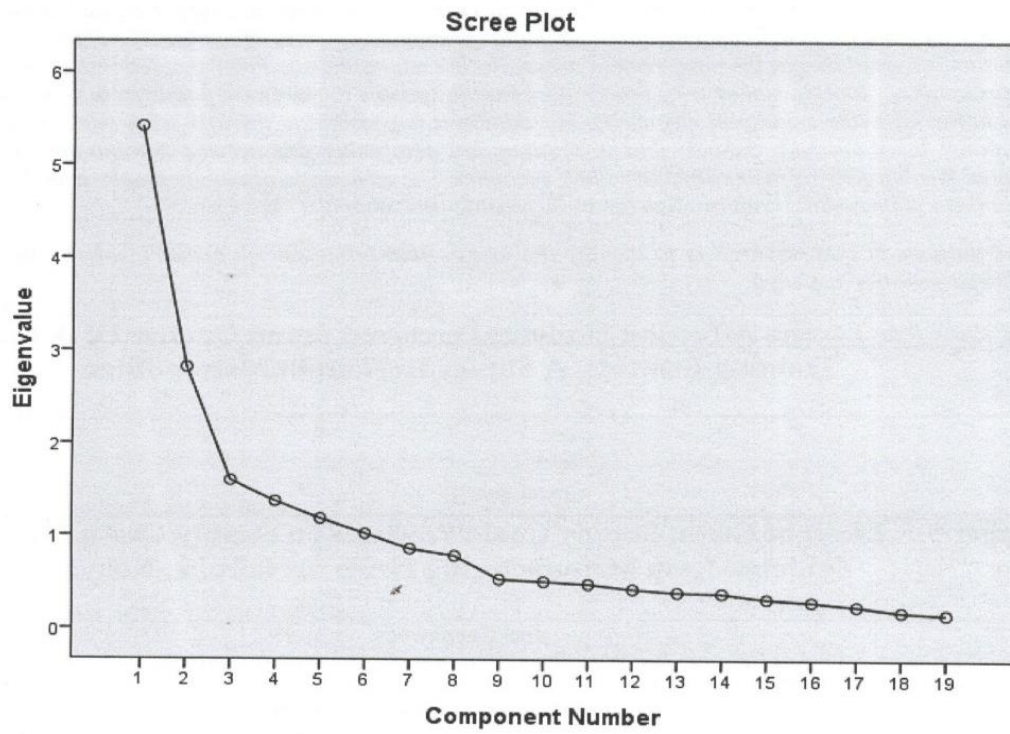
Extraction Method: Principal Component Analysis.

**Total Variance Explained**

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.419	28.519	28.519	5.419	28.519	28.519	3.504	18.443	18.443
2	2.818	14.830	43.349	2.818	14.830	43.349	2.663	14.015	32.458
3	1.596	8.402	51.751	1.596	8.402	51.751	2.345	12.341	44.800
4	1.371	7.217	58.968	1.371	7.217	58.968	1.946	10.245	55.044
5	1.184	6.229	65.197	1.184	6.229	65.197	1.750	9.210	64.255
6	1.021	5.373	70.570	1.021	5.373	70.570	1.200	6.316	70.570
7	.858	4.518	75.088						
8	.783	4.123	79.212						
9	.533	2.805	82.017						
10	.510	2.683	84.700						
11	.482	2.537	87.237						
12	.430	2.264	89.502						

13	.396	2.085	91.586						
14	.384	2.021	93.607						
15	.326	1.713	95.320						
16	.294	1.547	96.868						
17	.247	1.299	98.166						
18	.188	.988	99.154						
19	.161	.846	100.000						

Extraction Method: Principal Component Analysis.



