

**BUSINESS MODEL INNOVATION STRATEGIES AND PERFORMANCE OF  
MANUFACTURING FIRMS LISTED ON NAIROBI SECURITIES  
EXCHANGE IN KENYA**

**JAMES RUGAMI MAINA**

**D86/CTY/29817/2014**

**A RESEARCH THESIS SUBMITTED TO THE SCHOOL OF BUSINESS  
ECONOMICS AND TOURISM IN PARTIAL FULFILMENT OF THE  
REQUIREMENT FOR THE AWARD OF DOCTOR OF PHILOSOPHY  
DEGREE IN BUSINESS ADMINISTRATION (STRATEGIC  
MANAGEMENT) KENYATTA UNIVERSITY**

**NOVEMBER 2025**



## DECLARATION

This thesis is my original work and has not been presented for a degree or other award in any other University. No part of this thesis should be reproduced without authority of the author and or Kenyatta University.

Signature.....

Date.....

**James Rugami Maina**

**D86/CTY/29817/2014**

We confirm that the work presented in this thesis has been carried out by the candidate under our supervision.

Signature.....

Date: .....

Dr Anne Muchemi, (PhD)

Department of Business Administration

School of Business, Economics and Tourism

Kenyatta University

Signature .....

Date: .....

Dr Samuel Maina, (PhD)

Department of Business Administration

School of Business, Economics and Tourism

Kenyatta University

## **DEDICATION**

In loving memory of my mother, Alice Njoki Maina.

## **ACKNOWLEDGMENT**

I sincerely thank the Almighty God for His grace and good health. I express my deep gratitude to my supervisors, Dr. Anne Muchemi and Dr. Samuel Maina for guiding me and shaping this document. I extend the gratitude and special appreciation to Dr. David Kiiru, Dr Janet Muthimi, Dr Linda Kimencu, Dr Godfrey Kinyua, Dr Paul Waitthaka and Dr Philip Wambua who went beyond call of duty and gave me additional support despite their busy schedules. Thankyou Professor Rosemary James and Professor Stephen Muathe for shaping my understanding of academic research. Chairman of Business Administration Department, Dr Reuben Njuguna was kind to follow up my progress and ensure that I was on track. I thank the staff at the department namely Wachira, Dr Wainaina, Dr Kanoga and Beth Gachagua were very supportive. My colleagues in the School of Business, Economics, and Tourism are a great support system. I am thankful to my late mother Alice (God rest her soul in eternal peace) for her prayers and inspiration, and to my father Stephen Arap Maina for his unwavering support and encouragement. I cherish the support and understanding of my immediate family who encouraged me while I spent long hours assembling this thesis. My friends Alfred, Dr Bernard, Prof David, Dr Ehud, Dr Eunice, Dr Macharia and Dr Rahab who have always been there to challenge me. I thank God for all of you and for the experience we have and continue to share.

## TABLE OF CONTENTS

<b>DECLARATION</b>	<b>iii</b>
<b>DEDICATION</b>	<b>iv</b>
<b>ACKNOWLEDGMENT</b>	<b>v</b>
<b>TABLE OF CONTENTS</b>	<b>vi</b>
<b>LIST OF TABLES</b>	<b>x</b>
<b>LIST OF FIGURES</b>	<b>xii</b>
<b>ABBREVIATIONS AND ACRONYMS</b>	<b>xiii</b>
<b>OPERATIONAL DEFINITION OF KEY TERMS</b>	<b>xiv</b>
<b>ABSTRACT</b>	<b>xvi</b>
<b>CHAPTER ONE: INTRODUCTION</b>	<b>1</b>
1.1 Background of the Study	1
1.1.1 Firm Performance	4
1.1.2 Business Model Innovation Strategies	7
1.1.3 Competitive Advantage	11
1.1.4 Regulatory Framework	14
1.1.5 Manufacturing Firms Listed on Nairobi Securities Exchange in Kenya	17
1.2 Statement of the Problem	19
1.3 Objectives of the Study	22
1.3.1 General Objective	22
1.3.2 Specific Objectives	22
1.4 Research Hypotheses	23
1.5 Significance of the Study	24
1.6 Scope of the Study	25
1.7 Study Limitations	25
1.8 Organization of the Study	26
<b>CHAPTER TWO: LITERATURE REVIEW</b>	<b>27</b>
2.1 Introduction	27
2.2 Theoretical Literature Review	27
2.2.1 Porter's Value Chain Model	27
2.2.2 Resource Based View Theory	29
2.2.3 Dynamic Capabilities Theory	30

2.2.4 Diffusion of Innovation Theory -----	32
2.2.5 Balanced Score Card Model -----	33
2.3 Empirical Review -----	35
2.3.1 Customer Value Proposition Innovation Strategy and Firm Performance -	35
2.3.2 Distribution Channel Innovation Strategy and Firm Performance -----	37
2.3.3 Blue Ocean Strategy and Firm Performance -----	40
2.3.4 Strategic Partnership Innovation and Firm Performance -----	42
2.3.5 Competitive Advantage and Firm Performance -----	44
2.3.6 Regulatory Framework and Firm Performance -----	46
2.4 Literature Summary and Research gaps -----	48
2.5 Conceptual Framework -----	53
<b>CHAPTER THREE: RESEARCH METHODOLOGY -----</b>	<b>55</b>
3.1 Introduction -----	55
3.2 Research Philosophy -----	55
3.3 Research Design -----	55
3.4 Empirical Model -----	56
3.4.1 Test for Moderation -----	57
3.4.2 Testing for the Mediation -----	59
3.5 Target Population -----	63
3.6 Data Collection Instrument -----	64
3.7 Pilot Study -----	64
3.7.1 Reliability of Research Instrument -----	65
3.7.2 Validity of Research Instrument -----	65
3.8 Operationalization and Measurement of Variables -----	66
3.9 Data Collection Procedure -----	68
3.10 Data Analysis and Presentation -----	69
3.11 Diagnostics Tests -----	71
3.11.1 Normality Test -----	71
3.11.2 Multicollinearity Test -----	71
3.11.3 Linearity Test -----	72
3.11.4 Heteroscedasticity -----	72
3.12 Ethical Considerations -----	72

<b>CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSION</b> -----	<b>74</b>
4.1 Introduction-----	74
4.2 Descriptive Analysis-----	74
4.2.1 Response Rate -----	74
4.2.2 Demographic Characteristics of Respondents-----	74
4.2.3 Customer Value Proposition Innovation Strategy -----	78
4.2.4 Distribution Channel Innovation Strategy -----	81
4.2.5 Blue Ocean Strategy -----	84
4.2.6 Strategic Partnership Innovation Strategy -----	86
4.2.7 Competitive Advantage -----	89
4.2.8 Regulatory Framework -----	92
4.2.9 Firm Performance -----	95
4.3 Correlation Analysis-----	99
4.4 Diagnostic Tests -----	102
4.4.1 Normality Tests-----	102
4.4.2 Multicollinearity Test-----	103
4.4.3 Linearity Test -----	104
4.4.4 Heteroscedasticity -----	110
4.5 Test of Hypotheses -----	111
4.5.1 Customer Value Proposition Innovation Strategy and Firm Performance	112
4.5.2 Distribution Channel Innovation Strategy and Firm Performance -----	113
4.5.3 Blue Ocean Strategy and Firm Performance -----	114
4.5.4 Strategic Partnership Innovation Strategy and Firm Performance -----	114
4.5.5 Business Model Innovation Strategies, Competitive Advantage and Firm Performance-----	115
4.5.6 Business Model Innovation Strategies, Regulatory Framework and Firm Performance-----	123
4.5.7 Summary of Hypotheses Tests -----	126
4.6 Qualitative Data Analysis -----	127
4.6.1 Customer Value Proposition Innovation Strategy -----	127
4.6.2 Distribution Channel Innovation Strategy -----	130
4.6.3 Blue Ocean Strategy -----	132
4.6.4 Strategic Partnership Innovation Strategy -----	135

4.6.5 Competitive Advantage -----	137
4.6.6 Regulatory Framework -----	139
<b>CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS</b> -----	<b>142</b>
5.1 Introduction-----	142
5.2 Summary-----	142
5.3 Conclusions-----	144
5.4 Policy Implications and Recommendations-----	146
5.5 Contribution of the Study to Knowledge-----	151
5.6 Areas for Further Research-----	155
<b>REFERENCES</b> -----	<b>156</b>
<b>APPENDICES</b> -----	<b>169</b>
Appendix I: Variables Communalities from Factor Analysis-----	169
Appendix II: Approval of Research Proposal -----	174
Appendix III: Questionnaire -----	175
Appendix IV: Manufacturing Firms Listed on Nairobi Securities Exchange in Kenya -----	189
Appendix V: Research Authorization Letter -----	190
Appendix VI: NACOSTI Research Permit -----	191

## LIST OF TABLES

Table 2.1: Summary of Literature Review and Research Gaps.....	49
Table 3.1: Decision Criteria for Moderation.....	59
Table 3.2: Mediation Casual Step Path Diagram.....	62
Table 3.3: Decision for Mediation.....	63
Table 3.4: Target Population.....	64
Table 3.5: Summary of Reliability Results.....	65
Table 3.6: Operationalization and Measurement of Variables. ....	67
Table 3.7: Statistical Tests of Hypotheses .....	70
Table 4.1: Demographic Characteristics of Respondents .....	75
Table 4.2: Descriptive Statistics on Customer Value Proposition Innovation Strategy .....	79
Table 4.3: Descriptive Statistics on Distribution Channel Innovation Strategy .....	82
Table 4.4: Descriptive Statistics on Blue Ocean Strategy .....	84
Table 4.5: Descriptive Statistics on Strategic Partnership Innovation Strategy .....	87
Table 4.6: Descriptive Statistics on Competitive Advantage .....	90
Table 4.7: Descriptive Statistics on Regulatory Framework .....	93
Table 4.8: Descriptive Statistics on Customer Retention and Firm Reputation .....	96
Table 4.9: Descriptive Statistics on Market Share and Profitability.....	97
Table 4.10 Descriptive Statistics on Firm Performance .....	98
Table 4.11: Correlation Results .....	99
Table 4.12: Normality Test.....	102
Table 4.13: Multicollinearity Results .....	103
Table 4.14: Heteroscedasticity test .....	110
Table 4.15: Regression Results for Direct Relationship.....	111
Table 4.16: Step One in Testing for Mediating Effect of Competitive Advantage... ..	116
Table 4.17: Step Two in Testing for Mediating Effect of Competitive Advantage ..	117
Table 4.18: Step Three in Testing for Mediating Effect of Competitive Advantage	118
Table 4.19: Step Four in Testing for Mediating Effect of Competitive Advantage ..	120
Table 4.20: Decision Criteria for Mediation.....	121
Table 4.21: Summary of Mediation Test .....	121
Table 4.22: Step One in Testing for Moderating Effect of Regulatory Framework..	123

Table 4.23: Step Two in Testing for Moderating Effect of Regulatory Framework .	124
Table 4.24: Summary for Moderation Test.....	125
Table 4.25: Overall Summary of Test of Hypotheses.....	126

## LIST OF FIGURES

Figure 2.1: Conceptual Framework .....	54
Figure 4.1: Scatter plot test for Customer Value Proposition Innovation Strategy and Firm Performance .....	104
Figure 4.2: Scatter plot for Distribution Channel Innovation Strategy and Firm Performance .....	105
Figure 4.3: Scatter plot test for Blue Ocean Strategy and Firm Performance .....	106
Figure 4.4: Scatter plot test for Strategic Partnership Innovation Strategy and Firm Performance .....	107
Figure 4.5: Scatter plot test for Competitive Advantage and Firm Performance .....	108
Figure 4.6: Scatter plot test for Regulatory Framework and Firm Performance .....	109

## **ABBREVIATIONS AND ACRONYMS**

<b>BM</b>	Business Model
<b>BMI</b>	Business Model innovation
<b>BOS</b>	Blue Ocean Strategy
<b>BSC</b>	Balance Score Card
<b>CRM</b>	Customer Relationship Management
<b>CSR</b>	Corporate Social Responsibility
<b>GDP</b>	Gross Domestic Product
<b>NTBF</b>	New Technology based firms
<b>NSE</b>	Nairobi Securities Exchange
<b>RBV</b>	Resource Based View
<b>ROK</b>	Republic of Kenya
<b>SPSS</b>	Statistical Packages for Social Scientists
<b>SME</b>	Small and Medium Enterprises

## OPERATIONAL DEFINITION OF KEY TERMS

<b>Blue Ocean Strategy</b>	Driving growth by creating uncontested market spaces that make competition irrelevant
<b>Business Model</b>	A plan by a firm for making money by selling products and services explaining how an appropriate value is created, delivered and captured.
<b>Business Model Innovation Strategy</b>	Improving value creation and advantage by taking simultaneous and mutual supportive changes to a firm value proposition and its underlying operating model
<b>Competitive Advantage</b>	An outcome that gives a manufacturing firm an edge over its rivals by enhancing operational efficiency, defensive strategies and speed to market
<b>Customer Value Proposition Strategy</b>	Unique value delivered to customers by relevant communication, better customer relations, complaints resolution and customer focus.
<b>Distribution Channel Innovation Strategy</b>	Creating, adopting and modifying the ways manufacturing firms deliver products or services to customers
<b>Firm Performance</b>	The extent to which manufacturing firms meet the set objectives. Financial and non-financial metrics namely market share and net profit growth, customer retention and firm reputation are used as measures of performance

<b>Regulatory Framework</b>	Policies and guidelines that manufacturing firms need to comply with such as government laws and regulations developed by other regulators
<b>Strategic Partnership</b>	Collaborative relationships formed between two or more organizations to achieve mutual goals that would be difficult to accomplish independently
<b>Strategy</b>	

## ABSTRACT

Globally, manufacturing firms form a vital part of national economic infrastructure, contributing to employment, revenue generation and overall economic development. Despite their significance to the economy, most manufacturing firms in Kenya have recently experienced decline in performance, marked by low profit margins and stagnating market share due to increased competition from imports. This study investigated the effect of business model innovation strategies on performance of manufacturing firms listed on the Nairobi Securities Exchange in Kenya. Specifically, it examined the effects of customer value proposition innovation, distribution channel innovation, blue ocean strategy and strategic partnership innovation on firm performance. Additionally, the study explored the mediating role of competitive advantage and the moderating effect of the regulatory framework on the relationship between business model innovation strategies and performance of listed manufacturing firms. The study is anchored on Porter's value chain model, resource-based view theory, dynamic capabilities theory, diffusion of innovation theory and the balanced scorecard model. A positivist research paradigm and an explanatory research design that was cross sectional in nature adopted. The target population consisted of 95 functional heads of departments drawn from 19 listed manufacturing firms. The data collection instrument was a semi-structured questionnaire with closed and open-ended questions. A pilot study was conducted to test the validity and reliability of the instrument, achieving above Cronbach alpha index of 0.7. The instrument was also subjected to face, construct, and content validity. The response rate was 88%. Quantitative data was analyzed using descriptive and inferential statistics. Descriptive analysis involved the use of mean and standard deviation. Results of data analysis are presented in tables and figures. Qualitative data was analyzed using content analysis. The study found that customer value proposition innovation, distribution channel innovation, blue ocean and strategic partnership innovation strategies significantly and positively affected firm performance. Competitive advantage was found to partially mediate the relationship between business model innovation strategies and firm performance. Furthermore, the regulatory framework significantly moderates the relationship between business model innovation strategies and firm performance highlighting the importance of a supportive regulatory environment in enhancing the effectiveness of innovation strategies. The study findings conclude that managers of the manufacturing firms should prioritize business model innovation strategies to improve performance. The study recommends that through strategic collaborations, managers can work with universities and other educational institutions to include business model innovation studies in their syllabus. The policymakers should foster a conducive regulatory framework to support innovative efforts and facilitate ease of doing business to encourage more investments in manufacturing. The study recommends that top management of manufacturing firms invest in enhancing customer value propositions, optimizing distribution channels, adopting blue ocean strategies, and forming strategic partnerships. More emphases and resources should be devoted to distribution channel innovation strategy to ensure availability of quality products when, where and how customers need them. Future research should explore the effect of other business model innovation strategies and consider the role of additional mediating and moderating factors in different contexts, for example the informal manufacturing sector.

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of the Study**

As the business environment becomes more turbulent and complex, organizations realize the need to revise their business models to increase firm performance. Firm performance refers to the measurable outcomes reflecting an organization's efficiency, effectiveness and overall success in achieving strategic objectives and generating value for stakeholders (Kaplan and Norton, 1992). According to Simons (2000), firm performance represents the quantifiable results of an organization's activities across operational, financial, and market dimensions that indicate its competitive standing. Improved performance can be achieved when the internal controls are incorporated in all business processes, thereby eliminating resource frauds and wastage (Salfore, Ensermu and Kinde, 2023). The most innovative firms gain high turnover for services and products introduced within a period.

For firms to grow, they must adopt innovative approaches that will help in gaining a competitive edge in the current turbulent business environment. Business enterprises need to continually innovate to ensure growth and enhance performance (Mbogori, Gichohi and Moguche, 2018). Firm performance may be determined by the business model innovation strategies adopted (Amineh, Hani, Ahmad and Suliman, 2021). Business model innovation strategies have proved to be critical for organizations' success. The performance of the manufacturing companies relies on the strategies initiated by management and the nature of the working environment.

In most developed countries, business model innovation strategies are used in manufacturing firms to help increase their efficiency and profitability. By innovating their business models, manufacturers can reduce costs, increase profits, and expand

their customer base (Briggs and Zoz, 2017). According to Chen and Hsieh (2018) these strategies help manufacturing firms eliminate obsolete business models and create new value propositions that offer competitive edge to their business. By focusing on innovation, companies can better position themselves for long-term success (Winder, 2019). Manufacturers can assess their existing models, ensure operations are scalable and automated and leverage the power of data to increase their competitive advantage. With the right strategies in place, companies can gain competitive advantage and maximize their profit potential.

Global manufacturing has undergone a remarkable transformation in recent decades, moving from a landscape dominated by offshoring to one increasingly characterized by reshoring and protectionism. This shift reflects not just evolving economic realities but also the complex interplay of technological advancements and socio-political pressures (Lopez-Acevedo and Abreha 2024). Integrating emerging regions into the global economy has been made possible by the creation of global value chain extensions. Manufactured goods export experienced extremely higher growth rates in Brazil, India, and China. India leads in software and IT-enabled products, China in advanced technology manufacturing of capital and consumer goods and Brazil in agricultural products. These countries are the top exporters of manufactured goods globally (Venkatacham and Kasthuri, 2019).

The manufacturing sector functions as a catalyst to change a nation's economic structure from basic, slowly expanding, and low value industries to one that is more dynamic and productive (Kungu, 2015). Even though the manufacturing sector has been declining in the west, it still accounted for the third highest proportion of United Kingdom (UK) Gross domestic Product (GDP) in 2015, after business services, wholesale and retail

sectors. Omrani, Jafari, and Mansori (2019) report that the performance of Iran's manufacturing industry has been hindered by issues like market share and losses brought on by fierce import rivalry.

Despite some recent signs of resurgence, the manufacturing sector in Africa has stagnated performing poorly and lagging all other regions of the world. The share of manufacturing value added in Growth Domestic Product (GDP) declined from 16% in 1980 to less than 10% in 2016 in Africa. Similarly, Africa's global share of manufacturing value added declined from 1.6% to 0.7% in the same period. The low performance has been attributed to high cost of doing business, unstable political and regulatory environment, lack of long-term policy clarity and lack of supporting infrastructure (Ndung'u, Shimeles and Ngui, 2022). The manufacturing industry in Nigeria was affected by the economic downturn causing it to slow down by 6% in 2016. Ghana's manufacturing sector is crucial, but because of fierce competition from imports, market share has been declining (Bediako, Amankwah, and Adobor, 2016). Page and Tarp (2017) recommended improvement of regulatory environment and infrastructure development for enhancement of manufacturing competitiveness in Africa.

With appropriate innovation strategies in place, African manufacturing firms are poised to boost economic activities and drive job creation. Well-crafted government policies that encourage investment innovation and augment access to finance are required to promote manufacturing firms within the African context (Nzolala, 2017). Production in the manufacturing sector is predominantly geared towards consumer goods (KAM 2022). The business world is now very competitive. Managers are changing their strategies to gain a sustainable competitive advantage. Business model innovation

strategies and competitive advantage strongly relate (Ranjith 2015). Combining deliberate resources alignment and abilities striking competitive advantage form effective business models. Alkasim, Hilman and Bin Bohari (2018) cited that the association between manufacturing-based SMEs' performance and strategic growth is empirically mediated by competitive advantage.

Additionally, regulatory framework plays an essential role in promoting or hindering business model innovation strategies among manufacturing firms. Public policies can influence the institutional and legal environment, shape the functioning of financial markets, and improve the access to external capital. In order to generate revenue and innovate, manufacturing firms must constantly focus on adapting current capacities in order to fully capitalize on market opportunities (Van Der Raadt, 2019). These efforts must include collaboration and partnerships, processes of sharing resources, as well as leveraging digital technology, big data, and analytics to gain a competitive edge.

### **1.1.1 Firm Performance**

According to Tavassoli and Bengtsson (2018), firm performance is the accomplishments made in accordance with the stated mission and vision. Measuring performance is crucial for effective firm management (Maingi, 2020). Improving firm processes is not possible without measuring outcomes; hence, enhancing organizational performance requires measurements to assess how corporate resources impact business performance. Performance is greatly influenced by the efficiency of management and the entire team (Nwulu and Nwokah, 2018). Firm performance serves as a signaling tool for shareholders, potential investors, and creditors interested in providing capital to the firm (Salfore, Ensermu, and Kinde, 2023).

According to Adekunle and Sunday (2010), the widely accepted financial performance indicators include financial ratios like sales growth, return on equity (ROE) and return on assets (ROA). Financial indicators encompass profitability, ROA, ROE, and sales revenue (Khalid, Islam, and Ahmed, 2019). Return on assets indicates the productivity of assets in generating revenue (Khoshtaria, 2018), while return on equity measures a business's profitability relative to the equity or capital employed. Return on Assets (ROA) effectively outlines a firm's performance by showcasing its efficient use of assets in serving shareholders' economic interests (Rahman and Choudhury, 2019). ROA accounts for both income and asset resources, making it an effective performance measure (Al Nimer, Warrad, and Al Omari, 2021).

Performance has been conceptualized in financial terms traditionally, though some researchers have proposed broader constructs of performance encompassing non-financial aspects, that include customer service, customer retention, company reputation, market share, innovation, goal achievement, and employee involvement (Yunus and Sijabat, 2021; Löfsten, 2019). Though subjective, non-financial measures of performance complement financial measures (Suresh and D'Souza, 2019). Kaplan and Norton's (1996) balanced scorecard emphasize that corporate performance comprises monetary and non-monetary measures, including employee well-being, job satisfaction, innovativeness, improved business processes, and customer satisfaction. Non-financial measures allow stakeholders to gauge intangible assets' role in the creation of a successful firm and driving improvements. Research indicates that 50 – 80 percent of a firm's value is explained by non-financial performance (Nduati, 2020). Combining these measures provides managers with a comprehensive perspective on

performance, including the effectiveness and efficiency of resource utilization, readiness to face external pressures such as globalization and competitiveness.

Kitaiinge, Bor, and Wanza (2019) examined channel communication factors influencing the Kenyan manufacturing firms' performance using profitability, market share, and sales volume as performance indicators. Similarly, Kariuki (2019) studied how innovative strategies affect manufacturing firms' performance in Athi River Zone employed measures such as sales performance, operational efficiency, customer satisfaction, and organizational growth. Manufacturing firms' financial performance is a crucial aspect of their overall success and sustainability. It encompasses various key indicators like profitability and sales revenue (Khalid, Islam, and Ahmed, 2019). Profitability measures the firm's capability to generate profit relative to its costs and expenses. These financial metrics are essential for evaluating a manufacturing firm's economic health and its capacity to deliver returns to shareholders and investors (Adekunle and Sunday, 2010).

Market share measures consumers' preference for a product over similar ones, where a higher market share implies greater sales, selling more with less effort, and challenging the entry of competitors. Customer retention increases customers' lifetime value and boosts a company's revenue (Khoshtaria, 2018). A thorough picture of the company's competitiveness and preparedness to handle external pressures like globalization is also provided by non-financial performance metrics like customer retention, firm reputation and client satisfaction, which supplement financial indicators (Suresh and D'Souza, 2019). This study used both financial and non-financial firm performance metrics to assess performance.

### **1.1.2 Business Model Innovation Strategies**

Osterwalder and Pigneur (2010) conceptualized business models as customer segments, value proposition, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure. Business Model Innovation (BMI) involves redefining and restructuring a company's value proposition, value creation processes, and value capture mechanisms to strengthen its competitive position and improve overall performance. By altering how a business delivers value to customers and generates revenue, BMI enables firms to adapt to market changes, differentiate from competitors, and sustain long-term growth. According to Teece (2018), BMI strategies involve adopting new ways of delivering and monetizing products or services, leading to improved market positioning and operational efficiencies. Chesbrough (2010) defines BMI as a systematic approach where firms redesign their core business logic to create and sustain value in response to changing market conditions. Wirtz and Daiser (2017) argue that successful BMI enables firms to unlock new customer segments, optimize costs, and differentiate themselves from competitors. By adapting to technological advancements and evolving market demands, firms that implement BMI strategies remain competitive and foster long-term growth.

Löfsten (2019) highlights that BMI strategies enhance a company's capabilities, driving success in dynamic environments. Various scholars have identified distinct dimensions of BMI, including linking architecture, target customers, value proposition, value creation (incorporating the value chain and key elements), and value capture (Teece, 2017; Weking, Stöcker, Kowalkiewicz, Böhm, Krcmar, 2018). Maingi (2020) defines BMI as the process through which firms produce, market, and deliver value to their customers. Even in developed markets, research highlights the importance of

innovative and unique business models in strengthening firms' competitive positions (Rakosa, 2018; Mahasuar, 2019). This study examined BMI through four key strategies applicable to the manufacturing sector: customer value proposition innovation strategy, distribution channel innovation strategy, blue ocean strategy, and strategic partnership innovation strategy.

Customer Value Proposition (CVP) Innovation Strategy refers to enhancing the unique benefits that a firm provides to its customers, thereby differentiating itself from competitors. Amineh, Hani, Ahmad, and Suliman (2021) state that CVP innovation enables firms to create and deliver superior value, increasing customer satisfaction and loyalty. Salfore, Ensermu, and Kinde (2023) emphasize that CVP innovation is instrumental in attaining sustainable business performance. Treacy and Wiersema (1993) highlight the importance of personalized customer experiences, while Porter (1985) stresses the role of product/service differentiation in competitive advantage. Furthermore, Prahalad and Ramaswamy (2004) underline the significance of efficient customer engagement channels in fostering long-term customer relationships. Effective CVP Innovation Strategies enable firms to attract and retain customers by aligning their products and services with changing market needs, leading to higher levels of customer satisfaction and business growth. This study measured CVP innovation strategy using relevant communication, customer relationships, complaints resolution, and customer focus.

Distribution Channel Innovation Strategy refers to transforming how products or services reach consumers through the integration of new technologies and improved logistics. According to Mahasuar (2019), such innovation enhances efficiency, reduces costs, and expands market reach. Kumar (2018) classifies distribution innovations into

omni-channel integration, e-commerce platforms, and direct-to-consumer (DTC) models. Verhoef, Kannan, and Inman (2015) elaborate on the effectiveness of omni-channel strategies in improving accessibility, while Gabrielsson and Gabrielsson (2011) highlight how DTC models increase profitability by eliminating intermediaries. Effective distribution channel innovation strategies allow firms to streamline logistics and supply chain processes, ensuring that products are delivered to customers in a more cost-effective and timely manner, which contributes to overall operational efficiency and customer satisfaction. This study identified four indicators for measuring distribution channel innovation strategy: rewarding intermediaries, own outlets, online sales, and direct sales.

Blue Ocean Strategy (BOS) is a strategic framework introduced by Kim and Mauborgne (2004) that encourages businesses to create uncontested market space rather than compete in saturated industries. Unlike Red Ocean strategies that emphasize outperforming rivals in existing markets, BOS seeks to make competition irrelevant by unlocking new demand. Kim and Mauborgne (2017) outline the key principles of BOS, including eliminating industry constraints, pursuing value innovation, and exploring untapped market segments. BOS fosters long-term growth by enabling firms to differentiate themselves through innovation. Mohamed, Jamil, and Abd-Mutalib (2020) examine the influence of BOS on competitive advantage and firm performance. Businesses that successfully apply BOS develop innovative products and services that capture previously untapped customer segments, leading to increased profitability and market leadership. This study evaluated BOS using four key indicators: customer value perceptions, new market segments, value additions, and re-branding.

Strategic partnership innovation strategy refers to forming collaborative relationships between firms to leverage shared resources, enhance market access, and drive mutual growth. Weking *et al.* (2018) define strategic partnerships as alliances that integrate complementary capabilities to foster innovation and business expansion. Gatobu and Maende (2019) emphasize that such partnerships include joint ventures, research and development (R&D) collaborations, and supply chain alliances. Dyer, Kale, and Singh (2004) discuss the role of joint ventures and alliances in accelerating market penetration, while Powell, Koput, and Smith-Doerr (1996) highlight the value of R&D collaborations in fostering technological advancements. Through effective strategic partnerships, firms leverage shared expertise, reduce operational risks, and enter new markets more efficiently, thereby strengthening their competitive position and long-term sustainability. This study measured Strategic Partnership Innovation Strategy using four key indicators: outsourcing, R&D collaborations, supply chain alliances, and joint ventures.

Based on the current study, BMI strategies are crucial for enhancing firm performance and maintaining competitiveness in dynamic business environments. The study conceptualized BMI through four key strategies: customer value proposition innovation strategy, distribution channel innovation strategy, blue ocean strategy and strategic partnership innovation strategy. The identified indicators formed the basis for empirical analysis within the manufacturing sector, offering in-depth insights into the effectiveness of BMI strategies in real-world applications. Prior research has demonstrated that firms implementing BMI strategies achieve significant improvements in operational efficiency and cost optimization (Rahman and Choudhury, 2019; Yunus and Sijabat, 2021; Teece, 2018). Additionally, studies by

Gatobu and Maende (2019) and Weking *et al.* (2018) highlight that BMI-driven innovation fosters adaptability, enabling firms to stay ahead of industry disruptions. Löfsten (2019) further emphasizes that firms adopting BMI enhance their market competitiveness by leveraging technology-driven transformations. Mahasuar (2019) and Rakosa (2018) also support the notion that innovative business models contribute to long-term firm growth by facilitating differentiation and improved customer engagement. Firms that successfully implemented these strategies enhanced operational efficiency, drove innovation, and secured long-term growth in an increasingly competitive and evolving market landscape. By adopting BMI strategies, firms are better positioned to anticipate and respond to industry disruptions, capitalize on emerging opportunities, and build resilient business models that sustain profitability and market leadership.

### **1.1.3 Competitive Advantage**

Competitive advantage, defined as a firm's ability to deliver superior value, is driven by unique resources (Barney, 1991), dynamic capabilities (Teece, Pisano, & Shuen, 1997), continuous learning (Grant, 1996), and strategic positioning through cost leadership, differentiation, and focus. Setyawati, Rosiana, and Shariff (2017) avers that rapid product innovation contributes to increased market responsiveness and enhanced revenue streams. Empirical research indicates that firms that balance cost reduction, strategic protection, and agility outperform competitors across multiple industries. Yunus and Sijabat (2021) suggest that organizations that continuously refine their operational models while defending their market position and accelerating product launches create long-term competitive sustainability. Additionally, Teece (2010) emphasizes that firms that align these strategies with innovation-driven capabilities

strengthen their competitive advantages in dynamic business environments. Firms that neglect any of these key dimensions risk losing market relevance and profitability in highly competitive sectors.

Competitive advantage remains a central theme in strategic management literature, with scholars emphasizing its multidimensional nature. Operational efficiency enables firms to optimize costs and resource utilization, defensive strategies safeguard market positioning, and speed to market ensures rapid response to industry changes. Competitive advantage is not only a driver of superior financial performance but also a determinant of strategic adaptability (Okungu, 2014). Studies by Löfsten (2019) suggest that firms that maintain a strong competitive advantage are better positioned to navigate economic uncertainties, technological shifts, and industry disruptions. Organizations that invest in operational efficiency, deploy effective defensive strategies, and accelerate speed to market are more likely to achieve long-term stability. Additionally, empirical studies by Mahasuar (2019) and Rakosa (2018) indicate that firms that sustain competitive advantage consistently outperform rivals in customer acquisition, brand equity, and profitability.

This study examines competitive advantage through three key dimensions: operational efficiency, defensive strategies, and speed to market, each of which contributes to an organization's ability to secure long-term success. Operational efficiency is a critical measure of competitive advantage, as it enables firms to minimize costs while maximizing output and service delivery (Chesbrough, Lettl, and Ritter, 2018). Firms that achieve high levels of operational efficiency can streamline their processes, optimize resource allocation, and improve productivity. Scholars such as Farrell and Shapiro (2008) argue that operational efficiency results from continuous improvements

in technology, supply chain management, and workflow automation. Muia (2017) emphasizes that firms with lower operational costs gain a pricing advantage, allowing them to offer competitive pricing without sacrificing profitability. Additionally, Gatobu and Maende (2019) highlight that operational efficiency leads to better inventory management, reduced waste, and higher levels of customer satisfaction. Companies that successfully enhance operational efficiency improve their financial sustainability and market positioning, ultimately outperforming less efficient competitors.

Defensive strategies form another crucial dimension of competitive advantage, allowing firms to protect their market position against threats from competitors (Porter, 1980). Defensive strategies include mechanisms such as product differentiation, legal barriers, strategic alliances, and innovation investments to maintain industry leadership. Casadesus-Masanell and Zhu (2013) argue that firms that continuously innovate and enhance their value propositions can defend themselves against market saturation and imitation. Jeketule, Gachunga, Katuse, and Odhiambo (2015) assert that enterprises that effectively implement defensive strategies reduce the risk of losing market share by adapting to changing industry conditions. Research by Wanjiru, Muathe, and Njuguna (2019) found that companies using defensive strategies such as patents, customer loyalty programs, and unique branding initiatives sustain long-term profitability. These strategies reinforce a firm's ability to withstand external pressures while maintaining its competitive standing.

Speed to market is another vital aspect of competitive advantage, as firms that rapidly develop and launch new products can capture market opportunities before competitors (Blagova and Tokhtarova, 2015). Speed to market refers to the time taken for a product to move from conceptualization to commercial availability, with fast-moving firms

enjoying first-mover advantages. Scholars such as Lieberman and Montgomery (1988) argue that early market entry enables firms to establish strong brand recognition, build customer loyalty, and set industry standards. Research by Phangestu, Kountur, and Prameswari (2020) highlights that firms with shorter product development cycles adapt more effectively to changing consumer preferences.

Companies that prioritize speed to market gain an edge by capitalizing on emerging trends and meeting consumer needs more efficiently than their competitors. The relationship between operational efficiency, defensive strategies, and speed to market significantly affects the firm's overall competitive positioning. Firms that integrate these dimensions effectively achieve sustained business growth and market resilience (Rahman and Choudhury, 2019). By adopting these three dimensions, firms can enhance their market competitiveness and sustain long-term profitability.

#### **1.1.4 Regulatory Framework**

The regulatory framework involves guidelines and procedures which require compliance based on policies, regulations and laws that the government develops and advances (Mahipal and Shankaraiah, 2018). Regulatory framework refers to the set of laws, regulations, and policies established by governments to govern business operations and ensure compliance with industry standards (Mahipal and Shankaraiah, 2018). It serves as a structural guideline that influences how enterprises operate, affecting their performance, innovation, and strategic decision-making (Nwosu, Awurum and Okoli, 2021). A well-structured regulatory framework provides stability, promotes fair competition, and enhances investor confidence, while a restrictive framework may create operational challenges, limiting business expansion and profitability (Hagenauer, 2020). A regulatory framework that is unfriendly is a

discouragement to investment and significantly diminishes an organization's performance.

