STRATEGIC INNOVATION AND ORGANISATIONAL PERFORMANCE: INSIGHTS FROM INSURANCE COMPANIES IN NAIROBI CITY COUNTY, KENYA

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ABSTRACT

The insurance sector is vital for economic growth as it offers risk management options and financial protection to both individuals and companies. Insurance companies in Nairobi City County have experienced notable performance challenges over the past five years. The combined ratio (claims and expenses relative to premiums) has deteriorated from 85% in 2020 to 92% in 2024, indicating declining underwriting profitability. Thus, the current study aimed to explore the effect of strategic innovation on the performance of insurance companies in Nairobi City County, Kenya. The study's specific objectives were: to assess the effect of product innovation, market innovation, process innovation, and technological innovation on the performance of insurance companies in Nairobi City County, Kenya. The research was directed by Diffusion of Innovation Theory, Schumpeter's Theory of Entrepreneurial Innovation, and the Balanced Scorecard Model. The research utilized a descriptive research design. The population targeted was 42 insurance companies operating in Nairobi City County, where the unit of observation was 168 participants encompassing 42 chief executive officers, 42 innovation managers, 42 operations managers, and 42 ICT managers. Since the target population was small and manageable, the entire population was included in the sample size, resulting in a total of 168 participants. Primary and secondary data were collected. Questionnaires were utilized to gather primary data from the chosen participants through drop and pick methods. Secondary data were acquired from websites of Insurance Regulatory Authority (IRA) and company annual reports. The inferential statistics were utilized to analyze the gathered data. The findings showed that, with an R2 of 0.659, the strategic innovation components; product innovation, market innovation, process innovation, and technical innovation collectively account for 65.9 percent of the performance of insurance businesses in Nairobi City County, Kenya. Also, a significant positive correlation of R = 0.812 was observed, indicating that these strategic innovation characteristics had a substantial combined effect on performance. The study concluded that strategic innovation approaches, particularly those connected to technological, process, market, and product innovations, play a crucial role in enhancing the performance of insurance firms in Nairobi City County, Kenya. It recommended that managers in these companies should concentrate on continuously strengthening their innovation frameworks though establishing a favourable regulatory environment for implementing strategic innovation best practices within Kenya's insurance industry, as well as structured technology investment and staff capacity-building programs to enhance innovation capabilities.

Keywords: Strategic innovation, product innovation, market innovation, process innovation, technological innovation, organizational performance.

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INTRODUCTION

Organizational performance functions as a crucial element of strategic management because it evaluates how well organizations achieve their objectives while maintaining operational activities throughout their existence (Mwangi & Iraya, 2021). The performance of insurance companies worldwide has gained critical importance because their activities support economic stability while they manage risks and promote financial access (Chen & Wang, 2023). The insurance market in the United States reached advanced development during 2023 when total premiums exceeded USD 2.8 trillion (Insurance Information Institute, 2024). Smith and Johnson (2023) document that leading American insurance companies generated 11.2% return on equity throughout 2023 because of their implementation of digital transformation and data-based underwriting methods.

Al-Mansouri and Ahmed (2023) reported that the United Arab Emirates insurance sector experienced fast development which resulted from three factors. The sector reached AED 53 billion in gross premiums in 2023 which represented a 7.2% annual growth rate from 2020 to 2023. Digital distribution methods and customer-friendly products enabled Emirates and Oman Insurance to increase their market share (Al-Hashimi & Mohammed, 2024). Mobile-first strategies received adoption from 72% of organizations which resulted in improved customer acquisition and retention rates. Insurers which dedicated funds to innovation projects achieved 14.5% average ROE while traditional companies reached 8.3% ROE (Rahman & Abdullah, 2023). The research results demonstrate that strategic innovation delivers major competitive benefits to companies which operate in developing markets that experience rapid growth through digital technology development.

In South Africa, the insurance sector experienced operational challenges because of economic downturns and complicated rules and market power held by major companies (Naidoo & Pillay, 2024). Mbatha and Dlamini (2023) report that only 45% of insurers achieved ROE above 12% because their claims ratios and operational inefficiencies restricted them. The big five control about 85% of the market, which creates obstacles that prevent smaller companies from entering the industry. Van Der Merwe and Botha (2024) discovered that companies which spent money on process innovation and technology experience 25% quicker claims resolution and 18% improved customer satisfaction. The market size reaches ZAR 485 billion yet only 15% of GDP shows actual market penetration, which indicates potential for expansion. The small insurance companies fail to adopt innovation because of their resource shortages, which shows the need for specific strategic frameworks that will help them, develop technology and boost their business outcomes.

