EFFECT OF STRATEGIC INNOVATIONS ON PERFORMANCE OF INSURANCE FIRMS IN KENYA

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DECEMBER 2023

DECLARATION

I declare that this dissertation is my original work that has not been published before nor has been submitted elsewhere for a degree award. I can also confirm that it contains no material written or published by other people with the exception of areas in which their work has been duly referenced and the authors acknowledged.

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CAROLINE WAIRIMU NJARI Date

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I do hereby confirm that I have examined the master's dissertation of

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And have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed.

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ABSTRACT

The performance of insurance firms globally has been subject to various economic and market factors that have affected their revenue growth and profitability over time. Integrating strategic innovations into their business practices can benefit the long-term performance of insurance firms by improving their financial performance, mitigating risks, and enhancing their reputation among stakeholders, including customers, employees, and investors. Therefore, the main aim of this research was to evaluate how strategic innovations influence performance of insurance firms in Kenya. The study seeks to achieve the following specific objectives; to establish the effect of technological, product, process and marketing innovations on performance of insurance firms in Kenya. The study adopted the dynamic capabilities theory, agency theory, resource based view theory and transaction cost economics theory. Descriptive research design was employed in this research. This research target population was 56 insurance firms in Kenya. Census was used in this study where all 56 insurance firms were involved in this study and three respondents from operations, finance and marketing were involved in the study. Questionnaire were utilized in gathering primary data. Quantitative data was collected. The collected data was analysed through descriptive, correlational and multiple linear regression method. Regression results revealed that technological innovations, product innovations, process innovations, and market innovations together account for 93.5% of the variation in the performance of insurance firms in Kenya. The explanatory power of the model was statistically significant as the p value was 0.000. Further the results revealed that technological innovations ($\beta = 0.283$, $p < 0.000$); product innovations ($\beta = 0.257$, $p < 0.000$); process innovations ($\beta = 0.713$, $p = 0.004$); and market innovations ($\beta = 0.320$, $p < 0.000$) had a positive and significant effect on performance of insurance firms in Kenya. This study concludes that technological, product, process, and market innovations significantly enhance the organizational performance of insurance firms in Kenya. The higher emphasis on process innovations displayed the most substantial impact, underlining its crucial role in organizational efficiency and effectiveness. It is recommended that insurance firms strategically invest in diverse innovations, focusing on integrating advanced technologies and fostering a conducive environment for innovation. Further research should delve deeper into the intricate relationships between various innovation types and organizational performance components across different sectors and contexts.

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You've all offered me incredible support.

DEDICATION

I dedicate this dissertation to my son, Tendai and my husband, Vincent. Thank you for your endless love, support and encouragement throughout my pursuit of education!

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

AKI	Association of Kenya Insurers
CEO	Chief Executive Officer
CLRM	Classical Linear Regression Model
CMA	Capital Markets Authority
GDP	Gross Domestic Product
ICT	Information and Communication Technology
IRA	Insurance Regulatory Authority
LR	Likelihood Ratio
OECD	Organization for Economic Cooperation and Development
RBV	Resource Based View
ROI	Return on Investments
SME	Small and Medium Enterprises
TCE	Transaction Cost Economics
VRIN	Valuable, Rare, Inimitable, And Non-Substitutable

DEFINITION OF TERMS

Market innovations - Refers to the process that involves significant changes in the way a firm changes or creates a different product design or packaging, product placement, product promotion or pricing (Na, Kang & Jeong, 2019).

Organization Performance - Refers to attainment of ultimate objectives of the firm as set out in the strategic plan (Armstrong, 2019).

Process innovation - Refers to the implementing a new or substantially enhanced product or delivery method - including substantial alterations in techniques, equipment and/or software (Davenport, 2018).

Product innovation - This is defined as the alterations made in a firm's product line, new products introduction in the market or modification of existing products (Kafouros, 2018).

Strategic innovations - Refers to the using new business models that alter the game although generating superior customer value and the firm. They include technological, product, process and market innovations (Thompson & Strickland, 2018).

Technological innovations - Refers to a procedure which is scientific, technology-based as well as system-based and focuses on enhancing organizational value through addressing of technological dimensions of a firm's product or service (Azar & Ciabuschi, 2017).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Organizational performance of insurance firms is important to the economy as they play a critical role in promoting economic stability by providing protection against financial losses caused by unexpected events such as natural disasters, accidents, or illnesses (Simon, Osunsan & Byamukama, 2022). When insurance firms perform well and are financially stable, they are better able to meet their claims obligations and help to mitigate the economic impact of such events. Further insurance firms employ thousands of people across the economy, from underwriters and claims adjusters to sales and marketing staff. When insurance firms perform well, they are more likely to expand their operations and create new jobs, which can have positive ripple effects throughout the economy (Eladly, 2022).

The performance of insurance firms globally has been subject to various economic and market factors that have affected their revenue growth and profitability over time. Low interest rates have made it challenging for insurance firms to earn sufficient investment income, which has had a negative impact on their profitability (Sugiharto, 2022). The insurance industry has also become more competitive globally, with new players emerging and incumbents increasingly using technology, putting pressure on insurance firms to differentiate their offerings and improve their operational efficiency. Regulatory changes aimed at improving consumer protection and promoting market stability have also increased compliance costs for insurance firms and impacted their profitability (Kirwa, 2022). Natural disasters and other catastrophic events can also have a significant impact on the performance of insurance firms globally, with claims payouts following such events

leading to a decline in profitability and a decrease in market confidence (Nurudeen, David & Samson, 2022).

Integrating strategic innovations into their business practices can benefit the long-term performance of insurance firms (Brogi, Cappiello, Lagasio & Santoboni, 2022). For instance, strategic innovations can lead to increased revenue and profits for insurance firms. By introducing new and innovative products or services, insurance firms can entice new customers, retention of existing ones, and rise their market share, which can lead to higher revenues and profits (Huang, Ling & Lu, 2023). Further, strategic innovations can help insurance firms to reduce costs and increase efficiency. By streamlining internal processes, using automation and artificial intelligence, and leveraging innovative distribution channels, insurance firms can reduce operational costs, which can lead to higher profit margins. In addition, strategic innovations can improve customer satisfaction and loyalty, which can lead to higher retention rates and lower customer acquisition costs. By using technology to enhance the customer experience, insurance firms can improve customer satisfaction and loyalty, which emanate in improved customer lifetime value and improved organizational performance (Kisuya, Kihara & Macheru, 2023).

In the United States, many insurance firms have been investing in digital transformation initiatives to improve their customer experience and streamline their internal processes. This includes the adoption of new technologies such as automation, artificial intelligence, and data analytics. Furthermore, insurance firms in the United States have been introducing new and innovative insurance products to meet the evolving needs of customers. For instance, some insurance firms have been offering new policies that cover virtual consultations with doctors or provide coverage for mental health services (Gizzi & Potenza, 2022).

In Malaysia, the insurance industry has been undergoing a digital transformation, with insurance firms adopting strategic innovations to improve their organizational performance and better serve their customers. One of the key trends among insurance firms in Malaysia is the use of digital platforms to offer insurance products and services. Many insurance firms in Malaysia have launched digital platforms, mobile apps, and other online channels to offer insurance products and services to customers, thereby increasing their reach and enhancing the customer experience (AlQershi, Saufi, Mokhtar, Muhammad & Yusoff, 2022).

In Nigeria, the insurance industry is still at an early development stage, and there is a significant opportunity for insurance firms to adopt strategic innovations to improve their organizational performance and better serve their customers. In recent years, there has been some progress in the adoption of strategic innovations by insurance firms in Nigeria. For example, some insurance firms have launched digital platforms, mobile apps, and other online channels to offer insurance products and services to customers, thereby increasing their reach and enhancing the customer experience. However, the pace of innovation in the Nigerian insurance industry is still relatively slow compared to other markets. Many insurance firms in Nigeria still rely on traditional distribution channels and have not fully embraced digital transformation. This may be due to a lack of awareness, limited resources, and regulatory constraints (Obi, Unachukwu, Ladokun, Oyeniyi, & Sajuyigbe, 2022).

In Kenya, the insurance industry in Kenya has been undergoing a digital transformation, with insurance firms adopting strategic innovations to improve their organizational performance and better serve their customers. One of the key trends among insurance firms in Kenya is the use of digital platforms to offer insurance products and services (Kirwa, 2022). Many insurance firms in Kenya have launched digital platforms,

mobile apps, and other online channels to offer insurance products and services to customers, thereby increasing their reach and enhancing the customer experience. Moreover, insurance firms in Kenya have also been collaborating with technology companies and fintech startups to drive innovation and improve their offerings. For example, some insurance firms have been partnering with technology companies to offer digital wallets or payment gateways, while others have been collaborating with fintech startups to offer new insurance products and services (Kisuya, Kihara & Macheru, 2023).

1.1.1 Strategic Innovations

Strategic innovation, according to AlQershi, Mokhtar, and Abas (2021), is a comprehensive method that integrates business strategies, consumer insights, as well as strategic alignment as building blocks for innovation that will help the organization attain its objectives. In order to alter the game and provide customers and the organization with higher value, new business models must be used. Strategic innovation has been employed as a means, but not as an end in and of itself. A few external environment dynamics examples that have led to continual environmental upheavals and need more strategic approaches from executives include globalization, customer wants that are unpredictable, competition, and technological advancements (Thompson & Strickland, 2018).

Consequently, fresh business models are used throughout the process. The value of the client's creation, new markets penetration, existing markets description, and the improvement of services and goods value to clients are further definitions of strategic innovation (Gebauer, Worch & Truffer, 2022). Strategic innovation is a growth strategy that uses different tactics from the competition to enter contemporary markets, increase market share, and improve corporate performance. Owing to business environment alterations and traditional services and products decline in value, companies are being

forced to recognize the importance of strategic innovation (Keter, 2021). Several strategic innovations can be integrated into business strategies to offer outcomes like greater market share, productive operations that improve the firm's consumer perceptions, and overall enhanced efficiency. Some of the strategic advancements include the following; You might have an impact in the areas of marketing, innovation in processes and products, and technical advancement (OECD, 2020).

Technological innovations refer to a procedure which is scientific, technology-based as well as system-based and focuses on enhancing organizational value through addressing of technological dimensions of an organization's product or service (Azar & Ciabuschi, 2017). According to Varadarajan (2018), the strategy that appears to enhance the success probability in those circumstances is the strategy of rules infringement, that is, technological innovation. Technological innovation is important as it helps the organizations adopt new methods of carrying out operations as well as help in efficiency and effectiveness of organization’s processes and functions.

Product innovations relate to adjustments made to a company's manufacturing process, the launch of new goods onto the market, or the use of new and improved materials throughout production (Kafouros, 2018). Any company's strategy must include product innovation because businesses need to constantly update and improve their product offerings. Markets were steady in earlier decades, therefore there were fewer changes in new product creation. Product life cycles are changing more quickly than ever right now. In sectors where distinctive characteristics, designs, or functions help customers, innovative products are quickly taking on a key role. Innovative and competitive companies no longer sell comparable goods or engage in price-and-quality competition. Offering

distinct products in the case of technical businesses is an unavoidable trend in order to achieve a competitive edge (Nuryakin, 2018).

Process innovation denotes implementing a new or significantly enhanced manufacturing or delivery method – inclusive of substantial changes in techniques, equipment and/or software (Davenport, 2018). Process innovation can comprise minor adjustments or more substantial ones. Process innovation results in significant changes to tools, procedures, or software. Process innovations aim to lower production or delivery costs per unit, boost value and worth, or create or provide new items. Process innovation has a significant strategic potential. It permits manufacture of products and services that others may not produce, or to formulate in a better way than competitors. Through process innovation, firms can generate a very successful competitive advantage (Narteh, 2017).

According to Na, Kang, and Jeong (2019), market innovation is an innovation that strengthens marketing and boosts a company's performance and competitiveness by developing new approaches and making adjustments to the marketing mix's components of products, price, distribution, and promotion. A distinct brand, higher product quality, product development, marketing communication difference, and sales competence are additional elements of market innovation. Additionally, it refers to a company's capacity for efficiently allocating, managing, and implementing its resources in accordance with changing market circumstances. Market innovation is crucial because it guarantees clients receive the greater value and because it might boost sales by raising demand. By making better marketing execution a reality, advancements in customer value generation through market innovation help the company gain a competitive advantage. These types of strategic innovations have also been widely adopted in the Kenyan insurance sector.

1.1.2 Organizational Performance

The idea of organizational performance has been defined as the production of value within an organization which may be related to a favorable change in a business's financial situation as a result of an increased Return on Investment (ROI). Better use of raw materials, labor, capital, and resource management are credited with improved ROI (Alchian & Demsetz, 2017). Venkatraman and Ramanujam (2018) concede failure of having consensus on defining organization performance. This is contrary to Eke and Adaku (2019) definition describing organization performance as task performance efficiency. While every business manager in every firm has a fundamental curiosity in both behavior and results, Armstrong (2019) defines organization performance as both.

Organizational performance is crucial since it has a direct impact on a company's success, long-term viability, and expansion. It provides as a gauge of how successfully a company carries out its strategic objectives, completes its mission, and benefits its stakeholders (Chan, 2021). Strong financial outcomes, satisfied customers, effective operations, and a great reputation in the marketplace all signify high organizational performance. Companies may use it to draw in investors, get access to finance, and forge reliable alliances. Additionally, organizational performance encourages a culture of excellence and flexibility by supporting innovation, employee involvement, and continual development. The capacity to manage and succeed in a dynamic business environment are ultimately dependent on excellent organizational performance (Hitt et al., 2018).

Several measures have been used in operationalizing performance. The mission, vision, and strategy of the organization are used to develop performance measurements for the balanced scorecard. It offers a mechanism for thoroughly assessing the organization's performance. It contains the financial element, which controls how economically

successful the organization's various decisions are. Customer satisfaction levels are another significant factor that may be examined. It puts a strong emphasis on the client and the market, measuring crucial success metrics that are directed at these sectors. Internal procedures are another crucial metric. It pinpoints the business procedures where the corporation excels. Last but not least, the balanced scorecard emphasizes learning and development, which are crucial for the long-term expansion of the company (Kaplan & Norton, 1992). The balance scorecard was used in this research because it is a generally accepted performance indicator.