Component Matrix\*

	Component					
	1	2	3	4	5	6
Our firm does costing of all products and services	.392	.326	-.030	-.549	-.203	.157
Our firm maximizes on profitability through cost reduction strategies	.081	-.156	.131	.536	.443	.499
Our firm improves on production/service delivery process to cut on waste and duplication	.490	.386	-.009	-.422	.168	.194
Our firm minimizes cost through innovation	.218	.610	.146	-.289	.217	.365
Our firm has optimum level of personnel	.292	.642	.377	.084	-.063	-.162
Our firm emphasizes on efficiency	.251	.699	.292	.166	-.014	-.259
Our firm emphasizes on time management	.263	.693	.227	.380	.006	-.145
Our firm continuously trains staff on effective resource utilization	.428	.391	-.365	.348	.027	-.082
Our firm offers products/services with unique characteristics	.532	.158	-.612	.052	.224	-.106
Our firm creates and maintains products/services with appealing features	.625	-.032	-.474	.261	-.170	-.074
Our firm does research to match products/services with customer needs	.677	.023	-.390	.034	-.235	.116
Our firm offer products/services at affordable prices	.711	.068	-.164	-.077	-.283	.228

Our firm always strives to lead in product/service delivery in our sector	.486	-.198	.293	.251	-.355	.465
Our firm always keeps our customers always aware of our product/service attributes	.611	-.233	.320	.161	-.207	.098
Our firm understands its focus and mandate	.733	-.336	.212	-.002	-.148	-.253
Our firm always updates its mandate in line with changes in the market	.618	-.420	.205	-.130	-.045	-.172
Our firm specializes on its target market	.698	-.363	.288	-.108	.095	-.219
Our firm always strives to remain in its market	.693	-.208	.095	.014	.442	-.063
Our firm always reviews changes in the niche market	.660	-.206	.003	-.158	.504	-.040

Extraction Method: Principal Component Analysis.

a. 6 components extracted.

Rotated Component Matrix<sup>a</sup>

	Component					
	1	2	3	4	5	6
Our firm does costing of all products and services	.080	.132	.068	.671	.160	-.351
Our firm maximizes on profitability through cost reduction strategies	.044	.007	-.022	-.085	.175	.861
Our firm improves on production/service delivery process to cut on waste and duplication	.206	.185	.168	.726	-.011	-.023
Our firm minimizes cost through innovation	-.094	-.025	.336	.745	-.013	.166
Our firm has optimum level of personnel	.062	-.015	.779	.231	.083	-.082
Our firm emphasizes on efficiency	.018	.063	.836	.151	-.031	-.071
Our firm emphasizes on time management	-.059	.170	.846	.066	.049	.109
Our firm continuously trains staff on effective resource utilization	-.014	.667	.375	.035	-.010	.107
Our firm offers products/services with unique characteristics	.193	.790	.018	.183	-.219	.061
Our firm creates and maintains products/services with appealing features	.224	.784	.026	-.067	.216	-.044
Our firm does research to match products/services with customer needs	.210	.685	-.028	.205	.337	-.098
Our firm offer products/services at affordable prices	.250	.500	.032	.356	.473	-.109

Our firm always strives to lead in product/service delivery in our sector	.207	.064	.023	.053	.823	.197
Our firm always keeps our customers always aware of our product/service attributes	.503	.089	.117	-.013	.575	.058
Our firm understands its focus and mandate	.762	.194	.073	-.070	.347	-.178
Our firm always updates its mandate in line with changes in the market	.740	.081	-.089	.001	.263	-.133
Our firm specializes on its target market	.852	.065	.025	.038	.193	-.049
Our firm always strives to remain in its market	.748	.238	.045	.159	-.018	.298
Our firm always reviews changes in the niche market	.731	.241	-.068	.287	-.128	.251

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

**Component Transformation Matrix**

Component	1	2	3	4	5	6
1	.683	.527	.206	.305	.347	.020
2	-.443	.144	.743	.444	-.174	-.061
3	.322	-.788	.419	.006	.302	.092
4	-.150	.272	.356	-.670	.229	.524
5	.299	-.066	-.018	.179	-.669	.653
6	-.350	-.053	-.321	.478	.507	.535

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

## Macro environment

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.805
Bartlett's Test of Sphericity	Approx. Chi-Square	4182.866
	df	496
	Sig.	.000