The regulatory framework governing manufacturing firms has long been an important component of modern economic structures. The rules, guidelines, and laws that regulate the production and distribution of goods in industrialized countries offer both protection for consumers and guidance for manufacturers. It is important to understand the ways in which governmental policies and regulations can affect organizations' ability to make profits or have any restrictions on their operations (Hagenauer 2020). For example, some regulations may specify minimum standards for hazardous materials and how they are used, as well as provide directives for the production practices. Additionally, regulations may affect the cost of production by setting prices for different components and elements used in their manufacturing process (Siddiqui and Porcaro 2022). It is also important to consider any incentives that the government might offer that could potentially benefit a firm (Mutangili, Awuor and Cheluget, 2020)

Mahipal and Shankaraiah (2018) revealed that regulatory framework involves a set of taxes, rules, regulations and laws that enterprises must adhere to for their operations in the country and influence the performance of companies either positively or negatively. In addition, Blagova and Tokhtarova (2015) noted that competitive markets, tax administration and law enforcement stimulate firms' innovative activities. Laws and regulations enforced in companies might not favor or might cause problems for the operations and notably lower financial performance (Tabesh, Kelly and Poulouse, 2018)

A significant role is played by governmental regulatory framework to shape manufacturing firms' performance (Ndayizigamiye and Khoase, 2018). The innovation extent in a manufacturing firm is influenced by the regulatory framework as the

government participates in licensing and protecting rights related to various organizations. There is a tremendous advancement in the manufacturing industries based on the government policy (Ndemezo, Charles, Angelique and Ndikubwimana, 2018). Machuki and Aosa (2011) established that the regulatory framework accounts for corporate performance variation in many companies. Moreover, complexity tend to be primarily manifested in regulatory factors and become a threat to the new entrants. Thus, the regulatory framework notably influences the companies' strategic decision-making.

Regulatory frameworks significantly impact the functioning of manufacturing firms. The cost of complying with such regulations can be significant, but, ultimately, they may result in an improvement in a firms' efficiency and international competitiveness. It is important to consider how regulations can, not just limit the production of goods, but also enhance performance and output, reducing energy consumption and contributing to environmental protection (Kaminsky, 2018). Additionally, certain regulations may reduce the risk of worker exploitation and exploitation of resources. Understanding how regulatory frameworks affect manufacturing firms can help them maximize the benefits in ensuring long-term competitiveness.

The regulatory framework creates challenges and opportunities for the organization and can determine business model innovation (Wandiga, 2019). A favorable regulatory framework enables businesses to be more innovative thus changing customer demands and expectations. Businesses are thus always confronted by many dynamics ranging from legal interventions, which should be prudently addressed. The fundamental objective of BMI is to realize new revenue sources through the improvement of product value and delivery of the product to clients and this can be achieved when friendly

government policies exist (Muithya, Muathe and Kinyua, 2021). As a result, the regulatory framework affects the performance and innovation of business models. To encourage industrial growth, guarantee product quality, safeguard consumers, and foster a positive business environment, Kenya's manufacturing sector is governed by several laws and policies.

The regulatory framework in Kenya include the Companies Act for company registration, management, standards and quality regulations enforced by the Ministry of investments, Trade and industry, Kenya Bureau of Standards (KEBS), the Industrial Property Act for intellectual property protection, environmental regulations overseen by the National Environmental Management Authority (NEMA), taxation laws by the Kenya Revenue Authority (KRA), labor laws such as the Employment Act, and trade policies within regional blocs like the East African Community (EAC) and Common Market for Eastern and Southern Africa (COMESA) (KAM 2022). Manufacturing firms in Kenya must comply with these regulations to operate legally and responsibly. In this study therefore regulatory framework will be operationalized using indicators namely business laws, government regulations and government policies that apply to the manufacturing sector in Kenya.

#### **1.1.5 Manufacturing Firms Listed on Nairobi Securities Exchange in Kenya**

Due to its significance and substantial effect on the economic development at the local and global levels, the manufacturing industry is among the most crucial economic sectors (KNBS, 2022). Global manufacturing production continues to rise at a rate of roughly 7.4% in big developing nations and 2.7% per year in advanced economies. Manufacturing is a huge industry in developed countries that contributes greatly to economic development, innovation, and productivity. The Kenyan manufacturing

industry is mostly agro-processing and consumer production, with food production, wood processing, textile production, and minor metal fabrication known as jua-kali accounting for more than 73% of total sector production turnover (Nduati, 2020).

Manufacturing enterprises are seen as a crucial component of a thriving economy. They are regarded critical to the business culture establishment and job generation in the economy (KAM 2022). Manufacturing enterprises give a boost to emerging countries' economic advantage, and their significance is becoming widely recognized. Similarly, they hold a key position in the Kenyan economy, accounts to 90% of firm stock and giving jobs to around 25% of private industry workers; thus, their survival is critical, and this can only be sustained by greater earnings. In the manufacturing industry, foreign exchange accounts for 34% of total foreign/ exports exchange earning, followed by tourism, coffee, tea and horticulture. With increased coordination between the private and public sector and more targeted investments, the manufacturing industry in Kenya could be revived to ensure long-term growth and development.

The manufacturing industry's yearly growth rate of 4.98% falls short of the sector's Vision 2030 ambitious figure of 20%. At this rate of growth, Kenya would not be able to achieve and sustain 10% annual economic growth to become an industrializing nation by 2030. (Kenya Vision 2030). Furthermore, the manufacturing industry's GDP contribution has been inconsistent, with the present contribution at 9%, up from 7.8% in 2018, and predicted to be 15% in 2025, according to government plans and projections.

The Nairobi Securities Exchange (NSE) is a leading African exchange based in Kenya, among the Sub-Saharan Africa's fastest-growing economies. The NSE plays a crucial task in Kenya's economy growth by encouraging savings and investment and helping

international and local businesses in obtaining cost-effective capital. Capital Markets Authority of Kenya governs the Nairobi Stock Exchange. The Nairobi Securities Exchange (NSE, 2024) lists 19 manufacturing companies among other companies in various sectors. Several factors influence performance, including regulatory framework, corporate governance, and the slow pace of economic growth. Managers of all listed companies are constantly under pressure from shareholders to improve performance by implementing innovative strategies.

## **1.2 Statement of the Problem**

Kenya's Vision 2030 aims to increase the percentage contribution of manufacturing sector to over 20% of Gross domestic product (GDP) by year 2030 highlighting the need for strategic interventions to revitalize the sector to create more job opportunities. The manufacturing sector contribution to Kenya's GDP has been stagnant over the past five years. In 2019, the manufacturing sector accounted for 7.9%, which declined to 7.6% in 2020 and further decreased to 7.4% in 2021. Although there was a slight increase to 7.7% in 2022, it dropped again to 7.6% in 2023 (KNBS, 2024). Manufacturing firms in Kenya face several major problems including: high input costs due to expensive raw materials and energy, unreliable energy supply, stiff competition from cheap imports, poor infrastructure and inconsistent government policies which all contribute to hindering the growth and competitiveness of the manufacturing sector in the country (KAM 2022). These problems lead to reduced profit margins that make some investors relocate to other countries with better conducive environments. Illicit trade in counterfeit and substandard goods poses unfair competition in the market and ends up shrinking the market share of genuine manufacturers, thus damaging their brand reputation among other negative impacts. To the government, illicit trade denies

it the much-needed revenue that is utilized to run various government affairs (KAM 2024). If the challenges and dismal performance trend in manufacturing sector is not addressed the Kenya will continue missing key development targets hence the motivation of the current research.

Strategic management literature has linked Business model innovation (BMI) with firm performance. Implementing BMI strategies allow firms to capitalize on shifting customer expectations and industry dynamics. Research has established a strong relationship between BMI and firm performance (Rahman and Choudhury, 2019; Yunus and Sijabat, 2021). Scholars such as Weking *et al.* (2018) emphasize that BMI provides firms with a competitive edge by fostering adaptability and efficiency in a volatile business environment.

Several studies have examined business model innovation strategies as an independent variable albeit in a fragmented manner, yet contextual gaps persist due to differences in industries, geographic focus, and sector-specific applications. For instance, Mahasuar (2019) explored distribution channels innovation in the Indian consumer packaged goods industry, while Wambua and Mwanzia (2020) investigated distribution strategies among vehicle distributors in Nairobi, Kenya. Similarly, Suresh and D'Souza (2019) analyzed distribution channels in India's pharmacy sector, which differs significantly from manufacturing. Furthermore, Charles and Gapaya (2018) focused on technological alliances in Rwandan microfinance institutions, and Mwamuye and Ragui (2021) studied strategic alliances in Kenyan commercial banks, both within the service industry and not in manufacturing. Additionally, Dzingirai, Mhlanga, and Mveku (2023) examined Blue Ocean strategy in SMEs, while Mutuku, Muathe, and James (2019) explored competitive advantage in Kenyan commercial banks, making

their findings less applicable to the manufacturing sector. Given these contextual gaps, this study focused specifically on BMI strategies within the Kenyan listed manufacturing firms, addressing the need for sector-specific research that aligns with Kenya's unique economic and regulatory landscape.

Conceptual gaps also emerge in the scope of business model innovation strategies examined in prior research. Amineh, Hani, Ahmad, and Suliman (2021) assessed BMI's impact on firm performance using only three dimensions: value capture, proposition, and creation. Similarly, Nduati (2020) studied strategic innovation but concentrated on product, process, technology, and market innovation. Rakosa (2018) examined value proposition strategy within South Africa's banking industry, while Löfsten (2019) analyzed its role in Swedish new technology-based firms. Mohamed, Jamil, and Abd-Mutalib (2020) investigated blue ocean strategy in Malaysian manufacturing firms but did not explore its integration with other BMI components. Additionally, Yunus and Sijabat (2021) reviewed blue ocean strategy and its effects on competitive advantage and firm performance. Given these conceptual limitations, the current study integrated customer value proposition innovation, distribution channel innovation, blue ocean strategy and strategic partnership innovation as core dimensions of BMI within the Kenyan manufacturing sector. This approach ensures a more complete analysis of BMI's role as an independent variable, addressing gaps in prior research and contributing to a more holistic understanding of its effect on firm performance.

Furthermore, studies by Rahman and Choudhury (2019), Yunus and Sijabat (2021), Mohamed, Jamil, and Abd-Mutalib (2020), and Jiho, Claudia, and Srinivas (2018), exhibit methodological gaps. Rahman and Choudhury relied on secondary data for their analysis of Blue Ocean Strategy (BOS) impact. Yunus and Sijabat conducted a

literature-based analysis of BOS, lacking primary data collection. Mohamed, Jamil, and Abd-Mutalib explored the early application of BOS using secondary data. Jiho, Claudia, and Srinivas analyzed inter-firm partnerships in the pharmaceutical sector using secondary data.

The preceding analysis highlights significant gaps in prior research on how business model innovation strategies and manufacturing firms' performance are related. These limitations in existing literature pose challenges for informed policymaking in the manufacturing sector. To close these knowledge gaps, this study looked at how BMI strategies affected performance of listed manufacturing firms in Kenya. It also investigated the mediating role of competitive advantage and the moderating influence of regulatory framework in this relationship.

### **1.3 Objectives of the Study**

#### **1.3.1 General Objective**

To establish the effect of business model innovation strategies on performance of manufacturing firms listed on Nairobi Securities Exchange (NSE) in Kenya.

#### **1.3.2 Specific Objectives**

- i. To establish the effect of customer value proposition innovation strategy on performance of manufacturing firms listed on Nairobi Securities Exchange (NSE) in Kenya.
- ii. To determine the effect of distribution channel innovation strategy on performance of manufacturing firms listed on the NSE in Kenya.
- iii. To determine the effect of blue ocean strategy on performance of manufacturing firms listed on NSE in Kenya.

- iv. To establish the effect of strategic partnership innovation strategy on performance of manufacturing firms listed on the NSE in Kenya.
- v. To assess the mediating effect of competitive advantage on the relationship between business model innovation strategies and performance of manufacturing firms listed on NSE in Kenya.
- vi. To assess the moderating effect of regulatory framework on the relationship between business model innovation strategies and performance of manufacturing firms listed on NSE in Kenya.

#### **1.4 Research Hypotheses**

**H<sub>01</sub>.** Customer value proposition innovation strategy has no statistically significant effect on performance of manufacturing firms listed on NSE in Kenya.

**H<sub>02</sub>.** Distribution channel innovation strategy has no statistically significant effect on performance of manufacturing firms listed on NSE in Kenya.

**H<sub>03</sub>.** Blue ocean strategy has no statistically significant effect on performance of manufacturing firms listed on NSE in Kenya.

**H<sub>04</sub>.** Strategic partnership strategy has no statistically significant effect on performance of manufacturing firms listed on NSE in Kenya.

**H<sub>05</sub>.** Competitive Advantage has no statistically significant mediating effect on the relationship between business model innovation strategies and performance of manufacturing firms listed on NSE in Kenya.

**H<sub>06</sub>** Regulatory framework has no statistically significant moderating effect on the relationship between business model innovation strategies and performance of manufacturing firms listed on NSE in Kenya.

### **1.5 Significance of the Study**

The top management of Kenyan manufacturing companies will gain a better understanding of business model innovation strategies and how they influence firm performance thanks to the findings. The managers will be able to develop new business models according to the organization's performance targets. The findings will benefit management consultants and practitioners, as they design business models aligned to the industry, helping them attain greater performance. The manufacturing firms can use the recommendations to develop viable innovation models that will boost their efforts to increase their production capacity.

The findings will also benefit policy makers such as the government of Kenya via the respective ministries and other government arms like legislature in policies development and enforcement on development agendas for the manufacturing and other sectors. The government regulates all firms in the country. Further, licensing fees and taxes collected from these firms by the government as revenue affect their performance hence high level of interest. The Kenya Association of Manufacturers can train and guide manufacturing firms in developing BMI strategies that will boost performance and advocate for conducive regulatory environment from an informed perspective.

Finally, the findings notably contribute to the current knowledge on BMI strategies concept and how they affect firm performance. The outcomes will be cited by other researchers and scholars in advancing their research. By applying the theory of business model innovation generally and to the Kenyan context, the study also advances knowledge. New knowledge of manufacturing business model innovation strategies has been generated. The findings will be relied on by other scholars for further studies.

## **1.6 Scope of the Study**

The study examined the effect of business model innovation strategies on the performance of manufacturing firms listed on the Nairobi Securities Exchange, focusing on customer value proposition, distribution channel, Blue Ocean Strategy, and strategic partnerships. It adopted a positivist research paradigm, using a descriptive-explanatory design and a census approach to collect data from 19 firms through structured questionnaires, analyzing performance from 2019 to 2023. The study focused on the listed manufacturing forms because they operate under a more specific regulatory framework implemented by the Capital Markets Authority.

## **1.7 Study Limitations**

The study faced resistance in retrieving confidential information, with some participants hesitant to participate, which was addressed by assuring confidentiality and advising anonymity. To mitigate the low response rate from busy top managers, a drop-and-pick approach was used, along with follow-ups and online distribution when preferred, with approval from Kenyatta University and NACOSTI for academic purposes. The fact that contextual elements affecting firms in other industries may differ from those affecting Kenyan listed manufacturing firms may limit applicability and generalization of the findings. The study collected data in 2024 using a cross-sectional design. Because of this, the study's conclusions are restricted to this time frame and might not apply to others. As such, the results might not be relied upon for drawing conclusions about the long-term performance of the manufacturing sector overall. Results from longitudinal studies might differ.

## **1.8 Organization of the Study**

This thesis is organized into five chapters. Chapter one introduces the study background, including the problem, objectives, hypotheses, scope, significance, limitations, and structure. Chapter two reviews the relevant literature, while chapter three outlines the methodology. Chapter four presents the analysis and discussion of the findings and chapter five concludes with the key findings, conclusions, and recommendations.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

The chapter includes a review of relevant literature. It explores key theories, concepts, and empirical studies related to the topic.

### **2.2 Theoretical Literature Review**

Porter's value chain model, resource-based view, dynamic capabilities, diffusion of innovation theories, and the balanced scorecard model were the five theories that anchor the study. The main theory in this study is the Balanced score card model by Kaplan and Norton that anchors the dependent variable. These theories offered a fundamental framework for comprehending the variables under investigation and how they interact.

#### **2.2.1 Porter's Value Chain Model**

Porter (1985) presented a generic value chain model that consists of a succession of processes in operations deemed to be applicable to a wide range of organizations. A value chain, according to the theory, disaggregates a corporation into its strategically significant operations to understand cost behavior and existing and potential sources of distinction (Porter, 1990). The model is made up of a few actions that are carried out to design, manufacture, sell, deliver and support activities ensuring that the product reaches the customer (Pujawan and Bah, 2022).

The theory's primary goal is to divide a company's complex supply chain network into small pieces. The value chain evaluation operates in a way that products develop value as it moves through the firm's supply chain vertical stream of production (Thompson, Dolan, Mayer, Roll and Yeoman, 2017). Porter's Value chain analysis model analyses the activities undertaken by a company in creation of a service or product. These activities add value and cost to goods and services production. The activities are

classified as primary or secondary depending on whether they represent the firm's core business or auxiliary functions. The purpose of these activities is to provide a level of value to the client that exceeds the activities' cost, resulting in a profit margin.

Most businesses never generate all components of services and goods in-house and instead rely on outsourcing to other firms. Thus, the company is a component of a wider supply chain network and must evaluate connections to external operations in the network (Pujawan and Bah, 2022). Value activities, as described by this theory, are competitive advantage's discrete building blocks. The way every activity is done determine if a corporation is low or high cost compared to its rivals. The proposition is that the way every value activity is done further defines its contribution to customer wants and, hence, distinction. Comparison of rivals' value chain discloses distinctions that ascertain competitive advantage and consequently, performance. This theory demonstrates how the business model innovation strategies are interlinked in describing the Kenyan manufacturing companies' performance. The model divides the entire supply chain into discrete building blocks, helping analyze how each activity adds value and cost to the services and goods production.

This model is of high relevance to the research as it aligns with the investigation into the business model innovation strategies that consider different activities in the value chain. By breaking down value activities, it enables a comprehensive assessment of how innovative strategies influence cost competitiveness and value creation within these firms. The theory emphasizes that the execution and cost structure of each value activity determine a company's cost competitiveness compared to competitors. This aspect directly relates to the study's focus on assessing how various business model innovation strategies, like customer value proposition innovation and distribution

channel innovation, blue ocean strategies and strategic partnerships affect firm performance. The study's goal is to determine whether these tactics improve value delivery, competitive advantage, and profitability for Kenyan manufacturing companies. The model also emphasizes the significance of providing superior value to customers. In summary, Porter's Value chain Model provides a robust framework for understanding how business model innovation strategies influence firm performance of emphasizing value creation, cost dynamics, and competitive advantage.

### **2.2.2 Resource Based View Theory**

The Resource-Based View (RBV) theory was developed by Penrose in 1959 and has since become one of the most cited and influential theories in the history of management. It postulates that if an enterprise is to attain sustained competitive advantage, non-substitutable, inimitable, rare and valuable capabilities and resources must be acquired and controlled by it (Barney, 2011).

RBV emphasizes the capabilities and resources' role in forming the basis of performance. According to Armstrong and Shimizu (2007), Resources are company processes, including financial and physical assets, organizational processes and employee skills. The organizational, human, physical and financial assets an enterprise utilizes in developing, manufacturing, and delivering services and products to its clients are what constitutes a firm's resources and capabilities.

RBV assumes that companies are entities that are profit maximizing and manned by bounded rational managers who operate in markets which are to a larger degree predictable and move towards equilibrium (Leiblein, 2003). Tseng, Tansuhaj, Hallagan, and McCullough (2007) posit that market-based view of economists is challenged by RBV by considering competitive advantage and resources as factor specific to an

enterprise than general to the sector environment. The value of resources is realized when they help an enterprise in conceiving and implementing strategies enhancing operations effectiveness and efficiency.

The relevance of RBV theory lies in its ability to shed light on how business model innovation strategies influence manufacturing firm performance. It emphasizes how tactics, like business model innovation, can be used as instruments to build and improve a company's resources and capabilities, which will ultimately result in unique competencies and better results. The RBV proposes that strategies a firm adopts like business model innovation may be used to build and create a firm's new capabilities and resources and strengthening performance and distinctive competences. Businesses that use business model innovation strategies can benefit from the improved performance and competitive edge that follow. Manufacturing companies may develop new resources and strengthen existing ones by implementing business model innovation, giving them a competitive advantage and better performance in their sector. In essence, RBV theory provides a valuable lens through which to understand how these strategies contribute to the Kenyan manufacturing company performance, aligning with the study's central focus.

### **2.2.3 Dynamic Capabilities Theory**

Teece and Pisano formulated this theory in 1990. Later, it was expounded by Ambrosini and Bowman (2009). It examines how firms are integrating, building and reconfiguring the external and internal company-particular competencies into new competencies matching their turbulent surrounding (Wang and Pervaiz, 2007). It assumes that enterprises with smaller dynamic capabilities are outperformed by those with more exceptional dynamic capabilities. Its primary objective is understanding how

enterprises use dynamic capabilities in creating and sustaining competitive advantage over other companies through responding to environmental dynamics. Accordingly, competitive advantage emanates from the capability of the company to reconfigure and leverage the current assets and competencies in valuable ways to clients. Teece (2007) reports that dynamic capabilities aid companies identify opportunities and grab them through successful reallocation of resources, regularly adjusting current competencies or developing new ones.

This theory advocates that instead of traditional resources investments being made suitable techniques for attaining competitive advantage, firms should compete with competencies or capabilities. An enterprise is perceived as a collection of capabilities or competencies and resources (Day and Nedungadi, 1994). Broadly, capabilities are firm processes through which the process of developing, combining and transforming available resources into values provided in the market happens. Dynamic capabilities were conceptualized by Teece, Pisano and Shuen (1997) as idiosyncratic attributes birthing long-term competitive advantage. In achieving superior performance and competitive advantage in the marketplace, particularly when there is a shift in competitive landscape, firms ought to have the capability of identifying, seeking, developing and enhancing dynamic capabilities. Resources are transformed by dynamic capabilities to new competitive advantage sources, since they are processes enabling firms in obtaining new resources configuration and generating innovative strategies.

The theory is relevant in this study since business model innovation involves reconfiguration of firm processes through which the process of developing, combining and transforming available resources into values provided in the market thus enhancing an enterprise's capability to develop actionable foresight about market factors and

competitive dynamics. Consequently, it makes the connection between the independent variable of business model innovation and the mediating variable of competitive advantage stronger. Moreover, the theory helps to clarify how strategic partnerships can improve firm performance. An organization's dynamic capabilities enable it to adapt and utilize internal and external resources effectively in response to a rapidly changing business environment. When organizations form innovative strategic alliances, they bring together synergy, knowledge, and capabilities with those of their alliance partners. This collaboration allows them to access new expertise, distribution channels, or market insights that they may not have on their own.

#### **2.2.4 Diffusion of Innovation Theory**

Rogers (2003) describes diffusion as a given social system adopting an innovation over time and consequently diffusion processes lead to penetration or acceptance of innovation, behavior or idea. Diffusion of innovation (DOI) theory addresses why, how, and the rate at which new technologies and ideas spread within cultures, operate at firm and individual level. Sarker and Sahay (2004), cites that, diffusion of innovation theory perceives the communication of innovations as being done by certain channels in particular social system and over time. Individuals possess diverse levels in adopting innovation; hence, the population portion that adopts an innovation is estimate distributed normally over time.

DOI theory states that, at firm level, innovativeness associates with external organizational characteristics, internal organizational structural characteristics, and individual characteristics. The leader's attitude to change is described by individual characteristics. Stakeholder ideas are implemented when the leader is ready and flexible in accepting change as she does not regard her/his opinion ignoring the stakeholders'.

External characteristics of organization denote system openness (Zou, Zhang and Wang, 2006). Based on this theory, this study supports the business model innovation variable. For BMI strategy to perform at its best, it must be integrated into social systems (diffused). Business managers must lead their staff and other stakeholders in implementing business model innovation for high performance results to be realized.

This theory supports the study dependent variable business model innovation strategies. To achieve superior performance through BMI, it is crucial for this innovation to be effectively diffused and integrated within a social system, such as a company. Business managers play a crucial task in leading and guiding their staff and stakeholders in the successful business model innovation implementation, which, in turn, can contribute to achieving high-performance outcomes. DOI theory thus offers valuable insights into how business model innovation strategies are embraced and implemented within organizations, ultimately impacting their performance.

### **2.2.5 Balanced Score Card Model**

In 1992, Kaplan and Norton developed the Balanced Scorecard (BSC) as a performance measurement framework that integrates strategic non-financial metrics with traditional financial metrics to offer executives and managers a more comprehensive view of organizational performance. The BSC was designed to build a system that could monitor an organization's performance and improve any backlogs that occurred. Due to its logical methodologies and procedure, the model has grown in favor over time (Doz and Kosonen, 2017). It evolved into a management technique which can be used across multiple functions within an organization. The model helps management to comprehend its goals and roles clearly. It further helps the management team to gauge performance. The model is also crucial in strategic objectives communication.

Previously, performance management systems primarily evaluated the financial perspective; however, BSC examines the stakeholders, internal processes, and growth and learning views of the firm in addition to the financial perspective. The strategy is translated into a linked set of measures across four viewpoints (Kaplan and Norton, 2010). The value of this theory is that it provides a more holistic picture of a corporation by looking not just at monetary results but at developmental, marketing, and operational inputs to these too. This helps companies consider long-term interests. The BSC aids in aligning business activities with the firm's vision, mission, and strategy, enhancing external and internal communications, and monitor organizational performance against strategic goals established.

By considering not only financial metrics but also learning and growth, internal processes, and client satisfaction aspects, the BSC provides a well-rounded perspective on performance, which is crucial in understanding the multifaceted nature of business success. Secondly, the BSC's ability to translate a firm strategy into measurable objectives and key performance indicators (KPIs) resonates with the study's examination of business model innovation strategies. The BSC framework allows for the business activities alignment with the firm vision and strategy, which is particularly relevant when assessing how different innovation strategies lead to firm performance.

The BSC model anchors the study providing basis for performance measurement using both financial and non-financial metrics. As managers in manufacturing companies in Kenya explore various business model innovation strategies, they need to measure what you manage. Moreover, the BSC's focus on monitoring performance against predefined strategic goals ties directly into the study's aim of evaluating business model innovation strategies contribution to firm performance. The Balanced Scorecard model also offers

a comprehensive and integrated approach to measuring performance. This study combines financial performance measures (profit margin and market share growth) and non-financial performance measures (customer retention and firm reputation) of listed manufacturing firms in Kenya.

## **2.3 Empirical Review**

Empirical review refers to a systematic and comprehensive examination of recent research studies and data related to study objectives and research questions. The purpose of an empirical review is to give a critical analysis of the current literature on a particular subject and to identify trends, patterns, inconsistencies or gaps in the research. This section reviewed the empirical literature that was relevant.

### **2.3.1 Customer Value Proposition Innovation Strategy and Firm Performance**

Amineh, Hani, Ahmad and Suliman (2021) investigated how firm performance is impacted by business model innovation (BMI). 120 managers from Alban Al-youm Company in Jordan formed the sample. Questionnaires obtained data from 87 managers who responded. Three components of BMI; value capture innovations, proposition and creation where self-rated questions on performance operational measures were used to assess company performance. The outcomes confirmed that all BMI dimensions significantly affect firm performance. Although the study used value proposition innovation as among the variables, this research will add other BMI components namely distribution channels, blue ocean and strategic partnership strategies thus a conceptual gap. Moreover, a case study method was used while this study is a cross-sectional survey.

Furthermore, Salfore, Ensermu and Kinde (2023) investigated how SMEs performance and business model innovation (BMI) are associated. A partial least squares structural

equation modeling (PLS-SEM) analysis was conducted using data collected from 264 SMEs via structured questionnaires. The results showed that change in any business model component, such as value capture innovations, propositions, or creations, had a significant and positive impact on company performance. This suggests that SMEs gain a competitive edge and improve performance by innovating their business models. Nonetheless, perfect least squares and structural equation model (PLS-SEM) was employed for analysis while the current study will use Ordinary Least Squares (OLS) technique, thus a methodological gap. OLS is a method utilized in statistics to get the best-fitting straight line through a data point set. It is best suited for linear relationships. Using one of the South Africa big banks, Rakosa (2018) investigated value proposition strategy. It was disclosed that the value proposition strategy of the bank studied was maturing and refining. The study contribution proved value propositions applicability as a strategic tool in banking. An interpretivism qualitative study technique was applied. The study recommended that product leadership utilization and technological perspective enhancement in appealing to aspirant, status-conscious clients. The methodological gap is that of a case study. The context also differs in that this research is done in Kenya as opposed to South Africa and in manufacturing as opposed to banking which is in services sector.

The study by Löfsten (2019) explored how customer relationships and value proposition in a firm model affect new technology-based firms' performance. Conducted among 401 small, young Swedish new technology firms, multiple regression analysis was used in examining how various factors tied to value propositions and customer relationships associated, and how it impacts business performance. Results suggested that in the early stages of a New Technology-based

firm's life, factors like product similarity to existing products, internationalization, and close customer relationships are more indicative of higher business performance than radical innovation. However, the context differs in that current research is done in Kenya as opposed to Sweden and in manufacturing industry as opposed to new technology-based firms.

In Mavoko Sub-County, Kenya, Maingi (2020) examined how various innovation strategies affect real estate firms' performance. The research was motivated by the financial challenges affecting the real estate sector globally and the rapid expansion of real estate in Kenya, necessitating innovative approaches for sustainable performance. The study focused on four main strategies: Innovative customer service, process innovation, product differentiation and technology strategy. Using a census method for its small, easily accessible population, the study gathered primary data through a questionnaire. Data evaluation was performed using SPSS, inferential and descriptive statistics while figures and frequency distribution tables displayed the results. The study found that a combination of these four innovation strategies could explain 90.3% of the variance in real estate firm performance. Hence, it concludes that adopting these strategies would significantly improve the real estate firms' performance and recommends their broader application. However, this was done in real estate firms unlike manufacturing, thus contextual gap.

### **2.3.2 Distribution Channel Innovation Strategy and Firm Performance**

Mahasuar (2019) investigated strategic innovations in distribution channels from an emerging market perspective, a case study of consumer-packaged goods (CPG) industry of India. The study recommended leveraging opportunities in e-commerce distribution approaches for consumer-packaged goods embracing consumer centricity

and channel neutral innovations. Contextual gap exists since the study was done in among CPG in India. Moreover, a methodological gap exists since it was a case study while the current study is a survey of listed manufacturing firms in Kenya

Among vehicle distributors in Nairobi, Wambua and Mwanzia (2020) investigated how distribution strategies influence sales performance. Recognizing that effective distribution channels are critical for both customer satisfaction and conflict mitigation, the research sought to understand how distribution tactics impact sales outcomes. A descriptive study design was deployed, and structured questionnaires gathered primary data. Data evaluation was through descriptive statistics (means and standard deviations), and regression analysis. The findings reported a notable connection between distribution strategies and sales performance. Specifically, sales, profits, and market share went up because of effective market distribution strategies. Moreover, these strategies enabled distributors to adapt more effectively to changes in the marketplace. Given these findings, the study underscores the importance of carefully considered distribution strategies for improving sales performance and market responsiveness. Nonetheless, the study was done in vehicle distributors unlike in the manufacturing, thus a contextual gap.

The study by Suresh and D'Souza (2019) explores the factors that contribute to efficient distribution channels in India's rapidly growing pharmacy industry, with a specific focus on the impact on superior channel performance. Given the increasing importance of healthcare in India, the research aims to understand the drivers of value in the pharmaceutical supply chain, including the roles of distributors, wholesalers, and various types of pharmacies like hospital pharmacies, retail chains, and standalone pharmacies. The study was exploratory in nature and employed a mix of questionnaires

and in-depth interviews with a range of stakeholders including 15 pharmaceutical distributors, 15 stand-alone pharmacy managers 4 retail Chain stores, and 5 hospital pharmacy managers. Data analysis was conducted using tools like SPSS and Excel. The findings indicated that for pharmaceutical distributors, margins, and supplier exclusivity were crucial criteria for association. Satisfaction among distributors and wholesalers was mainly driven by collaborative behavior and a lack of supply Chain interruptions. The research was done in pharmaceutical industry unlike the current that will be done in manufacturing.

Nduati (2020) examined how strategic innovation influences Kenyan manufacturing firms' performance. The study confirmed that strategic innovation has a significant impact on a company's competitive advantage and profitability, especially in Kenya's changing and turbulent manufacturing industry, where some firms have relocated or restructured as a result of challenges in the operating environment, leading to job losses. Using a desk study review technique, the paper reviews empirical literature identifying major themes related to how strategic innovation influences manufacturing firm performance. According to the findings of the study, products, markets, technologies, and processes innovation strategies are all significant contributors to the performance of Kenyan manufacturing firms. Nonetheless, the study focused on strategic innovation and specific objectives including technology, process, product and market innovation strategies unlike in the current study that will focus on customer value proposition innovation strategy, distribution channel innovation strategies, blue ocean strategy and strategic partnership innovation strategies, thus a conceptual gap.

### **2.3.3 Blue Ocean Strategy and Firm Performance**

Blue Ocean is a market for products with no or little competition. Blue Ocean Strategy (BOS) entails a search for markets with very few firms operating with no pressure in pricing. Rahman and Choudhury (2019) reviewed secondary data to ascertain how BOS influenced organizational performance. The findings revealed that organizational performance enhancement is significantly contributed to by BOS. The research gave a recommendation that BOS be critically analyzed by the policymakers prior to implementation to ascertain how sustainable it is in the desired firm. A methodological gap is presented since it relied on secondary data. This current research collected primary data.

An analysis of the relationship between the Blue Ocean Strategy and the performance and competitive advantages of firms was conducted by Yunus and Sijabat (2021). Research on the BOS and competitive advantage and performance was conducted through a review of relevant articles. Using specific keywords like competitive advantage and blue ocean, blue ocean strategy and value innovation and performance the study conducted a search for relevant literature and then reviewed and synthesized these articles to establish a proposed framework. The findings showed that BOS significantly affects firm performance and competitive advantage. Nevertheless, there was a methodological gap because this was desk literature based.

Rahman and Choudhury (2019) examined how organizational performance was influenced by Blue Ocean Strategy (BOS). The study used secondary data only. The research did a review of papers and articles in scientific journals. The study results showed that BOS is recognized for its ability to help organizations create uncontested market space and shift their focus from the current competition to innovative value

creation and demand generation. The contribution of BOS to enhance performance was notable. The study recommended that policymakers carefully analyze the suitability of BOS before implementing it in their organizations.

Mohamed, Jamil and Abd-Mutalib (2020) investigated the early application of the BOS in Malaysian manufacturing firms and its relationship with innovation performance. BOS stresses the necessity for businesses to innovate and develop new business models to produce sustainable profits, which sets it apart from traditional red ocean strategies. The results indicate that these companies applied the BOS strategy to gain a competitive advantage. However, a weak association between BOS and innovation performance was noted. In addition to adding to the growing body of research on BOS, the findings provide entrepreneurs and policymakers with important information about how BOS is used in actual businesses and how it affects innovation quality. Compared to the current study, there is a conceptual gap in that the study was on effect of BOS and Innovation performance while the current study incorporates other BMI strategies and their effect on firm performance.

Dzingirai Mhlanga, and Mveku (2023) conducted a study involving 100 SME owners using structured questionnaires. The researchers employed explanatory research design and applied statistical analyses such as Pearson correlation and regression analysis. The findings indicate that aspects such as entering new, uncontested markets, stimulating new demand, product differentiation, and rendering competition irrelevant are positively and significantly associated with gaining a competitive advantage. The study concludes that the Blue Ocean Strategy (BOS) positively influences organizational performance and recommends its adoption.

#### **2.3.4 Strategic Partnership Innovation and Firm Performance**

Strategic partnerships or alliances are becoming a common strategy for organizational learning processes and knowledge sharing in obtaining valuable resources and capabilities for an organization. A study on how Rwandan microfinance institutions (MFIs) performance is impacted by technological alliance was done by Charles and Gapaya (2018). 220 SMEs were chosen using Slovin's formula out of the 491 SMEs that were targeted. Based on inferential and descriptive statistics, the findings showed a significant correlation between the technology alliance and the performance of microfinance banks. It was cited that institutional performance was significant because of the technological transfer and research and development. The research done in Rwanda among the MFIs presents a contextual gap.

Gatobu and Maende, (2019) established the key drivers affecting the strategic alliances growth in Kenyan telecommunication industry. Descriptive study methodology was adopted and undertook the study on Safaricom Limited. 337 management employees and their alliances partners were targeted, 125 participants were selected as the sample through stratified random sampling. Results found that strategic alliances growth in the telecommunication industry was affected by cost sharing to a great extent, resulting to Sharing R&D resources, sharing fixed cost, pursuing R&D cost reduction, earning economy of scale and avoiding wasteful duplication. Reducing uncertainty in cooperative R&D, competition, buffering threats from external competitors and risk spreading among participants were the aspects of risk sharing that impact the strategic alliances growth in the telecommunication industry. This study presents a methodological gap adopting a case study design on one company while the current study was a cross-sectional survey involving 19 manufacturing firms.