1.1.3 Insurance Firms in Kenya

In Kenya, the insurance sector is a key player in promoting economic growth and development. In the last two decades, the sector has grown tremendously and has become among the leading contributors of the GDP in the country. Today, the sector is internationally recognized as one of the leading industries with regard to potential growth earning and attractiveness (AKI, 2021). Currently, there are 56 insurance firms in Kenya controlled and regulated by Insurance regulatory authority (IRA, 2021). Out of this, 6 insurance firms are listed at the NSE (CMA, 2022).

Strategic innovations continue to alter and shape the insurance sector in Kenya. Insurance firms in Kenya have started to integrate strategic innovations into their operations. Overall, the state of strategic innovations among insurance firms in Kenya appears to be positive, with insurance firms investing in new technologies and digital channels to enhance their organizational performance and customer experience. The insurance industry in Kenya is expected to continue its digital transformation in the coming years, and insurance firms are likely to adopt more strategic innovations to stay competitive and meet the evolving needs of customers (AKI, 2021).

In regards to performance, the Kenyan insurance companies are underperforming as demonstrated by a decrease in overall rate of insurance penetration from 3.44% in 2019 to 2.93% in 2020 and 2.37% in 2021. The penetration rate for 2018 was even lower at 2.73%, which was significantly lower in relation to the global average of 6.28% (IRA, 2018). Although the insurance industry's penetration is relatively low, the sector performs better in relation to most African countries, since the average penetration for the region is 2%. The low penetration rates suggest that the sector still has high potential for improvement. However, industry players' express optimism about the potential for growth, since low penetration signifies the existence of potential opportunities in the market (AKI, 2021).

1.2 Statement of the Problem

The insurance sector is a key player in promoting economic growth and development in any country. Insurance firms play imperative role in the economy by providing protection against risk for individuals, businesses, and society as a whole (Kumar, Stauvermann, Patel, Prasad & Kumar, 2022). A rise in insurance penetration implies that majority of citizens in a given economy are covered against risk and therefore insurance firms should strive to enhance their level of insurance penetration (Sugiharto, 2022). According to the latest available data from the Organisation for Economic Co-operation and Development (OECD), the average insurance penetration rate for OECD countries was 7.5% of GDP in 2021.

The Kenyan insurance companies are underperforming as demonstrated by a decrease in overall rate of insurance penetration from 3.44% in 2019 to 2.93% in 2020 and 2.37% in 2021. The penetration rate for 2018 was even lower at 2.73%, which was significantly lower in relation to the global average of 6.28% (IRA, 2021). This is also low

in comparison to other nations in the region, such as South Africa and Namibia, where insurance penetration is closer to 10% (Akokuwebe & Idemudia, 2022). The insurance industry in Kenya has been facing a number of challenges, such as a lack of awareness about the benefits of insurance, and the high cost of insurance products. Additionally, the industry is also facing challenges related to regulation and oversight, which has made it hard for firms to operate and has limited their ability to grow (Kibuthu, 2022).

Bah and Abila (2022) that one of the institutional factors that have enabled insurance firms enhance their performance is strategic innovations. Strategic innovations can help insurance firms to enhance their performance by improving customer experience, increasing efficiency, managing risk, creating new business models, and improving regulatory compliance. By leveraging new data sources and advanced analytics, insurance firms can better assess and manage risk. For example, the use of telematics data in auto insurance can help insurers more accurately price policies based on individual driving behavior, leading to more accurate risk assessments and more competitive pricing (AlQershi, Saufi, Mokhtar, Muhammad & Yusoff, 2022).

Empirical studies in this area exist but there are research gaps. Triani and Handayani (2018) looked at strategic innovation and its influence on financial performance focusing on industrial sector in Indonesia. It was shown that product and market innovation enhance financial performance of the firm. While using a case of Safaricom Ltd, Kanyuga (2019) assessed strategic innovation on firm performance and noted a positive relationship between product development and performance. Laban and Deya (2019) looked at how strategic innovation and performance are related in the telecommunication industry in Kenya. It was noted that market innovation, product, process and organizational innovations all predict performance of the firm. From the reviewed literature, some of the

studies on organization innovation were conducted in other nations like Indonesia and Turkey and not in Kenya. Other studies related innovation with financial performance while others were conducted in different sectors and industries including telecommunication sectors which cannot be generalized to reflect the insurance industry due to different operational settings. This creates a research gap which this study examined through an analysis of the effect of strategic innovations on performance of insurance firms in Kenya

1.3 Objectives of the Study

The general objective of this study was to establish the effect of strategic innovations on the performance of insurance firms in Kenya.

The specific objectives were:

i. To establish the influence of technological innovations on performance of insurance firms in Kenya
ii. To determine the influence of product innovations on performance of insurance firms in Kenya
iii. To establish the influence of process innovations on performance of insurance firms in Kenya
iv. To determine the influence of market innovations on performance of insurance firms in Kenya

1.4 Research Questions

The study addressed the following research questions:

i. What is the effect of technological innovations on performance of insurance firms in Kenya?
ii. How do product innovations affect performance of insurance firms in Kenya?

iii. What is the effect of process innovations on performance of insurance firms in Kenya?

iv. How do market innovations affect performance of insurance firms in Kenya?

1.5 Significance of the Study

This research will be very important since it will produce data that will be helpful to many different stakeholder groups in the insurance industry, including management, regulatory bodies, and insurance industry researchers. The research will be helpful to insurance company management in determining how they might employ strategic innovations to boost performance of their particular firms.

This research will be helpful in assisting in policies and procedures formulation that might steer insurance companies and other firms in the industry assume strategic innovations likely to advance their performance, which too will contribute back betterment of the sector performance or, in the eyes of the government and other policy makers.

Future scholars will find significant value in the research findings since they can use them as a point of reference. The results may be important to academics and researchers in research gaps identification the study's relevant topics as well as in examining the empirical literature to establish new research fields.

1.6 Scope of the Study

This research was limited to the effect of strategic innovations on the Kenyan insurance firms' performance. This research was constrained to four independent variables; technological, product, process and marketing innovations. The dependent variable was performance as measured by the balanced score card and specifically financial performance, customer satisfaction, business processes and learning and growth. The study

covered all the 56 insurance firms in Kenya. The unit of observation were the heads of operations, finance and marketing giving a total of 168 respondents. A descriptive survey research design was utilized while descriptive; correlation and regression analysis were conducted in data analysis. The research took place between March and May 2023.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The following chapter thoroughly examines the empirical literature of academic surveys that explore how strategic innovations affects organizational performance. Additionally, the chapter explores four theories – dynamic capabilities theory, resource-based view theory, agency theory and transaction cost economics theory - that guide this research.

2.2 Theoretical Review

In this segment, the concepts that form the foundation for examining how strategic innovations relates to organizational performance will be discussed. The theories that will be covered are the dynamic capabilities theory, resource-based view theory, agency theory and transaction cost economics theory.

2.2.1 Dynamic Capabilities Theory

The concept of dynamic capability is pioneered by Teece (1990) and it emphasizes on the distinct resources of the firm which leads to the sustainable performance. Dynamic Capabilities Theory postulates that a firm capability to adapt and innovate is crucial for its long-term success in a rapidly changing business environment (Bontis, 2021). The theory contends that a firm's competitive edge is not solely based on its resources or capabilities but on its capability of leveraging and integrate these resources and capabilities in response to changing market conditions (Egbu, 2018). Dynamic capabilities refer to a firm's ability to sense and respond to changes in its external environment, to seize prospects, and to deploy its resources and capabilities to create new competitive advantages (Egbu, 2018).

Beske, Land and Seuring, (2018) argue that the theory is too vague and lacks a clear framework for action, making it difficult to translate into practical guidance for managers.

Additionally, the theory is criticized for placing too much emphasis on the role of internal organizational factors and not enough on external factors, such as market competition and industry trends (Sarges, 2022). Finally, Fallon-Byrne and Harney (2017) argue that the theory is too broad and all-encompassing, making it difficult to apply in specific contexts or industries.

In the context of insurance firms, dynamic capabilities are crucial for success because the insurance industry is constantly evolving due to changes in technology, regulation, and customer preferences. Strategic innovations can help insurance firms develop dynamic capabilities that enable them to respond effectively to these changes and maintain a competitive advantage. For example, an insurance firm that introduces a new technological innovations app is not only innovating strategically, but it is also developing dynamic capabilities by enhancing its ability to respond to customer needs in a rapidly evolving digital environment. Additionally, if the firm is able to continually improve and adapt the mobile app to changing customer preferences and technological advancements, it is building dynamic capabilities that contribute to sustained performance.

2.2.2 Resource Based View Theory

Barney (1991) is attributed with originating this theory, which Mutinda (2018) argues suggests that a firm's unique resources and capabilities are the main drivers of maintaining a competitive advantage over time. The theory proposes that a firm's resources can be divided into two types: tangible and intangible (Hujud & Hashem, 2017). Tangible resources refer to those that are physical in nature and can be easily measured, such as financial resources, physical assets, and technological resources. In contrast, intangible resources are harder to measure and are rooted in a firm's culture, knowledge, and human capital, such as its reputation, brand equity, and the expertise of its employees.

The Resource-Based View (RBV) theory advocates that a company's resources can give it an edge over its competitors if they have certain characteristics, namely being valuable, rare, difficult to replicate, and irreplaceable (VRIN). These resources are called strategic resources, as they can provide a lasting competitive advantage to the company (Abdulkarim & Ali, 2019). Furthermore, the RBV theory states that for these resources to be effective, they must be in sync with the firm strategy and the needs of the external environment, which allows them to create value and generate a long-term competitive advantage (Kamande, 2018).

Critics have argued that the RBV theory is difficult to test empirically, as it relies heavily on qualitative assessments of a firm's resources and capabilities (Koki, 2018). This has led some scholars to question the validity of the VRIN criteria and the RBV theory's ability to explain sustained competitive advantage. While the RBV theory provides a framework for identifying strategic resources, it may not provide sufficient guidance for how to develop and leverage those resources (Mutinda, 2018). This has led some scholars to argue that the RBV theory lacks prescriptive guidance for firms looking to build sustained competitive edge.

The relevance of the RBV theory on the firm between strategic innovations and performance of insurance firms is that it provides a framework for analyzing the affiliation between a firm's resources, strategic innovation, and performance. By understanding how a firm's resources and capabilities contribute to its ability to innovate and compete, firm managers can make informed decisions about resource allocation, innovation strategy, and performance measurement. Ultimately, the RBV theory can help firms identify their unique resources and capabilities, develop innovative strategies that leverage these resources, and advance their marketplace performance and competitive edge.

2.2.3 Agency Theory

Jensen and Meckling (1976) agency theory holds that when management and firm ownership is separated, the agent-principal relationship needs to be managed for better value creation (Moenga, 2015). Divergent views between agents and shareholders necessitates various strategies by the firm. This will incur the firm some agency costs for a healthy financial position in organizations like that. This theory postulates that the principal-agent relationship is prone to conflicts of interest due to the differing goals and incentives of the principal and the agent, and that contracts and monitoring mechanisms are necessary to align the interests of the two parties and make ensure that the representative performs actions that align with the principal's best interests. The theory states that any information asymmetry complicates the access, evaluation and interpretion all records and details pertaining to opportunistic managerial behavior by shareholders (Njau, 2016).

The agency theory has received support from prominent authors such as Mueller (2010); Gallagher (2004); and John Armstrong (2000) who argue that the theory plays a significant role in explaining the various relationships in an organization setting. However, despite its widespread use, agency theory has shortcomings. It overlooks several intricacies and obstacles that agents may encounter when executing their assigned duties and responsibilities on behalf of the principal. The agency theory suggests expensive and ineffective control mechanisms. According to (Segrestin & Hatchuel, 2011), this is the case because actions implemented to protect shareholders' interests may hinder the execution of strategic choices, inhibit business operations, modify investment plans, and give little weight to the complaints of other stakeholders.

One of the main critiques of agency theory is that it presumes that people draw their sole motivations from self-interests, and that their actions are predictable based on

incentives and contracts ((Alchian & Demsetz, 2017). Critics argue that this view is too simplistic and fails to account for the complex and multidimensional nature of human behavior. Another critique of agency theory is that it places too much emphasis on monitoring and control mechanisms, such as performance incentives and contracts, at the expense of other important factors that influence organizational behavior and performance, such as organizational culture, values, and social norms ((Yang & Liu, 2016).

Agency theory is relevant to understanding the link between insurance firms' strategic innovations and performance. In the context of insurance firms, agency theory suggests that the performance of a firm is influenced by the link between its management and its stakeholders, particularly shareholders. Strategic innovations can have a significant impact on this relationship by aligning the interests of management and stakeholders. For example, if an insurance firm introduces a new product or service that increases profits, both management and shareholders benefit. This alignment of interests can lead to improved performance (Bah & Abila, 2022).

2.2.4 Transaction Cost Economics Theory

Transaction Cost Economics (TCE) theory was developed by Nobel Prize-winning economist Williamson (1993). TCE is a microeconomic theory that explains the nature of transactions and the behavior of firms in market and organizational settings. TCE defines transaction costs as the costs incurred in making an exchange, including the costs of negotiating and policing contracts, and the costs of resolving disputes. TCE posits that firms choose between market and hierarchical forms of governance based on the relative costs of transacting in each. Market transactions are governed by contracts and prices, while hierarchical transactions are governed by rules and authority within the firm. TCE also recognizes that contracts are often incomplete, and that contractual incompleteness can lead to problems of opportunism and moral hazard (Nopiyani et al., 2021).

Critics argue that there is constrained empirical evidence supporting the predictions of TCE, and that its empirical validity is uncertain. TCE assumes that firms make decisions based on a clear cost-benefit analysis, neglecting the role of non-economic factors, such as emotions, power, and politics, in shaping contractual outcomes. Further, TCE focuses on static considerations, ignoring the importance of dynamic considerations, such as the evolution of technology and market conditions, in shaping the choice of governance structure (Duong et al., 2020).

In the context of insurance firms, TCE theory suggests that the performance of a firm is influenced by the costs associated with transactions involved in financial intermediation. Strategic innovations can have a significant impact on these transaction costs by reducing them and improving efficiency. For example, if an insurance firm introduces new digital technologies that automate transaction processes and reduce the need for face-to-face communications, it can reduce transaction costs associated with financial intermediation. Moreover, strategic innovations can also help reduce the risks associated with financial intermediation. For instance, if a firm implements new risk management systems that improve the accuracy and reliability of credit decisions, it can reduce the likelihood of loan defaults and associated transaction costs.

2.3 Empirical Literature

This section reviewed previous literatures undertaken by other scholars and which is related to how strategic innovations affects organizational performance of Kenyan insurance firms.