### Communalities

	Initial	Extraction
Interest from various stakeholders	1.000	.712
Government pronouncements on changes in policy from time to time	1.000	.752
The political stability of the country	1.000	.620
Change of political regime	1.000	.650
Devolved Government structure	1.000	.619
The country's overall political stability	1.000	.555
Government's fiscal policies	1.000	.730
Taxation policies	1.000	.664
Inflationary trends in the country	1.000	.679
Level of the country's overall economic development	1.000	.788
Foreign exchange rates	1.000	.711
Interest rates	1.000	.503
Availability of credit	1.000	.738
Changes in the taxation regime	1.000	.759
Annual Budget allocations to the organization	1.000	.421
Intermittent budget reviews and re-allocations by government	1.000	.701
Societal norms and values	1.000	.670
Customs of various communities	1.000	.760
Religion of host communities	1.000	.693
Demands of host communities	1.000	.743
Cultural practices e.g. land demarcation, farming practices, pastoralism, etc	1.000	.730

Population growth rate	1.000	.668
Crime rates and terrorism	1.000	.703
Tribal inclinations	1.000	.697
Gender issues	1.000	.622
Developments in Information Communication & Technology e.g. internet, digitization of services etc	1.000	.659
Occurrence in the natural environment e.g. floods, drought etc	1.000	.654
Environmental legislation	1.000	.718
Civil society organizations agitation for rights	1.000	.694
Changes in the Kenya Constitution 2010 and subsequent legislation	1.000	.710
The legal framework prescribing the mandate of the organization	1.000	.784
Legislative activities touching on the organization's business	1.000	.634

Extraction Method: Principal Component Analysis.

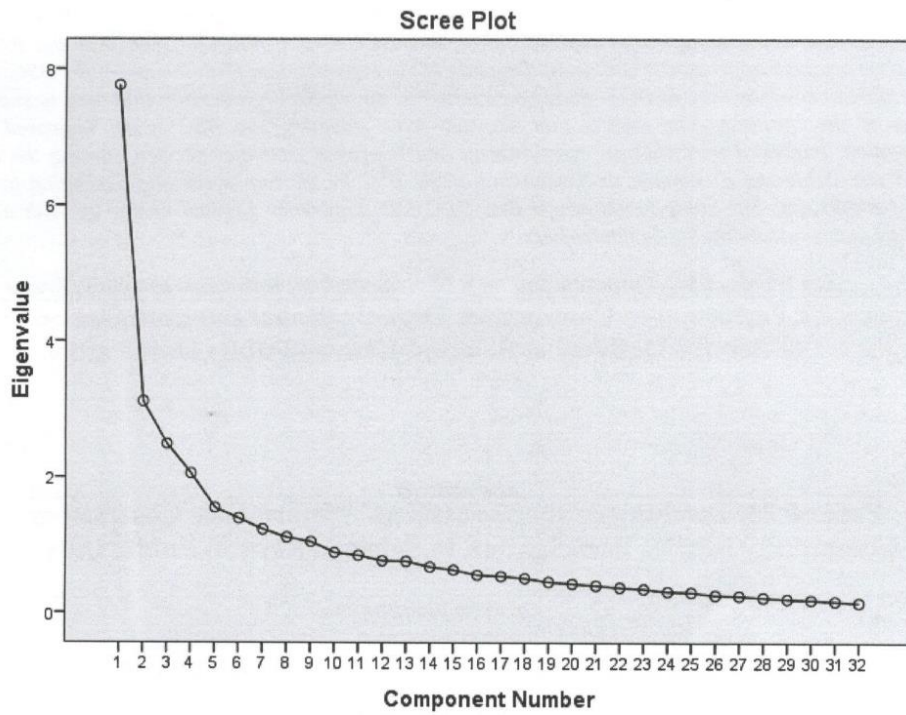
#### Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.759	24.246	24.246	7.759	24.246	24.246	2.846	8.893	8.893
2	3.110	9.717	33.963	3.110	9.717	33.963	2.776	8.676	17.569
3	2.484	7.763	41.726	2.484	7.763	41.726	2.620	8.189	25.758
4	2.053	6.417	48.143	2.053	6.417	48.143	2.616	8.175	33.934
5	1.549	4.839	52.982	1.549	4.839	52.982	2.504	7.824	41.757
6	1.392	4.350	57.333	1.392	4.350	57.333	2.490	7.781	49.538
7	1.231	3.847	61.179	1.231	3.847	61.179	2.093	6.540	56.078
8	1.113	3.478	64.658	1.113	3.478	64.658	1.959	6.122	62.200
9	1.049	3.278	67.936	1.049	3.278	67.936	1.835	5.736	67.936
10	.888	2.775	70.711						
11	.848	2.649	73.359						