John (2020) investigated how organization performance of selected Kenyan energy companies is affected by strategic alliance practices. A cross-sectional survey of staff in the chosen firms was done using descriptive research design. A positive association between Organizational performance and technological advancement, operational efficiency, market development and knowledge transfer were noted. A conceptual gap is presented as focused on strategic alliances only and their direct link with performance. The current study incorporated other business model innovation strategies and tested the mediating and moderating effects on BMI performance relationship.

Mwamuye and Ragui (2021) investigated how bank performance is affected by technology, innovation, agency and brand marketing alliances. Descriptive study design was deployed and 39 fully operational Nairobi based commercial banks targeted. From the findings, banks' profitability was positively and notably affected by technology, agency and brand marketing alliances. The study concluded that profitability was notably affected by technology, agency and brand marketing alliances whereas innovation alliances' effect was insignificant. The research was undertaken in the services sector while the current research is in the manufacturing sector presenting a contextual gap.

In the pharmaceutical industry among startups and big pharmaceutical companies globally, Jiho, Claudia and Srinivas (2018) studied strategic alliances or inter-firm partnerships. This was a review of secondary publicly available data focused on evaluating contracts with either upfront payments or royalties. Findings indicated that it can be optimal if in addition to milestone payments or royalties, an option of giving upfront payments is provided. Additionally, models including royalties and upfront payments are an attractive option for firms under high and medium manufacturing

costs. Contrary, small firms will perceive it a higher monetary gain from contracts that combine milestone and upfront payments with low manufacturing costs. A methodological gap is presented in that it relied on secondary data while the current study will collect primary data from listed manufacturing companies in Kenya. The reviewed literature indicates that strategic partnership and alliance innovations is especially effective in diverse sectors. Strategic partnership innovations have an influence on competition and performance, especially profitability. Moreover, strategic partnership innovation strategy has variant conceptualization.

### **2.3.5 Competitive Advantage and Firm Performance**

Alkasim, Hilman, and Bin Bohari (2018) studied the mediating effect of competitive strategy on the relationship between growth level strategies, and firm performance. Data was compiled from the manufacturing-based SMEs operating in the North-West region of Nigeria. The study established the mediating effect of competitive strategy on the relationship between growth level strategies and firm performance. This study presents a conceptual gap in using market development and product development strategies as the dependent variables while the current study assesses the mediating effect of competitive advantage on BMI strategies and performance relationships. Although both studies focus on manufacturing sector in Africa, Alkasim *et al* (2018) focused on SMEs in Nigeria while the current study focuses on large, listed manufacturing firms in Kenya.

Phangestu, Kountur and Prameswari (2020) investigated entrepreneurial leadership and competitive advantage mediating effect on the association between startup performance and BMI. 51 participants took part in the study. Data was evaluated using partial least square statistical technique. Start-up performance and BMI had a notable connection.

Further, competitive advantage and entrepreneurial leadership and business model innovation are connected significantly. The association between start-up and business model innovation was enhanced by competitive advantage and entrepreneurial leadership. The research was done among startups businesses hence contextual gap.

In Nairobi City County, Kenya, research examining competitive advantage's mediating effect on how corporate strategies associate with manufacturing firms' performance was done by Wanjiru, Muathe and Njuguna (2019). The study utilized indicators such as market leadership, value Chain integration and innovation in measuring competitive advantage. The study involved 189 large Nairobi based manufacturing firms, which represents a significant portion of Kenya's manufacturing firms. Semi-structured questionnaires obtained data and evaluation done through inferential and descriptive statistics. Results revealed that competitive advantage acts as a mediating factor on how corporate strategies associate with firms' performance, indicating that the strategies a firm adopts can influence its competitive advantage, which, in turn, affects its performance. A conceptual gap is presented.

Wekesa, Maalu, Gathungu and Wainaina (2022) investigated competitive strategy's mediating role in how entrepreneur characteristics relates with performance of SMEs engaged in Kenyan non-timber forest products. Using a sample of 314 entrepreneurs, the research reveals a significant initial association between firm performance and entrepreneur characteristics, which becomes non-significant when competitive strategy is introduced into the relationship. It further demonstrates that entrepreneur characteristics influence competitive strategy which in return affects firm performance, meeting the criteria for mediating effects. The findings emphasize the importance of aligning entrepreneur characteristics, including education, skills, experience,

knowledge capital, age, and gender, with strategic choices to enhance firm performance. In addition to offering managers and entrepreneurs insightful information about the importance of matching strategies with available resources for better performance, the study advances the RBV theory by emphasizing the role of strategically relevant resources in establishing a sustainable competitive advantage. However, the study was done in SMEs engaged in non-timber forest products in Kenya, thus contextual gap.

The study investigating competitive advantage's mediating role in the connection between e-commerce capability and Kenyan commercial banks' performance was done by Mutuku, Muathe and James (2019). Using data from 43 commercial banks, it measures competitive advantage through e-commerce capability and client satisfaction across four dimensions. Performance is assessed using Return on Assets (ROA). In order to improve overall performance in the cutthroat banking industry, it is crucial to deliver superior customer value through e-commerce capabilities. The results show that competitive advantage partially mediates the relationship between e-commerce capability and bank performance. However, the research was done in commercial banks unlike in the manufacturing for the current study, thus contextual gap.

### **2.3.6 Regulatory Framework and Firm Performance**

Mutangili, Awuor, and Cheluget (2020) investigated the moderating role of regulatory frameworks on the relationship between supply chain performance and international procurement practices among Kenyan energy development agencies. The study found that the regulatory environment significantly influenced this relationship. However, by focusing specifically on procurement, the study revealed a conceptual gap in understanding the broader role of regulatory frameworks in other strategic areas.

Muithya, Muathe, and Kinyua (2021) examined the performance of Kenyan microfinance institutions (MFIs) and the moderating effect of the regulatory environment on strategic innovation orientation. The MFIs were reported to face significant losses due to challenges in a highly competitive economic environment. The study assessed how the regulatory framework—comprising legislation, prudential, and non-prudential guidelines—shaped this relationship. Data were collected using explanatory and descriptive approaches from a sample of 352 respondents across 13 MFIs. The findings indicated that the regulatory environment significantly moderated the relationship between strategic innovation orientation and MFI performance, emphasizing the critical role of regulatory oversight. However, a contextual gap remains, as the study focused exclusively on microfinance institutions.

Oluoch, K'Alol, and Koshal (2021) explored the relationship between strategic leadership and the financial sustainability of Kenyan NGOs, considering the influence of the regulatory environment. The study targeted 6,028 active local NGOs using a descriptive correlational research design grounded in strategic leadership theory. A total of 413 CEOs and board members were selected through stratified random sampling and responded to self-administered questionnaires. The results revealed a significant and positive relationship between strategic leadership and financial sustainability. However, the regulatory environment did not significantly moderate this relationship. The study recommended that NGOs seek alternative funding sources and strengthen their councils or coalitions, particularly by engaging with donor policies and legislative frameworks. Nonetheless, a contextual gap exists, as the focus was limited to NGOs.

Rubera (2022) aimed to determine how the regulatory environment moderates the relationship between leadership practices and performance in chartered universities in Kenya. The study noted challenges such as low enrollment, faculty issues, and poor service delivery, which were linked to ineffective leadership. Using a quantitative survey of 245 respondents from 49 chartered institutions, data were gathered through self-administered questionnaires. The findings demonstrated that the regulatory environment significantly and positively moderated the relationship between leadership practices and university performance. The study recommended that regulatory bodies prioritize quality teaching, academic standards, and learning resources to enhance institutional performance. However, unlike the current study-which seeks to examine how the regulatory framework moderates the relationship between business model innovation strategies and firm performance-the reviewed studies did not explore this linkage in the context of manufacturing firms. This highlights a significant empirical gap, underscoring the need to examine the effect of regulatory frameworks on business model innovation and performance within the manufacturing sector.

#### **2.4 Literature Summary and Research gaps**

A concise summary of the research gaps identified is presented in Table 2.1 below.

**Table 2.1: Summary of Literature Review and Research Gaps**

Author(s) and Year	Focus	Key Findings	Knowledge Gaps	Focus of the Current Study
Amineh, Hani, Ahmad, and Suliman (2021)	Impact of BMI on firm performance	All BMI dimensions had significant effects on performance	Conceptual gap in BMI components and research method	Added BMI components in a cross-sectional survey
Salfore, Ensermu, and Kinde (2023)	Relationship between BMI and SME performance	BMI components positively impacted performance	Methodological gap used PLS-SEM	Use regression analysis method
Rakosa (2018)	Value proposition strategy in banking south Africa	Value propositions were a strategic tool	Study was done banking in SA recommended other contexts	Study was among manufacturing firms in Kenya thus addressing the context recommendation.
Löfsten (2019)	Value proposition and customer relationships in NTBFs	Factors like product similarity and customer relationships impact performance	Contextual gap done in NTBFs and location	Study manufacturing in Kenya hence other context and generalization
Maingi (2020)	Effect of innovation strategies on real estate firm performance	Four innovation strategies explained firm performance	Study focused on real estate	Study was among manufacturing firms in Kenya thus addressing the context gap
Mahasuar (2019)	Innovations in distribution channels in India's CPG industry	Opportunities in e-commerce for CPG	Contextual gap done in CPG and location	Study Kenyan manufacturing which is different from India
Wambua and Mwanzia (2020)	Influence of distribution strategies on sales in vehicle entertainment	Effective distribution led to increased sales	Contextual gap done in vehicle entertainment	Study covered on the non financial performance in addition to financial performance
Suresh and D'Souza (2019)	Factors in efficient distribution channels in India's pharmacy industry	Collaborations are key	Contextual gap done in pharmacy industry	Study was done among manufacturing firms in Kenya
Nduati (2020)	Influence of strategic innovation on manufacturing firm performance	Market, product, process, and technology innovation strategies impact performance	Conceptual gap used innovation strategies	Study used different innovation strategies

<b>Author(s) and Year</b>	<b>Focus</b>	<b>Key Findings</b>	<b>Knowledge Gaps</b>	<b>Focus of the Current Study</b>
Rahman and Choudhury (2019)	Influence of BOS on organizational performance	BOS enhances organizational performance	Methodological gap used secondary data	Empirical data was collected using questionnaires and therefore addressed the gap on accuracy of conclusions drawn from the study findings
Yunus and Sijabat (2021)	Relationship between BOS and competitive advantage	BOS impacts competitive advantage and performance	Methodological gap was a literature-based study	Empirical data was collected using questionnaires hence more accuracy of conclusions drawn from the study findings
Mohamed, Jamil, and Abd-Mutalib (2020)	Early application of BOS in Malaysian manufacturing firms	BOS application in gaining competitive advantage	Conceptual gap used BOS application	The focus was on BMI strategies and performance BOS as an indicator and the study was undertaken among Kenyan manufacturing firms
Dzingirai, Mhlanga, and Mveku (2023)	Relationship between BOS and SME performance	BOS positively influences SME performance	Contextual gap done in SMEs	Study was among large manufacturing firms, performance was measured using financial and non-financial parameters
Charles Gapaya (2018)	Impact of technological alliances on Rwandan MFIs	Technology alliances correlate with MFI performance	Contextual gap done in Rwanda and MFIs	Study done in Kenyan manufacturing sector which differs from MFIs in Rwanda
Gatobu Maende (2019)	Drivers affecting growth of alliances in Kenyan telecom	Cost sharing and risk sharing affect alliance growth	Researchers employed a case study which is limited in generalisability	A cross-sectional survey was conducted to address the generalisability gap
John (2020)	Effects of alliance practices on energy companies	Alliance practices relate to organization performance	Conceptual gap used alliance practices	Incorporate other innovation strategies
Mwamuye Ragui (2021)	Effect of alliances on bank performance	Brand, agency, innovation, and tech alliances impact bank profitability	Contextual gap done in services sector	Study of manufacturing to broaden context

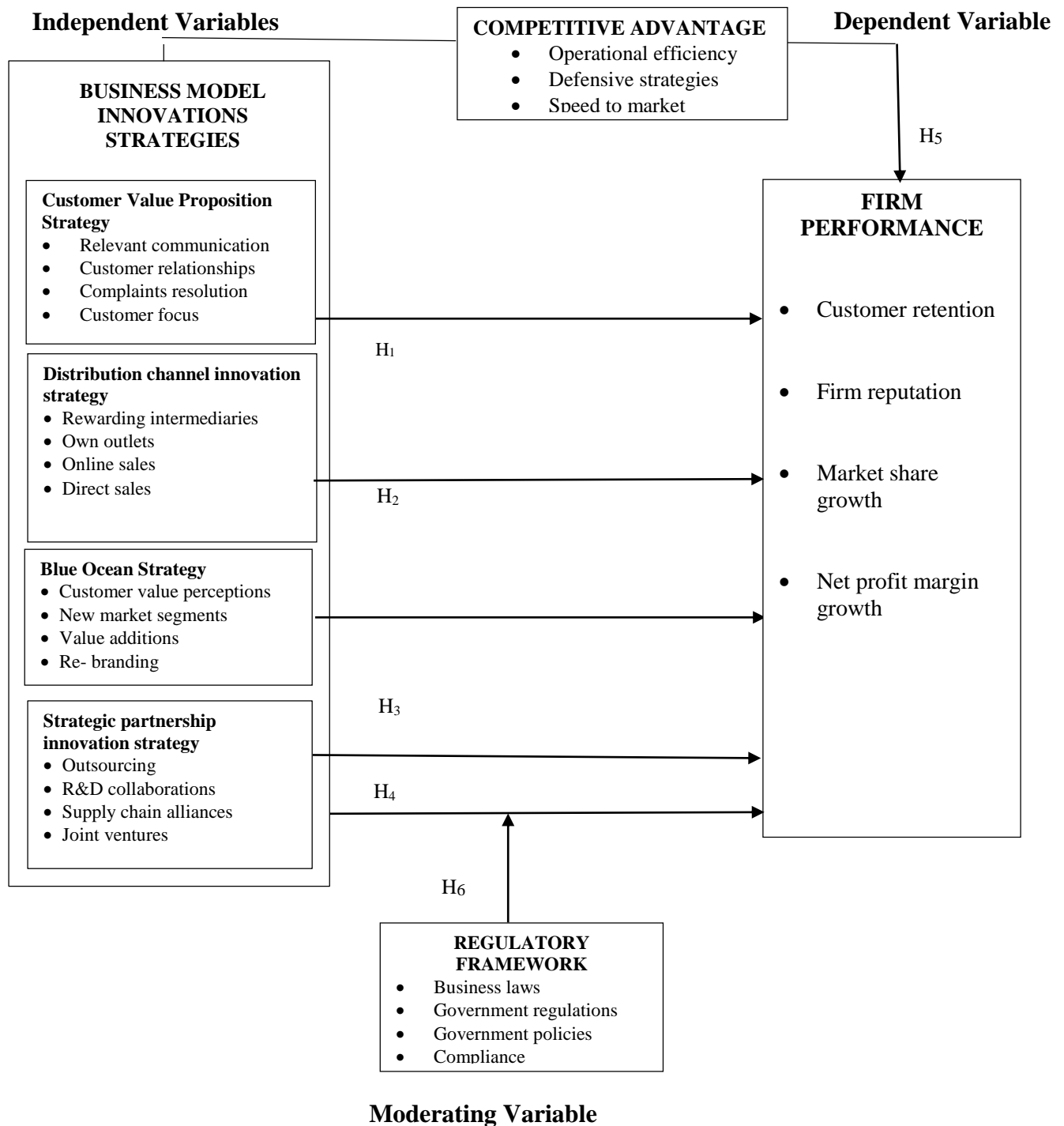
<b>Author(s) and Year</b>	<b>Focus</b>	<b>Key Findings</b>	<b>Knowledge Gaps</b>	<b>Focus of the Current Study</b>
Jiho, Claudia, and Srinivas (2018)	Inter-firm partnerships in the pharmaceutical industry	Incorporating upfront payments in alliances can be optimal	Methodological gap used secondary data	Primary data was collected addressed the gap on accuracy of conclusions drawn from the study findings
Alkasim, Hilman, and Bin Bohari (2018)	Mediating effect of competitive strategy on growth level strategies and firm performance	Competitive strategy mediates the relationship between growth level strategies and performance	Conceptual gap in using competitive strategy and growth level strategies	Assess mediating effect of competitive advantage on BMI strategies
Phangestu, Kountur and Prameswari (2020)	Mediating effect of competitive advantage and entrepreneurial leadership on BMI and startup performance	Entrepreneurial leadership and competitive advantage mediate the association between BMI and startup performance	Study was among startups and focus	Assess mediating effect of competitive advantage on BMI strategies and performance of mature manufacturing firms
Wanjiru, Muathe, and Njuguna (2019)	Mediating effect of competitive advantage on corporate strategies and manufacturing firm performance	Competitive advantage mediates the relationship between corporate strategies and firm performance	Conceptual gap in competitive advantage measurement	Competitive advantage mediating effect on BMI strategies
Wekesa, Maalu, Gathungu, and Wainaina (2022)	Mediating role of competitive strategy in entrepreneur characteristics and SME performance	Competitive strategy mediates the relationship between entrepreneur characteristics and SME performance	Study done among SMEs	Study was on manufacturing and the independent variable being BMI strategies
Mutuku, Muathe, and James (2019)	Mediating role of competitive advantage in e-commerce capability and bank performance	Competitive advantage partially mediates the connection between e-commerce capability and bank performance	Mediating role of CA on e-commerce in banking	Competitive advantage mediating effect on BMI strategies in manufacturing
Oluoch, K'Alol, and Koshal (2021)	Moderating influence of regulatory framework on strategic leadership and financial sustainability	Regulatory framework does not significantly moderate the relationship between strategic leadership and NGO financial sustainability	Contextual gap in NGO focus	Regulatory frame work was the moderating variable on the relationship between BMI strategies and performance of manufacturing firms

<b>Author(s) and Year</b>	<b>Focus</b>	<b>Key Findings</b>	<b>Knowledge Gaps</b>	<b>Focus of the Current Study</b>
Rubera (2022)	Regulatory framework's moderating effect on leadership practices and university performance	Regulatory framework moderate leadership practices and university performance's association	Study focused on university leadership in university setup	Regulatory frame work was the moderating variable on the relationship between blue ocean strategies and performance of manufacturing firms

*Source: Researcher, (2024)*

## **2.5 Conceptual Framework**

This is a set of wide concepts and ideas from applicable enquiry fields and used in structuring current and future studies. In figure 2.1 below, this study proposes that manufacturing firms could enhance performance (the dependent variable) through business model innovation strategies (the independent variable). The connection is moderated by the regulatory framework and mediated by competitive advantage.



**Figure 2.1: Conceptual Framework.**  
 Source: Researcher (2024)

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

In this section, the research methodology is described. It describes the research philosophy, research design, population and sampling design as well as the methods for collecting and analyzing data.

### **3.2 Research Philosophy**

A positivist philosophy approach was used for this study, as the study hypotheses were set up using relevant theories, which were tested and verified or disproved with statistical and quantitative techniques to answer the study objectives and accomplish its objectives. The principles of positivism involved observing social reality to produce credible data (Saunders, Lewis, and Thornhill, 2012). Similarly, the positivistic approach dictated that the study be conducted in an objective and value-free manner, where reality existed independently of social actors, and only knowledge confirmed by the senses was considered acceptable. This approach treated natural and social sciences, similarly, ensuring value-free research without the researcher's personal opinions influencing the study. Additionally, this approach allowed the researcher to make independent decisions about the subject being investigated and facilitated the discovery of new knowledge, leading to the prediction and control of problems. Therefore, the principles of extant theories were utilized to assess the connection between the research constructs in a combined manner.

### **3.3 Research Design**

An explanatory research design was used in this study using a descriptive study technique that was cross-sectional in nature. This aided in obtaining information from participants at a given point in time so that a description of the phenomenon could be

made and show how variables were associated (Cooper and Schindler, 2014). This design involved describing the characteristics of the phenomena, making predictions and narrating facts. This approach was particularly useful in further evaluating data to ascertain how the variables related (Sekaran, 2010). A combination of descriptive and explanatory study designs helped the researcher achieve the research objectives.

### 3.4 Empirical Model

Regression of the independent variable on firm performance was performed in the first empirical model, which is displayed below.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \dots\dots\dots 3.1$$

Where;

Y = Composite index for Firm Performance

X<sub>1</sub> = Customer value proposition innovation strategy

X<sub>2</sub> = Distribution Channel innovation strategy

X<sub>3</sub> = Blue Ocean strategy

X<sub>4</sub> = Strategic Partnership innovation strategy

Coefficient  $\beta_{ij} = 1 \dots 4$  gauged the dependent variable (Y<sub>F</sub>) sensitivity to any variation in the independent variables X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub> while  $\beta_0$  = the constant term in the model.  $\varepsilon$  is the error term capturing the change not explained.

To operationalize the independent variables in the regression model, comprehensive composite indices were created for each business model innovation strategy through a systematic aggregation process. The customer value proposition innovation strategy index (X<sub>1</sub>) was computed as the mean score across multiple indicators measuring

relevant communication channels, depth of customer relationships, efficiency of complaints resolution systems, and overall customer focus reputation. Each indicator was measured on a five-point Likert scale to capture the extent of implementation. The distribution channel innovation strategy index ( $X_2$ ) was calculated by averaging scores across indicators measuring the effectiveness of intermediary reward systems, performance of company-owned outlets, sophistication of online sales platforms, and direct sales capabilities. The blue ocean strategy index ( $X_3$ ) was constructed by combining mean scores from indicators assessing customer value perspective initiatives, success in penetrating new market segments, value addition processes, and rebranding effectiveness, all measured through validated scales. The strategic partnership innovation strategy index ( $X_4$ ) was derived from averaging scores across measures of outsourcing effectiveness, research and development collaboration outcomes, supply chain alliance strengths, and joint venture success metrics. The dependent variable, firm performance (YF), was operationalized through a carefully constructed composite index that captures both financial and market-based aspects of organizational success. This index was computed by averaging scores across four key performance indicators, net profit growth, market share, customer retention and firm reputation. In regression analyses, the composite indices were used to test the hypothesized relationship between variables so as to gain a robust understanding of the effects of independent variables on dependent variables.

### 3.4.1 Test for Moderation

Step 1: Regress firm performance on business model innovation strategies and note the R square value ( $R^2$ ) and significance level ( $p < 0.05$ )

$$Y = \beta_0 + \beta_1 X + \varepsilon \dots \dots \dots \text{Equation 3.2}$$

Y = Firm Performance composite index

$\beta_0$  = Constant

$\beta_1$  = Beta Coefficients

$X_0$  = Business model innovation strategies composite index

$\epsilon$  = Error term.

Step 2: Introduce the Regulatory Framework and note the new  $R^2$  and the significance level ( $p < 0.05$ ) that the interactive term for the moderating and independent variable.

**$Y = \beta_0 + \beta_1 X_0 + \beta_2 M_0 + \beta_3 X_0 M_0 + \epsilon$  .....Equation 3.3**

Y = Firm Performance composite index

$\beta_0$  = Constant

$\beta_1, \beta_2$  and  $\beta_3$  = Beta Coefficients

$X_0$  = Business Model Innovation Strategies Composite index

$M_0$  = Regulatory Framework

$\epsilon$  = Error term.

A comprehensive regulatory framework composite index ( $M_0$ ) was constructed to capture the complex nature of regulatory influences. This index combined mean scores from multiple indicators measuring the impact of business laws (including compliance requirements and legal frameworks), government regulations (covering industry-specific rules and standards), government policies (encompassing both supportive and restrictive measures), and overall compliance requirements. The indicators were designed to assess both the constraining and enabling aspects of regulatory framework.

This composite measure provides a holistic representation of the regulatory environment's influence on performance of manufacturing firms.

**Table 3.1: Decision Criteria for Moderation**

<b>Model 3.2</b>	<b>Model 3.3</b>	<b>Total effect</b>	<b>Conclusion</b>
$\beta_1$ not significant ( $p > 0.05$ )	-	-	No overall effect to moderate
$\beta_1$ is significant ( $p \leq 0.05$ )	$\beta_2$ is not significant ( $p > 0.05$ )	-	Moderating variable is an explanatory Variable
$\beta_1$ is significant ( $p \leq 0.05$ )	$\beta_3$ is significant ( $p \leq 0.05$ )	$\beta_3$	Moderating variable has a moderating effect

Source: Whisman and McClelland (2005)

The coefficient interaction term,  $\beta_3$ , (Business Model innovation strategies \* Regulatory framework in model 3.3 demonstrates the moderating variable direction and strength. Thus,  $\beta_3$  provide Regulatory Framework' moderation effect estimates on how Business Model innovation strategies and Firm performance relate. It is evident that Regulatory Framework is moderating the association if  $\beta_3$  statistically differs from zero. If Beta coefficient's significance level is ( $p \leq 0.05$ ), the moderation is present. When ( $p > 0.05$ ), hypotheses is rejected.

### 3.4.2 Testing for the Mediation

The mode of testing employed is from Baron and Kenny (1986) who developed four causal path analysis. Using this analytical method, the statistical mediation effect of competitive advantage on the relationship between business model innovation strategies and firm performance was examined. Determining the existence and type of mediation entails a methodical set of regression analyses. The first step involves regressing firm performance on business model innovation strategies, followed by regressing competitive advantage on business model innovation strategies in the second

step. The third step entails regressing firm performance on competitive advantage. If significant relationships are established in these initial steps, the fourth step simultaneously regresses firm performance on both business model innovation strategies and competitive advantage to assess whether competitive advantage acts as a mediator. This mode of testing allows for a comprehensive examination of the mediating role of competitive advantage, accommodating both linear and nonlinear effects, and is considered a robust approach for mediation analysis.

Step 1: Regress Firm performance on Business model innovation strategies and note the relationship significance.

$$Y = \beta_0 + \beta_4 X_0 + \varepsilon \dots\dots\dots \text{Equation 3.4}$$

Where, Y = Firm Performance

$\beta_0$  = Constant

$\beta_4$  = Beta Coefficient for BMI

$X_0$  = Business Model Innovation Strategies

$\varepsilon$  = Error term.

Step 2: Regress Competitive advantage on Business Model Innovation Strategies and note the relationship significance.

$$Me = \beta_0 + \beta_5 X_0 + \varepsilon \dots\dots\dots \text{Equation 3.5}$$

Where;

Me = Competitive Advantage

$\beta_0$  = Constant

$\beta_5$  = Beta Coefficient for BMI

Xo = Business Model Innovation Strategies

ε = Error term.

Step 3: Regress Firm performance on Competitive Advantage and note the significance

**Y = β<sub>0</sub>+ β<sub>6</sub> Me+ ε .....Equation 3.6**

Where;

Y = Firm Performance

β<sub>0</sub> = Constant

β<sub>6</sub>= Beta Coefficient

Me = Competitive Advantage

ε = Error term.

The first 3 steps' purpose was establishing if the variables associate; if there is, go ahead to the 4<sup>th</sup> step. The 4th step helped in estimating presence of mediation and if it is complete or partial in accordance to Baron and Kenny (1986).

Step 4: Regress Firm performance on Business model innovation strategies and competitive advantage and note the significance.

**Y = β<sub>0</sub>+β<sub>7</sub>Xo +β<sub>8</sub>Me+ ε .....Equation 3.7**

Y = Firm Performance

β<sub>0</sub> = Constant

β<sub>7</sub> and β<sub>8</sub> = Beta Coefficients

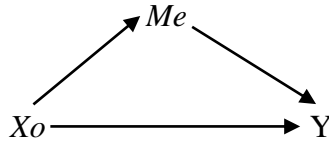
Xo = Business Model Innovation Strategies

Me = Competitive Advantage

ε = Error term.

It was necessary to test whether the performance of listed manufacturing firms (dependent variable) is significantly correlated with Business Model Innovation strategies (independent variable). A relationship between the variables can be demonstrated by Steps 1-3. If the relationship between the variables is not significant in any condition, mediation is unlikely. If it does exist, proceed to Step 4. Table 3.2 presents the four-step casual path approach in diagram form.

**Table 3.2: Mediation Casual Step Path Diagram**

Step	Equation	Path diagram
Step 1	$Y = \beta_0 + \beta_1 X_o + \varepsilon$	$Y \longrightarrow X_o$
Step 2	$Me = \beta_0 + \beta_1 X_o + \varepsilon$	$Me \longrightarrow X_o$
Step 3	$Y = \beta_0 + \beta_1 Me + \varepsilon$	$Y_F \longrightarrow Me$
Step 4	$Y = \beta_0 + \beta_1 X_o + \beta_2 Me + \varepsilon$	 <pre> graph LR   Xo[Xo] --&gt; Me[Me]   Me --&gt; Y[Y]   Xo --&gt; Y </pre>

Source: Baron and Kenny (1986)

Mediating variables are controlled when they are in control and independent variables are no longer affected by them. In partial mediation, the independent and dependent variables remain related even when the mediator variables are controlled. Table 3.3 presents the decision criteria.

**Table 3.3: Decision for Mediation**

Model 3.4	Model 3.5	Model 3.6	Model 3.7	Test	Conclusion
$\beta_4$ is significant ( $p > 0.05$ )	-	-	-	-	No overall relationship to mediate
$\beta_4$ is not significant ( $p \leq 0.05$ )	-	-	-	-	There exists an overall relationship to mediate
$\beta_4$ is not significant ( $p \leq 0.05$ )	$\beta_5$ is significant ( $p \leq 0.05$ )	$\beta_6$ is significant ( $p \leq 0.05$ )	$\beta_7$ and $\beta_8$ are significant ( $p \leq 0.05$ )	$\beta_4 - \beta_7 = \beta_6^*$ $\beta_8$	Partial mediation
$\beta_4$ is not significant ( $p \leq 0.05$ )	$\beta_5$ is significant ( $p \leq 0.05$ )	$\beta_6$ is significant ( $p \leq 0.05$ )	$\beta_7$ is not significant ( $p > 0.05$ ) But $\beta_8$ is significant ( $p \leq 0.05$ )	$\beta_4 - \beta_7 = \beta_6^*$ $\beta_8$	Perfect mediation

Source: Baron and Kenny (1986)

### 3.5 Target Population

Nineteen manufacturing firms listed on the NSE (Appendix III) formed the targeted group for this study. All nineteen firms were considered and five key functional heads representing strategy, marketing, finance, information, and operations were observed. The research was a census of all NSE-listed manufacturing firms selecting five respondents from each firm to a total of 95 participants. The key respondents chosen for their integral roles in shaping and implementing corporate strategies. Given their direct involvement in developing and executing business model innovation strategies, these individuals were well-positioned to offer valuable insights into the impact of such tactics on business performance. By engaging these senior executives, the study captured diverse viewpoints that reflect the interconnected nature of business processes, providing a robust analysis of how innovation strategies influence firm performance. The summary of the target population is presented in Table 3.4

**Table 3.4: Target Population**

<b>Category</b>	<b>Target Population</b>
Head of Strategy	19
Head of Marketing	19
Head of Finance	19
Chief Information officer	19
Chief Operations officer	19
<b>Total</b>	<b>95</b>

Source: Researcher (2024)

### **3.6 Data Collection Instrument**

Primary data was collected for analysis in the study. Semi-structured questionnaires (Appendix II) were utilized to obtain primary data. Drop-and-pick questionnaires were distributed so participants could take the time to read and respond. The questionnaire included Likert-scale and open-ended questions.

### **3.7 Pilot Study**

Stice, Yokum, Veling, Kemps and Lawrence (2017) describe a pilot study as a small examination of research instruments before the main study begins. By carrying out a pilot, the researcher can detect possible obstacles that might occur during the final data collection process, allowing for modifications to overcome these obstacles and promote more seamless data collection. Ten percent (10) of the respondents in this study were chosen from two manufacturing companies. Cooper and Schilder (2014), which states that the pilot test should consist of 5–10% of the target sample. To preserve the integrity of the final data, the respondents who took part in the pilot testing did not participate in the actual study. By asking participants to recommend and/or comment on the correctness, applicability, and relevance of the questions, the pilot test aimed to gather

more trustworthy input. In the end, this pilot study ensured the effectiveness of the research instruments for the main study by examining their validity and reliability.

### 3.7.1 Reliability of Research Instrument

Reliability was assessed using Cronbach's alpha formula. As shown in Table 3.5, a Cronbach's alpha value above 0.7 was considered acceptable.

**Table 3.5: Summary of Reliability Results**

Variable	Number of items	Cronbach alpha	Comments
Customer value proposition innovation strategy	25	0.964	Reliable
Distribution channel innovation strategies	15	0.785	Reliable
Blue Ocean Strategy	12	0.931	Reliable
Strategic partnership innovation strategies	20	0.771	Reliable
Competitive advantage	15	0.860	Reliable
Regulatory framework	20	0.927	Reliable
Firm performance	15	0.892	Reliable

Source: Survey Data (2024).

As shown in Table 3.5, the study found that Cronbach's alpha coefficients for customer value proposition innovations, distribution channel innovations, blue ocean strategies, strategic partnerships, competitive advantage, regulatory framework innovations, and firm performance were above 0.7, indicating reliability. Taber (2018) suggests that Cronbach's alpha coefficients should not be lower than 0.7 to ensure reliability. In this study, the Cronbach's alpha values exceeded 0.7, aligning with the recommendations of Golafshani (2003) and Gliem and Gliem (2003), who also advocate for a threshold above 0.7 hence the study variables were considered reliable.

### 3.7.2 Validity of Research Instrument

During the study, the research instruments were assessed for content validity as well as construct validity to ensure they accurately assessed the intended concepts. Content

validity was addressed through a comprehensive review process involving supervisors overseeing the thesis development, ensuring the questionnaires adequately covered the subject matter. Construct validity was assessed using factor analysis, which confirmed that all items across study variables had factor loadings above the 0.4 threshold as shown in appendix I, indicating the research instrument effectively measured the intended concepts and relationships.

### **3.8 Operationalization and Measurement of Variables**

Following is a list of indicators that were used to measure the variables.

**Table 3.6: Operationalization and Measurement of Variables.**

<b>Name of the Variable</b>	<b>Type</b>	<b>Operationalization</b>	<b>Indicators of Each Variable</b>	<b>Criteria of Measurement in Questionnaire</b>
<b>Customer Value Proposition Innovation Strategy</b>	Independent Variable	Enhancing customer benefits and value for money through information relationships, efficient complaint resolution to build reputable brands	<ul style="list-style-type: none"> <li>• Relevant communication</li> <li>• Customer relationships</li> <li>• Complaints resolution</li> <li>• Customer focus</li> </ul>	Appendix II: <b>Section B</b> (Questions 6-31)
<b>Distribution Channel Innovation Strategy</b>	Independent Variable	Ensuring availability of company products by strengthening distribution channels through improved product accessibility and market reach	<ul style="list-style-type: none"> <li>• Rewarding intermediaries</li> <li>• Own outlets</li> <li>• Online sales</li> <li>• Direct sales</li> </ul>	Appendix II: <b>Section C</b> (Questions 32-47)
<b>Blue Ocean Strategy</b>	Independent Variable	Creating new market opportunities to render completion irrelevant by expanding into untapped segments, and differentiating offerings	<ul style="list-style-type: none"> <li>• Customer value perspective</li> <li>• New market segments</li> <li>• Value additions</li> <li>• Re-branding</li> </ul>	Appendix II: <b>Section D</b> (Questions 48-60)
<b>Strategic Partnership Innovation Strategy</b>	Independent Variable	Strengthening collaborations and networks and through external entities in outsourcing, R&D, supply chain alliances, and joint ventures	<ul style="list-style-type: none"> <li>• Outsourcing</li> <li>• R&amp;D collaborations</li> <li>• Supply Chain alliances</li> <li>• Joint ventures</li> </ul>	Appendix II: <b>Section E</b> (Questions 61-81)
<b>Competitive Advantage</b>	Mediating Variable	Enhancing firm performance by improving operational	<ul style="list-style-type: none"> <li>• Operational efficiency</li> </ul>	Appendix II: <b>Section F</b> (Questions 82-97)

		efficiency, leveraging defensive strategies, and optimizing speed to market	<ul style="list-style-type: none"> <li>• Defensive strategies</li> <li>• Speed to market</li> </ul>	
<b>Regulatory Framework</b>	Moderating Variable	Examining the influence of business laws, government regulations, and policies overall firm performance	<ul style="list-style-type: none"> <li>• Business laws</li> <li>• Government regulations</li> <li>• Government policies</li> <li>• Compliance</li> </ul>	Appendix II: <b>Section G</b> (Questions 98-118)
<b>Firm Performance</b>	Dependent Variable	Measuring firm success in terms of financial and non-financial measures	<ul style="list-style-type: none"> <li>• Customer retention</li> <li>• Firm reputation</li> <li>• Market share growth</li> <li>• Net Profit growth</li> </ul>	Appendix II: <b>Section H</b> (Questions 119-122)

Source: Researcher (2024)

### 3.9 Data Collection Procedure

According to Gall, Gall and Borg (2007), collecting data entails obtaining raw data to be processed to information that is meaningful through data evaluation procedure. The researcher obtained approval from the University to carry out the study. Permission was sort from NACOSTI. Following this, the researcher visited the manufacturing firms to seek permission for data collection from top management. The investigator wrote letters to the managers to obtain permission to undertake the data collection exercise. Self-administered questionnaires were distributed by research assistants using a drop-and-pick technique and collected after one week to increase the return rate.