2.3.1 Technological Innovations and Organization Performance

Technological innovations refer to the introduction and implementation of new technologies, processes, or systems that bring about significant advancements in how organizations operate (Azar & Ciabuschi, 2017). The hypothesized relationship between

technological innovations and organizational performance suggests that organizations that effectively adopt and leverage technological innovations are likely to experience improved performance outcomes. These innovations have the potential to enhance efficiency, productivity, competitiveness, agility, innovation, and collaboration within organizations, leading to better overall performance and outcomes. However, the specific impact can vary depending on factors such as the kind of innovation, industry context, organizational strategy, and the successful integration of the technology into the organization's operations and culture (Zhu et al., 2018).

Fatema and Islam (2021) investigated technological and non-technological innovations effect on the overall performance of Indian manufacturing enterprises, as well as the mediation and synergy impact in the innovation-performance correlation. The study applied the partial least squares structural equation modeling method to a combined data set from the World Bank Enterprise Survey and the follow-up Innovation Survey for India in 2014. The conclusions suggest that technological innovations (product and process innovation) have a substantial impact on a firm's overall performance, and that innovation strategy moderates these impacts significantly, while non-technological innovations (marketing as well as organizational innovation) are fully influenced by innovative performance.

Sawng, Park, Jo, and Park (2018) conducted a correlation analysis using data from Korean export companies to explore the association between technology adoption and company performance. The goal of the research was to look at the positive effects that Korean export businesses could have on their performance by implementing smart technology in the age of industrial converging. The five-stage technique and methodology were used by the researchers. Four metrics of performance—internal process, customer,

financial, and learning and growth—were used to measure things in the first stage, and surveys were used to gather data in the second. Stage three involved the validation of the research model using structural equation modeling; stage four involved the analysis of the data using the analytic hierarchy method; and stage five involved the adaptation of post identification to gauge the performance of the firms. The research found that technology impact on export firm performance were still insufficient and that organizational performance was the top priority area. It also found that adopting smart technology in the context of technological convergence is necessary for enhancing company performance among heterogeneous firms. The study's practical recommendations state that for service companies looking to innovate in the global market, industrial convergence in various organizations is just as important as technological convergence in the same industry.

Using data from listed corporations between 2010 and 2015, Zhu, Wang, and Wang (2018) performed a comparative analysis of several factors impact on company technological innovation performance in various high-tech organizations. The research analyzed six variables via semi-parametric models. With the help of the model, it was possible to ensure that elements affecting company technological innovation performance are no longer limited to a single aspect but can instead be compared in detail. The outcomes of the research designate that government subsidies and investment have a substantial positive impact on an organization's technological innovation performance in knowledge-based businesses. R&D expenditure also has a positive impact on organizational technological innovation performance. The performance of organizational innovation is significantly and favorably impacted by technological diversity.

From a lifecycle approach, Alraja, Imran, Khashab and Shah (2022) investigated technical process innovation. Technological process innovation is a unique organizational

phenomenon that is characterized by an organization's internal and fundamental mechanisms like mutual technological adaptation and change. Investigating contemporary technology and technological evolution at various stages of the invention life cycle was the primary goal. Five significant, prosperous manufacturing enterprises that operate in various industries were the subjects of many case studies that were done as part of the study's exploratory case-based research approach. For data gathering, 55 semi-structured interviews were performed. A cross-case synthesis and replication logic was used in the study to find trends in how businesses address distinct process innovation components at diverse phases. On the research conclusion basis, asymmetric adaptation is described as a theoretical construct and suggests that organizations seek diverse levels of process standardization that depend on the processes developed kind, that greatly influences technological and organizational change. The research discovered that modern technology and technological change identify distinctions in the core and non-core processes development.

2.3.2 Product Innovations and Organization Performance

Product innovations involve the development as well as introduction of new or improved products or services into the market (Kafouros, 2018). The hypothesized relationship between product innovations and organizational performance suggests that organizations that actively pursue and successfully implement product innovations are likely to experience positive effects on their performance. By introducing new products or enhancing existing ones, organizations can attract new customers, retain existing ones, increase market share, and generate higher revenues. Product innovations can also differentiate organizations from their competitors, enhance brand reputation, and foster customer loyalty. Moreover, successful product innovations can contribute to

organizational growth, profitability, and long-term sustainability. However, the actual impact on organizational performance depends on factors such as the quality and uniqueness of the innovation, market demand, effective marketing and distribution strategies, and the ability to meet customer needs and preferences effectively (Darawong, 2018).

Keter (2021) sought to determine strategic innovations impact on performance of KPLC. The research utilized a case study methodology, and data were gathered using an interview guide. Content analysis was utilized in analyzing data that was qualitative in nature. The study found that KPLC had improved its understanding of its customers by offering them specialized products or services that may directly satisfy their needs in important areas. Additionally, it was discovered that firm performance is obstructed by system automation, prepayment systems, automated meter system reading, sophisticated metering infrastructure, and billing systems. The study comes to the conclusion that KPLC's clients accepted the innovations it has implemented, particularly the billing and smart meter technologies, because of their effectiveness and added value.

Sattayaraksa and Boon-itt (2018) investigated the effects of organizational characteristics, transformational leadership, and the chief executive officer (CEO) on the success of product innovation. Examining the direct and indirect CEO transformational leadership impact on product innovation performance and mechanisms to comprehend the manner in which these CEOs have an impact on product innovation were the study's key objectives. The research used a quantitative research design and gathered data from 269 Thai manufacturing companies. The intended audience received the questionnaire through email. A two-step structural equation modeling procedure was used in the investigation. According to the study's conclusions, a CEO's transformational leadership indirectly

influences product innovation through organizational learning, the new product development process, and innovation culture. The research also demonstrates that CEO transformational leadership possess positive significant impact on organizational learning and innovation culture, both of which are closely related to the new product development process and have a significant effect on product innovation performance. The research describes the comprehension of how organizational leadership effects the product development process and the outcome of product innovation by merging leadership knowledge and operations management domains. The results of the research have a practical application in that leaders who are focused on product innovation should develop transformational leadership behaviors and skills to support organizational learning and innovation culture, that will influence product innovation performance.

Darawong (2018) surveyed new product development dynamic capabilities of teams in radical innovation projects performance. The research looked at how new product development's dynamic capabilities affected efficiency and effectiveness. New product development team members in large manufacturing companies that produced electric, electrical, and automotive goods provided research data. The study found that learning, detecting, and integrating capabilities in new product development teams can improve project effectiveness and efficiency. According to the findings, a team working on new products that has sensing, learning, and integrating capabilities can make their projects more successful. Teams that are highly capable of integrating, coordinating, and learning will also increase project efficiency. According to the study's recommendations for product effectiveness, an organization should think about ICT investment which offers a variety of products, and organizational management can create chances for team members during new product creation that are both informal and formal.

In the Moroccan fish sector, Fouad, Tourabi, and Lakhanati (2018) looked into how the innovation process affected the performance of new products. In order to generate performance, the organization aims to create a modernized value chain that supports product innovation. The study's overarching goal was to assess the value chain's effect on the performance of new products while taking into account their early phases of development. For the framework of the innovation process, which includes sequential and parallel processes, data was gathered in a dichotomous quality form. According to the study, there is a strong and favorable correlation between the new prototype's internal improvement goals and its partially parallel structure. The research theoretical conclusion was that in order for the process of developing a product to be successful, it must be able to measure the performance that results. However, the study's empirical findings indicate that hastening innovation activity execution is highly advantageous for improving innovative product performance over the medium term. This makes it possible for a company to enter the market quickly and with high-quality new products.

2.3.3 Process Innovations and Organization Performance

Process innovations involve the introduction of new or improved methods, systems, or approaches to how organizations carry out their operations and deliver products or services (Davenport, 2018). The hypothesized relationship between process innovations and organizational performance suggests that organizations that embrace and implement process innovations effectively are likely to experience positive outcomes in terms of their performance. By optimizing and streamlining internal processes, organizations can achieve greater efficiency, reduced costs, improved quality, and faster turnaround times. Process innovations can also lead to enhanced resource utilization, better coordination, and

smoother workflow, resulting in increased productivity and overall operational effectiveness (Huesig & Endres, 2018).

Islam (2022) intends to investigate the links between innovation and company performance in the Indian service industry, as well as the implications of different innovation types on the financial and nonfinancial performance of the service organization. For India, this research combines information from the 2014 World Bank Enterprise Survey and the 2014 World Bank Innovation Survey. It used both financial and nonfinancial performance measurements and divided innovations into technological (service and process) and non-technological (organizational and marketing) categories. This study uses structural equation modeling using partial least squares that is variance-based. The findings of the study indicate that service innovation, followed by process innovation, has the greatest meaningful impact on a firm's financial and nonfinancial performance. Through inventive and non-financial performance, marketing and organizational innovation have a long way to go before they can influence a company's financial performance.

Schniederjans (2018) studied the impact of business process innovation on quality and supply chains with the primary goal of determining how it affected the link between social quality management and supply chain performance. The study clarified the differences between social quality management and soft quality management and the effects of radical and gradual business process innovation on the relationship. A questionnaire that was issued to American industrial organizations was used to gather the research's findings. To test the research hypothesis, hierarchical moderated regression was used in the study. The research results indicate a positive link between supply chain performance and social quality management. The findings also supported a positive moderating affiliation between supply chain performance and social quality management's

incremental business innovation approach. It was discovered that radical process innovation played a negative moderating influence in this connection. The research practical implication is social quality management and soft quality management that it differentiation simplifying identification of what soft quality management aspects will improve supply chain performance and offers evidence of the distinguishing models where business process innovation restrains the association between social quality management and supply chain performance by categorizing the positive as well as negative incremental and radical business process innovation moderating roles.

Nguyen and Harrison (2018) pursued leveraging customer knowledge to boost process innovation as a market dynamic moderating effect. According to studies, organizations compete and succeed based on their strengths. The study's primary goal was to empirically test a conceptual framework for analyzing the functions of customer leverage, process innovation, and performance linkages. 650 manufacturing companies in various locations provided the research team with their data. According to the knowledge-based perspective, the study found that customer leverage influences an organization's process innovation, which in turn influences an organization's performance based on transactional organizational cost economics. Further research revealed a significant correlation between organizational customer leverage and performance, which amplifies the positive effects on process innovation.

Huesig and Endres (2018) investigated the role of functionality in innovation managers' adoption of software for innovation management. The research goal was to investigate the variables that affect whether certain software solutions, often known as innovation management software, are adopted. 99 managers of a German industrial organization were given an online questionnaire as part of the study's data gathering.

According to the research's conclusions, the use of innovation management software has positive impact on innovation management. Software solutions provide allow capability for idea creation and scenario management, but not for idea generation or portfolio management. The results demonstrate that the digitalization of the innovation process using information technology tools is subtler than the more logical approach that was suggested in the study of innovation management software and is frequently pushed in the digital context.

2.3.4 Marketing Innovations and Organization Performance

Marketing innovations refer to the development and implementation of new strategies, tactics, or approaches in the marketing function of an organization (Na et al., 2019). The hypothesized relationship between marketing innovations and organizational performance suggests that organizations that embrace and leverage marketing innovations effectively are likely to experience positive impacts on their performance. Marketing innovations can help organizations reach and engage their target audiences more effectively, differentiate their products or services, and create a competitive advantage. By adopting new marketing channels, techniques, or technologies, organizations can enhance brand visibility, attract new customers, increase customer loyalty, and drive sales growth (Lui et al., 2017).

YuSheng and Ibrahim (2020) investigated how innovation adoption affected Ghanaian banks' performance. 450 respondents from the Kumasi metropolitan region in Ghana, including bank staff and customers, provided the study's data. The data were analyzed using an exploratory factor analysis, a confirmatory factor analysis, and structural equation modeling. The study's conclusions showed that organizational, product, process, and marketing innovations are the innovative dimensions that contribute to bank innovation. The research also showed a direct positive link between the three types of innovation—

product, marketing, and organizational—and bank performance. Additionally, the four domains of innovation (organizational, product, process, and market innovations) and innovation capability were found to be positively correlated in this study. Additionally, a strong and favorable link between the market, process, and product innovation dimensions and firm performance was found. The application is that selecting the right innovation kinds can improve bank performance and meet customer needs.

Remirez, Parrra-Requena, Ruiz-Ortega, and Pedro (2018) carried out a research to examine external information and marketing innovation with regard to the mediating role of product and organizational innovation. Analysis of the mediating roles of organizational and product innovation in the relationship between external information and marketing innovation was the study's specific goal. Partial least squares structural equation modeling was utilized to examine the data, which came from 994 manufacturing companies. The findings of the study demonstrate that market innovation is influenced by outside knowledge concerning interactions with clients, rivals, and suppliers. The results showed that there were mediating effects between organizational innovation and external information and marketing innovation. The study's practical implications include that companies should use external information flows to develop both internally and externally in order to market innovation. The study's findings provide connections between network, innovation, and marketing views to aid the comprehension of the history of marketing innovation characteristics.

Jose, Cabanelas, Lampon, and Tania (2018) investigated how customer value generation via relationship capabilities and marketing innovation affected competitiveness. The primary goal of the research is to pinpoint client desires via affiliation management and turn them into marketing innovation. Additionally, the study sought to understand how

managerial relational capability and market innovation relate to the generation of customer value and how that value impacts competitiveness. Data from 450 Mexican Guadalajara SMEs, were evaluated for the research. The study used a structural equation model to examine how managerial skills in connection to market innovation affect the generation of customer value and competitiveness. According to the study's findings, customer value creation is impacted by management skills in customer relationships and the process of translating consumer knowledge of their wants into specific market options, both of which have a positive effect on organizational performance.

Researchers Lui, Wai, Ngugi, and Takeda (2017) studied SMEs manufacturing enterprises in the UK to determine proactive entrepreneurial behavior, market orientation, and innovation output. The study used the resource-based theory to examine proactive entrepreneurial behavior in order to improve new product development performance. The research examined 401 manufacturing SMEs, and the results show that proactive entrepreneurial behavior and new product performance, as well as SMEs' market innovation capability, are positively correlated with new product performance. The study also found that when businesses seek a customer and competitor orientation, the upward curvilinear link between proactive entrepreneurial behavior and innovation capabilities changes to a downward curvilinear association.