12	.768	2.399	75.759					
13	.760	2.376	78.135					
14	.678	2.118	80.253					
15	.633	1.978	82.231					
16	.557	1.741	83.972					
17	.538	1.682	85.655					
18	.507	1.585	87.240					
19	.454	1.419	88.659					
20	.428	1.338	89.997					
21	.402	1.256	91.253					
22	.373	1.167	92.420					
23	.351	1.096	93.515					
24	.312	.976	94.492					
25	.304	.949	95.441					
26	.260	.813	96.254					
27	.250	.781	97.035					
28	.227	.708	97.743					
29	.205	.641	98.383					
30	.193	.604	98.988					
31	.174	.543	99.530					
32	.150	.470	100.000					

Extraction Method: Principal Component Analysis.



**Component Matrix<sup>a</sup>**

	Component								
	1	2	3	4	5	6	7	8	9
Interest from various stakeholders	.496	-.255	.063	-.404	.089	.244	.315	.237	-.099
Government pronouncements on changes in policy from time to time	.373	-.165	.171	-.416	.036	.347	.432	.273	-.024
The political stability of the country	.327	-.078	-.272	.488	.310	-.101	.264	.114	.069
Change of political regime	.534	-.118	-.503	.102	.066	.160	-.088	.165	-.148
Devolved Government structure	.464	-.156	-.509	.283	-.082	.067	-.088	-.003	-.147
The country's overall political stability	.477	-.261	-.282	-.136	.109	.043	-.237	.301	-.032

Government's fiscal policies	.519	.046	-.369	.200	-.182	.012	-.339	.349	-.113
Taxation policies	.644	-.048	-.290	-.319	.132	-.035	-.176	.043	-.095
Inflationary trends in the country	.498	-.182	-.278	-.493	.187	.086	-.156	-.077	.071
Level of the country's overall economic development	.468	-.209	-.269	-.457	.205	-.138	.067	-.419	.061
Foreign exchange rates	.552	-.148	-.057	-.137	.301	-.412	.038	-.224	.223
Interest rates	.505	-.005	-.061	.003	.244	-.352	-.079	.111	.204
Availability of credit	.325	.499	.062	.065	.077	-.039	-.048	.381	.469
Changes in the taxation regime	.460	.585	.207	-.037	.023	-.123	.083	.230	.293
Annual Budget allocations to the organization	.241	.380	.314	-.085	.034	.222	-.067	.154	-.184
Intermittent budget reviews and re-allocations by government	.309	.586	.269	.085	.384	.109	.087	-.111	-.059
Societal norms and values	.477	.431	-.044	.070	.251	.353	.044	-.225	-.095
Customs of various communities	.423	.450	-.070	.088	.094	.487	-.154	-.312	.005
Religion of host communities	.608	.342	-.229	.245	-.155	.024	-.083	-.245	.035
Demands of host communities	.590	.453	-.108	.113	-.381	-.122	.015	-.063	.027
Cultural practices e.g. land demarcation, farming practices, pastoralism, etc	.522	.353	-.099	-.238	-.337	-.181	.341	-.056	-.005
Population growth rate	.560	.211	-.145	.018	-.068	-.322	.344	.009	-.248
Crime rates and terrorism	.247	-.389	-.040	.586	.218	.114	.272	-.054	.095
Tribal inclinations	.340	-.577	.149	.371	.121	.120	.087	-.034	.224
Gender issues	.522	-.269	.053	.048	-.472	-.123	.166	-.066	-.037

Developments in Information & Technology e.g. internet, digitization of services etc	.563	-.171	-.010	.098	-.465	.208	.170	-.086	.085
Occurrence in the natural environment e.g. floods, drought etc	.546	-.287	.292	.053	-.076	.279	-.065	-.056	.306
Environmental legislation	.592	-.301	.346	-.033	-.249	.097	-.201	-.060	.202
Civil society organizations agitation for rights	.563	-.254	.492	-.076	-.063	-.065	-.227	-.062	-.028
Changes in the Kenya Constitution 2010 and subsequent legislation	.576	-.033	.492	-.032	.025	-.175	-.275	-.010	-.165
The legal framework prescribing the mandate of the organization	.580	-.078	.509	.208	.089	-.187	-.102	-.009	-.293
Legislative activities touching on the organization's business	.496	-.107	.337	.218	.214	-.116	.109	.091	-.368

Extraction Method: Principal Component Analysis.

a. 9 components extracted.