### **3.10 Data Analysis and Presentation**

Zikmund, Babin and Griffin (2010) posit that applying reasoning to understand the obtained data to determine a consistent pattern and summarize the required details disclosed during the study is referred to as data analysis. For quantitative data, SPSS was used to produce both inferential and descriptive statistics, as well as frequencies, to draw conclusions about the study findings. Descriptive statistics included standard deviations, mean scores, and frequencies. Correlation and multiple regression analysis were used to generate inferential statistics, with Pearson's correlation coefficient ( $r$ ) measuring variable relationships and the coefficient of determination ( $R^2$ ) indicating variance explained by independent variables, while mediating and moderating effects were analyzed through stepwise regression; quantitative data were presented in tables and figures, hypotheses tested at a 95% confidence level using p-values, and qualitative data analyzed via conceptual content analysis when the p-value was below 0.05, as recommended by Glesne (2016). The qualitative responses were grouped into common themes to facilitate content.

**Table 3.7: Statistical Tests of Hypotheses**

<b>Study Objective</b>	<b>Study Hypothesis (H<sub>0</sub>)</b>	<b>Models</b>	<b>Interpretation</b>
Effect of customer value proposition innovation strategy on performance of manufacturing firms listed on NSE in Kenya.	H <sub>01</sub> : Customer value proposition innovation strategy has no significant effect.	Multiple regression Model  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$	Adjusted R <sup>2</sup> , $\beta_i$ Coefficients, F-value Level of significance: 0.05 If $p \leq 0.05$ , reject H <sub>0</sub> ; otherwise, fail to reject H <sub>0</sub>
To ascertain how Kenyan manufacturing companies listed on the NSE perform in relation to their distribution channel innovation strategy.	H <sub>02</sub> : Distribution channel innovation strategy has no significant effect		Adjusted R <sup>2</sup> , $\beta_i$ Coefficients, F-value Level of significance: 0.05 If $p \leq 0.05$ , reject H <sub>0</sub> ; otherwise, fail to reject H <sub>0</sub>
To determine how Kenyan manufacturing companies listed on the NSE perform in relation to the blue ocean strategy.	H <sub>03</sub> : Blue Ocean strategy has no significant effect		Adjusted R <sup>2</sup> , $\beta_i$ Coefficients, F-value Level of significance: 0.05 If $p \leq 0.05$ , reject H <sub>0</sub> ; otherwise, fail to reject H <sub>0</sub>
To determine how Kenyan manufacturing companies listed on the NSE perform in relation to their strategic partnership innovation strategy.	H <sub>04</sub> : Strategic partnership innovation strategy has no significant effect		Adjusted R <sup>2</sup> , $\beta_i$ Coefficients, F-value Level of significance: 0.05 If $p \leq 0.05$ , reject H <sub>0</sub> ; otherwise, fail to reject H <sub>0</sub>
Mediating effect of competitive advantage on relationship between business model innovation strategies and the performance of manufacturing firms listed on NSE in Kenya.	H <sub>05</sub> : Competitive advantage has no significant mediating effect	Path analysis $Y = \beta_0 + \beta_1 X_0 + \varepsilon$ $Me = \beta_0 + \beta_1 X_0 + \varepsilon$ $Y = \beta_0 + \beta_1 + Me + \varepsilon$	Adjusted R <sup>2</sup> , $\beta_i$ Coefficients, F-value Level of significance: 0.05 If $p \leq 0.05$ , reject H <sub>0</sub>

		$Y = \beta_0 + \beta_1 X_o + \beta_2 M_e + \varepsilon$	$H_0$ ; otherwise, fail to reject $H_0$
Moderating effect of regulatory framework on relationship between business model innovation strategies and the performance of manufacturing firms listed on NSE in Kenya.	$H_{06}$ : Regulatory framework has no significant moderating effect	Path Analysis $Y = \beta_0 + \beta_1 X_o + \beta_2 M_o + \varepsilon$ $Y = \beta_0 + \beta_1 X_o + \beta_2 M_o + \beta_3 X_o * M_o + \varepsilon$	Change in Adjusted $R^2$ , Change in F-value, change in $\beta_i$ Coefficients Level of significance: 0.05 If $p \leq 0.05$ , reject $H_0$ ; otherwise, fail to reject $H_0$

Source: Researcher (2024)

### 3.11 Diagnostics Tests

Ensuring classical linear regression model (CLRM) assumptions non-violations prior to giving estimation of regression models is necessary. Brooks (2008) reports that the investigator may run risk of getting inconsistent, inefficient, and biased parameter estimates if the equations are estimated when the assumptions have been violated. Consequently, in ensuring proper model's specifications, the normality, multicollinearity, linearity and heteroscedasticity were undertaken.

#### 3.11.1 Normality Test

Normality demonstrates the probability of normal distribution well-modeling a data set (Field, 2013). Using the Shapiro Wilk test, the study evaluated whether the data were normal. A normality test determines whether the sample data was collected from a population with a normal distribution. A non-parametric test is preferred when data does not follow a normal distribution.

#### 3.11.2 Multicollinearity Test

Based on Field (2013), a VIF value of less than 10 indicates a lack of multicollinearity among the variables, which was used to test for multicollinearity. A multicollinear

regression model is one in which two or more predictor variables have a high degree of correlation with each other. As a result, it can be difficult to estimate the coefficients of the regression model, as it can lead to instability and unreliability.

### **3.11.3 Linearity Test**

The study conducted a linearity test to assess whether the relationship between the independent and dependent variables was linear, a crucial assumption in regression analysis. This test helps determine if changes in the independent variable correspond to changes in the dependent variable. Scatter plot graphs were used to examine the linearity of these relationships.

### **3.11.4 Heteroscedasticity**

The random variables are heteroscedastic when the error term is not constant – according to regression analysis. Williams (2016) posits that, the analysis is not optimal with the existence of heteroscedasticity since all observations are given similar weight compared to smaller disturbance variance, the observations have greater disturbance variance with less data. Biasness in standard errors exists when there is heteroscedasticity thus resulting in bias inferences. The study employed the Breusch-Pagan test to examine whether Heteroscedasticity exists.

### **3.12 Ethical Considerations**

This is concerned with issues dealing with ensuring that participants don't face any harm by maintaining confidentiality and anonymity and identifying the study purpose. The researcher made sure the study was carried out in an ethical manner by taking all the required actions. Permissions from relevant bodies, including Kenyatta University and NACOSTI, were acquired. In line with Cooper and Schindler (2014), the

introduction of response bias and a low response rate were mitigated by ensuring that participation was voluntary. The confidentiality of the participants was guaranteed, and it was underlined that the information gathered would only be utilized for scholarly research.

## **CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSION**

### **4.1 Introduction**

Research findings are presented in this chapter. Descriptive statistics about the research variables, diagnostic tests, and inferential statistics are included. The chapter also provides for discussion relating to interpretation and implications of results of the different aspects of data analysis.

### **4.2 Descriptive Analysis**

The characteristics of the observed sample were analyzed in terms of response rate, general information, and specific information relating to research variables in terms of means and standard deviation. The results of these analyses and corresponding discussion are presented in this section.

#### **4.2.1 Response Rate**

The respondents completed 84 out of 95 questionnaires, resulting in an 88% response rate. Prior studies consider a response rate of above 70% to be adequate for data analysis (Mugenda & Mugenda, 2003). The 88% response rate was thus considered appropriate for further statistical analysis.

#### **4.2.2 Demographic Characteristics of Respondents**

The descriptive characteristics provide crucial context for understanding the background and expertise of the study participants, enhancing the interpretation of their responses. The inclusion of work duration at the firm offers perspective on the respondents' experience and familiarity with firm strategies and performance. In addition, information on firm size, as indicated by the number of employees, allows

contextualizing the responses within the broader context. Table 4.1 summarizes their demographic characteristics.

**Table 4.1: Demographic Characteristics of Respondents**

Category	Sub-category	Frequency	Percentage
Gender	Male	65	77.4
	Female	19	22.6
	Total	84	100
highest level of education	College certificate	10	11.9
	Bachelor's Degree	41	48.8
	Master's degree	33	39.3
	Total	84	100
Current position	Head of Strategy	18	21.4
	Head of Marketing	16	19
	Head of Finance	23	27.4
	Chief Information officer	14	16.7
	Chief Operations officer	13	15.5
	Total	84	100
Duration of working in the firm	< 5 years	5	6
	6 to 10 years	13	15.5
	11 to 15 years	47	56
	> 16 years	19	22.6
	Total	84	100
Number of staff in your firm	Less 200	3	3.6
	201-500	8	9.5
	501-1000	15	17.9
	More than 1000	58	69
	Total	84	100

Source: Survey Data (2024)

According to the study's findings in Table 4.1, the majority of respondents-77.4 percent of the sample were men, while 22.6 percent were women. Thus, women remain underrepresented in important decision-making positions in manufacturing despite Kenya's progress in implementing gender equality initiatives. This gender disparity may have implications for the diversity of perspectives and approaches to business model innovations and could potentially influence the overall performance of these firms. Future research might explore whether increased gender diversity in leadership

positions correlates with different approaches to innovation or improved firm performance.

The results show a highly educated sample, with the majority holding advanced degrees. Specifically, 48.8% of respondents possessed a bachelor's degree, while a substantial 39.3% had attained a master's degree. Only 11.9% of respondents reported having a college certificate education as their highest level of education. This distribution indicates that the leadership in these manufacturing firms is well-educated, potentially bringing a high level of analytical and strategic thinking to their roles. The prevalence of advanced degrees suggests that these firms value formal education and may be more inclined to adopt evidence-based approaches to business model innovation. The high education levels may also contribute to a greater capacity for understanding and implementing complex innovation strategies, which could be a significant factor in the firms' ability to adapt and perform in a competitive market environment.

The current positions held by the respondents offer insight into the distribution of key roles within the surveyed firms. The largest group of respondents were heads of finance comprising of 7.4% of the sample. This was followed by Heads of Strategy at 21.4%, Heads of Marketing at 19%, Chief Information Officers at 16.7%, and Chief Operations Officers at 15.5%. This distribution suggests a balanced representation across critical functional areas within the organizations. The significant representation of finance and strategy roles indicates that the responses likely reflect a strong emphasis on financial performance and strategic planning. The inclusion of marketing, information technology, and operations perspectives ensures a comprehensive view of business model innovation strategies across different aspects of the firms' operations. This

diverse representation of key positions enhances the reliability and breadth of insights gathered in the study.

An examination of the respondents' tenure within their respective firms reveals a workforce with considerable experience. The majority of respondents (56%) had been with their firms for 11 to 15 years, indicating a high level of stability and retention in leadership positions. This is followed by 22.6% who had over 16 years of experience with their current firm. Only 15.5% had 6 to 10 years of experience, and a mere 6% had less than 5 years with their company. This distribution suggests that the majority of respondents have substantial experience within their organizations, likely possessing deep institutional knowledge and a comprehensive understanding of their firm's operations, challenges, and strategic directions. Since these leaders have probably participated in several cycles of strategic planning and execution, their sustained involvement may favorably impact the adoption and development of business model innovation strategies.

Based on the number of employees, it appears that 69 percent of respondents (69%) work for large organizations with more than 1000 employees. There are 17.9% of respondents working for companies with 501-1000 employees, 9.5% working for companies with 201-500 employees, and just 3.6% working for businesses with fewer than 200 employees. This distribution indicates that the study primarily captured the perspectives of leaders from large-scale manufacturing operations. The predominance of large firms suggests that the findings may be particularly relevant to understanding business model innovation strategies in the context of complex, large-scale manufacturing environments. These larger firms likely have more resources to dedicate

to innovation initiatives but may also face greater challenges in implementing and managing change across their sizeable operations.

The combination of highly educated respondents with extensive experience in their firms and roles in key leadership positions provides a strong foundation for the reliability of the data collected. These characteristics suggest that the respondents are well-positioned to provide informed insights into their firms' business model innovation strategies and performance. The depth of experience, coupled with advanced education, likely contributes to a sophisticated understanding of the challenges and opportunities facing their organizations in the competitive landscape of the Kenyan manufacturing sector. However, the gender imbalance observed in the responses raises questions about the potential impact of diverse leadership on innovation strategies and firm performance. While this study does not directly address this issue, it highlights an area for potential future research. Investigating whether more gender-diverse leadership teams approach business model innovation differently or achieve different performance outcomes could provide valuable insights for the industry and policymakers alike.

#### **4.2.3 Customer Value Proposition Innovation Strategy**

As the first objective of the study, it was determined that customer value proposition innovation strategy would affect the performance of manufacturing firms listed on the Nairobi Securities Exchange in Kenya. Detailed statistical information about this critical aspect of business model innovation is presented in Table 4.2.

**Table 4.2: Descriptive Statistics on Customer Value Proposition Innovation****Strategy**

<b>Customer Value Proposition Innovation strategy</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev.</b>
Our firm actively communicates with customers about our products/services	84	4.13	1.03
Our firm gathers customer feedback and insights regularly	84	4.04	0.88
Our firm's marketing messaging highlights customer benefits clearly	84	4.00	1.06
Our firm tailor communication based on customer segments	84	4.18	1.01
Our firm responds promptly to customer inquiries and concerns	84	4.06	1.07
Building long-term customer relationships is a priority for our firm	84	4.05	0.93
Our firm has dedicated account managers for key customers	84	3.71	1.10
Our firm's CRM system effectively tracks customer data and interactions	84	4.11	0.85
Our firm offers customized solutions to meet unique customer needs	84	3.99	0.98
Customer retention and loyalty programs are in place at our firm	84	3.96	1.01
Customer complaints are treated as an opportunity to improve at our firm	84	3.87	1.06
Our firm has clear procedures to address customer grievances	84	4.14	1.10
Resolution of complaints is monitored for timeliness at our firm	84	4.08	0.96
Root causes of recurring complaints are analyzed at our firm	84	4.00	1.04
Feedback on complaint handling is collected from customers by our firm	84	4.06	1.03
Our firm actively builds and maintains a positive reputation	84	3.93	1.06
Our firm differentiates through superior customer service	84	3.94	0.90
Our firm's brand is synonymous with quality and trust	84	3.95	0.98
Ethical business practices are a core value at our firm	84	3.87	0.99
Online reviews and ratings are closely monitored by our firm	84	4.12	0.74
Our firm's products/services are uniquely different from competitors	84	4.06	0.50
Our firm focuses on innovative features and capabilities	84	4.05	0.73
Premium pricing is justified by superior value offered by our firm	84	4.13	1.03
Our firm's brand positioning highlights key differentiators	84	4.04	0.88
Our firm targets specific customer segments with tailored offerings	84	4.00	1.06
<b>Aggregate Scores</b>		<b>4.02</b>	<b>0.96</b>

Source: Survey data (2024)

As shown in Table 4.2, the study provides significant insight into the customer value proposition innovation strategy of manufacturing firms listed on the Nairobi Securities Exchange. According to the descriptive statistics, these strategies were generally implemented to a considerable extent by the surveyed firms, with mean scores ranging from 3.71 to 4.18. The lowest mean score of 3.71 was associated with having dedicated account managers for key customers, while the highest mean of 4.18 was observed for tailoring communication based on customer segments. This distribution of mean scores implies that while all aspects of Customer Value Proposition Innovation are given attention, certain strategies are more widely adopted than others. The standard deviations, ranging from 0.50 to 1.10, indicate moderate variability in responses.

An analysis of specific aspects of Customer Value Proposition Innovation strategy reveals a strong emphasis on customer communication and relationship management. The high mean scores for statements such as "Our firm tailors communication based on customer segments" (mean = 4.18, SD = 1.01) and "Our firm's CRM system effectively tracks customer data and interactions" (mean = 4.11, SD = 0.85) indicate widespread adoption of these practices. Similarly, the data suggests prioritization of customer feedback and complaint resolution, evidenced by high scores for "Our firm has clear procedures to address customer grievances" (mean = 4.14, SD = 1.10) and "Resolution of complaints is monitored for timeliness at our firm" (mean = 4.08, SD = 0.96).

The results also highlight the importance placed on reputation management and market differentiation among the firms surveyed. This is reflected in the high mean scores for statements such as "Online reviews and ratings are closely monitored by our firm" (mean = 4.12, SD = 0.74) and "Premium pricing is justified by superior value offered by our firm" (mean = 4.13, SD = 1.03). However, it is noteworthy that the strategy of

having dedicated account managers for key customers scored relatively lower (mean = 3.71, SD = 1.10), suggesting that while this practice is adopted, it may not be as prevalent as other Customer Value Proposition Innovation strategies.

The aggregate Scores, with a mean of 4.02 and a standard deviation of 0.96, indicate that Customer Value Proposition Innovation strategies are widely implemented across the surveyed firms.

#### **4.2.4 Distribution Channel Innovation Strategy**

Table 4.3 presents the descriptive statistics for various aspects of distribution channel innovation, including rewarding intermediaries, online sales strategies, and direct sales approaches.

**Table 4.3: Descriptive Statistics on Distribution Channel Innovation Strategy**

<b>Distribution Channel Innovation Strategy</b>	<b>n</b>	<b>Mean</b>	<b>Std. Dev.</b>
Our firm provides incentives to intermediaries for achieving targets	84	4.17	0.98
Our firm offers training and support to intermediary partners	84	4.05	0.78
Commission/Margins for intermediaries are competitive	84	3.94	0.92
Our firm recognizes and rewards top performing intermediaries	84	4.02	0.91
Performance tracking of intermediaries is done regularly	84	4.21	0.71
Our firm sells products/services through an e-commerce website	84	4.18	0.81
Online sales channel is being actively developed and promoted	84	4.07	0.94
E-commerce logistics and fulfillment processes are efficient	84	4.15	0.87
Our website offers a user-friendly online shopping experience	84	4.19	0.72
Online customer service and grievance redressal is prioritized	84	3.90	0.99
Our firm has a direct sales force for selling to customers	84	3.83	0.99
Direct sales channel allows customizing solutions for buyers	84	4.01	0.87
Sales personnel are trained for effective customer engagement	84	3.79	1.18
Technology tools are used to assist the direct sales process	84	4.02	1.01
Direct customer feedback helps improve products/services	84	4.00	1.27
<b>Aggregate Scores</b>		<b>4.04</b>	<b>0.93</b>

Source: Survey data (2024)

The study's findings, as presented in Table 4.3, offer valuable insights into distribution channel innovation strategy employed by manufacturing firms listed on the Nairobi Securities Exchange. The descriptive statistics reveal a range of mean scores from 3.79 to 4.21, indicating that these strategies are generally implemented to a substantial extent across the surveyed firms. The lowest mean score of 3.79 was associated with training sales personnel for effective customer engagement, while the highest mean of 4.21 was

observed for regular performance tracking of intermediaries. This distribution of mean scores suggests that while all aspects of Distribution Channel Innovation are given attention, certain strategies are more widely adopted than others.

The standard deviations, ranging from 0.71 to 1.27, indicate moderate to high variability in responses. An analysis of specific aspects of Distribution Channel Innovation strategy reveals a strong emphasis on intermediary management and e-commerce development. The high mean scores for statements such as "Performance tracking of intermediaries is done regularly" (mean = 4.21, SD = 0.71) and "Our firm sells products/services through an e-commerce website" (mean = 4.18, SD = 0.81) indicate widespread adoption of these practices. Similarly, the data suggests a prioritization of online customer experience, evidenced by high scores for "Our website offers a user-friendly online shopping experience" (mean = 4.19, SD = 0.72) and "E-commerce logistics and fulfillment processes are efficient" (mean = 4.15, SD = 0.87).

The results also highlight the importance placed on incentivizing intermediaries and developing direct sales channels among the firms surveyed. This is reflected in the relatively high mean scores for statements such as "Our firm provides incentives to intermediaries for achieving targets" (mean = 4.17, SD = 0.98) and "Direct sales channel allows customizing solutions for buyers" (mean = 4.01, SD = 0.87). However, it is noteworthy that the strategy of training sales personnel for effective customer engagement scored relatively lower (mean = 3.79, SD = 1.18), suggesting that while this practice is adopted, it may not be as prevalent as other Distribution Channel Innovation strategies.

The aggregate Scores, with a mean of 4.04 and a standard deviation of 0.93, indicate that Distribution Channel Innovation strategies is widely implemented across the surveyed firms.

#### 4.2.5 Blue Ocean Strategy

Table 4.4 delves into the descriptive statistics related to the implementation of blue ocean strategies.

**Table 4.4: Descriptive Statistics on Blue Ocean Strategy**

<b>Blue Ocean Strategy</b>	<b>n</b>	<b>Mean</b>	<b>Std. Dev.</b>
The firm research on customer value perspective and constantly improves	84	4.30	0.76
We charge premium prices due to few competitions	84	4.01	0.90
Our products face little competition in the market	84	4.40	0.76
Our firm has entered new markets	84	4.07	0.95
The firm is constantly looking for new markets and client segments for our services and products	84	3.85	1.12
The firm creates uncontested market spaces	84	4.21	1.00
The firm invests in branding and re-branding	84	3.89	1.19
We have shifted focus from the current competition to innovative value creation and demand generation strategies	84	4.04	0.99
The firm discovers and adopts new market trends as they emerge	84	4.02	0.98
The firm offers value-added services	84	3.95	0.99
The firm is regularly addressing new, unmet client needs	84	4.00	1.04
We have stimulated new demand for our products, rendering competition irrelevant	84	4.08	1.04
<b>Aggregate Scores</b>		<b>4.07</b>	<b>0.98</b>

Source: Survey data (2024)

The study's findings, as presented in Table 4.4, provide significant insights into the implementation of blue ocean strategy among manufacturing firms listed on the Nairobi Securities Exchange. The descriptive statistics reveal a range of mean scores from 3.85

to 4.40, indicating that these strategies are generally implemented to a considerable extent across the surveyed firms. The lowest mean score of 3.85 was associated with constantly looking for new markets and client segments, while the highest mean of 4.40 was observed for facing little competition in the market. This distribution of mean scores suggests that while all aspects of Blue Ocean Strategy are given attention, certain strategies are more widely adopted than others.

The standard deviations, ranging from 0.76 to 1.19, indicate moderate variability in responses. An analysis of specific aspects of Blue Ocean Strategy reveals a strong emphasis on creating uncontested market spaces and focusing on customer value perspective. The high mean scores for statements such as "Our products face little competition in the market" (mean = 4.40, SD = 0.76) and "The firm research on customer value perspective and constantly improves" (mean = 4.30, SD = 0.76) indicate widespread adoption of these practices. Similarly, the data suggests a prioritization of creating new market spaces, evidenced by high scores for "The firm creates uncontested market spaces" (mean = 4.21, SD = 1.00) and "We have stimulated new demand for our products rendering competition irrelevant" (mean = 4.08, SD = 1.04).

The results also highlight the importance placed on value innovation and shifting focus from current competition among the surveyed firms. This is reflected in the relatively high mean scores for statements such as "We have shifted focus from the current competition to innovative value creation and demand generation strategies" (mean = 4.04, SD = 0.99) and "We charge premium prices due to few competitions" (mean = 4.01, SD = 0.90). However, it is noteworthy that the strategy of constantly looking for new markets and client segments scored relatively lower (mean = 3.85, SD = 1.12),

suggesting that while this practice is adopted, it may not be as prevalent as other Blue Ocean Strategy practices.

The aggregate Scores, with a mean of 4.07 and a standard deviation of 0.98, show that Blue Ocean Strategy implementation is widely practiced in the surveyed firms. These aggregate statistics suggest that while there is general agreement on the importance and implementation of Blue Ocean Strategy, there exists some variation in how individual firms approach this innovative strategy.

#### **4.2.6 Strategic Partnership Innovation Strategy**

This section presents the descriptive statistics for various aspects of strategic partnerships, including outsourcing, R&D collaborations, supply alliances and joint ventures.

**Table 4.5: Descriptive Statistics on Strategic Partnership Innovation Strategy**

<b>Strategic Partnership Innovation Strategy</b>	<b>n</b>	<b>Mean</b>	<b>Std. Dev.</b>
Our firm outsources certain business processes to third parties	84	4.00	0.99
Outsourcing helps our firm focus on core competencies	84	3.64	1.15
Thorough due diligence is done before outsourcing partners	84	4.08	0.88
Performance of outsourcing vendors is closely monitored	84	3.94	0.99
Risks of outsourcing are assessed and mitigated effectively	84	3.87	1.00
Our firm collaborates with universities/research labs for R&D	84	4.02	1.03
Such collaborations help access new knowledge and technologies	84	3.83	1.06
Joint R&D projects allow sharing of costs and risks	84	4.19	1.17
Collaborations facilitate developing innovative solutions	84	4.05	1.02
Our firm has processes to commercialize research outputs	84	4.12	1.02
Our firm has collaborative relationships with key suppliers	84	3.89	1.03
Such alliances enable access to resources and capabilities	84	4.05	0.82
Supply chain partners synchronize their processes and systems	84	4.15	0.84
Risks and rewards are equitably shared in the alliance	84	4.06	0.78
The alliance allows our firm to be more responsive to customers	84	3.90	1.00
Our firm enters joint ventures for business expansion	84	4.21	0.66
Joint ventures provide access to new markets and distribution	84	4.13	0.74
Synergies between partners create competitive advantages	84	3.98	0.73
Responsibilities and decision-making are clearly defined	84	4.05	0.49
Exit clauses are negotiated to manage risks of joint ventures	84	4.04	0.99
<b>Aggregate Scores</b>		<b>4.01</b>	<b>0.92</b>

Source: Survey data (2024)

The study's findings, as presented in Table 4.5, offer valuable insights into Strategic Partnership Innovation strategies employed by manufacturing firms listed on the Nairobi Securities Exchange. The descriptive statistics reveal a range of mean scores

from 3.64 to 4.21, indicating that these strategies are generally implemented to a moderate to large extent across the surveyed firms. The lowest mean score of 3.64 was associated with outsourcing helping firms focus on core competencies, while the highest mean of 4.21 was observed for entering joint ventures for business expansion. This distribution of mean scores suggests that while all aspects of Strategic Partnership Innovation are given attention, certain strategies are more widely adopted than others. The standard deviations, ranging from 0.49 to 1.17, indicate low to moderate variability in responses. An analysis of specific aspects of Strategic Partnership Innovation strategy reveals a strong emphasis on joint ventures and supply chain alliances. The high mean scores for statements such as "Our firm enters joint ventures for business expansion" (mean = 4.21, SD = 0.66) and "Supply chain partners synchronize their processes and systems" (mean = 4.15, SD = 0.84) indicate widespread adoption of these practices.

Similarly, the data suggests a prioritization of research and development collaborations, evidenced by high scores for "Joint R&D projects allow sharing of costs and risks" (mean = 4.19, SD = 1.17) and "Our firm has processes to commercialize research outputs" (mean = 4.12, SD = 1.02). The results also highlight the importance placed on strategic alliances and outsourcing among the surveyed firms. This is reflected in the relatively high mean scores for statements such as "Joint ventures provide access to new markets and distribution" (mean = 4.13, SD = 0.74) and "Thorough due diligence is done before outsourcing partners" (mean = 4.08, SD = 0.88). However, it is noteworthy that the strategy of outsourcing to focus on core competencies scored relatively lower (mean = 3.64, SD = 1.15), suggesting that while this practice is adopted, it may not be as prevalent as other Strategic Partnership Innovation strategies.

The aggregate Scores, with a mean of 4.01 and a standard deviation of 0.92, indicate that Strategic Partnership Innovation strategies is implemented by the surveyed firms. These aggregate statistics suggest that while there is general agreement on the importance and implementation of these strategies, there exists some variations on how individual firms approach Strategic Partnership Innovation strategy.

#### **4.2.7 Competitive Advantage**

This section presents the descriptive statistics related to various aspects of competitive advantage, including operational efficiency, defensive strategies, and speed to market.

**Table 4.6: Descriptive Statistics on Competitive Advantage**

<b>Competitive Advantage</b>	<b>n</b>	<b>Mean</b>	<b>Std. Dev.</b>
Our firm focuses on optimizing production processes to minimize waste and reduce costs.	84	4.18	0.97
Our firm continuously strives to improve quality control measures to ensure consistent product quality.	84	4.00	0.60
Our firm leverages advanced technologies (e.g., automation, AI) to enhance operational efficiency.	84	3.93	1.00
Our firm has established lean manufacturing practices to streamline operations and eliminate non-value-added activities.	84	4.02	0.88
Our firm emphasizes employee training and development to enhance skills and productivity.	84	3.96	0.82
Our firm actively monitors and responds to competitive threats in the market.	84	4.11	0.78
Our firm has implemented robust intellectual property protection strategies (e.g., patents, trademarks).	84	4.21	0.95
Our firm pursues diversification strategies to minimize risks and vulnerabilities.	84	4.04	0.83
Our firm prioritizes customer retention and loyalty programs to maintain a strong customer base.	84	3.88	0.97
Our firm actively engages in strategic alliances or partnerships to strengthen our market position.	84	4.01	0.91
Our firm has an agile product development process to quickly respond to market demands.	84	4.00	0.82
Our firm prioritizes time-to-market to gain a first-mover advantage over competitors.	84	3.98	0.84
Our firm has a flexible and adaptable supply chain to support rapid product launches.	84	4.17	0.66
Our firm actively collaborates with customers and involves them in the product development process.	84	4.12	0.75
Our firm encourages innovation and empowers employees to think creatively and take calculated risks.	84	4.36	0.57
<b>Aggregate Scores</b>		<b>4.06</b>	<b>0.82</b>

Source: Survey data (2024)

According to Table 4.6, the study's findings offer significant insights into manufacturing firms' competitive advantage strategies. The descriptive statistics reveal a range of mean scores from 3.88 to 4.36, indicating that these strategies are generally implemented to a large extent across the surveyed firms. The lowest mean score of 3.88 was associated with prioritizing customer retention and loyalty programs, while the highest mean of 4.36 was observed for encouraging innovation and empowering

employees to think creatively and take calculated risks. This distribution of mean scores suggests that while all aspects of Competitive Advantage are given attention, certain strategies are more widely adopted than others. The standard deviations, ranging from 0.57 to 1.00, indicate low to moderate variability in responses.

An analysis of specific aspects of Competitive Advantage reveals a strong emphasis on innovation, operational efficiency, and intellectual property protection. The high mean scores for statements such as "Our firm encourages innovation and empowers employees to think creatively and take calculated risks" (mean = 4.36, SD = 0.57) and "Our firm has implemented robust intellectual property protection strategies" (mean = 4.21, SD = 0.95) indicate widespread adoption of these practices. Similarly, the data suggests a prioritization of operational efficiency and quality control, evidenced by high scores for "Our firm focuses on optimizing production processes to minimize waste and reduce costs" (mean = 4.18, SD = 0.97) and "Our firm has a flexible and adaptable supply chain to support rapid product launches" (mean = 4.17, SD = 0.66).

The results also highlight the importance placed on customer collaboration and market responsiveness among the surveyed firms. This is demonstrated by the comparatively high mean scores for statements like "Our firm actively monitors and responds to competitive threats in the market" (mean = 4.11, SD = 0.78) and "Our firm actively collaborates with customers and involves them in the product development process" (mean = 4.12, SD = 0.75). However, it is noteworthy that the strategy of prioritizing customer retention and loyalty programs scored relatively lower (mean = 3.88, SD = 0.97), suggesting that while this practice is adopted, it may not be as prevalent as other Competitive Advantage strategies.

Competitive advantage strategies are important for all of the firms that were surveyed, according to the aggregate scores, which have a mean of 4.06 and a standard deviation of 0.82. In order to give manufacturing companies listed on the Nairobi Securities Exchange a competitive edge, the results highlight the importance of encouraging innovation, safeguarding intellectual property, and preserving operational effectiveness.

#### **4.2.8 Regulatory Framework**

The section summarizes the descriptive statistics on regulatory framework.

**Table 4.7: Descriptive Statistics on Regulatory Framework**

<b>Regulatory Framework</b>	<b>n</b>	<b>Mean</b>	<b>Std. Dev.</b>
The business laws provide clear guidelines for intellectual property protection in the manufacturing firms in the country.	84	4.08	0.78
The business laws support fair competition among manufacturing firms in the industry.	84	4.04	0.65
The business laws facilitate smooth international trade operations for manufacturing firms' exports.	84	3.99	1.04
The business laws provide a stable environment for long-term planning in the manufacturing sector.	84	4.06	1.01
The business laws adequately address contract enforcement issues for manufacturing firms' partnerships.	84	4.29	0.75
The government regulations ensure product safety and quality standards in manufacturing firms' processes.	84	4.20	0.88
The government regulations effectively address environmental concerns in manufacturing firms' operations.	84	3.86	1.05
The government regulations promote workplace safety and employee welfare in manufacturing firms' facilities.	84	4.14	0.81
The government regulations are flexible enough to accommodate technological innovations in manufacturing firms.	84	3.92	0.91
The government regulations for the manufacturing industry are well-defined and easy for firms to understand.	84	3.73	0.94
The government policies provide incentives for sustainable practices in manufacturing firms.	84	3.85	0.95
The government policies support research and development initiatives in manufacturing firms.	84	3.92	1.00
The government policies help attract foreign investment in local manufacturing firms.	84	4.17	1.00
The government policies encourage skills development and training for manufacturing firms' workforce.	84	4.14	0.82
The government policies promote the adoption of Industry technologies in manufacturing firms.	84	4.18	0.79
The compliance requirements for manufacturing firms are reasonable and achievable.	84	4.06	0.92
The compliance processes are streamlined and efficient for manufacturing firms' operations.	84	3.88	0.92
The compliance standards for manufacturing firms align with the best international practices.	84	4.00	0.82
The compliance audits and inspections are conducted fairly and professionally in manufacturing firms.	84	3.81	1.12
The compliance framework promotes transparency and accountability in manufacturing firms' practices.	84	4.19	0.81
<b>Aggregate Scores</b>		<b>4.03</b>	<b>0.90</b>

Source: Survey data (2024)

As shown in Table 4.7, the findings of the study provide valuable insight into the Nairobi Securities Exchange's Regulatory Framework. The descriptive statistics reveal a range of mean scores from 3.73 to 4.29, indicating that these regulatory aspects are generally perceived to have a moderate to large impact on the firms' operations. The lowest mean score of 3.73 was associated with the clarity and ease of understanding government regulations for the manufacturing industry, while the highest mean of 4.29 was observed for the adequacy of business laws in addressing contract enforcement issues for manufacturing firms' partnerships. This distribution of mean scores suggests that while all aspects of the Regulatory Framework are considered important, certain elements are perceived to have a more significant impact than others. The standard deviations, ranging from 0.65 to 1.12, indicate moderate variability in responses.

An analysis of specific aspects of the Regulatory Framework reveals a strong emphasis on contract enforcement, product safety, and workplace standards. The high mean scores for statements such as "The business laws adequately address contract enforcement issues for manufacturing firms' partnerships" (mean = 4.29, SD = 0.75) and "The government regulations ensure product safety and quality standards in manufacturing firms' processes" (mean = 4.20, SD = 0.88) indicate widespread recognition of these regulatory aspects. Similarly, the data suggests a prioritization of transparency and workforce development, evidenced by high scores for "The compliance framework promotes transparency and accountability in manufacturing firms' practices" (mean = 4.19, SD = 0.81) and "The government policies encourage skills development and training for manufacturing firms' workforce" (mean = 4.14, SD = 0.82).

The findings also demonstrate the significance of using advocacy to interact with the government. This is reflected in the relatively high mean scores for statements such as "The government policies help attract foreign investment in local manufacturing firms" (mean = 4.17, SD = 1.00) and "The government policies promote the adoption of Industry technologies in manufacturing firms" (mean = 4.18, SD = 0.79). However, it is noteworthy that the clarity and ease of understanding government regulations scored relatively lower (mean = 3.73, SD = 0.94), suggesting potential challenges in regulatory compliance due to complexity or ambiguity in the regulations.

The overall scores, which have a mean of 4.03 and a standard deviation of 0.90, show that the Regulatory Framework affects the firms' performance. These aggregate statistics suggest that there is general agreement on the influence of the Regulatory Framework with moderate variations on how individual firms perceive and navigate the regulatory environment.