2.4 Summary of Literature Review and Research Gaps

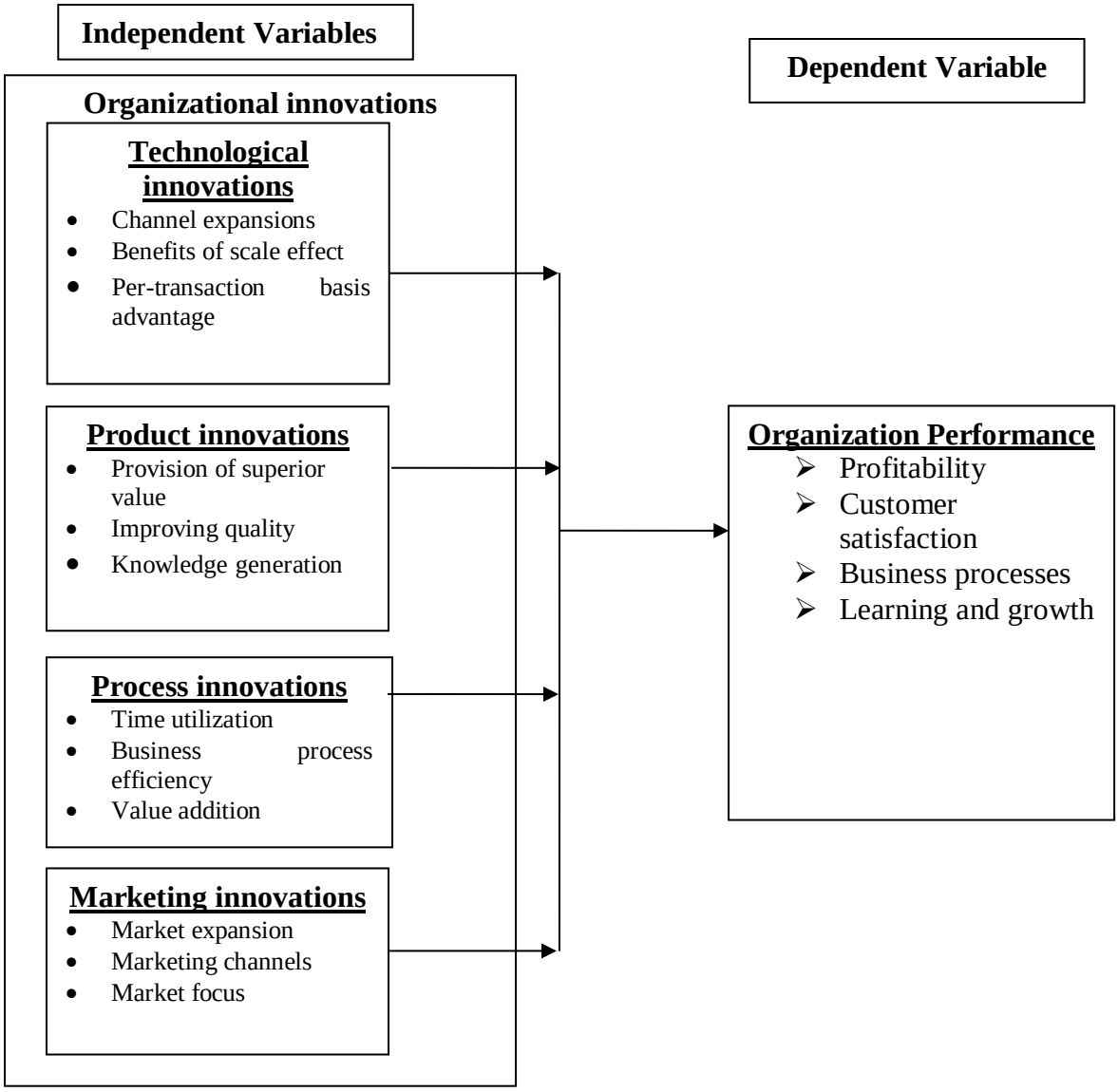
Innumerable theoretical frameworks have elaborated the theoretical expectations on the relationship connecting strategic innovations to performance of firms. The theories undertaken in this evaluation includes; dynamic capabilities theory, agency theory, resource based view theory and transaction cost economics theory. Several empirical studies were executed both internally as well as internationally on strategic innovations and performance of firms.

From the reviewed literature, some of the studies on organization innovation were conducted in other countries like Indonesia and Turkey and not in Kenya. Other studies related innovation with financial performance while others were conducted in different sectors and industries including telecommunication sectors and not the insurance industry. This creates a research gap which this study examined through an analysis of the effect of strategic innovations on performance of insurance firms in Kenya.

2.5 Conceptual Framework

This model established underneath illustrates the anticipated link amongst all variables under this survey. Independent variable included; technological, product, process and marketing innovations. Performance represents the dependent variable that the research tried to elaborate and tested using balanced scorecard.

FIGURE 2.1
Conceptual Framework



The following hypotheses were tested:

1. **H_{01}:** Technological innovations have no significant effect on the performance of insurance firms in Kenya
2. **H_{02}:** Product innovations have no significant effect on the performance of insurance firms in Kenya
3. **H_{03}:** Process innovations have no significant effect on the performance of insurance firms in Kenya

4. **H_{04}:** Market innovations have no significant effect on the performance of insurance firms in Kenya.

2.6 Operationalization of Variables

TABLE 2.1

Operationalization of Variables

Variable type	Variable	Indicators	Measurement scales
Dependent	Organization performance	• Profitability • Customer satisfaction • Business processes • Learning and growth	Likert/ordinal
Independent	Technological innovations	• Channel expansions • Benefits of scale effect • Per-transaction basis advantage	Likert/ordinal
Independent	Product innovations	• Provision of superior value • Improving quality • Knowledge generation	Likert/ordinal
Independent	Process innovations	• Time utilization • Business process efficiency • Value addition	Likert/ordinal
Independent	Market innovations	• Market expansion • Marketing channels • Market focus	Likert/ordinal

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this section, the focus was on the research design that was employed as a guideline for this research. Other sections discussed includes the target population for the research, the method of sampling, the instruments and procedures for collecting data, and finally, the collection and analysis of data, and how the findings were presented.

.3.2 Research Design

The conceptual context surrounding the carrying out of the survey refers to research design. To address the study's research problem, a descriptive cross-sectional research strategy was used. Descriptive research aimed to identify the occurrence of a phenomenon and its characteristics, such as what, when, or how it takes place (Cooper & Schindler, 2018). This design was suitable since it permitted the researcher to use quantitative data to determine the effect of strategic innovations on the performance of insurance firms in Kenya using quantitative data.

3.3 Target Population

The term target population can be defined as a collection of items or people with identical structures or qualities (Kothari, 2014). The characteristic is commonly shared by all population members. The participants for this research study consisted of all 56 insurance companies located in Kenya as of December 31, 2022 (IRA, 2022). Given the size of the population targeted being small, the research census approach was utilized in the study the element of investigation, which comprises 56 insurance firms situated in Kenya. The unit of observation were the heads of operations, finance and marketing giving a total of 168 respondents.

3.4 Sample Size and Sampling Procedure

Sampling refers to the entire procedure of picking out persons or objects from a larger population. The technique used to choose the sample is called the sampling technique. The study used a census sampling approach to investigate 56 insurance firms located in Kenya due to the small size of the target population. Since the target population was relatively small, the study adopted a census sampling method concerning the element of investigation, which was the 56 insurance firms in Kenya. The observation unit were the heads of operations, finance and marketing giving a total of 168 respondents.

3.5 Data Collection Instruments

Data collection is the organized procedure of obtaining and analyzing data related to particular variables of interest, with the goal of answering research questions, testing hypotheses, and evaluating outcomes (Burns & Burns, 2018). The nature of information to be obtained determines the research instruments to be used. The respondents were asked to fill out a questionnaire in order to obtain primary data. The primary data was crucial in describing the real situation of the dependent and independent variables' relation. Questionnaire utilization was reasonable since it is a low-cost, reliable, and productive method of collecting data in a short period. Questions were designed to have closed ended questions. Closed-ended questions allowed the researcher to derive specific answers. The questionnaires were given to heads of operations, finance and marketing of all 56 insurance firms located in Kenya.

3.6 Data Collection Procedures

Data collection refers to the procedure of collecting empirical data in order to obtain unique insights into a circumstance and to address the questions that prompted the study (Khan, 2018). Permission to collect data was sought from relevant authorities. The resource

persons were deemed to be knowledgeable enough, and therefore designed questionnaire deemed useful in data collection. The researcher administered the questionnaire to the heads of operations, finance and marketing in each insurance firm or their representatives who were assumed to be well conversant with strategic innovations. The questionnaire was administered through Google forms. Follow ups were made to ensure a high response rate. All ethical considerations were adhered to.

3.7 Pilot Test

Accuracy and relevance of the research instrument is critical. In this regard this study conducted a pilot study. A Pilot study was done in determining the feasibility of conducting a complete study. To establish the reliability and validity of the questionnaire, a pilot study was conducted on a sample of 10% of the 168 target respondents, which involved 17 participants. The researcher distributed the questionnaire to 17 insurance firms in order to obtain their feedback on the questions as well as any areas where the respondents believe changes are required, to make it more consistent and reliable in answering the research objectives. The 17 respondents were not involved in the final study.

3.7.1 Validity of Data Collection Instrument

The validity of an instrument is its ability to measure a particular concept accurately (Cooper & Schindler, 2018). Construct validity, on the other hand, is used to determine if the operational definition of variables aligns with the intended theoretical meaning of a concept. To achieve this in the present study, the researcher modified an existing questionnaire based on previous studies to align with the research objectives. On the other hand, the guidance of expert opinion confirmed content validity. This entailed having study supervisors scrutinize the questionnaire and offer competent opinions to ensure that all

study variables were captured. They also double-checked the study and ensured that the theoretical dimensions are presented in the same way they were envisioned.

3.7.2 Reliability of Data Collection Instrument

Reliability is a metric that is utilized in describing the overall instrument consistency (Cooper & Schindler, 2018). A measure is considered to have high reliability when it consistently produces similar results when applied in the same circumstances. The use of Cronbach alpha analysis assisted in evaluating the dependability of the research tools by revealing the precision of the internal data gathering instrument. A reasonable reliability statistic that shows a true "base" score is Cronbach's Alpha. Cronbach's Alpha is crucial to a researcher in verifying the validity and reliability of the questionnaire, even if comparable questions are substituted for some of the original ones (Khan, 2018). A reliability rating between 0.7 and 0.8 is typically regarded as adequate, and over 0.8 as exceptional. The study was subjected to this threshold. The reliability test results are as shown in Table 3.1

TABLE 3.1
Reliability Results

Variables	Items	Cronbach Alpha	Remark
Technological innovations	6	.821	Reliable
Product innovations	6	.756	Reliable
Process innovations	6	.839	Reliable
Market innovations	6	.842	Reliable
Organizational performance	7	.913	Reliable

3.8 Data Analysis and Presentation

The procedure of refining and organizing that raw data into a clear systematic and scientific form in which it can easily be interpreted hence understood is referred to as data analysis (Burns & Burns, 2018). According to Kothari (2014), it entails a series of closely linked operations aimed at summarizing as well as arranging gathered data in such a way that it addresses the research query. The researcher went through the questionnaires, counting

them and checking for completion and adequacy. The questionnaires were sorted based on adequacy. Unique codes were assigned to each question then score. The information was then entered into a computer for review and summarization in order to decide the intensity of emerging themes. The mean, as a central tendency measure, as well as standard deviation, as a measure of dispersion were utilized in analyzing the descriptive elements of the data while correlation and regression were utilized to conduct analysis on existence of relationships between and among variables. SPSS version 27 was utilized.

3.8.1 Model Summary

The regression model below was used:

$$\mathbf{Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon}$$

Where: Y = Organizational performance

α =y regression intercept.

β_1, β_2, β_3, β_4= Model coefficients

X_1 = Technological innovations

X_2= Product innovations

X_3= Process innovations

X_4= Market innovations

ε =error term

3.9 Pretesting of Multiple Regression Assumptions

Before continuing to the calculation of the equations, diagnostic tests were run to guarantee that no violations of the classical linear regression model principles had occurred. When the conventions of a classical regression model are violated, skewed as well as inefficient model parameters result. As a result, diagnostic checks were carried out to guarantee that the regression analysis conventions were not violated.

3.9.1 Normality Test

A normality test was conducted to determine whether the data is normally distributed. This was important because many statistical tests, such as t-tests, ANOVA, and regression, are based on the assumption that the data is normally distributed. If the data is not normally distributed, the results of these tests may be inaccurate. The study utilized statistical tests like the Shapiro-Wilk test or the Kolmogorov-Smirnov test to test for normality.

3.9.2 Multicollinearity Test

Multicollinearity was determined in the analysis using a correlation matrix, with an optimal 0.8 multicollinearity threshold (Cooper & Schindler, 2018). When multicollinearity is not taken into account, infinite standard errors and undetermined regression coefficients arise, resulting in high standard errors. This impacts the precision with which the null hypothesis is rejected or not rejected. The magnitude of the multicollinearity has an effect on the estimation process. As a result, a correlation coefficient of greater than 0.8 indicates extreme multicollinearity.

3.9.3 Heteroscedasticity

If heteroscedasticity occurs, it must be checked and completely accounted for in the Classical Linear Regression Model (CLRM). The error term has a constant variance, according to the CLRM. If the error variance is not constant, the data is said to be homoscedastic. If a regression analysis is run before checking for heteroscedasticity, the estimated coefficients will be unbiased and the standard errors will be incorrect. In this research, panel level heteroscedasticity was assessed via the Likelihood Ratio (LR) test invented by Khan (2018). The null hypothesis in this test was presence of homoscedastic error variance.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

In this chapter, the survey's outcomes are presented. This section of the chapter are general information sections, which include demographic data and the response rate. The chapter also emphasizes the descriptive and inference statistics in relation to the aims of the research.

4.2 Response Rate

In a research study, the response rate is calculated as the number of received replies divided by the number of target participants. The response rate, which is frequently expressed as a percentage, is also known as the completion rate or return rate. Details on the response rate for this research are provided in Table 4.1.

TABLE 4.1
Response Rate

Response Rate	Frequency	Percent
Returned	126	75
Unreturned	42	25
Total	**168**	**100**

Table 4.1 shows that 168 questionnaires were distributed to the heads of operations, finance and marketing at each of the 56 insurance firms in Kenya. Only 126 of the 168 questionnaires dispersed to the target respondents were fully filled and returned, translating to 75 percent study response rate, according to the study's conclusions. This supports Kothari (2014) assertion that analysis and conclusion-drawing are appropriate for studies with a response rate of 70% or more.