Rotated Component Matrix<sup>a</sup>

	Component								
	1	2	3	4	5	6	7	8	9
Interest from various stakeholders	.171	.152	.097	.168	.225	.023	.041	-.003	.754
Government pronouncements on changes in policy from time to time	.005	.061	.091	.181	.079	.052	.010	.059	.834
The political stability of the country	.240	.046	.115	-.127	.085	.062	.703	.162	-.016

Change of political regime	.709	-.009	.135	.029	.166	.163	.230	-.032	.139
Devolved Government structure	.635	-.028	.248	.091	.102	.114	.304	-.151	-.084
The country's overall political stability	.622	.113	-.072	.129	.272	-.073	.038	.086	.214
Government's fiscal policies	.786	.117	.198	.107	-.057	.048	.021	.188	-.083
Taxation policies	.521	.165	.144	.065	.511	.148	-.096	.068	.207
Inflationary trends in the country	.368	-.025	-.027	.166	.630	.123	-.143	-.014	.285
Level of the country's overall economic development	.090	-.017	.174	.099	.820	.107	-.003	-.174	.159
Foreign exchange rates	.035	.232	.161	.108	.728	-.022	.231	.182	-.028
Interest rates	.218	.250	.096	.041	.435	-.048	.190	.392	-.041
Availability of credit	.100	-.022	.079	.060	-.022	.186	.008	.826	.012
Changes in the taxation regime	-.037	.171	.302	.034	.047	.276	-.072	.739	.085
Annual Budget allocations to the organization	.018	.308	.030	.000	-.189	.379	-.234	.216	.210
Intermittent budget reviews and re-allocations by government	-.180	.303	.056	-.179	.041	.650	.059	.334	.050
Societal norms and values	.119	.099	.138	-.009	.116	.763	.097	.102	.106
Customs of various communities	.167	-.030	.084	.173	.045	.828	-.034	.067	-.039
Religion of host communities	.315	.052	.473	.184	.137	.473	.112	.148	-.238

Demands of host communities	.237	.100	.671	.160	.020	.294	-.077	.297	-.142
Cultural practices e.g. land demarcation, farming practices, pastoralism, etc	.038	.022	.751	.033	.196	.141	-.140	.215	.199
Population growth rate	.170	.273	.652	-.187	.202	.091	.158	.109	.135
Crime rates and terrorism	.073	.075	-.029	.199	-.032	.036	.799	-.103	.016
Tribal inclinations	.068	.168	-.138	.500	.086	-.099	.604	-.072	.083
Gender issues	.152	.198	.541	.447	.066	-.168	.104	-.109	.107
Developments in Information Communication & Technology e.g. internet, digitization of services etc	.204	.006	.476	.569	-.027	.091	.145	-.066	.181
Occurrence in the natural environment e.g. floods, drought etc	.072	.178	-.019	.707	.124	.140	.179	.113	.191
Environmental legislation	.122	.323	.097	.742	.150	.007	-.016	.077	.096
Civil society organizations agitation for rights	.042	.601	.035	.526	.199	.008	-.065	.037	.091
Changes in the Kenya Constitution 2010 and subsequent legislation	.077	.731	.077	.309	.165	.100	-.116	.132	.009
The legal framework prescribing the mandate of the organization	.047	.823	.136	.219	.046	.115	.144	.048	.014

## Entrepreneurial Orientation

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.874
Bartlett's Test of Sphericity	Approx. Chi-Square	1897.118
	df	105
	Sig.	.000