#### **4.2.9 Firm Performance**

Table 4.8 includes the descriptive statistics on customer retention and firm reputation.

**Table 4.8: Descriptive Statistics on Customer Retention and Firm Reputation**

<b>Statement</b>	<b>Mean</b>	<b>Std Dev</b>
<b>Customer Retention</b>		
There is a high rate of customer repeat purchases.	3.45	1.36
Most clients use the company's products more frequently.	3.49	1.34
We get a lot of recommendations from customers.	3.54	1.34
The firm's products are preferred by customers over those of its rivals.	3.44	1.35
The firm has high customer satisfaction score	3.45	1.28
<b>Aggregate mean score and standard deviation</b>	<b>3.47</b>	<b>1.33</b>
<b>Firm Reputation</b>		
We have won many industry awards	4.37	0.89
The firm is committed to corporate social responsibility	4.31	0.98
The firm ensures high compliance level	4.55	0.95
We have high brand mentions across various platforms	4.16	1.03
The firm is viewed by public as a good corporate citizen	4.44	0.90
<b>Aggregate mean score and standard deviation</b>	<b>4.37</b>	<b>0.95</b>

Customers were very likely to repeat purchases from the firm, most of them were using their products more often, the customer retention rate was high, the company's products were preferred by customers over its competitors, and the company's customer satisfaction score was high. With respect to firm reputation, the Nairobi securities exchange indicates that most manufacturing companies had won several awards to a large extent, as indicated by their mean score of 4.37. Despite this, respondents expressed a wide variance in opinion, as indicated by 0.89 standard deviation. To a large extent, the firms are committed to corporate social responsibility, ensure high compliance levels to regulations, get high brand mentions across multiple platforms,

and are viewed as good corporate citizens by the public as indicated by a mean score of 4.31, 4.55, 4.16 and 4.44, respectively. According to the aggregate standard deviation of 0.98, 0.95, 1.03, and 0.90, respondents' opinions varied. The mean scores of 3.47 and 4.37 suggest that most manufacturing firms listed on the Nairobi Securities Exchange retained a majority of their customers and maintained a strong reputation, though the standard deviations of 1.33 and 0.95 indicate varying respondent opinions, while Table 4.9 presents findings on market share and profitability growth from 2019 to 2023, measured on a 5-point Likert scale where 5 = Above 30%, 4 = Above 20% – 30%, 3 = Above 10% – 20%, 2 = Above 1% – 10%, and 1 = Less than 1%.

**Table 4.9: Descriptive Statistics on Market Share and Profitability**

<b>Statement</b>	<b>Mean</b>	<b>Std Dev</b>
<b>Market Share Growth</b>		
2019	2.55	1.08
2020	2.49	0.99
2021	2.46	1.00
2022	2.52	1.05
2023	2.45	0.94
<b>Aggregate mean score and standard deviation</b>	<b>2.49</b>	<b>1.01</b>
<b>Net Profit Growth</b>		
2019	3.43	1.30
2020	3.36	1.31
2021	3.32	1.30
2022	3.45	1.37
2023	3.55	1.21
<b>Aggregate mean score and standard deviation</b>	<b>3.42</b>	<b>1.30</b>

The average net profit growth in 2019 was 3.43 (SD = 1.30), and in 2023, it increased to 3.55 (SD = 1.21), with an aggregate mean score of 3.42 and a standard deviation of

1.30. By 2022, there were signs of recovery, as profitability improved to 3.45 (SD = 1.37), continuing to rise in 2023 to 3.55 (SD = 1.21), thereby surpassing pre-pandemic levels. This recovery can be attributed to firms adapting to new market realities, including the implementation of strategies to optimize operations, explore new sales channels, and respond to shifting consumer behaviors. The decrease in standard deviation in 2023 suggests a more uniform recovery across firms, indicating a collective rebound within the industry. Overall, the net profitability data reflects the resilience of the manufacturing sector, with firms demonstrating the capacity to recover and grow despite significant challenges. According to Table 4.10, there was a high degree of variation in the respondents' opinions, as indicated by the aggregate standard deviation of 1.30.

**Table 4.10 Descriptive Statistics on Firm Performance**

	<b>Mean</b>	<b>Std Dev</b>
Customer retention	3.47	1.33
Firm reputation	4.37	0.95
Market share growth	2.49	1.01
Net profit growth	3.42	1.30
<b>Aggregate mean score and standard deviation</b>	<b>3.45</b>	<b>1.15</b>

Table 4.10 presents the aggregate mean scores for performance metrics, including customer retention, firm reputation, market share growth, and net profit growth, with a mean score of 3.45 indicating strong agreement among respondents, though a standard deviation of 1.15 suggests notable variations in their observations. The results highlight that while business model innovation strategies contribute significantly to firm performance, individual firms perceive their outcomes differently based on their unique strategic approaches.

### **4.3 Correlation Analysis**

The correlation results are summarized in Table 4.11.

Correlation coefficient is used to test linearity of relationships; coefficients of 0.9 to 1 means a very strong correlation, 0.7 to 0.89 means a strong correlation, 0.4 to 0.69 means moderate correlation, 0.10 to 0.39 means a weak correlation and 0. 0.1 means a negligible correlation.

**Table 4.11: Correlation Results**

		Performance	Customer value proposition innovation strategy	Distribution channel innovation strategy	Blue ocean strategy	Strategic partnership innovation strategy	Competitive advantage	Regulatory framework
Performance	Pearson Correlation Sig. (2-tailed)	1.000						
Customer value proposition innovation strategy	Pearson Correlation Sig. (2-tailed)	.638**	1.000					
Distribution channel innovation strategy	Pearson Correlation Sig. (2-tailed)	.508**	.513**	1.000				
Blue ocean strategy	Pearson Correlation Sig. (2-tailed)	.714**	.641**	.521**	1.000			
Strategic partnership innovation strategy	Pearson Correlation Sig. (2-tailed)	.671**	.563**	.482**	.760**	1.000		
Competitive advantage	Pearson Correlation Sig. (2-tailed)	.466**	.459**	.462**	.686**	.681**	1.000	
Regulatory framework	Pearson Correlation Sig. (2-tailed)	.796**	.669**	.665**	.898**	.840**	.667**	1.000

Source: Survey data (2024)

Table 4.11 presents the correlation results, which offer important insights into the relationship between the study variables, such as firm performance, competitive advantage, business model innovation strategies, and regulatory framework. The results

show that all of the variables have positive and statistically significant correlations with one another, indicating that they are strongly related and significantly affect one another. The study discovered a positive and significant correlation between customer value proposition innovation strategy and performance ( $r=0.638$ ,  $p=0.000$ ). This suggests that companies that successfully innovate their value propositions by comprehending and satisfying customer needs are more likely to see improved performance results. The performance of companies that successfully innovate and diversify their distribution channels, such as through online platforms or direct sales, may also be improved, as evidenced by the strong positive correlation between distribution channel innovation strategy and performance ( $r=0.508$ ,  $p=0.000$ ). The correlation between blue ocean strategy and performance is the highest ( $r=0.714$ ,  $p=0.000$ ), underscoring the significance of establishing uncontested market spaces and setting oneself apart from rivals in promoting business success.

Performance and strategic partnership innovation strategy also significantly positively correlate ( $r=0.671$ ,  $p=0.000$ ), highlighting the importance of alliances, joint ventures, and collaborations in gaining access to new markets, resources, and capabilities to boost performance. Additionally, the findings demonstrate a positive and significant correlation between competitive advantage and all business model innovation strategies. The biggest correlations were found with blue ocean strategy ( $r=0.686$ ,  $p=0.000$ ) and strategic partnership strategy ( $r=0.681$ ,  $p=0.000$ ). This implies that businesses are more likely to establish and maintain a competitive edge if they successfully apply these innovation strategies. The regulatory environment is a key factor in determining how well these innovation strategies impact firm performance, as evidenced by the strong positive correlations the regulatory framework shows with all

the study variables, especially with blue ocean strategy ( $r=0.898$ ,  $p=0.000$ ) and strategic partnership innovation strategy ( $r=0.840$ ,  $p=0.000$ ). The significance of navigating and aligning with the regulatory landscape in order to achieve superior performance outcomes is further highlighted by the strong correlation ( $r=0.796$ ,  $p=0.000$ ) between the regulatory framework and performance.

#### 4.4 Diagnostic Tests

Diagnostic tests assess a statistical model’s validity and identify potential issues to ensure reliable regression analysis, and the following were carried out.

##### 4.4.1 Normality Tests

The normality test results are displayed in Table 4.12.

**Table 4.12: Normality Test**

Variables	Shapiro-Wilk Test.		
	Statistic	df	Sig.
Customer value proposition innovation strategy	0.939	84	0.070
Distribution channel innovation strategy	0.922	84	0.231
Blue ocean strategy	0.978	84	0.159
Strategic partnership innovation strategy	0.919	84	0.090
Competitive advantage	0.961	84	0.130
Regulatory framework	0.987	84	0.567
Performance	0.943	84	0.601

Source: Survey data (2024)

For every variable (customer value proposition innovation strategy, distribution channel innovation strategy, blue ocean strategy, strategic partnership innovation strategy, competitive advantage, regulatory framework, and performance), the

corresponding p values were greater than 0.05, indicating that the data was normally distributed, according to Table 4.12's results.

#### 4.4.2 Multicollinearity Test

The results of multicollinearity are shown in Table 4.12.

**Table 4.13: Multicollinearity Results**

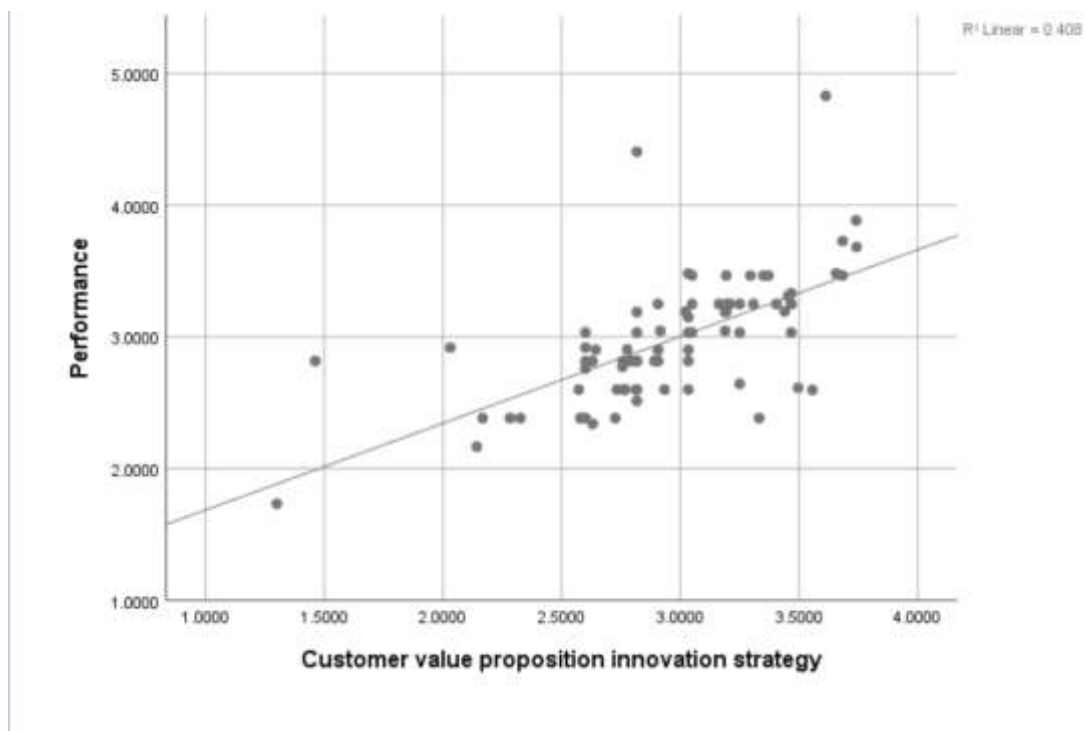
Variables	Tolerance	VIF	Comment
Customer value proposition innovation strategy	0.529	1.889	No multicollinearity
Distribution channel innovation strategy	0.481	2.080	No multicollinearity
Blue ocean strategy	0.162	6.183	No multicollinearity
Strategic partnership innovation strategy	0.253	3.954	No multicollinearity
Competitive advantage	0.455	2.198	No multicollinearity
Regulatory framework	0.593	1.685	No multicollinearity

Source: Survey data (2024)

The multicollinearity test results presented in Table 4.13 demonstrate that all variables exhibit VIF values below the threshold of 10, with the highest VIF being 6.183 for the blue ocean strategy and the lowest being 1.685 for the regulatory framework. Additionally, the tolerance values for all variables are greater than 0.1, ranging from 0.162 for the blue ocean strategy to 0.593 for the regulatory framework. These findings indicate the absence of multicollinearity among the variables, as suggested by Field (2013), who posits that VIF values less than 10 and tolerance values greater than 0.1 signify a lack of multicollinearity. This ensures that the regression model's estimates are stable and reliable, allowing for accurate interpretation of the relationships between the independent variables and firm performance.

#### 4.4.3 Linearity Test

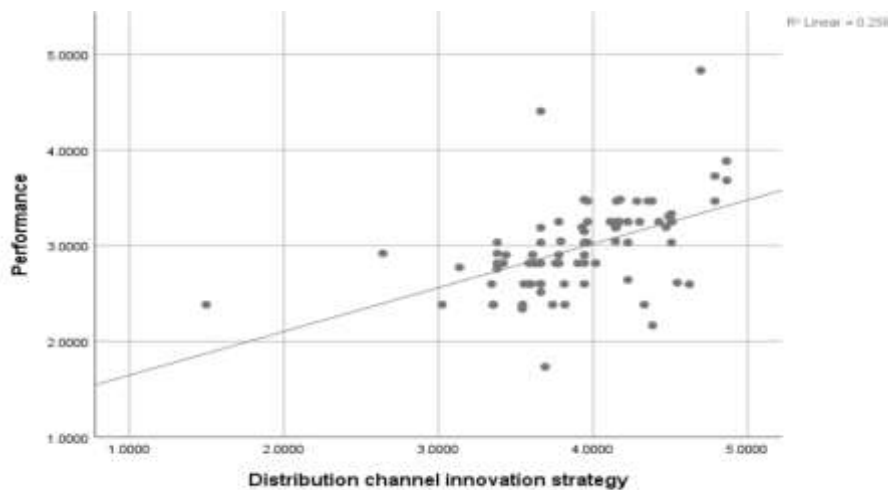
To determine how the independent variables and the dependent variable in the study were related, the linearity test was used. In regression analysis, this test is essential because it helps ascertain whether the variables' relationship is linear, which is a fundamental premise in many statistical analyses. When there is a linear relationship, it indicates that variations in the independent variable are linked to variations in the dependent variable. Figure 4.1 provides an overview of the customer value proposition innovation strategy scatter plot versus performance.



**Figure 4.1: Scatter plot test for Customer Value Proposition Innovation Strategy and Firm Performance**

Source: Survey data (2024)

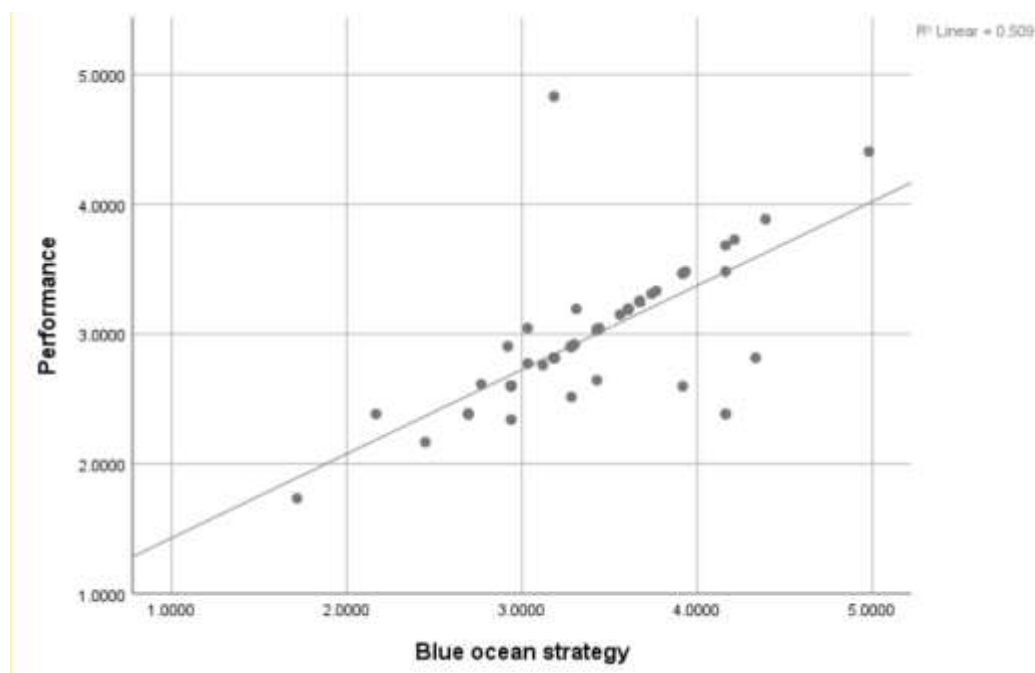
Figure 4.1 shows that customer value proposition innovation depicted a straight-line relationship with performance with R square of 0.408. This indicates that there is a positive linear relationship between customer value proposition innovation strategy and firm performance. As firms increase their efforts in implementing customer value proposition innovation strategy, there is a corresponding increase in their performance. This linear relationship suggests that investments in improving customer value propositions, such as enhancing product features, improving customer communication, or offering better customer service, are likely to yield improvements in overall firm performance. The straight-line relationship also implies that this effect is consistent across different levels of customer value proposition innovation, supporting the importance of these strategies in driving performance outcomes. The scatter plot of distribution channel innovation strategy against performance is summarized in figure 4.2



**Figure 4.2: Scatter plot for Distribution Channel Innovation Strategy and Firm Performance**

Source: Survey data (2024)

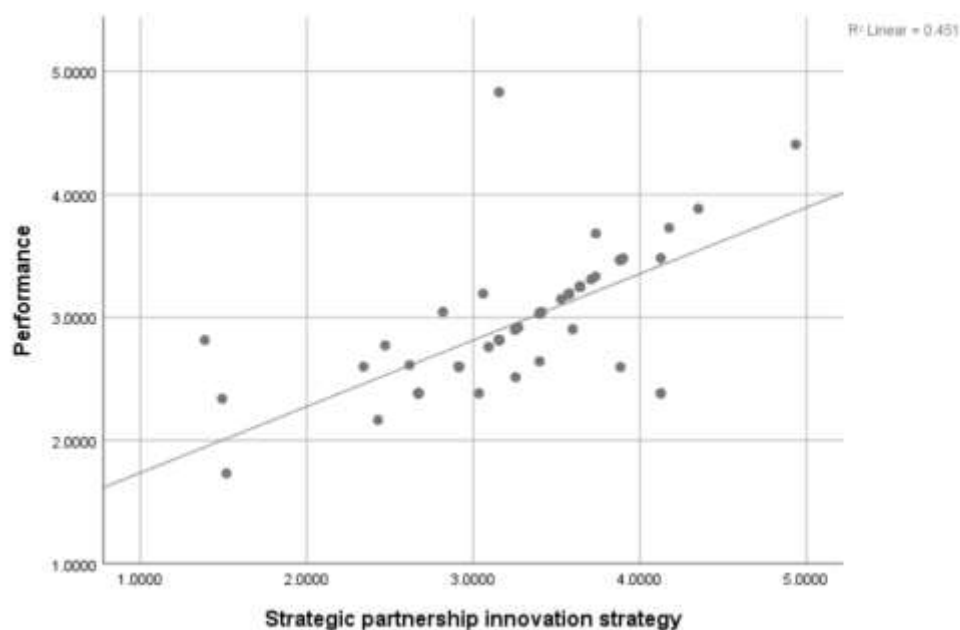
A straight-line relationship between performance and distribution channel innovation strategy was shown in Figure 4.2, with an R square of 0.258. This suggests a positive linear relationship between firm performance and distribution channel innovation strategy. Performance metrics for manufacturing companies typically rise in tandem with increased investment in distribution channel innovation. This linear relationship suggests that efforts to improve distribution efficiency, expand into new channels, or leverage technology in distribution processes are likely to yield proportional benefits in terms of overall firm performance. The significance of these tactics in improving business performance in the manufacturing industry is highlighted by the consistency of this relationship across various degrees of distribution channel innovation. Figure 4.3 displays the scatter plot of performance versus blue ocean strategy.



**Figure 4.3: Scatter plot test for Blue Ocean Strategy and Firm Performance**

Source: Survey data (2024)

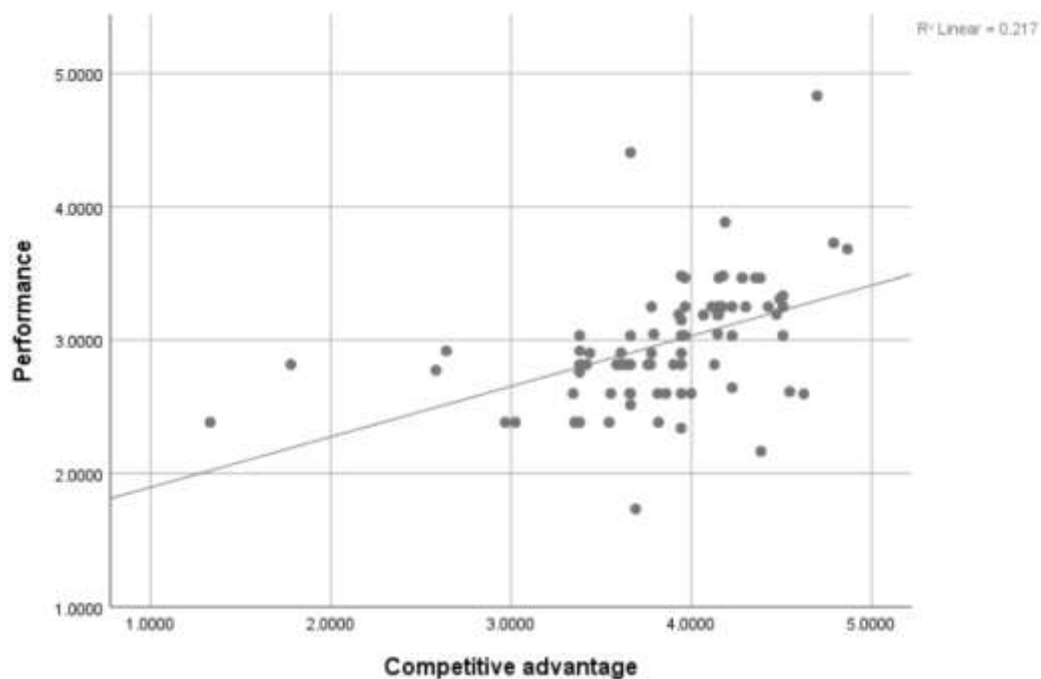
With an R square of 0.509, Figure 4.3 illustrates how the blue ocean strategy showed a straight-line relationship with performance. This suggests that the application of blue ocean strategies and firm performance have a positive linear relationship. Businesses typically observe a corresponding improvement in their performance metrics as they put more effort into establishing uncontested market spaces and rendering competition irrelevant. This linear relationship suggests that efforts to differentiate products, create new market demand, or redefine industry boundaries are likely to yield proportional benefits in terms of overall firm performance. This relationship's constancy across various blue ocean strategy implementation levels demonstrates how these creative methods may propel performance gains in the manufacturing industry. Furthermore, Figure 4.4 provides a summary of the strategic partnership innovation strategy scatter plot against performance.



**Figure 4.4: Scatter plot test for Strategic Partnership Innovation Strategy and Firm Performance**

Source: Survey data (2024)

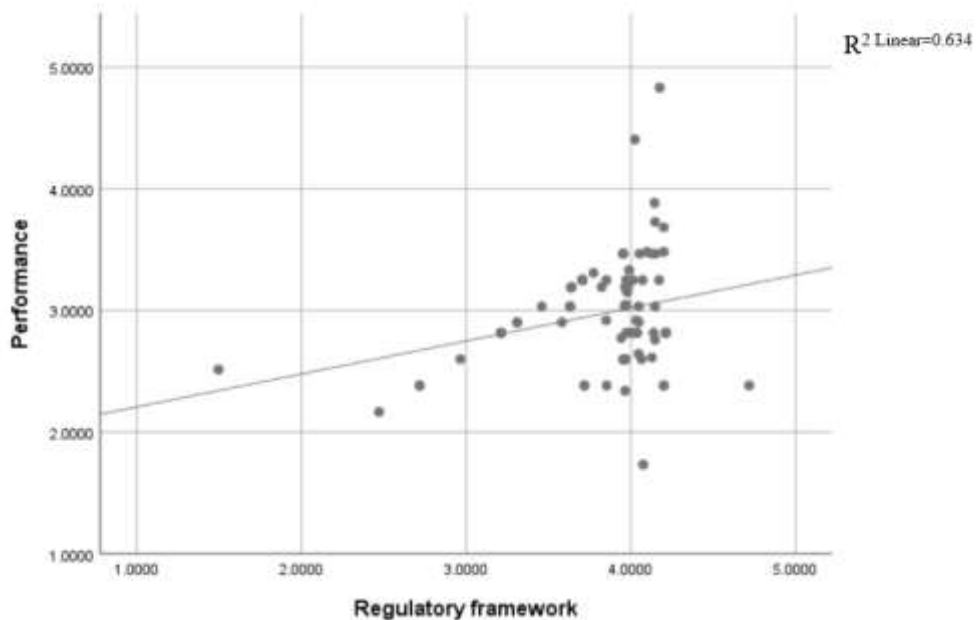
Figure 4.4 shows that strategic partnership innovation strategy depicted a straight-line relationship with performance with R square of 0.451. This linear relationship suggests that efforts to leverage external resources, share risks, or access new markets through partnerships are likely to yield proportional benefits in terms of overall firm performance. The consistency of this relationship across different levels of strategic partnership engagement underscores the importance of collaborative approaches in enhancing firm performance in the manufacturing sector. The scatter plot of competitive advantage against performance is depicted in Figure 4.5



**Figure 4.5: Scatter plot test for Competitive Advantage and Firm Performance**

Source: Survey data (2024)

Figure 4.5 shows that competitive advantage depicted a straight-line relationship with performance with R square of 0.217. This indicates that there is a positive linear association between a firm's competitive advantage and its performance. As manufacturing firms strengthen their competitive position in the market, whether through cost leadership, differentiation, or focus strategies, they tend to see a corresponding improvement in their performance metrics. This linear relationship suggests that efforts to enhance operational efficiency, improve product quality, or develop unique market positioning are likely to yield proportional benefits in terms of overall firm performance. The consistency of this relationship across different levels of competitive advantage highlights the critical role of building and maintaining a strong competitive position in driving performance outcomes in the manufacturing sector. Figure 4.6 presents the scatter plot of regulatory framework against performance



**Figure 4.6: Scatter plot test for Regulatory Framework and Firm Performance**

Source: Survey data (2024)

Figure 4.6 shows regulatory framework depicted a straight-line relationship with performance with R square of 0.634. This indicates that there is a positive linear association between the regulatory environment and firm performance. As the regulatory framework becomes supportive or favorable to manufacturing firms, there tends to be a corresponding improvement in their performance metrics. This linear relationship suggests that a regulatory environment that provides clear guidelines, fair competition, and incentives for innovation is likely to yield proportional benefits in terms of overall firm performance. The consistency of this relationship across different levels of regulatory support underscores the importance of a conducive regulatory environment in enhancing firm performance in the manufacturing sector. It also implies that changes in regulations or policies can have direct and predictable impacts on firm performance.

#### 4.4.4 Heteroscedasticity

The study results on the heteroscedasticity test is presented in Table 4.13

**Table 4.14: Heteroscedasticity test**

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity		
Ho: Constant variance		
Variable: Fitted values of Performance		
chi2(1)	=	1.47
Prob > chi2	=	0.1806

Source: Survey data (2024)

According to the study's findings, there was no heteroscedasticity in the data as the p value was 0.1806 which is greater than 0.05.

#### 4.5 Test of Hypotheses

Multiple regression analysis was conducted to test six using a 95% confidence level ( $\alpha = 0.05$ ), with ANOVA tests and regression coefficients presented in Table 4.15.

**Table 4.15: Regression Results for Direct Relationship**

<b>Model summary</b>						
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>		
1	.807a	0.652	0.634	0.2182998		
<b>ANOVA</b>						
<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1	Regression	7.054	4	1.763	37.006	.000b
	Residual	3.765	79	0.048		
	Total	10.819	83			
a Dependent Variable: Performance						
a Predictors: customer value proposition innovation strategy, distribution channel innovation strategy, blue ocean strategy, Strategic partnership innovation strategy						
	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>	
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>			
(Constant)	0.035	0.249		0.141	0.888	
Customer value proposition innovation strategy	0.195	0.093	0.189	2.088	0.040	
Distribution channel innovation strategy	0.314	0.085	0.301	3.693	0.000	
Blue ocean strategy	0.251	0.102	0.276	2.446	0.017	
Strategic partnership innovation strategy	0.169	0.084	0.211	2.025	0.046	
a Dependent Variable: Performance						

Source: Survey data (2024)

The adjusted coefficient of determination was 0.634, indicating that 63.4% of the variability in performance is explained by the business model innovation strategies, with the regression model found statistically significant (p-value = 0.000,  $F(4,79) = 37.006$ ) at the 0.05 significance level. The model is presented below;

Firm Performance =  $0.035 + 0.195 \text{Customer Value Proposition Innovation Strategy} + 0.314 \text{Distribution Channel Innovation Strategy} + 0.251 \text{Blue Ocean Strategy} + 0.169 \text{Strategic Partnership Innovation Strategy}$  (Model 4.1).

The regression model indicated that holding business model innovation strategies constant at zero, the performance listed manufacturing firms in Kenya was 0.035. This implied that by adding aspects of business model innovation strategies the performance of listed manufacturing firms was enhanced positively and would improve.

#### **4.5.1 Customer Value Proposition Innovation Strategy and Firm Performance**

The study found that customer value proposition innovation strategy significantly improves the performance of manufacturing companies listed on the Nairobi Securities Exchange ( $\beta = 0.195$ ;  $t = 2.088$ ;  $p = 0.040$ ). The results translated that a unit change in customer value proposition strategy would result to 0.195 increase in performance of listed manufacturing firms in Kenya. The study aligns with the findings of Amineh, Hani, Ahmad, and Suliman (2021), who established that firm performance is significantly influenced by business model innovation, particularly in the areas of value creation, proposition, and capture. Similarly, research by Salfore, Ensermu and Kinde (2023) confirmed that altering any aspect of a business model positively impacts company performance, reinforcing the role of innovation in driving business success. Additionally, Maingi (2020) emphasized the importance of integrating multiple

innovation strategies, revealing that 90.3% of the variation in real estate firm performance was attributed to a combination of customer service innovation, process improvements, product differentiation, and technological advancements. Collectively, these studies demonstrate that enhancing customer value propositions alongside other strategic innovations leads to significant performance improvements across various industries.

#### **4.5.2 Distribution Channel Innovation Strategy and Firm Performance**

The study found that distribution channel innovation strategy has a statistically significant positive impact on the performance of manufacturing companies listed on the Nairobi Securities Exchange ( $\beta = 0.314$ ;  $t = 3.693$ ;  $p = 0.000$ ). The results translated that a unit change in distribution channel innovation strategy would result to 0.314 increase in performance of listed manufacturing firms in Kenya. Effective distribution strategies greatly improve sales performance by raising sales, profits, and market share while also enhancing market responsiveness, according to Wambua and Mwanzia (2020), who the study supports. According to Suresh and D'Souza (2019), distributor satisfaction is fueled by supply chain dependability and supplier exclusivity, and effective distribution channels are essential to superior channel performance in India's pharmaceutical industry. The performance of Kenyan manufacturing companies is also positively and significantly impacted by strategic innovation, which includes product, market, technology, and process innovation strategies, according to Nduati (2020). The significance of well-structured distribution channel innovation strategies in improving firm performance is highlighted by these findings taken together, which also highlight how important innovation is to preserve financial sustainability and competitiveness.

#### **4.5.3 Blue Ocean Strategy and Firm Performance**

The study found that blue ocean strategy significantly enhances the performance of manufacturing firms listed on the Nairobi Securities Exchange ( $\beta = 0.251$ ;  $t = 2.446$ ;  $p = 0.017$ ). The results indicate that a unit change in blue ocean strategy would result to 0.251 increase in performance of listed manufacturing firms in Kenya. Yunus and Sijabat (2021) demonstrated that BOS significantly affects firm performance and competitive advantage, highlighting its function in assisting companies in standing out in the marketplace. Furthermore, Dzingirai, Mhlanga, and Mveku (2023) showed that, especially in the context of the Fourth Industrial Revolution, BOS enhances organizational performance by making it easier to enter new markets, generating demand, and rendering competition obsolete. Furthermore, the adoption of BOS by Malaysian manufacturing firms gave them a competitive edge, demonstrating its usefulness in promoting business success, according to Mohamed, Jamil, and Abd-Mutalib (2020). Collectively, these results demonstrate that BOS is a critical strategy for businesses looking for long-term growth since it promotes innovation, market expansion, and strategic differentiation.

#### **4.5.4 Strategic Partnership Innovation Strategy and Firm Performance**

The study found that strategic partnership innovation strategy significantly improves the performance of manufacturing companies listed on the Nairobi Securities Exchange ( $\beta = 0.169$ ;  $t = 2.025$ ;  $p = 0.046$ ). The results indicate that a unit change in strategic partnership innovation strategy would result to 0.169 increase in performance of listed manufacturing firms in Kenya. The study supports Charles and Gapaya's (2018) findings that technological alliances improve microfinance banks' performance by facilitating research and development and technology transfer. John (2020) also

demonstrated that strategic alliances have a positive effect on firm performance through knowledge transfer, market expansion, operational efficiency, and technological advancement. Additionally, Mwamuye and Ragui (2021) demonstrated the crucial role that strategic partnerships play in influencing financial performance by revealing that technology, agency, and brand marketing alliances significantly contribute to increased profitability in the banking sector. Jiho, Claudia, and Srinivas (2018) also showed that strategic alliances in the pharmaceutical industry are a sound growth strategy since they can maximize financial results through well-structured contracts that include upfront payments and royalties. The importance of strategic partnership innovation in raising firm performance through increased competitiveness, resource efficiency, and market positioning across a range of industries is supported by these findings taken together.

#### **4.5.5 Business Model Innovation Strategies, Competitive Advantage and Firm Performance**

The study tested whether competitive advantage mediated the relationship between business model innovation strategies and firm performance among listed manufacturing companies in Kenya, using Baron and Kenny's (1986) four-step path analysis, starting with the regression of business model innovation strategies on firm performance, as shown in Table 4.16.

**Table 4.16: Step One in Testing for Mediating Effect of Competitive Advantage**

Model summary					
Model	R	R square	Adjusted R <sup>2</sup>	Standard error of estimate	
1	.804 <sup>a</sup>	0.646	0.641	0.2810303	
ANOVA					
Model	Sum of squares	Df	Mean square	F	Sig.
Regression	11.807	1	11.807	149.502	0.000b
Residual	6.476	82	0.079		
Total	18.284	83			
a. Predictors: (Constant), Business model innovation strategies					
b. Dependent Variable: Performance					
Model	Unstandardized coefficients		Standardized coefficient (beta)	t	Sig.
	Beta	Std error			
Constant	0.105	0.237		0.442	0.660
Business model innovation strategies	0.905	0.074	0.804	12.227	0.000
Dependent Variable: Performance					

Source: Survey data (2024)

According to Table 4.16, the adjusted R<sup>2</sup> was 0.641, indicating that business model innovation strategies account for 64.1% of the variation in firm performance among manufacturing firms listed on the NSE, with the model fitting the data well (F(1, 82) = 149.502, p-value = 0.000). This suggests that the data is suitable for drawing conclusions, as the computed probability was below the 0.05 threshold. The summary of model 4.2 is as follows:

**Firm Performance=0.105+0.905Business Model Innovation Strategies**

Business model innovation strategies were statistically significant, as indicated by the estimated regression model at  $\beta = 0.905$ ;  $t = 12.227$ ;  $p = 0.000$ . This indicates that business model innovation strategies and firm performance can be mediated in a significant way. Furthermore, the model indicates that firm performance would be 0.105 if business model innovation strategies stayed at zero, and that firm performance would fall by 0.905 for every unit change in business model innovation strategies. Regressing business model innovation strategies on competitive advantage was the second step, as shown in Table 4.17.