4.3 Demographic Characteristics

Demographic information provides a snapshot of the characteristics of the respondents. This information helps to describe the sample or population under study and provides a basis for analyzing and interpreting the data in relation to these demographic variables. It allows researchers to understand the demographic composition of the sample and identify any potential biases or limitations in the data. The first questionnaire segment intended to get data of the general information concerning the profile of the respondents. The segment covered age, gender, highest levels of education and number of years in the current position.

4.3.1 Gender of the Respondents

The target respondents were implored to state their gender. Table 4.2 displays the findings.

TABLE 4.2
Gender Distribution

Gender	Frequency	Percentage
Male	65	51.6
Female	61	48.4
Total	**126**	**100**

The findings revealed that male respondents encompassed of 51.6 percent of the total, according to Table 4.2 data, while female respondents made up 48.4 percent. This means that the majority of the respondents were male, but there was a significant minority of female respondents. This is a positive finding, as it suggests that women are increasingly involved in the insurance industry in Kenya.

4.3.2 Age of the Respondents

The study wanted to establish the age of the participants involved in this research. Age is closely tied to the respondent's stage in the lifecycle and their corresponding developmental milestones, responsibilities, and priorities. Different age groups may have different needs, aspirations, and challenges based on their life stage (young adulthood, middle age, or older

adulthood). Knowing the respondents' ages is crucial since a person's age might affect how they respond to the survey. The results are shown in Table 4.3.

TABLE 4.3
Respondents' Age Composition

Age	Frequency	Percentage
Below 30 years	3	2.4
31-40 years	41	32.5
41-50 years	54	42.9
Above 50 years	28	22.2
Total	**126**	**100**

Table 4.3 outlines that the largest age group was 41-50 years old, with 54 respondents (45.7%). The second largest age group was 31-40 years old, with 41 respondents (32.5%). There were 28 respondents above the age of 50 years old (22.2%) and 3 respondents below the age of 30 years old (2.4%). This age distribution suggests that the insurance industry in Kenya is dominated by people in their 30s and 40s. This is likely due to the fact that it takes time to gain the experience and skills necessary to be successful in the insurance industry. It is possible that the age distribution of respondents may change in the future as more young people enter the industry.

4.3.3 Highest Level of Education

The participants were expected to input their highest education level. The finds are illustrated in Table 4.4.

TABLE 4.4
Highest Level of Education

Education	Frequency	Percentage
Diploma	17	13.5
Degree	68	54
Masters	40	31.7
PhD	1	0.8
Total	**126**	**100%**

The majority of respondents (54%) had a degree. 31.7% of respondents had a master's degree, 13.5% had a diploma, and 0.8% had a PhD. This education distribution

suggests that the insurance industry in Kenya is dominated by people with a high level of education. This is likely due to the fact that the insurance industry is a complex and rapidly changing field, and it requires a strong foundation in knowledge and skills.

4.3.4 Years of Experience with the Firm

The participants were requested to designate how long they had been with their current employer. The period spent with an organization can be used to gauge their understanding of internal organizational processes, capabilities, as well as success.

TABLE 4.5
Years of Experience with Current Employer

Number of years	Frequency	Percentage
0-1 years	3	2.4
2-3 years	14	11.1
4-5 years	71	56.3
Above 5 years	38	30.2
Total	**126**	**100%**

The replies in Table 4.5 display that the majority of respondents (56.3%) had 4-5 years of experience with the firm. 30.2% of respondents had more than 5 years of experience with the firm, 11.1% had 2-3 years of experience with the firm, and 2.4% had 0-1 years of experience with the firm. This distribution suggests that the insurance industry in Kenya is dominated by people with a moderate amount of experience. This is likely due to the fact that the insurance industry is a rapidly changing field, and it takes time to gain the experience and skills necessary to be successful.

4.4 Descriptive Statistics

The researcher was able to synthesize and define the key traits, patterns, and distributions of the gathered data using descriptive statistics. Statistical summaries that transmitted crucial information about central tendency, variability, and the shape of the data distribution were supplied by measures like mean and standard deviation. Each variable

under study's descriptive data are reported in the subheading as percentages, means, and standard deviations.

4.4.1 Technological Innovations

Table 4.6 gives the mean as well as standard deviation for the definite technological innovations indicators. The findings demonstrate that insurance firms have adopted technological innovations to a large extent. This is reinforced by the mere fact that, on a five-point Likert scale, the qualities connected to technological innovations had mean values more than 3, with a 4.05 mean score and a 0.49 standard deviation.

TABLE 4.6
Descriptive Statistics for Technological Innovations

Statements	N	Mean	Std. Dev
The technological advancements used here are quite successful	126	4.32	0.56
This company has employees who are skilled at implementing cutting-edge technologies	126	4.00	0.50
Technology adopted at this firm is customer friendly	126	3.87	0.33
The ICT system at this company has increased process accountability and transparency	126	3.98	0.69
Internal processes in this company are exceedingly efficient because to the ICT system	126	4.24	0.46
Technological innovations has enabled this firm to expand its channels	126	3.86	0.37
Overall mean Score	**126**	**4.05**	**0.49**

The first statement relating to the success of technological advancements in these firms indicates a relatively high mean value of 4.32 with a standard deviation of 0.56. This suggests that, on average, respondents agree that the technological advancements employed by their firms are quite successful. The relatively low standard deviation implies that the responses are fairly concentrated around the mean, indicating a general consensus among

respondents on the success of technological advancements in their firms. The second statement evaluating whether the company has employees skilled in implementing cutting-edge technologies shows a mean of 4.00 with a standard deviation of 0.50. This implies that respondents generally agree that there is a presence of skilled employees in their firms capable of implementing advanced technologies. The low standard deviation indicates a clustering of responses around the mean, demonstrating agreement among respondents on this aspect.

The third statement discusses the customer-friendliness of the technology adopted, with a mean score of 3.87 and a standard deviation of 0.33. This suggests that respondents perceive the technology adopted by their companies as generally customer-friendly, with the low standard deviation indicating close agreement among respondents. The fourth and fifth statements, which have mean scores of 3.98 and 4.24 respectively, explore the impact of ICT systems on process accountability, transparency, and internal efficiency. These scores imply a general agreement among respondents that the ICT system has positively influenced these aspects, making internal processes more efficient and transparent.

The sixth statement examines the expansion of channels due to technological innovations, with a mean score of 3.86 and a standard deviation of 0.37. This indicates a general agreement among the respondents that technological innovations have enabled the expansion of channels in their firms. Lastly, the overall mean score for all the statements is 4.05 with a standard deviation of 0.49, signaling a general positive reception and successful implementation of technological innovations within the sampled insurance firms in Kenya. This high overall mean score, combined with the relatively low standard deviations in the individual statements, portrays a cohesive, positive perception of technological innovations across the firms surveyed.

4.4.2 Product Innovations

For the specific characteristics of product innovations, Table 4.7 displays the mean as well as standard deviation.

TABLE 4.7
Descriptive Statistics for Product Innovations

Statements	N	Mean	Std. Dev
This firm continuously develops new and appealing products	126	3.64	0.68
Product developments have improved firm existing products	126	3.55	0.85
This company has created new goods that vary from its earlier offerings	126	3.64	0.82
Product innovation strategies at this firm develop new products that are diverse from competitors	126	4.23	0.42
This company's product innovation methods have raised the quality of its current offerings.	126	4.70	0.48
This firm offer a variety of current and relevant services	126	4.46	0.53
Overall Mean Score	**126**	**4.04**	**0.60**

The first statement, exploring whether the firm continuously develops new and appealing products, has a mean of 3.64 with a standard deviation of 0.68. This indicates a generally positive perception of the firms' ability to develop new and appealing products, with responses moderately spread around the mean, suggesting varied experiences or perceptions among respondents. The second statement on whether product developments have improved existing products presents a mean of 3.55 and a standard deviation of 0.85. This slightly lower mean compared to the first statement suggests that respondents are generally in agreement, but perhaps less confidently so, that product developments have enhanced the existing product offerings. The higher standard deviation hints at a wider spread of responses, pointing to differing opinions on the impact of product innovations on existing products.

The third statement regarding the creation of new goods differing from earlier offerings has a mean of 3.64 and a standard deviation of 0.82. This mirrors the mean of the first statement, illustrating a consistent agreement among respondents that the companies are capable of offering innovative products differing from their earlier offerings, with a moderate dispersion in responses. The fourth statement highlights that product innovation strategies develop products diverse from competitors, and it holds a higher mean value of 4.23 with a standard deviation of 0.42. This indicates a strong consensus among respondents that the product innovations in their firms are indeed distinct from their competitors, and the low standard deviation reinforces this consensus, showing little variability in responses.

The fifth statement, which has the highest mean of 4.70 and a standard deviation of 0.48, implies a strong agreement among respondents that the company's product innovation methods have significantly elevated the quality of its current offerings. The responses are closely clustered around the mean, reflecting a collective perception of improved quality through innovation. The sixth statement asserts that firms offer a variety of current and relevant services, with a mean of 4.46 and a standard deviation of 0.53, indicating a strong agreement among respondents on the firms' ability to offer a diverse range of services that are relevant to the current market demands. Finally, the overall mean score of 4.04 with a standard deviation of 0.60 suggests a generally positive perception of product innovation across the sampled firms, indicating that, on the whole, respondents perceive the product innovations as beneficial and effective in delivering value and diversity in product offerings.

4.4.3 Process Innovations

The mean as well as standard deviation for the precise attributes of process innovations are as presented in Table 4.8. The table offers valuable insights into how insurance firms in Kenya, perceive the effect of process innovations on their operations and performance.

TABLE 4.8
Descriptive Statistics for Process Innovations

Statements	N	Mean	Std. Dev
This business is committed to improving the way products are delivered	126	4.13	1.00
Process innovation strategies have improved the output quality in methods, procedures, and software for machinery	126	4.01	0.96
Process innovation strategies at this firm have lowered current products cost	126	3.90	0.91
This company's process innovation methods have reduced the cost of its existing products in compared to rivals	126	3.88	1.01
Process innovation strategies at this firm have improved the way customers access products	126	3.65	0.95
This firm has developed innovative process to serve customers better	126	4.21	0.67
Overall Mean Score	**126**	**3.96**	**0.80**

The first statement asserts that the business is committed to improving the way products are delivered, with a mean of 4.13 and a standard deviation of 1.00. This indicates a strong agreement among respondents that the firms are committed to enhancing product delivery processes. The standard deviation suggests a moderate spread in responses, indicating varying levels of agreement among respondents. The second statement investigates whether process innovation strategies have improved the output quality in methods, procedures, and software for machinery, displaying a mean of 4.01 and a standard deviation of 0.96. This implies that there is a general agreement among the respondents that

innovations in processes have indeed contributed to enhanced output quality in various operational aspects, with a moderately wide range of responses.

The third and fourth statements delve into the cost implications of process innovations, with means of 3.90 and 3.88 and standard deviations of 0.91 and 1.01 respectively. These figures suggest that respondents generally agree that process innovations have resulted in cost reductions for current products, both internally and compared to rivals, albeit with varying degrees of conviction, as indicated by the relatively high standard deviations. The fifth statement, with a mean of 3.65 and a standard deviation of 0.95, explores improvements in the way customers access products due to process innovation strategies. The lower mean compared to previous statements may indicate a somewhat lesser degree of consensus among respondents on the effectiveness of process innovations in enhancing product accessibility for customers, with a moderate spread in responses.

The sixth statement focusing on the development of innovative processes to serve customers better has a mean of 4.21 and a standard deviation of 0.67. This suggests a strong agreement among respondents that the firms have indeed developed innovative processes aimed at enhancing customer service, with a relatively tight clustering of responses around the mean. Finally, the overall mean score for process innovations is 3.96 with a standard deviation of 0.80, indicating a general positive perception of process innovations across the surveyed firms. This suggests that respondents collectively view process innovations as beneficial in improving service delivery, output quality, and cost efficiency.

4.4.4 Market Innovations

The mean as well as standard deviation for the precise attributes of market innovations are as presented in Table 4.9. The outcomes show that insurance firms promote market

innovations to a large extent. The results reveal that the respondents' perception of the firm's market innovations is moderately positive, as indicated by a mean score of 3.57 and a standard deviation of 0.70.

TABLE 4.9
Descriptive Statistics for Market Innovations

Statements	N	Mean	Std. Dev
This business promotes all of its goods and services	126	3.71	0.68
Prices established by this company are not constant, ensuring the capability for projected innovation	126	3.75	0.43
The firm main goal in its market innovation strategy is to increase the quality of its services	126	3.40	0.69
This firm offers unique customer service around the clock	126	3.86	0.59
This firm continuously markets itself through digital channels	126	3.50	0.97
This firm continuously ventures into new markets	126	3.18	0.78
Overall Mean Score	**126**	**3.57**	**0.70**

The first statement, which implies that the business promotes all of its goods and services, has a mean of 3.71 and a standard deviation of 0.68. This suggests that respondents generally agree that their firms are active in promoting their offerings, with a moderate dispersion in the responses. The second statement, discussing the variable nature of prices established by the company to ensure the capability for projected innovation, displays a mean of 3.75 and a low standard deviation of 0.43. This suggests a generally positive agreement among respondents about the flexible pricing strategies adopted by their firms, with responses being relatively concentrated around the mean.

The third statement, about the firm's main goal in its market innovation strategy being to increase the quality of its services, shows a slightly lower mean of 3.40 with a

standard deviation of 0.69. This indicates a lesser degree of agreement among respondents regarding whether the primary objective of market innovation strategies is to enhance service quality, and the responses are moderately spread around the mean. The fourth statement examines the provision of unique customer service around the clock, with a mean of 3.86 and a standard deviation of 0.59. This reveals a relatively high level of agreement among respondents that their firms offer distinct and continuous customer service, with a moderate level of dispersion in responses.

The fifth statement, discussing continuous marketing through digital channels, has a mean of 3.50 and a higher standard deviation of 0.97. This denotes a moderate level of agreement among respondents about the firms' use of digital channels for continuous marketing, with a wider range of opinions on this aspect. The sixth statement, indicating that the firm continuously ventures into new markets, has the lowest mean of 3.18 with a standard deviation of 0.78. This suggests a less pronounced agreement among respondents that their firms are actively exploring new markets, with a moderately wide spread in responses reflecting varied perceptions or experiences among respondents. Finally, the overall mean score for market innovations is 3.57 with a standard deviation of 0.70. This average score suggests a moderate level of agreement among respondents on the implementation and effects of market innovations across the surveyed firms, with varied experiences or perceptions as indicated by the standard deviation.