### Communalities

	Initial	Extraction
Employees frequently come up with new products or ways of doing new things	1.000	.342
Manager favours own original approaches to problem solving	1.000	.605
Company has marketed new lines of products or services in last five years	1.000	.621
Employees have strong tendency to follow the leader in introducing new products	1.000	.701
Company often first to introduce new products and services	1.000	.648
Manager has strong preference for high risk projects	1.000	.574
Company often first in the market in introducing new products and services	1.000	.584
Company has strong tendency to be ahead of competitors in introducing new products	1.000	.627
Company initiates actions to which competitor's then respond	1.000	.626
In dealing with competitors the firm is often the first business to introducing new products and services	1.000	.659
Firm adopts a cautious wait-and-see attitude to minimize costly decisions	1.000	.452
The firm typically initiates actions to which competitors then respond to	1.000	.471

Legislative activities touching on the organization's business	.087	.692	.119	.010	.014	.103	.297	-.008	.183
--	------	------	------	------	------	------	------	-------	------

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 10 iterations.

**Component Transformation Matrix**

Component	1	2	3	4	5	6	7	8	9
1	.420	.403	.406	.375	.368	.300	.179	.224	.218
2	-.127	-.067	.287	-.394	-.191	.568	-.326	.492	-.186
3	-.600	.619	-.171	.333	-.247	.009	-.137	.147	.124
4	.101	.126	.032	.054	-.489	.106	.689	.025	-.495
5	-.069	.190	-.594	-.437	.414	.272	.368	.140	.119
6	.133	-.322	-.318	.325	-.360	.570	-.007	-.209	.417
7	-.437	-.194	.469	-.220	-.051	-.056	.454	-.040	.537
8	.411	.085	-.165	-.182	-.413	-.403	-.014	.517	.404
9	-.234	-.500	-.146	.460	.232	-.107	.160	.594	-.134

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.



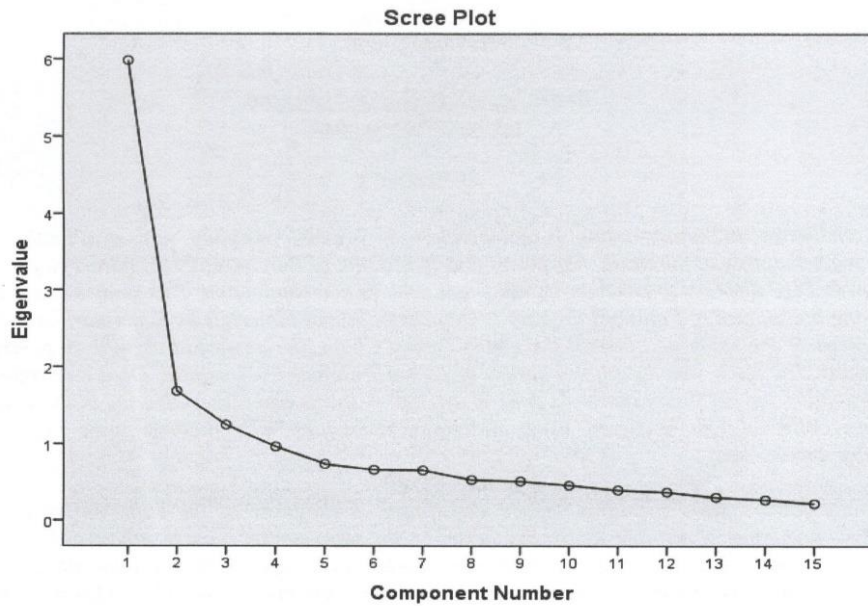
**Total Variance Explained**

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.983	39.887	39.887	5.983	39.887	39.887	3.443	22.954	22.954
2	1.682	11.212	51.099	1.682	11.212	51.099	3.001	20.005	42.959
3	1.248	8.318	59.417	1.248	8.318	59.417	2.469	16.458	59.417
4	.965	6.432	65.849						
5	.738	4.918	70.767						
6	.664	4.429	75.196						
7	.657	4.378	79.574						
8	.533	3.551	83.125						
9	.513	3.418	86.543						
10	.460	3.067	89.610						
11	.396	2.641	92.251						
12	.370	2.465	94.716						
13	.303	2.017	96.733						
14	.269	1.793	98.526						
15	.221	1.474	100.000						

Extraction Method: Principal Component Analysis.