**Table 4.17: Step Two in Testing for Mediating Effect of Competitive Advantage**

Model summary					
Model	R	R square	Adjusted R <sup>2</sup>	Standard error of estimate	
1	.416a	0.173	0.163	0.5282553	
ANOVA					
Model	Sum of squares	Df	Mean square	F	Sig.
Regression	4.794	1	4.794	17.18	0.000b
Residual	22.882	82	0.279		
Total	27.676	83			
a. Predictors: (Constant), Business model innovation strategies					
b. Dependent Variable: Competitive Advantage					
Model	Unstandardized coefficients		Standardized coefficient t(beta)	t	Sig.
	Beta	Std error			
Constant	2.025	0.445		4.547	0.000
Business model innovation strategies	0.577	0.139	0.416	4.145	0.000
Dependent Variable: Competitive advantage					

Source: Survey data (2024)

The results from Table 4.17 showed an adjusted R<sup>2</sup> of 0.163, indicating that business model innovation strategies explained 16.3% of the variations in competitive advantage, with regression model being statistically significant at a 95% confidence level (F (1, 82) = 17.18, p = 0.000).

**Competitive Advantage=2.025+0.577Business Model Innovation Strategies**

The regression model confirmed that business model innovation strategies were statistically significant ( $\beta = 0.577$ ;  $t = 4.145$ ;  $p = 0.000$ ), indicating that if these strategies remained at zero, competitive advantage would be 0.577, while a unit increase would enhance it by the same value, with the next step involving regressing firm performance on competitive advantage, as shown in Table 4.18.

**Table 4.18: Step Three in Testing for Mediating Effect of Competitive Advantage**

Model summary					
Model	R	R square	Adjusted R <sup>2</sup>	Standard error of estimate	
1	.466a	0.217	0.207	0.4178547	
ANOVA					
Model	Sum of squares	Df	Mean square	F	Sig.
Regression	3.966	1	3.966	22.715	0.000b
Residual	14.317	82	0.175		
Total	18.284	83			
a. Predictors: (Constant), Competitive Advantage					
b. Dependent Variable: Performance					
Model	Unstandardized coefficients		Standardized coefficient (beta)	t	Sig.
	Beta	Std error			
Constant	1.518	0.310		4.903	0.000
Competitive Advantage	0.379	0.079	0.466	4.766	0.000
Dependent Variable: Performance					

Source: Survey data (2024)

Table 4.18 showed an adjusted  $R^2$  of 0.207, indicating that competitive advantage accounted for 20.7% of the variation in firm performance at a 95% confidence level, with the model being statistically significant ( $F(1, 82) = 22.715, p = 0.000$ ), confirming its suitability for inferences and conclusions.

**Performance=1.518+0.379Competitive Advantage**

The model confirmed that competitive advantage was statistically significant ( $\beta = 0.379; t = 4.766; p = 0.000$ ), indicating that firm performance would be 0.379 if competitive advantage were zero, with a unit increase in competitive advantage enhancing firm performance by the same value, followed by the final regression of business model innovation strategies and competitive advantage on performance, as presented in Table 4.19.

**Table 4.19: Step Four in Testing for Mediating Effect of Competitive Advantage**

Model summary					
Model	R	R square	Adjusted R <sup>2</sup>	Standard error of estimate	
1	.816a	0.667	0.658	0.2743115	
ANOVA					
Model	Sum of squares	Df	Mean square	F	Sig.
Regression	12.189	2	6.094	80.991	0.000b
Residual	6.095	81	0.075		
Total	18.284	83			
a. Predictors: (Constant), Business model innovation strategies, competitive advantage					
b. Dependent Variable: Performance					
Model	Unstandardized coefficients		Standardized coefficient (beta)	t	Sig.
	Beta	Std error			
Constant	0.157	0.259		0.605	0.547
Business model innovation strategies	0.831	0.079	0.738	10.453	0.000
Competitive advantage	0.129	0.057	0.159	2.251	0.027
Dependent Variable: Performance					

Source: Survey data (2024)

Table 4.19 indicates that the adjusted R squared (Adjusted R<sup>2</sup>) was 0.658. This means that 65.8% of the variation in firm performance can be explained by business model innovation strategies and competitive advantage combined at a 95% level of significance. The summary for Model 4.5 was:

$$\text{Firm Performance} = 0.157 + 0.831 \text{Business Model Innovation Strategies} + 0.129 \text{Competitive Advantage}$$

The model demonstrated that both business model innovation strategies ( $\beta = 0.831$ ;  $t = 10.453$ ;  $p = 0.000$ ) and competitive advantage ( $\beta = 0.129$ ;  $t = 2.251$ ;  $p = 0.027$ ) were

statistically significant, confirming their positive relationship with firm performance. The total effect of business model innovation strategies on firm performance was  $\beta_1 = 0.964$  (Model 4.3), while the direct effect after incorporating competitive advantage was  $\beta_1 = 0.831$  (Model 4.5), with the mediation criteria summarized in Table 4.20.

**Table 4.20: Decision Criteria for Mediation**

Model 4.2	Model 4.3	Model 4.4	Model 4.5	Test	Conclusion
$\beta_1 = 0.905$ (p = 0.000)	-	-	-	-	There was an overall relationship to be mediated
$\beta_1 = 0.905$ (p = 0.000)	$\beta_1 = 0.577$ (p = 0.000)	$\beta_1 = 0.379$ (p = 0.000)	$\beta_1 = 0.831$ (p = 0.000) $\beta_2 = 0.129$ (p = 0.027)	$B_1$ (model 4.5) – $\beta_1$ (model 4.2) = $0.831 - 0.905 = -0.074$	There was partial mediation ( $\beta_1$ in Model 4.5 is less than $\beta_1$ in Model 4.2)

Source: Survey Data (2024)

Table 4.20 confirms that the  $\beta_1$  coefficient in Model 4.2 was statistically significant, indicating a relationship to be mediated, and since the  $\beta_1$  coefficient in Model 4.5 was lower than in Model 4.2, competitive advantage was found to have a partial mediating effect, leading to the rejection of the null hypothesis ( $H_{05}$ ).

**Table 4.21: Summary of Mediation Test**

Step	Model	Result	Conclusion
1	$Y = 0.105 + 0.905X_o + \epsilon$	$P < 0.05$	Significant
2	$Me = 2.025 + 0.577X_o + \epsilon$	$p < 0.05$	Significant
3	$Y = 1.515 + 0.379Me + \epsilon$	$p < 0.05$	Significant
4	$Y = 0.157 + 0.831X_o + 0.129Me + \epsilon$	$p < 0.05$	Significant

Source: Survey Data (2024).

These findings align with Phangestu, Kountur and Prameswari (2020) found that competitive advantage and entrepreneurial leadership significantly enhance the relationship between startup performance and business model innovation. In addition, their study highlighted the importance of these factors in the context of startups, though it presents a contextual gap when compared to the current study focused on manufacturing firms. Similarly, Wanjiru, Muathe, and Njuguna (2019) discovered that competitive advantage mediates the relationship between corporate strategies and the performance of manufacturing firms in Nairobi. This finding suggests that the strategic choices a firm makes can directly influence its competitive advantage, which in turn impacts overall performance. However, this study presents a conceptual gap as it broadly addresses manufacturing firms without the specific focus of the current research.

Furthermore, Wekesa, Maalu, Gathungu, and Wainaina (2022) found that entrepreneur characteristics influence competitive strategy, which then affects the performance of SMEs engaged in non-timber forest products. Their study emphasizes the role of aligning entrepreneurs' characteristics, such as education and experience, with competitive strategies to enhance firm performance. While this research contributes valuable insights to the Resource-Based View (RBV) theory, it presents a contextual gap as it focuses on SMEs rather than the manufacturing sector, which is the focus of the current study. This study underscores the importance of delivering superior customer value through e-commerce to gain a competitive edge, yet it also presents a contextual gap as it was conducted in the banking sector, not manufacturing.

#### 4.5.6 Business Model Innovation Strategies, Regulatory Framework and Firm Performance

Table 4.22 presents step one in testing for moderating effect of regulatory framework.

**Table 4.22: Step One in Testing for Moderating Effect of Regulatory Framework**

Model summary					
Model	R	R square	Adjusted R <sup>2</sup>	Standard error of estimate	
1	.814a	0.663	0.654	0.2760035	
ANOVA					
Model	Sum of squares	Df	Mean square	F	Sig.
Regression	12.113	2	6.057	79.506	0.000b
Residual	6.17	81	0.076		
Total	18.284	83			
a. Predictors: (Constant), <b>Business Model Innovation Strategies, Regulatory Framework</b>					
b. Dependent Variable: Performance					
Model	Unstandardized coefficients		Standardized coefficient (beta)	t	Sig.
	Beta	Std error			
Constant	0.150	0.234		0.642	0.523
<b>Business Model Innovation Strategies</b>	0.525	0.203	0.466	2.586	0.011
<b>Regulatory Framework</b>	0.333	0.166	0.361	2.004	0.048
Dependent Variable: Performance					

Source: Survey data (2024)

Table 4.22 indicated that the adjusted R squared was 0.654 implying that both business model innovation strategies and regulatory framework explains 65.4% of the variation of performance at 95% level of significance. The summary for model 4.6 was:

$$\text{Performance} = 0.150 + 0.525\text{Business Model Innovation Strategies} + 0.333\text{Regulatory Framework (Model 4.6)}$$

The model indicates that business model innovation strategies and regulatory framework was statistically significant at  $\beta=0.525$ ;  $t = 2.586$ ;  $p = 0.011$  and  $\beta=0.333$ ;  $t = 2.004$ ;  $p = 0.048$  respectively. This suggests that there was a significant relationship which can be moderated by regulatory framework. The second step involved regressing business model innovation strategies, regulatory framework and interaction term on performance. The results were summarized in table 4.23.

**Table 4.23: Step Two in Testing for Moderating Effect of Regulatory Framework**

Model summary					
Model	R	R square	Adjusted R <sup>2</sup>	Standard error of estimate	
1	.830 <sup>a</sup>	0.688	0.676	0.2669751	
ANOVA					
Model	Sum of squares	Df	Mean square	F	Sig.
Regression	12.582	3	4.194	58.84	0.000b
Residual	5.702	80	0.071		
Total	18.284	83			
a. Predictors: (Constant), Business Model Innovation Strategies, Regulatory Framework, Moderator (Business Model Innovation Strategies*Regulatory Framework)					
b. Dependent Variable: Performance					
Model	Unstandardized coefficients		Standardized coefficient (beta)	t	Sig.
	Beta	Std error			
Constant	0.654	0.300		2.182	0.032
<b>Business Model Innovation Strategies</b>	0.350	0.208	0.311	1.686	0.096
<b>Regulatory Framework</b>	0.056	0.193	0.061	0.290	0.772
Moderator (Interaction term)	0.089	0.035	0.476	2.563	0.012
Dependent Variable: Performance					

Source: Survey data (2024)

Table 4.23 indicated that the adjusted R squared was 0.676 implying that business model innovation strategies, regulatory framework (moderator) explains 67.6% of the variation of performance at 95% level of significance. The summary for model 4.7 was:

$$\text{Performance} = 0.654 + 0.350\text{Business Model Innovation Strategies} + 0.056\text{Regulatory Framework} + 0.089\text{Business Model Innovation Strategies*Regulatory Framework} \text{ (Model 4.7)}$$

The model showed that while the direct effects of business model innovation strategies ( $\beta=0.350$ ;  $t=1.686$ ;  $p=0.096$ ) and regulatory framework ( $\beta=0.056$ ;  $t=0.290$ ;  $p=0.772$ ) were not significant, the interaction term was statistically significant ( $\beta=0.089$ ;  $t=2.563$ ;  $p=0.012$ ), indicating that the regulatory framework positively moderates the relationship between business model innovation strategies and firm performance, as detailed in Table 4.24.

**Table 4.24: Summary for Moderation Test**

Model 4.6	Model 4.7	Total effect	Conclusion
$\beta_1 = 0.525, (p = 0.011)$ $\beta_2 = 0.333, (p = 0.048)$	-	-	There was an overall effect to moderate
$\beta_1 = 0.525, (p = 0.011)$ $\beta_2 = 0.333, (p = 0.048)$	$\beta_1 = 0.350, (p = 0.096)$ $\beta_2 = 0.056, (p = 0.772)$ $\beta_3 = 0.089, (p = 0.012)$	$\beta_3 = 0.089, (p = 0.012)$	The interaction term was significant, indicating a significant positive moderating effect of the regulatory framework

Source: Survey data (2024)

Table 4.24 confirmed that the regulatory framework positively moderates the relationship between business model innovation strategies and firm performance, with a unit increase in regulatory framework leading to a 0.089 increase in performance,

resulting in the rejection of the null hypothesis (H<sub>06</sub>) at a 95% confidence level. These findings align with previous studies, such as Mutangili, Awuor, and Cheluget (2020) and Muithya, Muathe, and Kinyua (2021), who found a significant moderating effect, while Oluoch, K'Alol, and Koshal (2021) observed no moderation in Kenyan NGOs, and Rubera (2022) confirmed its role in chartered universities.

#### 4.5.7 Summary of Hypotheses Tests

The summary of the hypotheses test results is presented in Table 4.25

**Table 4.25: Overall Summary of Test of Hypotheses**

Hypotheses	Analysis Results	Decision	Findings
H <sub>01</sub>	$\beta_1 = 0.195,$ $p = 0.040$	Reject H <sub>01</sub>	Customer value proposition innovation strategy has a statistically significant effect on performance of manufacturing firms listed on NSE in Kenya.
H <sub>02</sub>	$\beta_2 = 0.314,$ $p = 0.000$	Reject H <sub>02</sub>	Distribution channel innovation strategy has a statistically significant effect on performance of manufacturing firms listed on NSE in Kenya.
H <sub>03</sub>	$\beta_3 = 0.251,$ $p = 0.017$	Reject H <sub>03</sub>	Blue ocean strategy has a statistically significant effect on performance of manufacturing firms listed on NSE in Kenya.
H <sub>04</sub>	$\beta_4 = 0.169, p =$ $0.046$	Reject H <sub>04</sub>	Strategic partnership strategy has a statistically significant effect on performance of manufacturing firms listed on NSE in Kenya.
H <sub>05</sub>	$P < 0.05$ in models 4.2, 4.3, 4.4 and 4.5 Partial mediation observed	Reject H <sub>05</sub>	Competitive advantage partially mediates the relationship between business model innovation strategies and performance of listed firms in Kenya
H <sub>06</sub>	$\beta_3 = 0.089, (p =$ $0.012)$	Reject H <sub>06</sub>	Regulatory framework significantly moderates the relationship between business model innovation strategies and performance of manufacturing firms listed on NSE in Kenya

Source: Survey Data (2024)

## 4.6 Qualitative Data Analysis

### 4.6.1 Customer Value Proposition Innovation Strategy

The study sought an opinion on the state of customer value proposition innovation strategy. Most of the respondents opined that firms had adopted practices linked to customer value proposition innovation strategy. Major activities adopted included improving customer communication through various channels, building strong customer relationships, efficient complaint handling processes, building a positive reputation, and implementing product differentiation strategies. Most respondents opined that customer value proposition innovation strategy had a significant influence on the performance of the firms. They highlighted that improving customer communication through channels like social media, email, and chatbots enabled more effective customer engagement, leading to increased satisfaction and loyalty. A Head of Strategy 14 remarked, *“Using multiple communication channels has allowed us to engage with customers effectively and understand their needs better.”* Building strong customer relationships through personalized interactions, loyalty programs, and excellent customer service contributed to improved customer retention and positive word-of-mouth referrals. A Head of Marketing 2 noted, *“Our loyalty program has been a game-changer in building lasting relationships with customers.”*

Efficient complaint-handling processes, including prompt resolution and root cause analysis, helped firms maintain their reputation and prevent customer attrition. Respondents emphasized that this aspect significantly enhanced customer satisfaction and loyalty. A Head of Finance 10 stated, *“Resolving complaints quickly not only retains customers but also builds trust in our brand.”* Such mechanisms provide insights into areas for improvement, enabling firms to enhance their operations and

offerings continuously. A Chief Operations Officer 8 commented, *“Our focus on resolving customer issues efficiently has significantly reduced churn and improved our service standards.”* These processes ensured that firms could maintain a competitive edge by keeping customers satisfied and engaged.

Building a positive reputation was another vital element of customer value proposition innovation strategy. Respondents highlighted that ethical practices, quality products, and corporate social responsibility initiatives enhanced customer trust and preference. A Head of Strategy 9 observed, *“Our focus on ethical business practices has been instrumental in building a trustworthy brand image.”* Additionally, investing in sustainability initiatives and community development further reinforced customer loyalty and brand equity. A Chief Information Officer 6 stated, *“Our CSR activities have created a strong emotional connection with our customers, setting us apart from competitors.”* Firms that maintained a strong reputation found it easier to attract and retain customers, contributing to long-term performance improvements.

Product differentiation strategies, such as offering unique features, premium quality, or customization options, were emphasized as critical to standing out in competitive markets. A Head of Marketing 5 noted, *“Our customized product offerings have allowed us to cater to specific customer preferences, boosting satisfaction.”* By introducing innovative and tailored products, firms attracted new customers and retained existing ones, ultimately increasing their market share. A Head of Finance 15 remarked, *“Differentiation through innovation has given us a competitive advantage and allowed us to command higher price points.”* These strategies provided firms with the flexibility to adapt to changing market demands and customer preferences, ensuring sustainable growth.

Continuous innovation in customer value proposition strategies was stressed as crucial for adapting to the ever-changing market and consumer landscape. Respondents noted that firms that stayed agile and proactive in refining their strategies were better positioned to maintain customer loyalty and drive sustained performance. A Head of Strategy 12 remarked, *“Constantly updating our value propositions based on feedback has ensured we remain relevant and competitive.”* Additionally, respondents emphasized the importance of monitoring industry trends and integrating customer insights into their strategic planning. A Chief Operations Officer 3 noted, *“Anticipating customer needs and market shifts has been key to our ongoing success.”* This iterative approach to innovation ensured that customer value propositions aligned with dynamic business environments.

The findings align with the quantitative analysis, which confirmed the significant positive effect of customer value proposition innovation strategies on firm performance. Respondents reiterated that adopting these strategies not only enhanced customer satisfaction and loyalty but also strengthened the firm’s competitive position. A Chief Information Officer 7 concluded, *“Innovating around our customers’ needs is not just a strategy; it’s a necessity for staying ahead in the market.”* This holistic approach underscores the importance of customer value proposition innovation strategies in driving organizational success and fostering long-term customer relationships.

The analysis matches descriptive statistics which indicated that firms had adopted customer value proposition innovation strategy. The results further corroborated with quantitative analysis which indicated that adoption of customer value proposition innovation strategy had significant positive effect on the performance of manufacturing

firms listed on the Nairobi Securities Exchange in Kenya. Respondents also highlighted the importance of continuous innovation in customer value proposition strategies. They noted that customer preferences and market trends are constantly evolving, necessitating ongoing efforts to refine and update value propositions. Firms that demonstrated agility in adapting their value propositions to changing customer needs reported sustained performance improvements over time.

#### **4.6.2 Distribution Channel Innovation Strategy**

The study sought an opinion on the state of distribution channel innovation strategy. Most respondents opined that firms had adopted practices linked to this strategy. Key activities included diversifying distribution channels, implementing online sales platforms, establishing direct sales channels, and opening company-owned outlets. Respondents highlighted that distribution channel innovation strategy had a significant influence on firm performance by expanding market reach and enhancing customer engagement. A Head of Strategy 6 remarked, *“Diversifying our distribution channels has allowed us to tap into previously unreachable markets, both locally and internationally.”* Online platforms were particularly praised for breaking geographical barriers and enabling firms to serve a global audience effectively. A Chief Information Officer 3 stated, *“Our online sales channels have not only increased accessibility for customers but also provided valuable data for refining our strategies.”*

Direct sales channels emerged as a critical component of distribution channel innovation. Respondents noted that these channels enable firms to interact directly with customers, gather real-time feedback, and build stronger relationships. A Head of Marketing 11 observed, *“Direct sales have helped us understand our customers better, which in turn informs product development and marketing efforts.”* This approach also

reduced reliance on intermediaries, which improved cost efficiency and streamlined operations. A Chief Operations Officer 7 explained, *“By handling distribution directly, we have greater control over our processes and can respond quickly to market demands.”* Establishing proprietary outlets was another key strategy that enhanced brand visibility and ensured consistent customer experience.

The adoption of multi-channel distribution strategies was also emphasized, as it offered customers greater convenience and accessibility. Respondents noted that combining physical outlets with online sales strengthened customer loyalty by catering to diverse preferences. A Head of Finance 14 remarked, *“Having both online and offline channels allows us to reach different customer segments effectively, maximizing our sales potential.”* Investing in technology to support these channels was highlighted as a key enabler of success. Respondents shared that the use of data analytics tools helped optimize distribution strategies by identifying customer buying patterns and channel effectiveness. A Chief Information Officer 9 added, *“Analytics has been crucial in helping us allocate resources efficiently and improve channel performance.”*

Rewarding intermediaries and enhancing their capabilities also played a role in successful distribution strategies. Respondents noted that incentivizing intermediaries ensured their commitment to representing the firm’s products effectively. A Head of Marketing 2 stated, *“Our intermediaries are an extension of our brand; training and rewarding them ensures they deliver quality service.”* In addition, some firms opted to strengthen their physical presence by opening company-owned outlets, which gave them greater control over customer experience. A Chief Operations Officer 5 noted, *“Company-owned outlets reflect our brand values more accurately and ensure consistent service delivery.”*

Data-driven decision-making was another recurring theme in the discussions on distribution channel innovation. Respondents emphasized that leveraging customer data allowed firms to identify the most effective channels and adjust their strategies accordingly. A Head of Strategy 10 remarked, *“Data insights enable us to understand which channels drive the most value and focus our efforts there.”* This analytical approach not only improved efficiency but also reduced costs associated with poorly performing channels. Firms that utilized data effectively were better positioned to optimize their inventory management and enhance customer satisfaction across all touchpoints.

The analysis matches descriptive statistics, which indicated that firms had adopted distribution channel innovation strategy. The results further corroborated with quantitative analysis which indicated that adoption of distribution channel innovation strategy had significant positive effect on the performance of manufacturing firms listed on the Nairobi Securities Exchange in Kenya. Respondents also noted the importance of data analytics in optimizing distribution channels. Firms that leveraged data to understand customer preferences, buying patterns, and channel effectiveness were better able to allocate resources and tailor their distribution strategies for maximum impact. This data-driven approach led to improved inventory management, reduced costs, and enhanced customer satisfaction across various distribution channels.

#### **4.6.3 Blue Ocean Strategy**

The study sought the opinion on the state of Blue Ocean Strategy implementation and its influence on firm performance. Most respondents opined that firms had adopted practices associated with Blue Ocean Strategy, including changing customer value perspectives, entering new market segments, rebranding, and adding value to products

or services. These strategies were reported to have a significant impact on improving firm performance. A Head of Strategy 12 remarked, “*Shifting focus to value creation rather than competition has allowed us to capture untapped markets and drive growth.*” By prioritizing innovative approaches to differentiate their offerings, firms successfully carved out uncontested market spaces that enhanced customer satisfaction and loyalty.

One key aspect of Blue Ocean Strategy implementation was entering new market segments. Respondents highlighted that targeting previously untapped or underserved customer groups broadened the firm’s customer base and diversified revenue streams. A Head of Marketing 7 noted, “*Expanding into niche markets has not only reduced dependency on traditional revenue sources but also opened doors to entirely new growth opportunities.*” By identifying unmet needs and creating tailored solutions, firms minimized direct competition and established themselves as leaders in these emerging spaces. This approach mitigated risks associated with market saturation and volatility in existing markets.

Rebranding efforts were also a prominent strategy adopted by firms under the Blue Ocean framework. Respondents emphasized that strategic rebranding helped firms rejuvenate their image, align with evolving market trends, and attract new customers. A Chief Information Officer 5 stated, “*Rebranding allowed us to redefine our market presence and communicate a fresh value proposition to our audience.*” Successful rebranding campaigns not only revitalized interest in the firms' products or services but also enhanced customer perceptions, leading to stronger brand loyalty and increased sales. This process often rendered traditional competition irrelevant by shifting the focus to unique value creation.

Adding value to products or services was another significant element of the Blue Ocean Strategy. Respondents discussed how offering innovative features, enhanced quality, or additional benefits differentiated their offerings and attracted a broader customer base. A Head of Finance 20 observed, *“Enhancing the perceived value of our products has enabled us to command premium pricing and improve profitability.”* By focusing on unique attributes that resonated with customer needs, firms were able to create a strong competitive advantage and improve their market position. This approach also encouraged customer advocacy, as satisfied customers became brand ambassadors through positive word-of-mouth.

Continuous innovation emerged as a critical component of sustaining the success of Blue Ocean Strategies. Respondents noted that firms needed to evolve their strategies to maintain their competitive advantage, as competitors often attempt to imitate successful practices. A Chief Operations Officer 9 remarked, *“Innovation is key to staying ahead in uncontested markets; without it, competitors will catch up and erode our gains.”* Firms that remained agile and adaptable in refining their value propositions reported better performance outcomes and a sustained ability to operate in untapped market spaces. This iterative approach allowed firms to anticipate and respond to changing customer preferences and market dynamics effectively.

The analysis matches descriptive statistics which indicated that firms had adopted blue ocean strategies. The results further corroborated with quantitative analysis which indicated that adoption of blue ocean strategy had significant positive effect on the performance of manufacturing firms listed on the Nairobi Securities Exchange in Kenya. Respondents also emphasized the importance of continuous innovation in maintaining a blue ocean position. They noted that once a successful blue ocean

strategy is implemented, competitors often attempt to imitate or enter the newly created market space. Firms that continued to innovate and evolve their strategies were better able to sustain their competitive advantage and performance gains over time.

#### **4.6.4 Strategic Partnership Innovation Strategy**

The study sought the opinion on the state of strategic partnership innovation strategy and its influence on firm performance. Most respondents opined that firms had adopted practices linked to this strategy, including outsourcing, research collaborations, supply chain alliances, and joint ventures. These partnerships were reported to have a significant impact on enhancing operational efficiency, driving innovation, and improving overall performance. A Head of Strategy 8 remarked, *“Strategic partnerships have been instrumental in accessing resources and expertise we do not possess internally, enabling faster innovation and growth.”* By leveraging external collaborations, firms enhanced their ability to adapt to changing market demands and maintain competitiveness.

Outsourcing emerged as a key practice within the strategic partnership innovation framework. Respondents highlighted that outsourcing non-core activities allowed firms to focus on their core competencies while benefiting from cost savings and operational efficiencies. A Chief Operations Officer 10 observed, *“Outsourcing certain functions has streamlined our operations and enabled us to dedicate resources to areas with the highest strategic value.”* This approach was particularly beneficial in improving production processes, reducing overheads, and ensuring consistent delivery of quality products or services.

Research collaborations and joint ventures were also frequently cited as significant drivers of innovation and growth. Respondents emphasized that pooling resources and

expertise with research institutions or complementary firms accelerated the development of new products and services. A Chief Information Officer 7 noted, *“Collaborating with research partners has shortened our product development cycles and enhanced the quality of our offerings.”* Joint ventures, on the other hand, were highlighted as valuable in entering new markets or undertaking large-scale projects. A Head of Finance 14 stated, *“Joint ventures have allowed us to share financial risks and tap into markets that would have been challenging to navigate alone.”*

Supply chain alliances were recognized for their role in improving efficiency and reducing costs. Respondents discussed how partnerships with suppliers helped firms streamline procurement processes, enhance quality control, and reduce lead times. A Head of Marketing 5 noted, *“Strong supply chain partnerships ensure consistent delivery of high-quality inputs, which translates into better customer satisfaction.”* Such alliances also supported firms in responding quickly to market changes and achieving greater flexibility in their operations. Additionally, firms that built long-term relationships with key suppliers reported improved trust, collaboration, and mutual growth.

The importance of partner selection and relationship management was a recurring theme in the discussion. Respondents stressed that successful partnerships depended on identifying partners with complementary strengths, aligned goals, and shared values. A Head of Strategy 15 remarked, *“Choosing the right partner is half the battle; their capabilities must align with our strategic objectives for the collaboration to succeed.”* Furthermore, maintaining strong communication channels and fostering mutual trust were seen as critical to the longevity and success of these partnerships. A Chief

Operations Officer 12 commented, *“Regular communication and transparency ensure that all parties remain aligned and can resolve conflicts effectively.”*

The analysis matches descriptive statistics which indicated that firms had adopted strategic partnership innovation strategy. The results further corroborated with quantitative analysis which indicated that adoption of strategic partnership innovation strategy had significant positive effect on the performance of manufacturing firms listed on the Nairobi Securities Exchange in Kenya. Respondents also noted the importance of careful partner selection and relationship management in successful strategic partnerships. Firms that invested time in identifying partners with complementary strengths and aligned goals reported more successful collaborations. Additionally, establishing clear communication channels, mutual trust, and mechanisms for conflict resolution were seen as critical factors in maximizing the benefits of strategic partnerships.

#### **4.6.5 Competitive Advantage**

Respondents opined that competitive advantage significantly enhanced the effect of innovation strategies on firm performance by enabling firms to differentiate themselves, optimize resources, and maintain market leadership. A Head of Strategy 10 remarked, *“Competitive advantage is the backbone of translating innovative strategies into measurable performance improvements.”* Respondents emphasized that firms with a strong competitive edge were better positioned to capitalize on innovation and adapt to changing market dynamics effectively.

Operational efficiency was highlighted as a critical factor in ensuring that resources such as time, money, and personnel were allocated optimally to support innovation. Respondents noted that efficient processes allowed firms to implement innovative

strategies without disrupting existing operations. A Chief Operations Officer 4 observed, *“Streamlined operations ensure we can roll out innovative projects quickly and cost-effectively, giving us a significant edge over competitors.”* This focus on efficiency enabled firms to dedicate sufficient resources to high-value activities while maintaining stability in day-to-day operations.

Speed to market was another key factor identified as enhancing competitive advantage. Respondents stressed that firms that could bring innovative products or services to market faster than their competitors often captured greater market share and established themselves as leaders in new or evolving segments. A Head of Marketing 9 noted, *“Being the first to market with an innovation not only boosts revenue but also solidifies our reputation as a pioneer.”* This ability to act swiftly on opportunities was seen as a crucial differentiator in highly competitive industries, where delays could result in lost opportunities and market relevance.

Defensive strategies, such as protecting intellectual property through patents and trademarks, were also seen as essential in maintaining competitive advantage. Respondents highlighted that safeguarding innovations from imitation ensured that the benefits of these strategies were sustained over time. A Head of Finance 17 remarked, *“Protecting our intellectual property ensures our investments in innovation are not diluted by competitors copying our ideas.”* Additionally, some respondents noted the importance of strategic secrecy in preventing competitors from gaining insights into their innovation pipelines.

Respondents also emphasized the need to continuously sustain competitive advantage through ongoing innovation and improvement. In today’s rapidly changing business environment, firms that rested on their laurels risked losing their edge. A Chief

Information Officer 11 stated, “*A one-time innovation is not enough; we must create a culture of continuous improvement to stay ahead of competitors.*” This iterative approach to maintaining competitive advantage required firms to invest in both human and technological resources to ensure that their strategies remained effective and relevant over time.

The analysis matches with descriptive statistics which indicated that competitive advantage played a mediating role. The results further corroborated with quantitative analysis which indicated that competitive advantage had a significant mediating effect on the relationship between business model innovation strategies and performance of manufacturing firms listed on the Nairobi Securities Exchange in Kenya. Respondents also highlighted the importance of sustaining competitive advantage over time. They noted that in today's rapidly changing business environment, a one-time innovation or advantage can quickly be eroded. Firms that were able to create a culture of continuous innovation and improvement were better positioned to maintain their competitive edge and translate their innovation strategies into sustained performance improvements.

#### **4.6.6 Regulatory Framework**

The study sought the opinion on the moderating effect of the regulatory framework on the relationship between business model innovation strategies and firm performance. Most respondents opined that the regulatory framework significantly influenced how innovation strategies impacted performance, either by enabling or constraining specific innovations. In highly regulated industries, strict compliance standards often slowed the pace of innovation. A Head of Strategy 7 remarked, “*Regulatory compliance can sometimes be a double-edged sword; while it ensures standards, it can delay the rollout of innovative solutions.*” However, respondents also noted that regulatory changes

could create opportunities for innovative solutions tailored to meet new requirements, fostering competitive advantages.

The impact of regulations on market entry and competition was widely discussed. Respondents noted that high regulatory barriers, such as licensing requirements and compliance costs, could act as significant hurdles for introducing innovations. A Chief Information Officer 5 observed, *“Navigating the regulatory landscape is critical; firms that can do so effectively are better positioned to introduce groundbreaking innovations.”* On the other hand, respondents emphasized that firms adept at addressing these challenges often emerged as market leaders, with enhanced credibility and trust among consumers and stakeholders.

Compliance with consumer protection laws, including data privacy and product safety regulations, was identified as crucial for maintaining customer trust and protecting the firm’s reputation. Respondents highlighted that firms aligning their innovations with regulatory expectations often gained a competitive edge. A Head of Marketing 11 stated, *“Adhering to consumer protection standards not only builds trust but also positions us as a reliable and ethical brand.”* Innovations designed to enhance transparency, security, or sustainability were particularly successful when aligned with evolving regulatory expectations and customer preferences.

Proactive engagement with regulatory bodies and policymakers emerged as a recurring theme in the discussions. Respondents emphasized the importance of staying ahead of regulatory changes by actively participating in industry forums and engaging in dialogue with regulators. A Chief Operations Officer 8 noted, *“Being involved in discussions with regulators helps us anticipate changes and align our strategies accordingly.”* This proactive approach not only mitigated risks but also allowed firms

to influence policy development in ways that could benefit their industry and innovation efforts. Respondents highlighted that firms engaging with policymakers were often better equipped to adapt quickly to new regulations.

The role of regulations in fostering innovation was also discussed, with respondents noting that regulatory frameworks often created incentives for specific types of innovations. For instance, environmental regulations encouraged the development of sustainable products and processes, which not only complied with standards but also resonated with eco-conscious consumers. A Head of Finance 19 remarked, *“Sustainability-focused regulations have driven us to innovate in ways that benefit both our business and the environment.”* Firms that aligned their strategies with these trends reported enhanced performance and stronger customer loyalty.

The analysis matches with descriptive statistics which indicated that regulatory framework played a moderating role. Respondents also noted the importance of proactive engagement with regulatory bodies and policymakers. Firms that actively participated in industry associations, engaged in dialogue with regulators, and anticipated regulatory trends were better able to align their innovation strategies with evolving regulatory requirements. This proactive approach not only helped mitigate regulatory risks but also allowed firms to potentially influence policy development in ways that could benefit their industry and innovation efforts.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter provides a comprehensive summary of the study's outcomes, addressing its specific objectives. The research findings form the basis for the conclusions and recommendations outlined in this section.

### **5.2 Summary**

The study revealed that both customer value proposition innovation and distribution channel innovation strategies have a significant and positive impact on the performance of manufacturing firms listed on the Nairobi Securities Exchange. Through a detailed descriptive analysis, it was revealed that these firms have widely adopted distribution channel innovation strategies, which have become a cornerstone of their business operations. Specific activities identified include rewarding intermediaries to foster stronger relationships and improve distribution efficiency, establishing their own outlets to have direct control over sales and customer interactions, engaging in online sales to reach a broader customer base, and utilizing direct sales channels to streamline the distribution process. These strategies have been instrumental in enhancing the firms' market reach, allowing them to tap into new customer segments and ultimately improving their overall performance.

The results of the study indicated that the blue ocean strategy significantly impacts the performance of listed manufacturing firms in Kenya. Descriptive analysis showed that these firms have actively adopted the blue ocean strategy, focusing on creating unique customer value propositions, serving new market segments, adding value to existing products and services, and rebranding to differentiate themselves from competitors. By shifting their focus from competing in existing markets to creating new market spaces,

these firms have been able to achieve superior performance. This strategy has enabled them to break free from the constraints of traditional competition and carve out new opportunities for growth and profitability.

The study's results also highlighted that the strategic partnership innovation strategy significantly affects the performance of listed manufacturing firms in Kenya. Descriptive analysis found that these firms have adopted strategic partnership innovation strategies, engaging in activities such as outsourcing non-core activities to specialized partners, collaborating on research and development (R&D) to leverage external expertise and resources, forming supply chain alliances to enhance efficiency and reduce costs, and entering into joint ventures to share risks and benefits. These partnerships have been crucial in enhancing the firms' capabilities, allowing them to access new technologies, skills, and markets, and ultimately improving their overall performance.