4.4.5 Organizational Performance

Table 4.10 provides an in-depth look into how insurance firms in Kenya, perceive their organizational performance across various dimensions. Each statement evaluates different aspects of organizational performance, with both mean and standard deviation values included for each statement.

TABLE 4.10
Descriptive Statistics for Organizational Performance

Statement	N	Mean	Std. Dev.
Profitability	126	4.33	0.69
Customer satisfaction	126	3.75	0.93
Market share	126	3.87	1.01
Efficacy in attending to clients	126	3.95	0.96
Operational efficiency	126	3.87	1.01
Learning and Innovation	126	4.32	0.53
Employee satisfaction	126	3.91	1.16
Average	**126**	**4.00**	**0.87**

Firstly, the statement regarding profitability has a mean of 4.33 and a standard deviation of 0.69, suggesting that respondents generally perceive their organizations as being profitable, with a moderately low dispersion of opinions around this. The second statement, relating to customer satisfaction, has a mean of 3.75 and a standard deviation of 0.93. This indicates a lower, yet still positive, level of agreement among respondents on customer satisfaction levels, with a wider spread of opinions, possibly reflecting varied customer experiences or perceptions of satisfaction across different firms or respondents.

The market share and operational efficiency both have a mean of 3.87, but with a standard deviation of 1.01, hinting at a positive average perception but with quite a broad range of opinions around these aspects, possibly due to differing market conditions, operational practices, and competitive environments among the surveyed firms. The efficacy in attending to clients has a slightly higher mean of 3.95 with a standard deviation of 0.96, signifying a generally positive perception of the firms' responsiveness to clients, yet with a considerable variability in responses, reflecting perhaps differing service levels or client interactions across firms.

Learning and innovation have the second-highest mean of 4.32, with a relatively low standard deviation of 0.53, illustrating a strong, shared belief among respondents in their firms' capabilities in learning and innovation with minimal variability in responses, indicative of a widespread, positive organizational culture around learning and innovation. Employee satisfaction has a mean of 3.91, but with the highest standard deviation of 1.16. This shows a generally positive average perception about employee satisfaction, but the high standard deviation suggests diverse opinions or experiences among employees regarding their satisfaction levels, possibly due to varied workplace cultures, policies, or conditions across firms. Lastly, the overall average mean for organizational performance is 4.00, with a standard deviation of 0.87, indicating a generally positive perception of organizational performance among the surveyed insurance firms in Kenya, with moderate variability in responses.

The respondents in the insurance firms in Kenya generally perceive their organizations as performing well across various domains, such as profitability, learning, and innovation. However, the varying levels of means and standard deviations across different performance aspects suggest diverse experiences and perceptions among respondents, reflecting potential differences in organizational practices, cultures, market conditions, and competitive environments. The findings emphasize the importance of exploring underlying factors influencing organizational performance and addressing areas with lower perceived performance or higher variability in perceptions for enhanced organizational success.

4.5 Diagnostic Tests

Assuming that the data follows all the assumptions of ordinary least square when performing statistical modus operandi such as correlations, regression, t-tests, and variance

analysis. These analyses need to be verified since they include statistical flaws. To check for these statistical mistakes, this study checked for normalcy, multicollinearity, and heteroskedasticity. This was done to see whether the data set could be effectively modelled. To test normality, we used Shapiro-Wilk's test. Variance inflation factors and tolerance were used to examine multicollinearity and Levene's test was used to examine heteroskedasticity. The outcomes of various statistical tests are shown in this subsection.

4.5.1 Tests of Normality

The Shapiro-Wilk test was used to look for normalcy. This test looks for skewness, kurtosis, or both to evaluate how normal the data are. The Shapiro-Wilk statistic has a range of 0 to 1, and values higher than 0.05 are indicative of normal data. The data significantly deviates from the normal distribution when it is less than 0.05. Data normality was verified using the Shapiro-Wilk test, and the results indicated that all variables had a p-value larger than 0.05 ($p > 0.05$). The notion that the sample distribution of the mean is normal is referred to as "normality". The results of the normalcy test are shown in Table 4.11.

TABLE 4.11
Test of Normality

	Shapiro-Wilk		
Study variables	Statistic	Df	Sig.
Technological innovations	0.826	126	0.171
Product innovations	0.871	126	0.178
Process innovations	0.877	126	0.191
Market innovations	0.895	126	0.201
Organizational performance	0.926	126	0.220

Table 4.11's findings show that all of the p values are higher than the threshold value of 0.05, supporting the theory that the data came from a population with a regularly distributed distribution.

4.5.2 Tests of Multicollinearity

Multicollinearity is the term for when there is a considerable amount of correlation between independent variables. To examine multicollinearity, one uses the variance inflation factor (VIF). The VIF counts the amount that the estimated coefficient's variance is exaggerated in the absence of any connection between the independent variables. If there is no correlation between two independent variables, all VIFs will be 1. A VIF of 5 indicates some multicollinearity, whereas a VIF of 10 indicates severe multicollinearity. The variance inflation factor (VIF), which was used to this study's multicollinearity test, is displayed in the results. The opposite of variance inflation factor, tolerance measures the effect of one independent variable on all other independent variables. Table 4.12 displays the test outcomes.

TABLE 4.12
Test of Multicollinearity

Variable	VIF	Tolerance
Technological innovations	2.463	0.406
Product innovations	1.937	0.516
Process innovations	2.679	0.373
Market innovations	3.422	0.292
Mean VIF	2.625	

All of the variables had a VIF between 1.937 and 3.422, according to the results in Table 4.12, and tolerance values ranged from 0.292 to 0.516. This demonstrated the absence of multicollinearity in the independent variables.

4.5.3 Tests of Heteroscedasticity

When the variance of the errors in the dependent variable is not constant over the whole set of data, heteroscedasticity takes place. It happens when the values of the independent variables change the variance of errors. Heteroscedasticity in regression analysis is a systematic change in the dispersion of the residuals over the spectrum of measured values.

Ordinary least squares regression makes the assumption that residuals come from a population with constant variance. High levels of heteroscedasticity in this regression can significantly skew the outcomes, undermine the analysis, and increase the likelihood of a type 1 error. In this study, homogeneity was assessed using heteroscedasticity Breusch-Pagan/Cook-Weisberg test. The variances between groups are unequal if the Breusch-Pagan/Cook-Weisberg test for heteroscedasticity is statistically significant = 0.05. It is a test to examine if the scores in the variables have about the same dispersion. The outcomes are displayed in Table 4.13.

TABLE 4.13
Test of Heteroscedasticity

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity		
chi2(1)	=	0.7918
Prob > chi2	=	0.6136

Table 4.13 demonstrates that the null hypothesis of homoskedastic error terms is not rejected with a p-value of 0.6136.

4.6 Correlation Analysis

The correlation result reveals significant relationships between organizational performance and the independent variables, specifically technological innovations, product innovations, process innovations, and market innovations among insurance firms in Kenya. The results are as shown in Table 4.14. There is a strong positive and significant correlation between organizational performance and technological innovations, with a Pearson Correlation of .722 and a significance level of .000. This implies that enhancements in technological innovations within the insurance firms are closely associated with improvements in organizational performance, suggesting that technology plays a pivotal role in organizational success. The correlation between organizational performance and product

innovations is even stronger, at .924 with a significance level of .000. This indicates that improvements in product innovations have a very strong positive impact on organizational performance. This high correlation suggests that product innovation is crucial for insurance firms, potentially due to the competitive advantages gained through the diversification and enhancement of product offerings.

TABLE 4.14
Correlation Results

		Organizational performance	Technological innovations	Product innovations	Process innovations	Market innovations
Organizational performance	Pearson Correlation	1				
	Sig. (2-tailed)					
Technological innovations	Pearson Correlation	.722**	1			
	Sig. (2-tailed)	.000				
Product innovations	Pearson Correlation	.924**	.541**	1		
	Sig. (2-tailed)	.000	.000			
Process innovations	Pearson Correlation	.949**	.552**	.525**	1	
	Sig. (2-tailed)	.000	.000	.000		
Market innovations	Pearson Correlation	.572**	.497**	.429**	.569**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed).
b. Listwise N=126

The correlation between organizational performance and process innovations is also extremely strong and positive, with a correlation of .949 and a significance level of .000. This implies that advancements in process innovations are strongly related to elevated organizational performance, pointing out the importance of optimized and innovative processes in achieving superior performance in the insurance sector. Market innovations have a positive and significant, but comparatively weaker, correlation with organizational performance, with a coefficient of .572 and a significance level of .000. This denotes that while innovations in market strategies do impact organizational performance positively, the relationship is not as strong as with the other variables.

4.7 Regression Analysis

Using regression analysis enabled the researcher to evaluate the influence of technological innovations, product innovations, process innovations, and market innovations on organizational performance as well as the association between changes in the independent variables and changes in organizational performance. Model fitness, Analysis of Variance (ANOVA), and regression coefficients are all included in the regression analysis. This is shown in the tables below, Tables 4.15, 4.16 and 4.17.

TABLE 4.15
Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.967[a]	.935	.933	.226031

a. Predictors: (Constant), Market innovations, Product innovations, Technological innovations, Process innovations

As shown in Table 4.15, market innovations, technological innovations, process innovations, and product innovations) explain approximately 93.5% of the variance in the dependent variable. This suggests that these predictors have a significant effect on the outcome variable, with other factors beyond the scope of the study explaining the remaining variance. The model that links the variables is also founded to be sufficient. The R value signifies the correlation coefficient between the predictors and the dependent variable. In this case, the value of R is 0.967, indicating a strong positive correlation between the predictors and the dependent variable. This suggests that the predictors collectively explain a substantial portion of the variance in the dependent variable.

TABLE 4.16
Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	88.620	4	22.155	433.649	.000[b]
	Residual	6.182	121	.051		
	Total	94.802	125			

a. Dependent Variable: Organizational performance
b. Predictors: (Constant), Market innovations, Product innovations, Technological innovations, Process innovations

The F value of 433.649 and the sig. value of 0.000 indicate that the regression model as a whole is statistically significant. This suggests that the predictors (market innovations, technological innovations, process innovations, and product innovations) have a significant impact on the dependent variable (organizational performance), and the model provides a better fit than just relying on chance alone.

TABLE 4.17
Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.073	.179		5.992	.000
	Technological innovations	.217	.047	.283	4.613	.000
	Product innovations	.248	.061	.257	4.057	.000
	Process innovations	.685	.061	.713	11.151	.000
	Market innovations	.397	.066	.320	5.978	.000

a. Dependent Variable: Organizational performance

The regression coefficient table revealed that the p-value for the coefficient of technological innovations is 0.000. Since this value is less than the conventional significance level of 0.05, it is concluded that the coefficient for technological innovations is statistically significant. This suggests that there is a significant effect of technological innovations on organizational performance. The p-value for the coefficient of product innovations is 0.000. Similar to technological innovations, this p-value is less than 0.05,

indicating that the coefficient for product innovations is statistically significant. Thus, there is a significant effect of product innovations on organizational performance.

The p-value for the coefficient of process innovations is 0.000. Once again, this p-value is less than 0.05, indicating statistical significance. Therefore, there is a significant effect of process innovations on organizational performance. The p-value for the coefficient of market innovations is 0.000. Similar to the other predictors, this p-value is less than 0.05, indicating statistical significance. Hence, there is a significant effect of market innovations on organizational performance.

The following is the regression model that was estimated from the study results:

$$\mathbf{Y = 1.073 + 0.283X_1 + 0.257X_2 + 0.713X_3 + 0.320X_4}$$

Where

Y = Organizational performance,

X_1 – Technological innovations,

X_2 – Product innovations,

X_3 – Process innovations,

X_4 – Market innovations

4.8 Hypothesis Testing

With the use of multiple linear regressions, the hypotheses were evaluated. Results of multiple regression are shown in Table 4.17. According to the acceptance/rejection criterion, the Ho is accepted if the p value is more than 0.05 but rejected if it is less than 0.05.

4.8.1 Technological Innovations and Organizational Performance

The first null hypothesis, H_{01}, stated that: technological innovations has no substantial effect on performance of insurance firms in Kenya. The results of Table 4.17 indicate that the p-value was 0.000 which is less than 0.05. This shows that the null hypothesis is rejected, proving that technological innovations significantly affect the performance of insurance firms in Kenya. Technological innovations have a positive and substantial effect on the performance of insurance firms in Kenya ($\beta = 0.283$, $p = 0.000$). This suggests that there is a significant influence of technological innovations on organizational performance.

The finding that technological innovations have a positive and substantial impact on the performance of insurance firms in Kenya, aligns with empirical studies conducted by various researchers, highlighting the universally transformative role of technology across diverse sectors and regions. Fatema and Islam (2021) found that technological innovations significantly impact the overall performance of Indian manufacturing enterprises, emphasizing the pivotal role of both product and process innovation. This study echoes the importance of technological innovations discovered in Kenyan insurance firms, suggesting a universal applicability of technology's role in enhancing organizational performance. Similarly, Sawng et al. (2018) in their research on Korean export companies, highlighted the critical necessity of adopting advanced technologies in enhancing company performance. Their findings emphasize that technological convergence is imperative for service companies aiming for innovation in global markets, accentuating the ubiquity and essentiality of technological innovations in fostering organizational growth and competitiveness, aligning well with the outcomes of the Kenyan study.

The research by Zhu et al. (2018) demonstrated that elements such as government subsidies, investments, and R&D expenditure have a considerable positive impact on an

organization's technological innovation performance, especially in knowledge-based businesses. This aligns with the Kenyan study by confirming the broader implications of technological innovations on an organization's performance across varied high-tech sectors, reinforcing the theory that technology acts as a catalyst for operational excellence, financial gain, and overall organizational advancement in diverse industrial landscapes.

Alraja et al. (2022), through their lifecycle approach to technological process innovation, unveiled that technology and organizational change are highly interconnected, and the degree of process standardization is largely dependent on the type of processes developed. This insight is pivotal as it highlights how technological innovations are not mere additives to organizational ecosystems but are intrinsic components that drive structural and functional evolution within organizations, resonating well with the findings of the Kenyan insurance firms, emphasizing the substantial role technology plays in refining internal processes and improving overall organizational efficacy.