In general our business takes a bold and aggressive approach when competing	1.000	.766
Our business competes intensely in the industry	1.000	.631
We try to undo and out maneuver the competition as best as we can	1.000	.608

Extraction Method: Principal Component Analysis.



**Component Matrix<sup>a</sup>**

	Component		
	1	2	3
Employees frequently come up with new products or ways of doing new things	.510	.286	-.018
Manager favours own original approaches to problem solving	.489	.471	.378
Company has marketed new lines of products or services in last five years	.485	.593	.185
Employees have strong tendency to follow the leader in introducing new products	.523	.642	.124
Company often first to introduce new products and services	.643	.332	-.352
Manager has strong preference for high risk projects	.594	.226	-.412
Company often first in the market in introducing new products and services	.689	-.188	-.272

Company has strong tendency to be ahead of competitors in introducing new products	.753	-.226	-.092
Company initiates actions to which competitor's then respond	.703	-.211	-.295
In dealing with competitors the firm is often the first business to introducing new products and services	.732	-.166	-.310
Firm adopts a cautious wait-and-see attitude to minimize costly decisions	.649	-.165	-.058
The firm typically initiates actions to which competitors then respond to	.502	-.215	.415
In general our business takes a bold and aggressive approach when competing	.723	-.330	.367
Our business competes intensely in the industry	.659	-.229	.380
We try to undo and out maneuver the competition as best as we can	.712	-.242	.204

Extraction Method: Principal Component Analysis.

a. 3 components extracted.

Rotated Component Matrix\*

	Component		
	1	2	3
Employees frequently come up with new products or ways of doing new things	.321	.151	.465
Manager favours own original approaches to problem solving	-.002	.304	.716
Company has marketed new lines of products or services in last five years	.118	.118	.770
Employees have strong tendency to follow the leader in introducing new products	.182	.077	.813
Company often first to introduce new products and services	.647	-.009	.478
Manager has strong preference for high risk projects	.671	-.025	.350
Company often first in the market in introducing new products and services	.689	.323	.068
Company has strong tendency to be ahead of competitors in introducing new products	.608	.495	.110
Company initiates actions to which competitor's then respond	.719	.327	.049
In dealing with competitors the firm is often the first business to introducing new products and services	.743	.313	.097
Firm adopts a cautious wait-and-see attitude to minimize costly decisions	.505	.426	.125
The firm typically initiates actions to which competitors then respond to	.071	.668	.137
In general our business takes a bold and aggressive approach when competing	.270	.824	.121
Our business competes intensely in the industry	.205	.745	.184
We try to undo and out maneuver the competition as best as we can	.369	.670	.152

Rotated Component Matrix<sup>a</sup>

	Component		
	1	2	3
Employees frequently come up with new products or ways of doing new things	.321	.151	.465
Manager favours own original approaches to problem solving	-.002	.304	.716
Company has marketed new lines of products or services in last five years	.118	.118	.770
Employees have strong tendency to follow the leader in introducing new products	.182	.077	.813
Company often first to introduce new products and services	.647	-.009	.478
Manager has strong preference for high risk projects	.671	-.025	.350
Company often first in the market in introducing new products and services	.689	.323	.068
Company has strong tendency to be ahead of competitors in introducing new products	.608	.495	.110
Company initiates actions to which competitor's then respond	.719	.327	.049
In dealing with competitors the firm is often the first business to introducing new products and services	.743	.313	.097
Firm adopts a cautious wait-and-see attitude to minimize costly decisions	.505	.426	.125
The firm typically initiates actions to which competitors then respond to	.071	.668	.137
In general our business takes a bold and aggressive approach when competing	.270	.824	.121
Our business competes intensely in the industry	.205	.745	.184
We try to undo and out maneuver the competition as best as we can	.369	.670	.152

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

**Component Transformation Matrix**

Component	1	2	3
1	.680	.590	.435
2	-.132	-.485	.864
3	-.721	.645	.252

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

**APPENDIX VIII: SIMILARITY INDEX/TURN IT IN REPORT**

## APPENDIX IX: MAP OF THE AREA OF RESEARCH