The study found that competitive advantage plays a mediating role in the relationship between business model innovation strategies and firm performance. Descriptive results indicated that operational efficiency, defensive strategies, and speed to market are key dimensions of competitive advantage practiced by these firms. Operational efficiency ensures that firms can produce and deliver products and services at a lower cost and higher quality, thereby enhancing their profitability and customer satisfaction. Defensive strategies help firms protect their market positions and intellectual property, safeguarding them from competitive threats. Speed to market allows firms to quickly respond to market demands and introduce new products and services, giving them a first-mover advantage. These dimensions play a crucial role in enhancing the firms' ability to leverage innovation strategies effectively and achieve superior performance.

The analysis revealed that the regulatory framework significantly moderates the relationship between business model innovation strategies and the performance of manufacturing firms listed on the NSE in Kenya. Descriptive analysis showed that these firms actively monitor the regulatory framework to ensure compliance and leverage regulatory support for innovation. By staying informed about regulatory changes and requirements, firms can avoid potential legal issues and take advantage of incentives and policies that promote innovation. This monitoring and compliance have been essential in enabling firms to navigate the regulatory environment effectively and maximize the benefits of their innovation strategies, thereby enhancing their overall performance and competitiveness in the market.

### **5.3 Conclusions**

The study concluded that customer value proposition innovation strategy has a significant positive influence on the performance of manufacturing firms listed on the Nairobi Securities Exchange, driven by improvements in customer communication, relationship-building, complaint resolution, and brand reputation. The adoption of modern technologies to augment communication via social media, emails, instant messaging, and SMS not only intensifies customer engagement but also precipitates heightened satisfaction and loyalty. Moreover, the establishment of strong customer relationships through loyalty programs, after-sales services, and exemplary customer service significantly contributes to improved customer retention and favourable word-of-mouth advocacy.

Pivoting to the second objective, it was determined that manufacturing firms listed on the NSE that integrate a distribution channel innovation strategy will experience a positive and substantial uplift in performance. These firms can channel their efforts into

rewarding intermediaries, establishing proprietary outlets, venturing into online sales, and embracing direct sales strategies to catalyse performance improvement. By branching out their distribution channels, these manufacturing entities can tap into a more extensive customer base, spanning local, regional, and eventually global markets. Online sales unlock access to markets that were hitherto unreachable through conventional channels alone. Direct sales and online platforms facilitate direct engagement with customers, affording firms invaluable feedback and insights that can inform their marketing strategies. Rewarding intermediaries and investing in own outlets enhance brand visibility, while online sales fortify the firms' digital footprint. This multi-channel approach fosters customer loyalty by offering unparalleled convenience and accessibility. Additionally, the utilization of cutting-edge distribution technologies streamlines operations and boosts overall efficiency.

Addressing the third objective, the research concluded that the blue ocean strategy exerts a positive and significant impact on the performance of manufacturing firms listed on the NSE. Firms can leverage this strategy to elevate their performance by responding to customer value perspectives, catering to new market segments, and introducing value additions. Moreover, listed manufacturing firms can prioritize rebranding initiatives to extend the life cycles of their products and services, thereby maintaining relevance and competitiveness in the market.

The study posited that strategic partnership innovation strategy has a positive impact on performance of manufacturing firms listed on the NSE. Firms stand to benefit from outsourcing non-core activities, engaging in R&D collaborations, forming supply chain alliances, and establishing joint ventures. Furthermore, the study uncovered that competitive advantage acts as a mediator in the relationship between business model

innovation strategies and firm performance. Companies that consistently identify new opportunities and foster a culture of innovation can fortify their market position.

The regulatory framework emerges as a pivotal moderator in the relationship between business model innovation strategies and performance. The study's findings underscore the importance of regulatory compliance and the strategic use of regulatory support mechanisms. Firms that actively monitor and adapt to the regulatory environment are better positioned to leverage innovation strategies effectively. By ensuring compliance, they mitigate legal risks and capitalize on incentives that foster innovation. This proactive approach not only enhances their operational efficiency but also bolsters their competitive stance in the market. Thus, the regulatory framework is not merely a set of constraints but a dynamic tool that, when navigated adeptly, can significantly amplify the benefits of innovation strategies, leading to superior firm performance.

#### **5.4 Policy Implications and Recommendations**

The findings of this study provide essential insights into how manufacturing firms listed on the Nairobi Securities Exchange (NSE) can enhance their performance through tailored business model innovation strategies. Customer value proposition innovation strategy emerged as a key driver of performance, with practices like tailoring communication based on customer segments and tracking customer interactions through advanced Customer Relationship Management (CRM) systems showing high effectiveness. These strategies underscore the importance of personalized customer engagement in fostering satisfaction and loyalty. Firms should invest in advanced CRM technologies to enhance data tracking, enabling more personalized communication and efficient customer service. Additionally, while customer-centric strategies were generally well-implemented, the relatively lower emphasis on having dedicated account

managers for key customers suggests room for improvement. Firms should prioritize establishing dedicated account managers, particularly for high-value clients, to foster deeper relationships and address specific needs effectively. Continuous feedback collection and refinement of value propositions should remain at the forefront of customer-centric strategies to ensure alignment with evolving preferences.

Distribution channel innovation strategy proved critical, particularly in leveraging e-commerce platforms, efficient logistics, and intermediary performance tracking. The findings indicate that firms adopting advanced e-commerce platforms and user-friendly interfaces experienced enhanced customer satisfaction and operational efficiency. Manufacturing firms should focus on enhancing their online sales capabilities while integrating smart logistics to ensure seamless delivery processes. Intermediary management, including regular performance tracking and incentivizing top-performing intermediaries, remains a high-impact strategy. However, the relatively lower performance in training sales personnel highlights a gap. Firms should implement structured training programs to equip their sales teams with the necessary skills for effective customer engagement. By optimizing both digital and direct sales channels, firms can maximize their market reach and improve customer satisfaction. The study recommends that marketing and operation managers of manufacturing firms invest in optimizing distribution channel. More emphases and resources should be devoted to distribution channel innovation strategy that had the highest contribution to performance in this study to ensure availability of quality products when, where and how customers need them.

The study also highlighted the importance of Blue Ocean Strategy, particularly in creating uncontested market spaces and focusing on customer value perspectives. Firms

that successfully identified and targeted underserved markets or created innovative products faced little competition, which significantly enhanced their performance. However, the findings suggest that consistently seeking new markets and rebranding efforts were less emphasized. To address this, firms should conduct market research to identify untapped opportunities and dedicate resources to rebranding initiatives that align with current consumer trends. Providing value-added features and justifying premium pricing through differentiation can also help firms capture new demand and sustain competitive advantages. Additionally, fostering continuous innovation and maintaining a forward-looking approach to market trends will ensure the long-term success of these strategies.

Strategic partnership innovation strategy emerged as a significant contributor to performance, particularly through joint ventures and supply chain synchronization. Firms that engaged in collaborative R&D projects, synchronized supply chain processes, and shared risks and rewards with partners reported better outcomes. While outsourcing was noted as beneficial, its relatively lower adoption highlights the need for a more strategic approach. Thorough due diligence and effective performance monitoring of outsourcing vendors are essential to ensure alignment with core business goals. Collaborative partnerships with research institutions can also enhance innovation capabilities and reduce R&D costs. By strengthening supply chain alliances and leveraging joint ventures, firms can expand their market reach and improve operational efficiency.

Competitive advantage played a mediating role in amplifying the effectiveness of innovation strategies. Encouraging innovation and empowering employees to take calculated risks were highly rated practices, reflecting their significance in driving

sustained competitive performance. However, customer retention and loyalty programs were areas of relative weakness. To address this, firms should develop targeted loyalty programs and personalized incentives to strengthen customer loyalty. Continuous optimization of production processes and the implementation of lean manufacturing practices can also enhance operational efficiency and reduce costs. Firms must foster a culture of continuous improvement and innovation to maintain their competitive edge in dynamic markets.

The regulatory framework significantly moderated the relationship between innovation strategies and performance. While certain regulatory aspects, such as product safety and contract enforcement, were highly rated, challenges related to the clarity and ease of understanding regulations persisted. Simplifying regulatory guidelines and ensuring transparent communication can reduce compliance burdens for firms. Government policies should also provide incentives for sustainable practices, such as tax rebates for green initiatives, and support the adoption of advanced technologies in the manufacturing sector. Proactive engagement with regulatory bodies can help firms anticipate changes and align their strategies effectively. Policies that encourage skills development and foreign investment will further strengthen the sector's competitiveness.

The role of government in fostering a conducive environment for manufacturing firms cannot be overstated. Infrastructure development, including transportation, energy, and digital connectivity, is critical to reducing operational costs and enhancing competitiveness. Policies promoting local consumption, such as "Buy Kenyan Build Kenya," and protecting domestic manufacturers from cheap imports can bolster the industry's growth. Additionally, the government should implement incentives like tax

holidays and subsidies to attract foreign investment and encourage firms to remain in Kenya. Supporting continuous quality improvement through mandatory audits and certifications can help enhance the reputation of Kenyan manufacturing firms, making them more competitive both locally and internationally.

Through strategic collaborations, managers can work with universities and other educational institutions to include business model innovation studies in their syllabus. The policymakers should foster a conducive regulatory framework to support innovative efforts and facilitate ease of doing business to encourage more investments in manufacturing. The study recommends that top management of manufacturing firms invest in enhancing customer value propositions, optimizing distribution channels, adopting blue ocean strategies, and forming strategic partnerships.

In summary, this study provides valuable insights for practitioners and policymakers on enhancing the performance of manufacturing firms through tailored innovation strategies. By focusing on customer value, optimizing distribution channels, leveraging strategic partnerships, and fostering competitive advantages, firms can achieve sustained growth. Government interventions, including regulatory reforms and infrastructure development, will play a crucial role in creating an enabling environment for innovation and competitiveness. Additionally, it is recommended that policymakers develop policies that support innovation and reduce regulatory burden. These recommendations offer a comprehensive roadmap for transforming the manufacturing sector into a resilient and globally competitive industry.

## **5.5 Contribution of the Study to Knowledge**

This study makes a significant theoretical contribution by introducing a conceptual framework that clearly outlines the relationship between business model innovation strategies and the performance of manufacturing firms listed on the Nairobi Securities Exchange. This framework incorporates the moderating effect of the regulatory framework, offering a nuanced perspective that bridges gaps in existing theoretical models. By doing so, the study provides a robust foundation for future research to explore and validate these relationships in different contexts.

The second major contribution is to literature, where the study conceptualizes business model innovation strategies into four distinct constructs: customer value proposition innovation strategy, distribution channel innovation strategy, blue ocean strategy, and strategic partnership innovation strategy. Unlike prior research, which often takes a generalized or fragmented view of business model innovation, this study provides a structured approach to understanding these strategies. This novel conceptualization enriches the academic discourse and offers a practical lens through which practitioners can analyze and implement innovation strategies in their firms. The findings demonstrate that adopting tailored business model innovation strategies leads to significant improvements in performance. These insights are particularly valuable to managers seeking actionable strategies to enhance sales, customer retention, and market share.

The study also contributes to practice by providing actionable insights for manufacturing firms in Kenya and beyond. The findings highlight the importance of aligning business model innovation strategies with organizational goals to achieve optimal outcomes. For instance, customer value proposition innovation strategies were

found to significantly enhance customer satisfaction and loyalty, leading to better retention rates. Similarly, distribution channel innovation strategies, such as leveraging e-commerce and smart logistics, were shown to improve operational efficiency and expand market reach. These practical insights provide firms with a roadmap for implementing innovation strategies to drive performance. Another practical contribution is the study's emphasis on the regulatory framework as a moderating factor. The findings underscore the importance of navigating regulatory environments effectively to maximize the benefits of business model innovation strategies. For policymakers, this highlights the need for supportive regulations that encourage innovation and reduce barriers to market entry. For practitioners, the study offers strategies for proactive engagement with regulatory bodies, enabling firms to align their innovations with evolving regulatory requirements.

The study further contributes to knowledge by demonstrating the dual impact of business model innovation strategies on financial and non-financial performance. Financial benefits include increased sales and profitability, while non-financial benefits encompass enhanced customer satisfaction, brand reputation, and employee engagement. This holistic view of performance offers a more comprehensive understanding of the value derived from innovation strategies, providing a compelling case for their adoption across diverse organizational contexts. By focusing on the Kenyan manufacturing sector, the study also fills a contextual gap in the literature. Most previous studies on business model innovation strategies have been conducted in developed markets, with limited insights into emerging economies. This study provides evidence specific to Kenya, shedding light on the unique challenges and opportunities faced by firms in this context. These insights contribute to the global discourse on

innovation, highlighting the applicability and adaptability of these strategies in different economic and regulatory environments.

The study's findings are also relevant to academic researchers, as they provide a basis for future investigations into business model innovation strategies. The conceptual framework and empirical evidence presented in this study can be used as a reference point for exploring similar relationships in other industries or regions. This creates opportunities for comparative studies that can deepen our understanding of how contextual factors influence the effectiveness of innovation strategies. Another key contribution is the methodological approach adopted in the study. By using a mixed-methods design, the study integrates quantitative and qualitative data to provide a comprehensive analysis of the research problem. This methodological rigor enhances the reliability and validity of the findings, making them a valuable resource for both practitioners and academics. The approach also demonstrates the utility of mixed-methods research in capturing the multifaceted nature of business model innovation strategies.

The study also highlights the importance of continuous innovation in maintaining competitive advantage. Firms that regularly update and refine their business model innovation strategies were found to perform better than those relying on static approaches. This underscores the need for a dynamic perspective on innovation, where firms are encouraged to adapt their strategies to evolving market and regulatory conditions. This insight is particularly relevant in today's rapidly changing business environment, where agility and adaptability are critical to success. Additionally, the study contributes to the understanding of the role of strategic partnerships in driving innovation and performance. The findings reveal that collaborations with research

institutions, suppliers, and other stakeholders significantly enhance firms' capacity for innovation. This highlights the value of strategic alliances as a means of accessing new resources, reducing risks, and accelerating innovation. Firms are encouraged to invest in building and maintaining such partnerships to sustain their competitive edge.

The inclusion of blue ocean strategy as a distinct construct adds another layer of contribution to the study. By focusing on creating uncontested market spaces, this strategy offers firms a pathway to differentiate themselves and achieve sustainable growth. The study's findings validate the effectiveness of this approach, particularly in reducing competition and driving demand. This insight provides firms with a strategic tool for navigating competitive markets and unlocking new opportunities. From a theoretical perspective, the study's findings challenge traditional views of competition and innovation. By demonstrating the interconnectedness of various business model innovation strategies, the study highlights the need for an integrated approach to innovation. This theoretical contribution encourages researchers to move beyond simple direct analyses and adopt a holistic perspective when studying innovation in organizations.

Finally, the study contributes to policy development by providing evidence-based recommendations for regulators and policymakers. The findings highlight the need for regulatory frameworks that balance oversight with flexibility, enabling firms to innovate while ensuring compliance. Policymakers are encouraged to engage with industry stakeholders to develop regulations that support innovation and competitiveness. This policy-focused contribution underscores the role of governance in shaping the innovation landscape and fostering sustainable economic growth. In summary, this study makes substantial contributions to theory, practice, and policy by

advancing our understanding of how business model innovation strategies influence firm performance.

### **5.6 Areas for Further Research**

The study recommends that future research explore additional BMI strategies beyond customer value proposition, distribution channel innovation, blue ocean strategy, and strategic partnership innovation, as alternative approaches may significantly affect firm performance. Other studies can be carried out on other manufacturing firms that are not listed or among listed non manufacturing firms to compare the findings. Additionally, investigating the role of gender diversity in leadership and its correlation with various innovation strategies or firm performance could offer new insights into organizational success. The study also suggests replicating the research using different indicators to assess the moderating effect of the regulatory framework and the mediating role of competitive advantage, as alternative variables may yield different outcomes. Finally, future studies should consider examining other potential mediating and moderating factors, such as corporate governance and environmental dynamism, to assess their influence on the relationship between BMI strategies and firm performance. Since the current study used explanatory research design that was cross sectional in nature, other scholars can undertake longitudinal studies to establish causality overtime.

## REFERENCES

- Achtenhagen, L., Melin, L., & Naldi, L. (2019). Dynamics of business models-strategizing, critical capabilities and activities for sustained value creation. *Long Range Planning*, 46, 1–25.
- Adekunle, I., & Sunday, K., J. (2010). Organizational survival: The effects of leadership skill and strategy. *Science Journal of Business and Management*, 2(2), 44-49.
- Afuah, A. & Tucci, C. L., (2017). A critical assessment of business model research. *Academy of Management Annals*, 11(1), 73-104.
- Al Nimer, M., Warrad, L., & Al Omari, R. (2021). The impact of liquidity on Jordanian banks profitability through return on assets. *European Journal of Business and Management*, 7(7), 229-232.
- Alkasim, S. B., Hilman, H., & bin Bohari, A. M. (2018). The mediating effect of competitive strategy on the relationship between market development, product development and performance of manufacturing-based SMEs in Nigeria. *Journal of Business and Retail Management Research*, 12(2), 57-69
- Ambrosini, V., & Bowman, C. (2009). What are dynamic capabilities and are they a useful construct in strategic management? *International journal of management reviews*, 11(1), 29-49.
- Amineh, Hani, Ahmad and Suliman (2021). The impact of business model innovation (BMI) on firm performance at Alban Al-youm Company in Jordan,
- Amit, R., & Zott, C. (2012). Creating value through business model innovation. *MIT Sloan Management Review*, 53(3), 42-49
- Apanasovich, N., Alcalde-Heras, H., & Parrilli, M. (2017). A new approach to business innovation modes: The ‘Research, Technology and Human Resource Management (RTH) model in the ICT sector in Belarus. *European Planning Studies*, 2(2), 1–25
- Armstrong, C. E. & Shiminzu, K. (2007). A review of approaches to Empirical Research on the Resource- Based View of the firm. *Journal of Management, Bol. 33 No. 6. PP 959-986.*
- Ashraf, M., Ameen, A., & Shahzadi, K. (2017). The Impact of Capital Structure on Firm’s Profitability: A Case of Industry of Pakistan. *International Journal of Business and Social Science*, 8(4), 140-147.
- Aspara, J, Hietanen J., & Tikkanen H. (2010). Business model innovation vs. replication: Financial performance implications of strategic emphases. *Journal of Strategic Marketing*, 18(1), 39–56.
- Baraza, D. (2017). *Effects of competitive strategies on performance of manufacturing firms in Kenya; a case study of East Africa Breweries Limited.* (Doctoral dissertation).
- Barney, J. B. (1991b). The resource-based view of strategy: Origins, implications, and prospects. *Journal of Management*. 17, 97–211.

- Barney, J.B., Ketchen, D.J., Wright, M. (2011). The future of resource-based theory: Revitalization or Decline? *Journal of Management* 20(11) 312-329.
- 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*, 51(6), 1173-1182.
- Bediako, M., Amankwah, E. O., & Adobor, D. (2016). The impact of macroeconomic indicators on prices in Ghana. *Journal of Scientific Research and Reports*, 2(2), 1-16.
- Blagova, I., & Tokhtarova, L. (2015). *Impact of Business Environment on Innovation. Evidence*
- Briggs, S., & Zoz, S. (2017). Reconnecting business model innovation with value creation. *Long Range Planning*, 50(1-2), 22-40.
- Brooks, C. (2008). RATS Handbook to accompany introductory econometrics for finance. *Cambridge Books*.
- Carayannis, E. G., Sindakis, S., & Walter, C. (2015). Business model innovation as lever of organizational sustainability. *The Journal of Technology Transfer*, 40(1), 85-104.
- Carmines, E. G., & Zeller, R. A. (1979). *Reliability and validity assessment*. Sage publications. California
- Casadesus-Masanell, R and F Zhu (2013). Business model innovation and competitive imitation: The case of sponsor-based business models. *Strategic Management Journal*, 34(4), 464–482.
- Casadesus-Masanell, R. & Ricart, J.E. (2010). From strategy to business models and onto tactics. *Long Range Planning*, 43, 195–215.
- Charles, N., & Gapaya, S. (2018). Effect of Technological Alliance on the Performance of Microfinance Institution in Rwanda. . *European Journal of Business and Social Sciences*, 7(03), 19-36.
- Chen, L., & Hsieh, M. (2018). Value proposition innovation: A review and research agenda. *Journal of Business Research*, 85, 18-27.
- Chesbrough, H. (2010). Business model innovation: opportunities and barriers. *Long range planning*, 43(2-3), 354-363.
- Chesbrough, H., Lettl, C., & Ritter, T. (2018). Value creation and value capture in open innovation. *Journal of Product Innovation Management*, 35(6), 930-938.
- Čirjevskis, A., Homenko, G., & Lačínova, V. (2011). How to implement blue ocean strategy (BOS) in B2B sector. *Business, Management and Education* 9(2), 201–21
- Clauss, T. (2017). Measuring business model innovation: conceptualization, scale development, and proof of performance. *R&D Management*, 47(3), 385-403.
- Comrey, A. L., & Lee, H. B. (2013). *A first course in factor analysis*. Psychology press.
- Cooper, D., & Schindler, P. (2014). *Business Research Methods. Social Research, (12th Edition)*, 792. London: McGraw-Hill Higher Education.

- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, Vol. 22(3), pp. 297-334.
- Cucculelli, M & C Bettinelli (2015). Business models, intangibles and firm performance: Evidence on corporate entrepreneurship from Italian manufacturing SMEs. *Small Business Economics*, 45(2), 329–350.
- Day, G. S., & Nedungadi, P. (1994). Managerial representations of competitive advantage. *Journal of marketing*, 58(2), 31-44.
- Doligalski, T., Zaborek, P., & Sysko–Romańczuk, S. (2015). Value proposition and firm performance: segmentation of Polish online companies. *International Journal of Business Performance Management*, 16(2-3), 133-148.
- Doz, Y. L., & Kosonen, M. (2017). Embedding strategic agility: A leadership agenda for accelerating business model renewal. *Long range planning*, 43(2-3), 370-382.
- Dyer, J. H., Kale, P., & Singh, H. (2004). When to ally and when to acquire (pp. 109-115). Harvard Business Review.
- Dzingirai, M., Mhlanga, D., & Mveku, B. (2023). The Nexus Between Blue Ocean Strategy and Organizational Performance of SMEs in the Fourth Industrial Revolution Era. *Exploring the Development Implications of Smart Technologies in Africa* (pp. 175-191). Cham: Springer Nature Switzerland.
- Eden, C., & Ackermann, F. (2010). Competences, distinctive competences, and core competences, in Identifying, Building, and Linking Competences (Research in Competence-Based Management, *Emerald Group Publishing*. Vol (5) (pp. 3-33).
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: what are they? *Strategic management journal*, 21(10-11), 1105-1121.
- Farrell, J., & Shapiro, C. (2008). How strong are weak patents? *American Economic Review*, 98(4), 1347-1369.
- Ferri, K, Mohd R, and Radiah A. K., (2012). The effect of distribution channel innovation and efficiency on Indonesian small and medium enterprise's performance. *International Business and Management* Vol. 5, No. 1, 2012, pp. 50-60.
- Field, A. (2013). *Discovering statistics using IBM SPSS Statistics*. Sage: London UK.
- Foss, NJ & T Saebi (2017). Fifteen years of research on business model innovation: How far have we come, and where should we go? *Journal of Management*, 43(1), 200– 227.
- Gabrielsson, M., & Gabrielsson, P. (2011). Internet-based sales channel strategies of born global firms. *International business review*, 20(1), 88-99.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction*. Boston, MA: Pearson Education

- Gatobu, D. & Maende, C. (2019). Drivers of strategic alliances growth in the Kenya telecommunication industry: A case of Safaricom Limited. *International Academic Journal of Human Resource and Business Administration*, 3(6), 71-92
- George, P., & Bock, A. J. (2012). The effects of culture and structure on strategic flexibility during business model innovation. *Journal of Management studies*, 49(2), 279-305.
- Glesne (2016). *Becoming Qualitative Researchers. An Introduction*. Pearson/Allyn & Bacon
- 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.
- G.O.K. (2016). Government of Kenya Vision 2030, Ministry of Planning and National Development, Kenya
- Golafshani, N. (2003). Acceptance of reliability and validity in qualitative research. *The qualitative report*, 8(4), 597-606.
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic management journal*, 17(S2), 109-122.
- Hagenauer, G. (2020). *The Impact of Regulation on Manufacturing Firms. Entrepreneur*. Retrieved from <https://www.entrepreneur.com/article/355152>.
- Haidar, J. I. (2012). The impact of business regulatory reforms on economic growth. *Journal of the Japanese and international economies*, 26(3), 285-307.
- Heikal, M., Khaddafi, M., & Ummah, A. (2014). Influence analysis of return on assets (ROA), return on equity (ROE), net profit margin (NPM), debt to equity ratio (DER), and current ratio (CR), against corporate profit growth in automotive in Indonesia Stock Exchange. *International Journal of Academic Research in Business and Social Sciences*, 4(12), 101-118
- Hiriyyappa, B. (2018). *Strategic Management and Business Policy: For Managers and Consultant*. Publish Drive.
- Ivanov, G., & Mayorova, E. (2015). Intangible assets and competitive advantage in retail: case study from Russia. *Asian Social Science*, 11(12), 38.
- Jeketule S., J., Gachunga, H., Katuse, P., & Odhiambo O., R. (2015). *Competitive Advantage for Universities in Kenya: A Qualitative Study*.
- Jiho Y, Claudia, R & Srinivas, T., (2018) Inter-firm partnerships – strategic alliances in the pharmaceutical industry, *International Journal of Production Research*,
- John, M. K. (2020). Strategic alliance practices and organization performance of selected companies in the energy sector in Kenya (Doctoral dissertation, Kenyatta University).
- Kabeyi, M. (2019). Organizational strategic planning, implementation and evaluation with analysis of challenges and benefits. *International Journal of Applied Research and Studies*, 5(6), 27-32.

- KAM, (2018). Manufacturing in Kenya Under the 'Big 4 Agenda'. *A Sector Deep-dive Report*. Kenya Association of manufacturers
- KAM, (2022). Manufacturing Sector in Kenya. Accessed from <https://kam.co.ke/>
- Kaminsky, G., (2018). *How Regulations Can Enhance Manufacturing Performance and Contribute to Environmental Protection.*, [www.eprince.org/how-regulations-can-enhance-manufacturing-performance-and-contribute-to-environmental-protection](http://www.eprince.org/how-regulations-can-enhance-manufacturing-performance-and-contribute-to-environmental-protection).
- Kaplan, R. S., and D. P. Norton. 1992. The Balanced Scorecard: Measures that drive performance. *Harvard Business Review* (January-February): 71-79.
- Kaplan, R. S., & Norton, D. P. (1996). *Balanced Scorecard: Translating Strategy into Action*. Harvard Business School Press.
- Kaplan, R. S., & Norton, D. P. (2010). Managing Alliances with the Balanced Scorecard *Harvard Business Review*.
- Karabulut, A. T. (2015). Effects of innovation types on performance of manufacturing firms in Turkey. *Procedia-Social and Behavioral Sciences*, 195, 1355-1364.
- Kariuki, J. (2019). *Innovative Strategies and Performance of Manufacturing Firms in Athi River Zone* (Doctoral dissertation, KCA University).
- Karniwa, I., & Sule, E. T. (2015). The Influence of Corporate Resources and Value creation innovation on Business Performance a Research on Rural Bank Owned City District Government of West Java and Banten Indonesia. *International Journal of Scientific & Technology Research*, 4(8), 263-268.
- Kenya National Bureau of Statistics, KNBS (2019). Economic Survey 2019. Retrieved from <https://www.theelephant.info/documents/kenya-national-bureau-of-statistics-economic-survey-2019/>
- Kenya National Bureau of Statistics, KNBS (2023). Economic Survey 2023. Retrieved from <https://www.knbs.or.ke/download/economic-survey-2023/>
- Kenya Vision 2030. Economic and Macro Pillar. Retrieved from <https://vision2030.go.ke/>
- Khalid, N., Islam, D. M. Z., & Ahmed, M. R. M. (2019). Entrepreneurial Training and Organizational Performance: Implications for the Future. *Humanities & Social Sciences Reviews*, 7(2), 590-593.
- Khoshtaria, T. (2018). The Impact of Strategic Planning on Organizational Performance through Strategy Implementation. *Globalization & Business* 18(7), 113-127
- Kim, W. C., & Mauborgne, R. (2004). *Blue ocean strategy: How to create uncontested market space and make the competition irrelevant*. Boston: Harvard Business School Press
- Kindström, D., & Kowalkowski, C. (2014). Service innovation in product-centric firms: A multidimensional business model perspective. *Journal of Business & Industrial Marketing*, 29(2), 96-111.
- Kiptoon. C. K., (2014). The impact of the blue ocean strategy on the performance of Bamburi cement limited in Kenya. MBA project, University of Nairobi

- Kitainge, J. M., Bor, G., & Wanza, L. (2019). Channel communication strategy Influence on the performance of manufacturing firms in Kenya. *European Journal of Management and Marketing Studies*.
- Kiveu, M. N., Namusonge, M., & Muathe, S. (2019). Effect of innovation on firm competitiveness: the case of manufacturing SMEs in Nairobi County, Kenya. *International Journal of Business Innovation and Research*, 18(3), 307-327.
- KNBS (2023), Economic Survey 2023. Government Printing Press, Nairobi
- Kothari, C. (2004). *Research Methodology: Methods & Techniques*. 2<sup>nd</sup> Ed. New Delhi, India: New age International Publishers.
- Kraaijenbrink, J., Spencer, J.C., Groen, A.J. (2010). The Resource Based View: A Review and Assessment of its critiques. *Journal of Management*, Vol. 36 No. 1, pp 349 – 372.
- Kung'u, J.D. (2015). Effects of Working Capital Management on Profitability of Manufacturing Firms in Kenya. (Doctoral Dissertation, JKUAT)
- Kuratko, D. F., Hornsby, J. S., & Goldsby, M. G. (2011). *Innovation acceleration: Transforming organizational thinking*. Pearson Higher Ed. *Sector in Kenya*. Unpublished PhD thesis, School of Business, University of Nairobi.
- Lapuerta, M., (2017). Regulatory Frameworks, Entrepreneurial Action, and Capital Accumulation: The European Evidence. *American Economic Review*. 107(4), pp.1217-44.
- Leiblein, M. (2003). The choice of organizational governance form and performance: Predictions from transaction cost, resource based and real options theories. *Journal of management*, 29: 937-961.
- Lieberman, M. B., & Montgomery, D. B. (1988). First-mover advantages. *Strategic management journal*, 9(S1), 41-58.
- Lindič, J., & Marques da Silva, C. (2011). Value proposition as a catalyst for a customer focused innovation. *Management Decision*, 49(10), 1694-1708.
- Löfsten, H. (2019). The Business Performance of New Technology-based Firms: The Importance of the Business Model's Value Proposition and Customer Relationships. *International Review of Entrepreneurship*, 17(3).
- Lohtander, M., Aholainen, A Volotinen, J., Peltokoski, M., Ratava, J. (2017) Location Independent Manufacturing – Case-based Blue Ocean Strategy. 27th International Conference on Flexible Automation and Intelligent Manufacturing, Modena, Italy
- Lopez-Acevedo, G. and Abreha, K. (2024). The shifting landscape of global manufacturing: from offshoring to reshoring and its welfare implications, *World bank blogs*
- Luukkonen, R., Saikkonen, P., & Teräsvirta, T. (2008). Testing linearity against smooth transition autoregressive models. *Biometrika*, 75(3), 491-499.
- Mabert, V. A., Soni, A., & Venkataramanan, M. A. (2003). Maximum likelihood" confirmatory" factor analysis. *International Economic Review*, 4(1), 37-54.

- Machuki, V. N., & Aosa, E. (2011). The influence of the external environment on the performance of publicly quoted companies in Kenya. *Prime Journals, Business Administration and Management (BAM)*, 1(7), 205-218.
- Mahasuar, K. (2019), "Strategic innovations in distribution channels – an emerging market perspective and case studies from consumer-packaged goods (CPG) industry of India"
- Mahipal, D., & Shankaraiah, K. (2018). E-commerce growth in India: a study of segments contribution. *Academy of Marketing Studies Journal*, 22(2), 1-10.
- Maina, P. M. (2016), Effects of Channel Distribution Strategy on Customer Satisfaction among *the Alcoholic Beverages Distributors in Mombasa County, Kenya*.
- Maingi, W. P. (2020). Effect of Innovation Strategies on Performance of Real Estates Firms in Mavoko Sub-County, Kenya. *International Journal of Research and Innovation in Social Science*, 5 (6), 198-206
- Mbogori M.K., Gichohi, P.M. & Moguche, A., (2018), Effect of Product Innovation on the Performance of Manufacturing Firms in Kenya. *Journal of Strategic Management* 2(2) 1-18
- Miano, E. M. (2013). Determinants of implementation of blue ocean strategy in commercial banks in Kenya. Unpublished MBA Project, University of Nairobi.
- Micheli, P., & Muctor, G. (2021). The roles of performance measurement and management in the development and implementation of business ecosystem strategies. *International Journal of Operations & Production Management*, 41(11), 1761-1784.
- Mohamed, R., Jamil, C. Z. M., & Abd-Mutalib, H. (2020). An Early Examination of the Blue Ocean Strategy and Innovation Performance in Manufacturing Firms. *Int. J Sup. chain. Mgt Vol*, 9(5), 928.
- Moturi, D. N. (2017). *Analysis on the Effect of Internal Factors on the Financial Performance of Firms in the Manufacturing Industry in Kenya* (Doctoral dissertation, United States International University-Africa).
- Muchemi, A.W. (2013). *Top management team diversity and performance of Commercial banks in Kenya*. Doctoral dissertation, University of Nairobi.
- Mugenda, O. M., & Mugenda, A. G. (2013). Research Methods: Quantitative and Qualitative Approaches, *African Centre of Technology Studies, Nairobi, Kenya*.
- Muia, F. (2017). *Effect of competitive strategies on the performance of insurance companies in Kenya* (Doctoral dissertation, United States International University-Africa).
- Muithya, V. M., Muathe, S., & Kinyua, G. (2021). Undoing performance in micro finance institutions: Reflections on regulatory framework in Kenya. *The Journal of Entrepreneurial Finance*, 23(1), 2.
- Mutangili, S. K., Awuor, E., & Cheluget, J. (2020). Moderating Effect of Regulatory Framework in the Relationship between International Procurement Practices and Supply Chain Performance of Energy Development Agencies in Kenya. *African Journal of Emerging Issues*, 2(3), 1-19.

- Mutuku, M. K., Muathe, S. (2019). Mediating effect of competitive advantage on the relationship between e-commerce capability and performance: Empirical evidence from commercial banks in Kenya. *European Journal of Business and Management*, 11(17), 48-57.
- Mwamuye, J. D., & Ragui, M. (2021). Strategic Alliances and the Financial Performance of Commercial Banks in Nairobi City County, Kenya. *Journal of Business and Strategic Management*, 6(4), 32-45.
- Ndayizigamiye, P., & Khoase, R. G. (2018). Inhibitors of the Adoption of e-Commerce by SMMES in two South African Cities. *International Journal of eBusiness and eGovernment Studies*, 10(1), 51-66.
- Ndemezo, E., Charles, K., Angelique, D., & Ndikubwimana, J. B. (2018). Innovation and Firms' Performance in the Rwandese Manufacturing Industry. A Firm Level Empirical Analysis. *A Firm Level Empirical Analysis (June 1, 2018). UoK Scientific Journal ISSN, 2522.*
- Nduati, P. M. (2020). Influence Of Strategic Innovation on Performance of Manufacturing Firms in Kenya: A Literature Based Review. *African Journal of Emerging Issues*, 2(6), 55-66.
- Ndung'u, N., Shimeles, A., Ngui, D., (2022) The Old Tale of the Manufacturing Sector in Africa: The Story Should Change. *Journal of African Economies, Volume 31, Issues 1*
- NSE (2025) Nairobi Securities Exchange
- Nwosu, H. E., Awurum, J. I., & Okoli, I. E. (2021). An evaluation of the effect of technological innovations on corporate performance: A study of selected manufacturing firms in Nigeria. *The International Journal of Business & Management*, 3(1), 248.
- Nwulu, C. S., & Nwokah, N. G. (2018). Customer Service Management and Marketing Performance of Food and Beverage Manufacturing Firms in Nigeria. *International Journal of Social Sciences and Management Research*, 4(8), 79-89.
- Nyasimi, S., & Gitau, R. (2016). Effects of strategic responses on competitiveness and sustainability in manufacturing firms in Kenya. *International Academic Journal of Human Resource and Business Administration*, 2(2), 177-194.
- Nzolala, N. (2017). *Industry 4.0: The Future of African Manufacturing. African Development Bank.* <https://www.afdb.org/en/news-and-events/industry-40-future-african-manufacturing>
- Okungu, L. O. (2014). Information Communication Technology as a Source of Competitive Advantage at Kenya Commercial Bank Group Limited. *International Journal of Business and Innovation*, 37(6), 34-55.
- Oluoch, F. O., K'Alol, G., & Koshal, J. (2021). Moderating Influence of Regulatory Framework on the Relationship between Strategic Leadership and Financial Sustainability of NGOs in Kenya. *The University Journal*, 3(2), 13-26.