4.8.2 Product Innovations and Organizational Performance

The second null hypothesis, H_{02}, stated that: product innovations has no significant effect on performance of insurance firms in Kenya. Table 4.17 outcomes display that the p-value was 0.000<0.05. This designates that the null hypothesis is rejected hence there is a significant effect of product innovations on performance of insurance firms in Kenya. Product innovations have a positive and substantial effect on the performance of insurance firms in Kenya ($\beta = 0.257$, $p = 0.000$). The study results show that product innovations is a significant determinant of performance.

The discovery that product innovations have a robust and substantial impact on the performance of insurance firms in Kenya is in sync with several empirical studies across various sectors and regions, indicating the universally acknowledged role of product

innovation in organizational performance. Keter (2021) found that strategic innovations, such as the implementation of new billing and smart meter technologies by KPLC, led to improved customer understanding and satisfaction due to their efficiency and added value. This echoes the Kenyan insurance firms' results, showcasing how specialized products or services that cater directly to customer needs can significantly boost firm performance. The positive response from KPLC's clients towards implemented innovations is a testament to the significant benefits and acceptance that well-executed product innovations can bring to a company.

Sattayaraksa and Boon-itt (2018) investigated the influential role of organizational leadership, specifically transformational leadership of the CEO, in the success of product innovation. Their findings revealed that transformational leadership has a substantial impact on organizational learning and innovation culture, which in turn significantly affects product innovation performance. This aligns with the Kenyan study by highlighting how leadership and organizational characteristics can act as catalysts to drive successful product innovations, enhancing overall organizational performance.

Darawong (2018) emphasized the importance of dynamic capabilities like learning, detecting, and integrating in new product development teams for improving project effectiveness and efficiency in the manufacturing sector. This is coherent with the findings of the Kenyan study, illustrating that organizations equipped with these capabilities tend to have more successful projects, which positively impacts the firm's performance. According to Darawong's study, organizations seeking product effectiveness should consider investments in ICT and create opportunities for team members during new product creation, reinforcing the notion that well-executed product innovations are crucial for organizational success.

Fouad, Tourabi, and Lakhanati (2018) in their research in the Moroccan fish sector, demonstrated the profound impact of innovation processes on the performance of new products. Their findings highlight the importance of having a modernized value chain that supports product innovation, with the study suggesting that expediting innovation activities can significantly improve innovative product performance over the medium term. This corroborates the Kenyan study, accentuating how product innovations, coupled with a supporting value chain and efficient execution, can lead to enhanced organizational performance by enabling quick market entry with high-quality products.

4.8.3 Process Innovations and Organizational Performance

The third null hypothesis, H_{03}, stated that: process innovations has no significant effect on performance of insurance firms in Kenya. Results in Table 4.17 show that the p-value was 0.000<0.05. This indicates that the null hypothesis is rejected hence there is a significant effect of process innovations on performance of insurance firms in Kenya. Process innovations have a positive and substantial effect on the performance of insurance firms in Kenya ($\beta = 0.713$, $p = 0.000$). The study results show that process innovations is a significant determiner of performance.

Process innovations were found to have a positive and substantial effect on the performance of insurance firms in Kenya. This finding is in line with several empirical studies revealing the significant role of process innovations in different industries. Islam's (2022) study in the Indian service industry highlighted the critical impact of process innovation on both financial and nonfinancial performance of service organizations. This study aligns with the findings in the Kenyan insurance sector, indicating that process innovation significantly contributes to enhancing a firm's overall performance. This demonstrates that the incorporation of innovative processes can elevate the operational

efficacy of organizations across different sectors, validating the substantial impact observed in Kenyan insurance firms.

Schniederjans (2018) addressed the interaction between business process innovation, supply chain performance, and social quality management. The research emphasized the positive moderation of incremental business innovation in enhancing supply chain performance. However, it also pointed out that radical process innovation could have a negative moderating influence on the connection between social quality management and supply chain performance. This implies that while innovation in processes can significantly improve organizational functionality and supply chain performance, the nature and implementation of such innovations should be carefully considered to avoid adverse effects, correlating with the influential role of process innovations in Kenyan insurance firms.

Nguyen and Harrison (2018) highlighted the significance of leveraging customer knowledge to enhance process innovation and subsequently, organizational performance. The correlation between customer leverage, process innovation, and organizational performance underscores the value of integrating consumer insights into innovation strategies to bolster operational outcomes. This reinforces the relevance of process innovations in shaping the performance trajectory of organizations, including insurance firms in Kenya. Huesig and Endres (2018) illustrated the importance of adopting innovative software solutions for enhancing innovation management within organizations. They noted the positive influence of innovation management software on idea creation and scenario management, underscoring the potential of digital tools in refining the innovation process. This reveals that the assimilation of technology-driven process innovations is paramount in

fostering innovation management, resonating with the substantial impact of process innovations in the Kenyan insurance sector.

4.8.4 Market Innovations and Organizational Performance

The fourth null hypothesis, H_{04}, stated that: market innovations has no significant effect on performance of insurance firms in Kenya. Results in Table 4.17 show that the p-value was 0.000<0.05. This indicates that the null hypothesis is rejected hence there is a significant effect of market innovations on performance of insurance firms in Kenya. Market innovations have a positive and substantial effect on the performance of insurance firms in Kenya ($\beta = 0.320$, $p = 0.000$). The study results show that market innovations is a significant determiner of performance.

The established positive and substantial effect of market innovations on the performance of insurance firms in Kenya corroborates with findings from various empirical studies focusing on different industries and geographic locations, highlighting the universal relevance of market innovations in elevating organizational performance. YuSheng and Ibrahim's (2020) study on Ghanaian banks is particularly illuminating, revealing a direct, positive link between market innovation and bank performance. This denotes that, like in Kenyan insurance firms, the thoughtful implementation of market innovations can significantly bolster the performance of financial institutions, enabling them to better satisfy customer needs and navigate competitive market landscapes. The association between market, process, and product innovation dimensions and firm performance found in this study reinforces the notion that strategic innovation adoption is pivotal in enhancing organizational outcomes.

Similarly, the findings of Remirez, Parrra-Requena, Ruiz-Ortega, and Pedro (2018) suggest that the utilization of external information is influential in fostering market

innovation within manufacturing companies. Their study emphasizes the importance of leveraging external knowledge and organizational innovation in achieving effective market innovation. This reinforces the idea that the integration of external insights and organizational advancements can lead to the development of impactful market innovations, potentially leading to improved performance, as observed in the Kenyan insurance sector.

Jose, Cabanelas, Lampon, and Tania (2018) showcased how customer value generation and competitiveness are influenced by managerial relational capabilities and market innovation. Their study provides insights into the crucial role of translating customer knowledge and desires into tailored market offerings, highlighting the impact of relational management and market innovation on customer value creation and overall organizational performance. This suggests that insurance firms in Kenya could leverage market innovations to understand and meet customer needs effectively, enhancing their competitive stance in the market.

Moreover, Lui, Wai, Ngugi, and Takeda's (2017) study on UK SMEs manufacturing enterprises demonstrated the positive correlation between proactive entrepreneurial behavior, market innovation capability, and new product performance. It implied that fostering an environment that encourages proactive entrepreneurial behavior and customer and competitor orientation enhances innovation capabilities and new product performance. This insight is particularly relevant to the Kenyan insurance sector, underscoring the significance of cultivating an organizational culture that prioritizes entrepreneurship and innovation.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

A summary, a conclusion, and recommendations to policy and practice are presented in this chapter. With the goals of the study research, the summary, conclusion, and suggestions for research improvement are offered. There are also suggestions for further studies in this chapter.

5.2 Summary

The primary goal of the study was to determine how strategic innovations influences the performance of insurance firms in Kenya. The dynamic capabilities theory, resource-based view theory, agency theory and transaction cost economics theory served as the study's theoretical foundations. Performance of the organization was the dependent variable. Technological innovations, product innovations, process innovations, and market innovations served as independent variables. The study's research design used a descriptive survey approach. The target population consisted of each of 56 insurance firms in Kenya. The population was rather small; hence a census method was employed. 168 heads of operations, finance and marketing from insurance firms in Kenya were issued a structured questionnaire using Google forms in order to collect primary data. In response to the researcher's follow-up, 126 questionnaires were obtained, yielding a 75 percent response rate. Descriptive statistics, correlations, and regression analysis were employed in analyzing the data. With the use of a multivariate linear regression model and the t-statistic, it was possible to assess the perceived reputation of every independent variable in relation to its influence on performance. The research findings are described in this section.

5.2.1 Technological Innovations and Organizational Performance

The research's first objective was to assess technological innovations influence on performance of insurance firms in Kenya. The descriptive results reflect a prevalent positive perception and experience with technological innovations among the surveyed insurance firms in Kenya. They depict a scenario where technological innovations are perceived as successful, with skilled employees implementing customer-friendly, cutting-edge technologies that contribute to internal efficiency, transparency, and expansion of the firms' operational channels. The findings thus seem to validate the initial premise of the research that integrating strategic innovations can potentially enhance the performance of insurance firms, at least from the perspective of technological innovations.

The results also suggested that improving product innovations will improve organization performance. According to the regression results, a unit change in technological innovations resulted in a 0.283 variation in organization performance. This also confirmed that technological innovations approach had a significant positive influence on the performance of insurance firms in Kenya. This indicates that the null hypothesis is rejected hence there is a significant effect of process innovations on performance of insurance firms in Kenya.

5.2.2 Product Innovations and Organizational Performance

The research's second objective was to evaluate the influence of product innovations on the insurance firms' performance. The descriptive results reflect a predominantly positive outlook among the respondents from the insurance firms in Kenya. The consistently high mean scores across the statements signify a shared belief in the effectiveness and value of product innovations in enhancing the quality, diversity, and appeal of the firms' offerings,

albeit with varying degrees of consensus as evidenced by the respective standard deviations.

The results also suggested that improving product innovations will improve organization performance. The findings also revealed that a unit change in product innovations might lead in a 0.257 unit change in organizational performance of insurance firms in Kenya. This supported the notion that product innovations have a major impact on organization performance. The null hypothesis was rejected, and it was determined that product innovations had a significant effect on organizational performance.

5.2.3 Process Innovations and Organizational Performance

The research's third objective was to establish influence of process innovations on insurance firms' performance. The descriptive results indicate a prevalent positive perspective among respondents regarding process innovations in the sampled insurance firms in Kenya. The responses generally point to a belief that innovations in processes have had substantial positive impacts on product delivery, output quality, cost reduction, and customer service. However, the varying standard deviations across the statements suggest differing levels of agreement among respondents on the extent and areas of impact of these process innovations. These insights may underline the significance of optimizing operational processes as a strategic innovation for enhancing overall performance in insurance firms.

The regression results revealed that process innovations and organization performance among insurance firms in Kenya have a positive and significant link. The findings suggested that a shift in process innovations approach will boost insurance firms' performance in Kenya. The null hypothesis was rejected, and conclusion made that process innovations positively influences organizational performance of insurance firms in Kenya.

5.2.4 Market Innovations and Organizational Performance

The research's fourth objective was to establish influence of market innovations on insurance firms' performance. The descriptive results reveal a mixed perception among respondents. While there is general agreement that firms are engaging in innovative market practices such as flexible pricing and continuous customer service, the varying degrees of consensus and the lower mean scores on some statements suggest that there may be disparities in the experiences or perceptions of respondents regarding the extent and effectiveness of these market innovations. These insights could be pivotal for firms aiming to bolster their market strategies and address potential disparities in the implementation and impact of market innovations.

The regression results revealed that market innovations and organization performance among insurance firms in Kenya have a positive and significant link. The findings suggested that a shift in market innovations will boost insurance firms' performance in Kenya. The null hypothesis was rejected, and conclusion made that market innovations positively influences organizational performance of insurance firms in Kenya.

5.3 Conclusions

The conclusions derived from the study findings for each of the research goals are presented in this section.

5.3.1 Technological Innovations and Organization Performance

In conclusion, the study reveals a substantial and positive impact of technological innovations on the financial performance of insurance firms in Kenya, shedding light on the critical role innovation plays in the growth and sustainability of insurance companies in emerging markets. The examination of different dimensions of technological innovations offered a comprehensive insight into the multifaceted nature of innovative activities and

their respective implications on organizational outcomes. The findings highlight the importance of developing and implementing novel technological innovations in response to the dynamic needs and preferences of the consumer base.

Furthermore, the study underscores the vital synergy between technological innovations and performance, signaling that continuous investment in innovation is paramount for insurance firms aiming to achieve competitive advantage and enhanced profitability in Kenya's vibrant insurance sector. The integration of innovative technologies not only facilitates the optimization of operational processes but also contributes to the enrichment of customer experiences and the expansion of market reach.

The findings align with empirical studies conducted by various researchers, highlighting the universally transformative role of technology across diverse sectors and regions. Fatema and Islam (2021) found that technological innovations significantly impact the overall performance of Indian manufacturing enterprises, emphasizing the pivotal role of both product and process innovation. This study echoes the importance of technological innovations discovered in Kenyan insurance firms, suggesting a universal applicability of technology's role in enhancing organizational performance. Similarly, Sawng et al. (2018) in their research on Korean export companies, highlighted the critical necessity of adopting advanced technologies in enhancing company performance. Their findings emphasize that technological convergence is imperative for service companies aiming for innovation in global markets, accentuating the ubiquity and essentiality of technological innovations in fostering organizational growth and competitiveness, aligning well with the outcomes of the Kenyan study

5.3.2 Product Innovations and Organizational Performance

The investigation of the insurance sector in Kenya divulged a substantial positive correlation between product innovations and organizational performance accentuating the paramount role of product innovation in enhancing the vitality and operational prosperity of insurance companies in the region. This conclusive relationship signifies that the devising and incorporation of novel products and services are instrumental in aligning companies with the evolving demands and aspirations of their customer base, subsequently contributing to organizational advancement and robustness. It underlines the necessity for insurance firms to perpetually rejuvenate their product portfolio to maintain relevance and competitiveness in the dynamic market landscape of Kenya.

Moreover, these findings are consistent with several preceding empirical studies, which have demonstrated the transformative impact of product innovations on organizations across diverse sectors and geographical contexts. The positive repercussions of product innovations are not confined to amplified financial gains but also extend to enhanced customer satisfaction and organizational adaptability, reinforcing the strategic significance of innovation in organizational sustenance and evolution. This comprehension of the product innovation-organizational performance nexus offers invaluable insights for insurance firms, policy architects, and academia, aiding the formulation of informed strategies and policies aimed at fostering innovation and organizational excellence in the insurance sector.

The discovery that product innovations have a robust and substantial impact on the performance of insurance firms in Kenya is in sync with several empirical studies across various sectors and regions, indicating the universally acknowledged role of product innovation in organizational performance. Keter (2021) found that strategic innovations,

such as the implementation of new billing and smart meter technologies by KPLC, led to improved customer understanding and satisfaction due to their efficiency and added value. This echoes the Kenyan insurance firms' results, showcasing how specialized products or services that cater directly to customer needs can significantly boost firm performance. Darawong (2018) emphasized the importance of dynamic capabilities like learning, detecting, and integrating in new product development teams for improving project effectiveness and efficiency in the manufacturing sector. This is coherent with the findings of the Kenyan study, illustrating that organizations equipped with these capabilities tend to have more successful projects, which positively impacts the firm's performance

5.3.3 Process Innovations and Organizational Performance

The study on insurance firms in Kenya has established a significant and positive relationship between process innovations and the organizational performance. This underscores that refinements and advancements in operational processes within insurance companies in Kenya play a pivotal role in enhancing organizational outcomes and overall business efficiency. The optimization of processes through innovations is crucial in driving organizational success by enabling the efficient utilization of resources, reducing operational bottlenecks, and improving service delivery, ultimately leading to elevated levels of customer satisfaction and enhanced financial performance for insurance entities operating in the dynamic Kenyan market.

In essence, the positive impact of process innovations on organizational performance resonates with findings from various global studies across different industrial domains, reinforcing the universal relevance and importance of innovating operational processes in achieving superior organizational outcomes. This insight is paramount for

insurance firms, guiding them to invest strategically in process innovations to streamline operations, improve service delivery and gain a competitive edge in the market.

This finding is in line with several empirical studies revealing the significant role of process innovations in different industries. Islam's (2022) study in the Indian service industry highlighted the critical impact of process innovation on both financial and nonfinancial performance of service organizations. This study aligns with the findings in the Kenyan insurance sector, indicating that process innovation significantly contributes to enhancing a firm's overall performance. This demonstrates that the incorporation of innovative processes can elevate the operational efficacy of organizations across different sectors, validating the substantial impact observed in Kenyan insurance firms. Schniederjans (2018) addressed the interaction between business process innovation, supply chain performance, and social quality management. The research emphasized the positive moderation of incremental business innovation in enhancing supply chain performance.

5.3.4 Market Innovations and Organizational Performance

The exploration of market innovations in insurance firms in Kenya yields a substantial positive impact on organizational performance. This illustrates the paramount role of market innovations in amplifying the competitive advantage of insurance firms in Kenya, affecting both market reach and penetration. Market innovations such as development of new market strategies, introduction of unique insurance products, and enhancement in customer relationship management, are pivotal in tailoring value propositions that resonate with the dynamic needs and preferences of the consumers in the Kenyan insurance market. These innovations help in securing a better market position, gaining customer loyalty, and improving overall organizational performance.

Consequently, this substantial effect of market innovations on organizational performance mirrors insights from numerous empirical studies conducted across different sectors and geographical locations. The universal implications of these findings emphasize the criticality of continuous innovation in market strategies to cater to the evolving consumer demands and market trends. Insurance firms, irrespective of their operational scale or geographic location, can leverage this knowledge to enhance their market-oriented innovations, which is crucial for sustaining growth and achieving long-term success in today's intensely competitive and ever-evolving market landscapes.

The findings of the study corroborate with findings from various empirical studies focusing on different industries and geographic locations, highlighting the universal relevance of market innovations in elevating organizational performance. YuSheng and Ibrahim's (2020) study on Ghanaian banks is particularly illuminating, revealing a direct, positive link between market innovation and bank performance. This denotes that, like in Kenyan insurance firms, the thoughtful implementation of market innovations can significantly bolster the performance of financial institutions, enabling them to better satisfy customer needs and navigate competitive market landscapes. Similarly, the findings of Remirez, Parrra-Requena, Ruiz-Ortega, and Pedro (2018) suggest that the utilization of external information is influential in fostering market innovation within manufacturing companies. Their study emphasizes the importance of leveraging external knowledge and organizational innovation in achieving effective market innovation. This reinforces the idea that the integration of external insights and organizational advancements can lead to the development of impactful market innovations, potentially leading to improved performance, as observed in the Kenyan insurance sector.

5.4 Recommendations of the Study

This study emphasizes the imperative need for insurance firms to integrate and prioritize various innovations to enhance organizational performance significantly. The recommendation of this study is to invest in technological innovations which have proven to significantly impact performance. This will require a strategic alignment of technological solutions with organizational goals and the creation of a conducive environment to facilitate the incorporation of new technologies, ensuring that all innovations are scalable, user-friendly, and can seamlessly integrate with existing systems.

Additionally, product innovations should be at the forefront, reflecting the evolving needs and preferences of consumers in the Kenyan market. Insurance companies need to develop a robust framework for continuous product development and enhancement. This includes fostering a culture of innovation within the organization, which encourages the generation of new ideas and solutions, coupled with the establishment of clear pathways for the implementation of these innovations. A customer-centric approach in product innovations is crucial, necessitating extensive market research and consumer insight studies to tailor products that are relevant and meet the specific needs of the market.

The study also suggests that process innovations significantly contribute to organizational performance, and it's recommended that insurance firms in Kenya continually refine and optimize their operational processes. Emphasizing lean management and operational efficiency should be paramount, with a focus on eliminating redundancies, reducing costs, and improving service delivery. Training and development programs should be implemented to equip employees with the necessary skills and knowledge to adapt to new processes, and continuous improvement mechanisms should be institutionalized to ensure that process innovations are sustained and refined over time.

Furthermore, market innovations are crucial for enhancing the organizational performance of insurance firms. Companies should allocate resources to develop and implement unique market strategies aimed at increasing market share and improving customer satisfaction and loyalty. These strategies should be underpinned by a profound understanding of the market dynamics and consumer behavior in Kenya. Regular market analysis and customer feedback should inform the development and refinement of market strategies to ensure they remain relevant and effective in the ever-evolving market landscape.

5.5 Research Areas for Further Studies

Given the significant findings in this study, future research could focus on a deeper exploration of the nuanced ways in which innovations, particularly technological and product innovations, interact with and impact organizational performance. It would be intriguing to investigate how different levels and types of innovations might influence various dimensions of organizational performance, such as employee productivity, customer satisfaction, and overall organizational efficiency. Comparative analyses between companies adopting varying degrees and kinds of innovations would offer more insights into optimal innovation strategies tailored to specific organizational needs and market contexts. Additionally, longitudinal studies could reveal the long-term impacts and sustainability of these innovations over time.

A potential avenue for future research could also involve examining the implications of innovations within different sectors of the economy in Kenya or contrasting the effects in developed and developing economies. Understanding how the effects of innovations in the insurance sector compare to those in sectors like manufacturing, healthcare, or education could illuminate sector-specific innovation needs and strategies.

Expanding the scope to include cross-cultural and cross-national comparisons would also offer a more comprehensive perspective on the universality or specificity of the innovation-performance linkage and might unveil unique innovation models that are contextually effective.

Furthermore, subsequent studies could delve into the organizational, cultural, and structural enablers and barriers to innovation within insurance firms. Investigating the internal and external factors influencing the adoption and implementation of innovations can provide a more holistic view of the innovation process in organizations. Detailed qualitative studies, including interviews, observations, and case studies, could offer rich insights into the contextual dynamics, challenges, and opportunities surrounding the adoption of innovations in insurance firms. This approach would contribute to a deeper and more nuanced understanding of the mechanisms through which innovations influence organizational performance and might illuminate pathways for facilitating a culture of innovation within organizations.

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APPENDICES

Appendix I: Introduction Letter

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RE: REQUEST FOR RESEARCH DATA

I am undertaking a degree in Master of Business Administration at KCA University and I am expected to submit a research paper on **"effect of strategic innovations on performance of insurance firms in Kenya"** as part of my course work**.**

To accomplish this, your company has been chosen to collect the data desired for this report. Your name will not be included in the research, and this info will be used solely for academic purposes. The research conclusions will be made availed on demand .

Kind regards.

Caroline Wairimu Njari

Masters Student – Researcher

KCA University

Appendix II: Questionnaire

This questionnaire has been premeditated to amass information on the effect of strategic innovations on performance of insurance firms in Kenya. Kindly read the questions thoroughly and respond as truthfully as possible. The collected information will be utilized only for scholarly study purposes and will be held with strict confidentiality.

Instructions

1. Tick appropriately
2. Please feel free to add some additional relevant information to the research.

PART A: BACKGROUND INFORMATION

1. Kindly indicate your gender

   a) Male ( )

   b) Female ( )

2. Please indicate your age

   (a) Below 30 years ( )

   (b) Between 31-40 years ( )

   (c) Between 41-50 years ( )

   (d) Above 50 years ( )

3. How long have you been in your current position?

   a) Less than 1 year ( )

   b) Between 2-3 years ( )

   c) Between 4-5 years ( )

   (d) More than 5 years ( ).

4. Please indicate the highest level of education

   (a) Diploma ( )

   (b) Undergraduate Degree ( )

   (c) Postgraduate Degree ( )

   (d) PhD ( )

PART B: STRATEGIC INNOVATIONS

This part has four sections; technological innovations, product innovations, process innovations and market innovations.

Technological innovations

In the likert scale offered answer the following questions regarding technological innovations to the best of your knowledge and ability. Where 5= Strongly Agree, 4 = Agree, 3= Neutral, 2= Disagree and 1= Strongly Disagree

Statement	**1**	**2**	**3**	**4**	**5**
The technological advancements used here are quite successful					
This company has employees who are skilled at implementing cutting-edge technologies					
Technology adopted at this firm is customer friendly					
The ICT system at this company has increased process accountability and transparency					
Internal processes in this company are exceedingly efficient because to the ICT system					
Technological innovations has enabled this firm to expand its channels					

Product innovations

Using the Likert scale offered respond to the following questions regarding product innovation to your best knowledge and ability. Where 5= Strongly Agree, 4 = Agree, 3= Neutral, 2= Disagree and 1= Strongly Disagree

Statement	**1**	**2**	**3**	**4**	**5**

This firm continuously develops new and appealing products					
Product developments have improved firm existing products					
This company has created new goods that vary from its earlier offerings					
Product innovation strategies at this firm develop new products that are diverse from competitors					
This company's product innovation methods have raised the quality of its current offerings.					
This firm offer a variety of current and relevant services					

Process innovations

Using the Likert scale offered to reply to the following questions relating to process innovation to your best knowledge and ability. Where 5= Strongly Agree, 4 = Agree, 3= Neutral, 2= Disagree and 1= Strongly Disagree

Statement	**1**	**2**	**3**	**4**	**5**
This business is committed to improving the way products are delivered					
Process innovation strategies have improved the output quality in methods, procedures, and software for machinery					
Process innovation strategies at this firm have lowered current products cost					
This company's process innovation methods have reduced the cost of its existing products in compared to rivals					

Process innovation strategies at this firm have improved the way customers access products					
This firm has developed innovative process to serve customers better					

Market innovations

Using the Likert scale offered respond to the following questions on market innovation to your best knowledge and ability. 5= Strongly Agree, 4 = Agree, 3= Neutral, 2= Disagree and 1= Strongly Disagree

Statement	**1**	**2**	**3**	**4**	**5**
This business promotes all of its goods and services					
Prices established by this company are not constant, ensuring the capability for projected innovation					
The firm main goal in its market innovation strategy is to increase the quality of its services					
This firm offers unique customer service around the clock					
This firm continuously markets itself through digital channels					
This firm continuously ventures into new markets					

PART C: ORGANIZATION PERFORMANCE

13. To what extent has the following improved at your firm? Use 1- No extent, 2-Little extent, 3-Moderate extent, 4- Great extent, 5- Very great extent

Component	**1**	**2**	**3**	**4**	**5**
Profitability					

Customer satisfaction					
Market share					
Efficacy in attending to clients					
Operational efficiency					
Learning and Innovation					
Employee satisfaction					

THANK YOU

Appendix III: Insurance Firms in Kenya

1. AAR Insurance Company Limited
2. Africa Merchant Assurance Company Limited
3. AIG Kenya Insurance Company Limited
4. Allianz Insurance Company of Kenya Limited
5. APA Insurance Limited
6. APA Life Assurance Company Limited
7. ABSA Life Assurance Kenya Limited
8. Britam General Insurance Company (K) Limited
9. Britam Life Assurance Company (K) Limited
10. Capex Life Assurance Company Limited
11. CIC General Insurance Limited
12. CIC Life Assurance Limited
13. Corporate Insurance Company Limited
14. Directline Assurance Company Limited
15. Fidelity Shield Insurance Company Limited
16. First Assurance Company Limited
17. GA Insurance Limited
18. GA Life Assurance Limited
19. Geminia Life Insurance Company Limited
20. Geminia Insurance Company Limited
21. ICEA LION General Insurance Company Limited
22. ICEA LION Life Assurance Company Limited
23. Intra Africa Assurance Company Limited
24. Invesco Assurance Company Limited
25. Jubilee Life Insurance Limited
26. Jubilee Allianz General Insurance (K) Limited
27. Jubilee Health Insurance Limited
28. Kenindia Assurance Company Limited

29. Kenya Orient Insurance Limited
30. Kenya Orient Life Assurance Limited
31. Kuscco Mutual Assurance Limited
32. Liberty Life Assurance Kenya Limited
33. Madison Life Assurance Kenya Limited
34. Madison General Insurance Kenya Limited
35. Mayfair Insurance Company Limited
36. Metropolitan Cannon Life Assurance Limited
37. Metropolitan Cannon General Insurance Company Limited
38. MUA Insurance (Kenya) Limited
39. Occidental Insurance Company Limited
40. Old Mutual Life Assurance Limited
41. Pacis Insurance Company Limited
42. Pioneer General Insurance Limited
43. Pioneer Assurance Company Limited
44. Prudential Life Assurance Kenya Limited
45. Resolution Insurance Company Limited
46. Sanlam General Insurance Company Limited
47. Sanlam Life Insurance Limited
48. Takaful Insurance of Africa Limited
49. Tausi Assurance Company Limited
50. The Heritage Insurance Company Limited
51. The Kenyan Alliance Insurance Company Limited
52. The Monarch Insurance Company Limited
53. Trident Insurance Company Limited
54. UAP Insurance Company Limited
55. UAP Life Assurance Company Limited
56. Xplico Insurance Company Limited

Source: IRA (2022)