- Omrani, S., Jafari, M., & Mansori, A. (2019). Analysis of Financial Performance of Industry Manufacturing Companies in Tehran Stock Exchange Using the FAHP Technique and the TOPSIS Method. *Independent Journal of Management & Production*, 10(2), 512-536.
- Osterwalder, A. and Pigneur, Y. (2010) *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. Wiley, New Jersey.
- Page J., Tarp F. (2017) *The Practice of Industrial Policy: Government–Business Coordination in Africa and East Asia*. Oxford: Oxford University Press.
- Parrilli, D., Fitjar, D., & Rodriguez-Pose, A. (2017). Business innovation modes: A review from a country perspective. Innovation drivers and regional innovation strategies (pp. 197–218). New York: Routledge
- Payne, A., & Holt, S. (2001). Diagnosing customer value: integrating the value process and relationship marketing. *British Journal of management*, 12(2), 159-182.
- Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. New York: John Wiley.
- Phangestu, J. Kountur, R Prameswari, D (2020). The Moderating Effect of Entrepreneurial Leadership and Competitive Advantage on the Relationship between Business Model Innovation and Startup Performance. *Journal of Business and Retail Management Research (JBRMR)*, Vol. 14 Issue 3
- Porter, M. E. (1990). The competitive advantage of nations. *Competitive Intelligence Review*, 1(1), 14-14.
- Porter, M. E. (2011). *Competitive advantage of nations: creating and sustaining superior performance* (pp. 678-1056). Simon and Schuster.
- Powell, W. W., Koput, K. W., & Smith-Doerr, L. (1996). Interorganizational collaboration and the locus of innovation: Networks of learning in biotechnology. *Administrative science quarterly*, 116-145.
- Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of interactive marketing*, 18(3), 5-14.
- Pujawan, I. N., & Bah, A. U. (2022, January). Supply Chain under COVID-19 disruptions: literature review and research agenda. In *Supply Chain401 Forum: An International Journal (Vol. 23, No. 1, pp. 81-95)*. Taylor & Francis.
- Rahman, M. H., & Choudhury, S. (2019). The influence of blue ocean strategy on organizational performance. *Global Disclosure of Economics and Business*, 8(2), 91-104.
- Rakosa K., (2018) Value proposition as a strategic tool in a South African bank. MCom, University of Johannesburg.
- Ranjith, V K. (2015) *Business Models and Competitive Advantage*. Fifth international conference on marketing and retailing.
- Rogers (2003). *Diffusion of Innovations*. 5Th Ed. Free Press, New York
- Rogge, K. S., Schleich, J., Haussmann, P., Roser, A., & Reitze, F. (2011). The role of the regulatory framework for innovation activities: the EU ETS and the German paper industry. *International Journal of Technology, Policy and Management*, 11(3), 250-273.

- ROK, (2007). 'Kenya Vision 2030: A Globally Competitive and Prosperous Kenya'. Nairobi: Government Printer.
- Rubera, D. (2022). Moderating Role of Regulatory Framework on The Relationship Between Leadership Practices and Performance of Chartered Universities in Kenya. *African Journal of Emerging Issues*, 4(13), 26 – 44
- Salfore, N., Ensermu, M., & Kinde, Z. (2023). Business model innovation and firm performance: Evidence from manufacturing SMEs. *Heliyon*, 9(6).
- Samsul A, Mohammad T., (2017) Impact of Blue Ocean Strategy on Organizational Performance. *Journal of Business and Management*. Volume 19, Issue 1.
- Sarker, S., & Sahay, S. (2004). Implications of space and time for distributed work: an interpretive study of US–Norwegian systems development teams. *European Journal of Information Systems*, 13(1), 3-20.
- Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research Methods for Business Students*. 6<sup>th</sup> Ed.
- Saur-Amaral I, Soares R. S., & Proença J. F, (2018). Business model innovation: towards a conceptual framework. *Tourism & Management Studies*, 14(1), 80-93
- Sekaran, U. (2010). *Research Methods for Business: A Skill Building Approach*. 4<sup>th</sup> edition, New Delhi-India: John Willey and Sons, Ltd.
- Setyawati, M., Rosiana, M., Shariff M., (2017) Competitive advantage as mediating variable on the relationship between innovation and business performance on SMES in Indonesia. *Saudi Journal of Business and Management Studies*
- Shahzad, F., Ahmed, N., Fareed, Z., Zulfiqar, B., & Naeem, F. (2015). Corporate governance impact on firm performance: evidence from industry of Pakistan. *European researcher. Series A*, (1), 37-47.
- Sharma, G., & Kumar, H. (2018). Intellectual property rights and informal sector innovations: Exploring grassroots innovations in India. *The Journal of World Intellectual Property*, 21(3-4), 123-139.
- Shirali, G., Shekari, M., & Angali, K. A. (2018). Assessing reliability and validity of an instrument for measuring resilience safety culture in sociotechnical systems. *Safety and health at work*, 9(3), 296-307.
- Siddiqui, M. and Porcaro, D. (2022). The Effect of Regulation on Firm Performance. *Management Research Review*, 40(9), pp.947-60.
- Simons, R. (2000). *Performance measurement and control systems for implementing strategy*. Prentice Hall.
- Stice, E., Yokum, S., Veling, H., Kemps, E., & Lawrence, N. S. (2017). Pilot test of a novel food response and attention training treatment for obesity: Brain imaging data suggest actions shape valuation. *Behaviour research and therapy*, 94, 60-70.
- Stivers, B. P., Covin, T. J., Hall, N. G., & Smalt, S. W. (2010). How non-financial performance measures are used. *Strategic Finance*, 79(8), 44-51

- Sultan, S., & Mason, M. (2010). Competitive Advantage of SMEs. *Journal of Business Research*, 90, 75-86.
- Suresh, A. S., & D'Souza, E. J. (2019). Factors of Efficient Distribution Channel and its Impact on Channel Superior Performance: Evidence from the Indian Pharmaceutical Industry. *International Journal of Management Studies*, 4(2), 17-25
- Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48(6), 1273–1296.
- Tabesh, H., Kelly, L., & Poulouse, C. (2018). Herding Behavior in the Nairobi Securities Exchange. *Journal of Applied Business and Economics*, 20(3).
- Tavassoli, S., & Bengtsson, L. (2018). The role of business model innovation for product innovation performance. *International Journal of Innovation Management*, 22(07), 1850061.
- Teece, D. (1990). Firm capabilities, resources and the concept of strategy. *Economic analysis and policy. Journal of Economic perspectives*, 4(3), 75-96
- Teece, D. J. (2007). Explicating dynamic capabilities: the nature and micro foundations of (sustainable) enterprise performance. *Strategic management journal*, 28(13), 1319-1350.
- Teece, D. J. (2009). *Dynamic capabilities and strategic management: Organizing for innovation and growth*. Oxford University Press, United Kingdom
- Teece, D. J. (2010). Business models, business strategy and innovation. *Long range planning*, 43(2), 172-194.
- Teece, D. J., Pisano, G. & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18, (7), 509– 533.
- Teece, D., Pisano, G., & Shuen, A. (2010). The Dynamic of Strategic Capabilities. *Strategic Management Journal*, 18(7), 509-533
- Thompson, M., Dolan, C., Mayer, C., Roll, K., & Yeoman, R. (2017). *Common knowledge: The missing link in hybrid value chain*. In A. Edwards, *Working relationally in and across practices: A cultural-historical approach to collaboration* (pp. 191-208). Cambridge: Cambridge University Press.
- Treacy, M., & Wiersema, F. (1993). Customer intimacy and other value disciplines. *Harvard business review*, 71(1), 84-93.
- Tseng, C. Tansuhaj, P., Hallagan, W., McCullough, J (2007). Effects of firm resources growth in Multinationalism. *Journal of International Business Studies*, 38, 961-974.
- Van Der Raadt, M. (2019). Investing in Manufacturing in Africa. *Development Outreach*, 21(1), 4-5.
- Venkatacham, R & Kasthuri, V., (2019). Financial performance of manufacturing industry in India. *International Journal of Applied Research* 2(9), 778-780

- Verhoef, P. C., Kannan, P. K., & Inman, J. J. (2015). From multi-channel retailing to omni-channel retailing: introduction to the special issue on multi-channel retailing. *Journal of retailing*, 91(2), 174-181.
- Wambua, R. N., & Mwanzia, M. (2020). Influence of Distribution on Sales Performance of Vehicle Entertainment Distributors in Nairobi-Kenya. *European Journal of Business and Management*, 12(26), 30-33
- Wandiga E. N, (2019). Operations strategy and performance of management Consultancy firms in Nairobi city county, Kenya. Doctoral dissertation, Kenyatta University.
- Wandiga, E., Kilika, J, Rosemary, J, (2019). The Effect of Operations Strategy on Performance of Consultancy Firms. An Empirical Survey of Management Consultancy Firms in Nairobi, Kenya. *Journal of Economics and Business*, Vol.2 No.2, 2019.
- Wang, C., & Pervaiz. K. (2007). Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews*, 9(1), 31 - 51.
- Wang, W. C., Lin, C. H., & Chu, Y. C. (2011). Types of competitive advantages and analysis. *International Journal of Business and Management*, 6(5), 100-104.
- Wanjiru, A. I., Muathe, S. M., & Kinyua-Njuguna, J. W. (2019). The mediating effect of competitive advantage on the relationship between corporate strategies and performance of manufacturing firms in Nairobi City County, Kenya. *Journal of Business and Management (IOSR-JBM)*, 21(4), 7-15.
- Wekesa, L. C., Maalu, J., Gathungu, J., & Wainaina, G. (2022). Mediating Effect of Competitive Strategy Between Entrepreneur Characteristics and the Performance of Non-timber Forest Product SMEs in Kenya. *Journal of the Knowledge Economy*, 1-25.
- Weking, J., Stöcker, M., Kowalkiewicz, M., Böhm, M., Krcmar, H., (2018). Archetypes for Industry 4.0 Business Model Innovations. Twenty-fourth Americas Conference on Information Systems (AMCIS 2018), New Orleans
- Wheelen, E., & Carcary, M. (2011). Integrating talent and knowledge management: where are the benefits? *Journal of Knowledge Management*, 15(4), 675-687.
- Whisman, M. A. & MacClelland, G. H (2005). Designing, Testing, and Interpreting Interaction and Moderator Effects in Family Research. *Journal of family Psychology*, Vol.19 No.1, pp, 111-120.
- Williams, T. (2016). EMC for product designers. Newnes
- Winder, R. (2019). The global race to the bottom and the decimation of manufacturing employment. *British Journal of Industrial Relations*, 57(2), 275-303.
- Wirtz, B., & Daiser, P. (2017). Business model innovation: An integrative conceptual framework. *Journal of Business Models*, 5(1).
- World Bank Group (2014). Kenya Economic Update. Anchoring High Growth. Can Manufacturing Contribute More?
- World Bank Group (2017). Kenya Economic Update. Reviving Private Sector Credit Growth and Boosting Revenue Mobilization to Support Fiscal Consolidation.

- World Bank, (2022). The manufacturing sector in Kenya: Current status, issues and way forward." *Journal of Arts, Science & Commerce* 4: 1-10.
- Wubben, E. F., Düsseldorf, S., & Batterink, M. H. (2012). Finding uncontested markets for European fruit and vegetables through applying the Blue Ocean Strategy. *British Food Journal*, 114(2), 248-271
- Yang, J. (2012), "Identifying the attributes of blue ocean strategies in hospitality", *International Journal of Contemporary Hospitality Management*, Vol. 24 No. 5, pp. 701-720.
- Yunus, M., & Sijabat, F. N. (2021). A review on Blue Ocean Strategy effect on competitive advantage and firm performance. *Academy of Strategic Management Journal*, 20(1), 1-10.
- Zikmund, G.W., Babin, B.J., Carr, C.J. & Griffin, M. (2010). *Business Research Methods*. 8<sup>th</sup> edition. South-Western, Cengage Learning.
- Zott, C. & Amit, R. (2010). Business Model Innovation: Creating Value in Times of Change. *SSRN Electronic Journal*, 453 (3), 19-27. doi:10.2139/ssrn.1701660
- Zott, C., & Amit, R. (2008). The fit between product market strategy and business model: implications for firm performance. *Strategic management journal*, 29(1), 1-26.
- Zott, C., Amit, R., & Massa, L. (2011). The business model: recent developments and future research. *Journal of management*, 37(4), 1019-1042.

## APPENDICES

### Appendix I: Variables Communalities from Factor Analysis

<b>Communalities</b>		
<b>Customer value proposition innovation strategy</b>	<b>Initial</b>	<b>Extraction</b>
Our firm communicates with customers about our products/services	1.000	0.890
Our firm gathers customer feedback and insights regularly	1.000	0.824
Our firm's marketing messaging highlights customer benefits clearly	1.000	0.938
Our firm tailor's communication based on customer segments	1.000	0.971
Our firm responds promptly to customer inquiries and concerns	1.000	0.896
Building long-term customer relationships is a priority for our firm	1.000	0.920
Our firm has dedicated account managers for key customers	1.000	0.989
Our CRM system effectively tracks customer data and interactions	1.000	0.904
Our firm offers customized solutions to meet unique customer needs	1.000	0.728
Customer retention and loyalty programs are in place at our firm	1.000	0.927
Customer complaints are help improve at our firm	1.000	0.985
Our firm has clear procedures to address customer grievances	1.000	0.953
Resolution of complaints is monitored for timeliness at our firm	1.000	0.952
Root causes of recurring complaints are analyzed at our firm	1.000	0.930
Feedback on complaint handling is collected from customers	1.000	0.979
Our firm actively builds and maintains a positive reputation	1.000	0.954
Our firm differentiates through superior customer service	1.000	0.929
Our firm's brand is synonymous with quality and trust	1.000	0.922
Ethical business practices are a core value at our firm	1.000	0.970
Online reviews and ratings are closely monitored by our firm	1.000	0.879
Our firm's products/services are uniquely different from competitors	1.000	0.844
Our firm focuses on innovative features and capabilities	1.000	0.875
Premium pricing is justified by superior value offered by our firm	1.000	0.940
Our firm's brand positioning highlights key differentiators	1.000	0.772

Our firm targets specific customer segments with tailored offerings	1.000	0.827
<b>Distribution Channel Innovation Strategy</b>	<b>Initial</b>	<b>Extraction</b>
Our firm provides incentives to intermediaries for achieving targets	1.000	0.727
Our firm offers training and support to intermediary partners	1.000	0.907
Commission/Margins for intermediaries are competitive	1.000	0.799
Our firm recognizes and rewards top performing intermediaries	1.000	0.963
Performance tracking of intermediaries is done regularly	1.000	0.895
Our firm sells products/services through an e-commerce website	1.000	0.957
Online sales channel is being actively developed and promoted	1.000	0.694
E-commerce logistics and fulfillment processes are efficient	1.000	0.967
Our website offers a user-friendly online shopping experience	1.000	0.706
Online customer service and grievance redressal is prioritized	1.000	0.981
Our firm has a direct sales force for selling to customers	1.000	0.849
Direct sales channel allows customizing solutions for buyers	1.000	0.741
Sales personnel are trained for effective customer engagement	1.000	0.712
Technology tools are used to assist the direct sales process	1.000	0.974
Direct customer feedback helps improve products/services	1.000	0.934
<b>Blue Ocean strategy</b>	<b>Initial</b>	<b>Extraction</b>
Our firm has entered new markets	1.000	0.755
The firm is constantly looking for new markets and client segments	1.000	0.644
Our products face little competition in the market	1.000	0.910
The firm is regularly addressing new, unmet client needs.	1.000	0.774
The firm research on customer value perceptions and improve	1.000	0.828
The firm invest in branding and re- branding	1.000	0.936
The firm offer value added services	1.000	0.826
The firm create uncontested market spaces	1.000	0.971
We charge premium prices due to few competition	1.000	0.766
We have shifted focus from the current competition to innovative	1.000	0.895
The firm discovers and adopts new market trends as they emerge	1.000	0.911
We have stimulated new demand rendering competition irrelevant	1.000	0.883
<b>Strategic Partnership Innovation Strategy</b>	<b>Initial</b>	<b>Extraction</b>

Our firm outsources certain business processes to third parties	1.000	0.945
Outsourcing helps our firm focus on core competencies	1.000	0.927
Thorough due diligence is done before outsourcing partners	1.000	0.914
Performance of outsourcing vendors is closely monitored	1.000	0.676
Risks of outsourcing are assessed and mitigated effectively	1.000	0.947
Our firm collaborates with universities/research labs for R&D	1.000	0.802
Such collaborations help access new knowledge and technologies	1.000	0.690
Joint R&D projects allow sharing of costs and risks	1.000	0.936
Collaborations facilitate developing innovative solutions	1.000	0.970
Our firm has processes to commercialize research outputs	1.000	0.863
Our firm has collaborative relationships with key suppliers	1.000	0.964
Such alliances enable access to resources and capabilities	1.000	0.755
Supply Small extent partners synchronize their processes and systems	1.000	0.915
Risks and rewards are equitably shared in the alliance	1.000	0.671
The alliance allows our firm to be more responsive to customers	1.000	0.625
Our firm enters joint ventures for business expansion	1.000	0.969
Joint ventures provide access to new markets and distribution	1.000	0.838
Synergies between partners create competitive advantages	1.000	0.925
Responsibilities and decision making are clearly defined	1.000	0.931
Exit clauses are negotiated to manage risks of joint ventures	1.000	0.830
<b>Competitive Advantage</b>	<b>Initial</b>	<b>Extraction</b>
Our firm focuses on optimizing production processes	1.000	0.869
Our firm strives to improve quality control measures	1.000	0.699
Our firm leverages advanced technologies for operational efficiency.	1.000	0.951
Our firm has established lean manufacturing practices	1.000	0.786
Our firm emphasizes employee training and development	1.000	0.762
Our firm actively monitors and responds to competitive threats	1.000	0.729
Our firm has implemented robust intellectual property protection	1.000	0.937
Our firm pursues diversification strategies to avoid vulnerabilities.	1.000	0.914
Our firm prioritizes customer retention and loyalty programs	1.000	0.906

Our firm actively engages in strategic alliances or partnerships	1.000	0.874
Our firm has an agile product development process	1.000	0.944
Our firm prioritizes time-to-market to gain a first-mover advantage	1.000	0.816
Our firm has a flexible and adaptable supply chain	1.000	0.851
Our firm actively collaborates with customers and involves them	1.000	0.789
Our firm encourages innovation and empowers employees	1.000	0.774
<b>Regulatory Framework</b>	<b>Initial</b>	<b>Extraction</b>
The business laws provide guidelines for intellectual protection	1.000	0.925
The business laws support fair competition in the industry.	1.000	0.892
The business laws facilitate smooth international trade operations	1.000	0.941
Laws provide a stable environment for long-term planning	1.000	0.824
The business laws adequately address contract enforcement issues	1.000	0.932
Government regulations ensure product safety and quality standards	1.000	0.936
Government regulations effectively address environmental concerns	1.000	0.959
Government regulations workplace safety and employee welfare.	1.000	0.888
Regulations are flexible and accommodate technological innovations	1.000	0.929
Regulations are well-defined and easy for firms to understand.	1.000	0.969
Government policies provide incentives for sustainable practices	1.000	0.986
Government policies support research and development initiatives	1.000	0.840
The government policies attract foreign investment in Kenya	1.000	0.843

Government policies encourage skills development and training	1.000	0.933
Government policies promote the adoption of Industry 4.0 techno	1.000	0.801
The compliance requirements for manufacturing firms are reasonable	1.000	0.949
The compliance processes are streamlined and efficient	1.000	0.917
The compliance standards align with international best practices.	1.000	0.912
Compliance inspections are conducted fairly and professionally	1.000	0.543
Compliance framework promotes transparency and accountability	1.000	0.899

## Appendix II: Approval of Research Proposal



KENYATTA UNIVERSITY  
GRADUATE SCHOOL

E-mail: [ksb@ku.ac.ke](mailto:ksb@ku.ac.ke)  
[dean-graduate@ku.ac.ke](mailto:dean-graduate@ku.ac.ke)  
Website: [www.ku.ac.ke](http://www.ku.ac.ke)

P.O. Box 43844, 00100  
NAIROBI, KENYA  
Tel. 810901 Ext. 57530

Internal Memo

FROM: Dean, Graduate School

DATE: 18<sup>th</sup> March, 2024

TO: James Rugami Maina  
C/o Department of Management Science  
KENYATTA UNIVERSITY

REF: DSG/CTY/29817/2014

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

This is to inform you that the Graduate School Board at its meeting 13<sup>th</sup> March, 2024 approved your Ph.D. Research Proposal entitled "Business Model Innovation Strategies and Performance of Manufacturing Firms Listed on Nairobi Securities Exchange in Kenya".

You may now proceed with your Data collection, subject to clearance with the Director General, National Commission for Science, Technology & Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed supervision Tracking and Progress Report Forms. The Forms are available at the University's Website under Graduate School webpage downloads.

Also, please ensure that you publish article(s) from your thesis before submitting it to Graduate School for examination as per the Commission for University Education and Kenyatta University guidelines. By copy of this letter, the Registrar (Academic) is hereby requested to grant you substantive registration for your Ph.D. studies.

Thank you.

A handwritten signature in black ink, appearing to read 'Julia Gitu'.

JULIA GITU  
FOR: EXECUTIVE DEAN, GRADUATE SCHOOL

c.c. Chairman, Department of Business Administration  
Registrar (Academic) Att; Mr. Richard Chweya

Supervisors:

1. Dr. Anne Muchemi  
C/o Dept. of Business Administration  
Kenyatta University
2. Dr. Samuel Maina  
C/o Dept. of Business Administration  
Kenyatta University

### Appendix III: Questionnaire

This questionnaire is divided into 8 sections. Kindly answer the questions to the best of your knowledge. Your accuracy and honesty will be highly appreciated.

#### Section A: Demographic Data

1. Gender
  - a. Male
  - b. Female
2. Please indicate your highest level of education.
  - a) Secondary school
  - b) College certificate
  - c) Bachelor's Degree
  - d) Master Degree
  - e) Other, specify \_\_\_\_\_
3. Current position
  - a) Head of Strategy
  - b) Head of Marketing
  - c) Head of Finance
  - d) Chief Information officer
  - e) Chief Operations officer
  - f) Other, specify \_\_\_\_\_
4. Duration of working in the firm?
  - a) < 5 years
  - b) 6 to 10 years
  - c) 11 to 15 years
  - d) > 16 years
5. Number of staff in your firm
  - a) Less 200
  - b) 201-500
  - c) 501-1000
  - d) More than 1000

## Section B: Customer value proposition innovation strategy

This section examines the effect of customer value proposition innovation strategy of your manufacturing firm. Please indicate your opinion by ticking appropriately

Statement	Very small extent	Small extent	Moderate extent	Large extent	Very large extent
6. Our firm actively communicates with customers about our products/services					
7. Our firm gathers customer feedback and insights regularly					
8. Our firm's marketing messaging highlights customer benefits clearly					
9. Our firm tailor communication based on customer segments					
10. Our firm responds promptly to customer inquiries and concerns					
11. Building long-term customer relationships is a priority for our firm					
12. Our firm has dedicated account managers for key customers					
13. Our firm's CRM system effectively tracks customer data and interactions					
14. Our firm offers customized solutions to meet unique customer needs					
15. Customer retention and loyalty programs are in place at our firm					
16. Customer complaints are treated as an opportunity to improve at our firm					
17. Our firm has clear procedures to address customer grievances					

18. Resolution of complaints is monitored for timeliness at our firm					
19. Root causes of recurring complaints are analyzed at our firm					
20. Feedback on complaint handling is collected from customers by our firm					
21. Our firm actively builds and maintains a positive reputation					
22. Our firm differentiates through superior customer service					
23. Our firm's brand is synonymous with quality and trust					
24. Ethical business practices are a core value at our firm					
25. Online reviews and ratings are closely monitored by our firm					
26. Our firm's products/services are uniquely different from competitors					
27. Our firm focuses on innovative features and capabilities					
28. Premium pricing is justified by superior value offered by our firm					
29. Our firm's brand positioning highlights key differentiators					
30. Our firm targets specific customer segments with tailored offerings					

31. Do you have any other comments on the effects of customer value proposition innovation strategy on your firm's performance?

.....

.....

.....

### Section C: Distribution channel innovation strategy

This section determines the distribution channel innovation strategy of your manufacturing firm. Please indicate your opinion by ticking appropriately.

Statement	Very small extent	Small extent	Moderate extent	Large extent	Very large extent
32. Our firm provides incentives to intermediaries for achieving targets					
33. Our firm offers training and support to intermediary partners					
34. Commission/Margins for intermediaries are competitive					
35. Our firm recognizes and rewards top performing intermediaries					
36. Performance tracking of intermediaries is done regularly					
37. Our firm sells products/services through an e-commerce website					
38. Online sales channel is being actively developed and promoted					
39. E-commerce logistics and fulfillment processes are efficient					
40. Our website offers a user-friendly online shopping experience					
41. Online customer service and grievance redressal is prioritized					
42. Our firm has a direct sales force for selling to customers					
43. Direct sales channel allows customizing solutions for buyers					
44. Sales personnel are trained for effective customer engagement					
45. Technology tools are used to assist the direct sales process					

46. Direct customer feedback helps improve products/services					
--	--	--	--	--	--

47. Do you have any other comments on the effects of the distribution channel innovation strategy on your firm's performance?

.....

**Section D: Blue Ocean Strategy**

This section establishes the Blue Ocean Strategy of your manufacturing firm. Please respond by ticking appropriately.

Statement	Very small extent	Small extent	Moderate extent	Large extent	Very large extent
48. The firm research on customer value perspective and constantly improve					
49. We charge premium prices due to few competition					
50. Our products face little competition in the market					
51. Our firm has entered new markets					
52. The firm is constantly looking for new markets and client segments for our services and products.					
53. The firm create uncontested market spaces					
54. The firm invest in branding and re-branding					
55. We have shifted focus from the current competition to innovative value creation and demand generation strategies					

56. The firm discovers and adopts new market trends as they emerge					
57. The firm offer value added services					
58. The firm is regularly addressing new, unmet client needs.					
59. We have stimulated new demand for our products rendering competition irrelevant					

60. Do you have any other comments on the effects of blue ocean strategy on your firm's performance?

.....  
 .....

**Section E: Strategic partnership innovation strategy**

This section establishes the effect of Strategic partnership innovation strategy on performance of your manufacturing firm. Please respond by ticking appropriately.

<b>Statement</b>	<b>Very small extent</b>	<b>Small extent</b>	<b>Moderate extent</b>	<b>Large extent</b>	<b>Very large extent</b>
61. Our firm outsources certain business processes to third parties					
62. Outsourcing helps our firm focus on core competencies					
63. Thorough due diligence is done before outsourcing partners					
64. Performance of outsourcing vendors is closely monitored					
65. Risks of outsourcing are assessed and mitigated effectively					

66. Our firm collaborates with universities/research labs for R&D					
67. Such collaborations help access new knowledge and technologies					
68. Joint R&D projects allow sharing of costs and risks					
69. Collaborations facilitate developing innovative solutions					
70. Our firm has processes to commercialize research outputs					
71. Our firm has collaborative relationships with key suppliers					
72. Such alliances enable access to resources and capabilities					
73. Supply Chain partners synchronize their processes and systems					
74. Risks and rewards are equitably shared in the alliance					
75. The alliance allows our firm to be more responsive to customers					
76. Our firm enters joint ventures for business expansion					
77. Joint ventures provide access to new markets and distribution					
78. Synergies between partners create competitive advantages					
79. Responsibilities and decision making are clearly defined					
80. Exit clauses are negotiated to manage risks of joint ventures					

81. Do you have any other comments on the effects of strategic partnership innovation strategy on your firm performance?.....  
 .....

**Section F: Competitive Advantage**

This section explores the effect of competitive advantage on performance of your manufacturing firm. Please respond by ticking appropriately.

<b>Statement</b>	<b>Very small extent</b>	<b>Small extent</b>	<b>Moderate extent</b>	<b>Large extent</b>	<b>Very large extent</b>
82. Our firm focuses on optimizing production processes to minimize waste and reduce costs.					
83. Our firm continuously strives to improve quality control measures to ensure consistent product quality.					
84. Our firm leverages advanced technologies (e.g., automation) to enhance operational efficiency.					
85. Our firm has established lean manufacturing practices to streamline operations and eliminate non-value-added activities.					
86. Our firm emphasizes employee training and development to enhance skills and productivity.					
87. Our firm actively monitors and responds to competitive threats in the market.					
88. Our firm has implemented robust intellectual property protection strategies (e.g., patents, trademarks).					
89. Our firm pursues diversification strategies to					

minimize risks and vulnerabilities.					
90. Our firm prioritizes customer retention and loyalty programs to maintain a strong customer base.					
91. Our firm actively engages in strategic alliances or partnerships to strengthen our market position.					
92. Our firm has an agile product development process to quickly respond to market demands.					
93. Our firm prioritizes time-to-market to gain a first-mover advantage over competitors.					
94. Our firm has a flexible and adaptable supply Chains to support rapid product launches.					
95. Our firm actively collaborates with customers and involves them in the product development process.					
96. Our firm encourages innovation and empowers employees to think creatively and take calculated risks.					

97. Do you have any other comments on the effects of competitive advantage on business model innovation strategies and your firm's performance?

.....

**Section G: Regulatory framework**

This section establishes the effect of regulatory framework on performance of your manufacturing firm. Please respond by ticking appropriately.

<b>Statement</b>	<b>Very small extent</b>	<b>Small extent</b>	<b>Moderate extent</b>	<b>Large extent</b>	<b>Very large extent</b>
98. The business laws provide clear guidelines for					

intellectual property protection in the manufacturing firms in the country.					
99. The business laws support fair competition among manufacturing firms in the industry.					
100. The business laws facilitate smooth international trade operations for manufacturing firms' exports.					
101. The business laws provide a stable environment for long-term planning in the manufacturing sector.					
102. The business laws adequately address contract enforcement issues for manufacturing firms' partnerships.					
103. The government regulations ensure product safety and quality standards in manufacturing firms' processes.					
104. The government regulations effectively address environmental concerns in manufacturing firms' operations.					
105. The government regulations promote workplace safety and employee welfare in manufacturing firms' facilities.					
106. The government regulations are flexible enough to accommodate technological innovations in manufacturing firms.					
107. The government regulations for the manufacturing industry are well-defined and easy for firms to understand.					

108. The government policies provide incentives for sustainable practices in manufacturing firms.					
109. The government policies support research and development initiatives in manufacturing firms.					
110. The government policies help attract foreign investment in local manufacturing firms.					
111. The government policies encourage skills development and training for manufacturing firms' workforce.					
112. The government policies promote the adoption of Industry 4.0 technologies in manufacturing firms.					
113. The compliance requirements for manufacturing firms are reasonable and achievable.					
114. The compliance processes are streamlined and efficient for manufacturing firms' operations.					
115. The compliance standards for manufacturing firms align with international best practices.					
116. The compliance audits and inspections are conducted fairly and professionally in manufacturing firms.					
117. The compliance framework promotes transparency and accountability in manufacturing firms' practices.					

118. Do you have any other comments on the effects of regulatory framework on the relationship between business model innovation strategies and your firm's performance?.....

**Section H: Firm Performance**

119. The section below seeks out your opinion on the overall performance of your manufacturing firm. Each statements demonstrates the degree the firm endeavours to achieve firm performance. For each of the statements listed below, apply a scale of 1-5 where;

5=Very Large Extent      4= Large Extent      3=Moderate Extent  
 2= Small extent      1 = Very small extent

<b>Customer retention</b>	1	2	3	4	5
The customer repeat purchase rate is high					
Most of the customers have increased usage of the firm products					
Our customer recommendation rate is high					
Customers prefer the firm products more than the competitors					
The firm has high customer satisfaction score					

120. The below statement indicates the extent to which the firm endeavours to maintain its reputation. Applying on each statement a scale of 1-5 where;

5=Very Large Extent      4= Large Extent      3=Moderate Extent  
 2= Small extent      1 = Very small extent

<b>Reputation</b>	1	2	3	4	5
We have won many industry awards					
The firm is committed to corporate social responsibility					
The firm ensures high compliance level					

We have high brand mentions across various platforms					
The firm is viewed by public as a good corporate citizen					

121. Indicate your firm's market share growth for the past five years; 2019-2023 in a scale of 1-5 where;

5=Above 30%

4= Above 20% - 30%

3=Above10% - 20%

2= Above 1% - 10%

1 = Less than 1%

Year	Less than 1%	Above 1% - 10%	Above10% - 20%	Above 20% - 30%	Above 30%
2019					
2020					
2021					
2022					
2023					

122. Indicate your firm's net profit growth form the past five years; 2019-2023 in a scale of 1-5 where;

5=Above 30%            4= Above 20% - 30%            3=Above10% - 20%

2= Above 1% - 10%            1 = Less than 1%

Year	Less than 1%	Above 1% - 10%	Above 10% - 20%	Above 20% - 30%	Above 30%
2019					
2020					
2021					
2022					
2023					

**THANK YOU FOR PARTICIPATING**

**Appendix IV: Manufacturing Firms Listed on Nairobi Securities Exchange in Kenya**

S No	Manufacturing Firms Listed on Nairobi Securities Exchange as at 30 <sup>th</sup> June 2025
1	B.O.C Kenya Ltd
2	British American Tobacco Kenya Ltd
3	<u>Carbacid Investments Ltd</u>
4	East African Breweries Ltd
5	Mumias Sugar Co. Ltd
6	Unga Group Ltd Ord
7	Kenya Orchards Ltd
8	Flame Tree Group Holdings Ltd
9	ARM Cement Ltd.
10	<u>Bamburi Cement Ltd</u>
11	Crown Paints Kenya Ltd
12	E.A. Portland Cement Ltd
13	E.A. Cables Ltd
14	<u>Eaagards Ltd</u>
15	Kakuzi Ltd
16	<u>Kapchorua Tea Company Ltd</u>
17	The Limuru Tea Company Ltd
18	Sasini Ltd
19	<u>Williamson Tea Kenya Ltd</u>

Source: [www.nse.co.ke](http://www.nse.co.ke) (2024)

## Appendix V: Research Authorization Letter



KENYATTA UNIVERSITY  
GRADUATE SCHOOL

E-mail: [kubps@yahoo.com](mailto:kubps@yahoo.com)  
[dean-graduate@ku.ac.ke](mailto:dean-graduate@ku.ac.ke)  
Website: [www.ku.ac.ke](http://www.ku.ac.ke)

P.O. Box 43844, 00100  
NAIROBI, KENYA  
Tel. 8710901 Ext. 57530

---

Our Ref: D86/CTY/29817/2014

Date: 18<sup>th</sup> March, 2024

The Director General,  
National Commission for Science, Technology & Innovation,  
P.O. Box 30623-00100,  
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR JAMES RUGAMI MAINA REG. NO. D86/CTY/29279/14

I write to introduce Mr. James Rugami Maina who is a Postgraduate Student of this University. The student is registered for a Ph.D. degree programme in the Department of Business Administration in the School of Business, Economics & Tourism.

Mr. Rugami intends to conduct research for Ph.D. thesis entitled, "Business Model Innovation Strategies and Performance of Manufacturing Firms Listed on Nairobi Securities Exchange in Kenya"

Any assistance given will be highly appreciated.

Yours faithfully,

  
PROF. ELISHIBA KIMANI  
EXECUTIVE DEAN, GRADUATE SCHOOL

---

## Appendix VI: NACOSTI Research Permit

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 23793	Date of Issue: 13/April/2024
<b>RESEARCH LICENSE</b>	
	
<p>This is to Certify that Mr. JAMES RUGAMI MAINA of Kenyatta University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: BUSINESS MODEL INNOVATION STRATEGIES AND PERFORMANCE OF MANUFACTURING FIRMS LISTED ON NAIROBI SECURITIES EXCHANGE IN KENYA for the period ending: 13/April/2025.</p>	
License No: NACOSTI/P/24/34421	
23793 Applicant Identification Number	 Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
	Verification QR Code 
<p>NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.</p>	
See overleaf for conditions	