The insurance sector gives about 2.83% to Kenya's national GDP and had 58 licensed companies as of 2023 (Insurance Regulatory Authority, 2024). The industry operates 42 firms throughout the city which makes Nairobi its primary business center. The sector experienced a decrease in performance because its profits decreased from KES 17.2 billion in 2020 to KES 12.8 billion in 2023. Mwangi, Kamau and Ochieng (2023) discovered that only 38% of Nairobi insurers achieved their growth objectives while their ROE decreased from 13.5% to 9.2%. The

organization faces three main obstacles which include restricted ability to develop new products, outdated technological infrastructure and fierce competition from insurtech startups. The research shows that 62% of conventional insurance companies do not have specific units for product innovation while 71% of them find it difficult to recruit employees with digital skills. Customers who were dissatisfied with the slow claims process and the limited product options resulted in a 23% customer departure rate. Strategic innovation practices need empirical research because the results show that they create important performance gaps in understanding their effect on Kenyan insurance operations.

Statement of the Problem

The insurance sector serves as a vital component of Kenya's financial system through its two main functions which generate 2.83% of national GDP and deliver essential risk protection services to both individuals and businesses (Insurance Regulatory Authority, 2024). The Nairobi City County functions as Kenya's main hub for the insurance sector because it contains 42 of the country's 58 authorized insurance companies. The insurance companies based in Nairobi have encountered major operational difficulties despite having established their primary business operations in this region. The industry experienced a 14.2% increase in gross written premiums between 2020 and 2023 yet profitability saw an 18.5% decline which demonstrates the company's rising operational challenges and increasing market competition (Association of Kenya Insurers, 2024). The company experienced a decrease in return on equity which fell from 12.8% in 2020 to 8.9% in 2023 thus failing to meet the financial services sector benchmark of 15.2%.

The existing literature shows strong links between strategic innovation and organizational performance across different industries. The research conducted by Chen and Wang (2023) shows that financial institutions achieve better financial results and higher market position through their innovation capacity. The study examines financial services as a whole but it does not show how low insurance penetration rates at 2.8% of GDP and complex regulations and competition from insurtech disruptors influence innovation outcomes and firm performance (Mwangi, Kamau & Ochieng 2023). A research by Kimani and Njoroge (2024) revealed that most insurance companies in Nairobi struggle to implement innovation, with 71% of companies facing challenges which lead to a decline in market share and consumer satisfaction. The study further showed that many insurers lack innovation structures 62% of the insurers did not have dedicated innovation units and 68% of the insurers experienced problems when they attempted to use new technologies. Customer churn reached 23% because of slow claims processing and limited product options and inadequate digital service delivery. The ongoing existence of these problems demonstrates that insurance companies in Nairobi need to improve their operational performance because they fail to create effective strategic innovations for their business operations and existing research fails to demonstrate the impact of particular strategic innovations on their key performance metrics. Therefore, this research aimed to address these gaps by establishing the strategic innovation effect on the performance of insurance companies in Nairobi City County, Kenya.

Objectives of the study

i. To assess the product innovation effect on the performance of insurance companies in Nairobi City County, Kenya.
ii. To explore the market innovation effect on the performance of insurance companies in Nairobi City County, Kenya.
iii. To establish the process innovation effect on the performance of insurance companies in Nairobi City County, Kenya.
iv. To determine the technological innovation effect on the performance of insurance companies in Nairobi City County, Kenya.

REVIEW OF LITERATURE

Theoretical Review

Diffusion of Innovation Theory

Everett Rogers developed Diffusion of Innovation Theory in 1962 but the theory has been updated multiple times since then the fifth edition arrived in 2003. The theory clarifies how, why, and at what rate new ideas, technologies, and practices spread via social systems and organizations (Rogers, 2003). According to Dearing and Cox (2023), the theory demonstrates innovation adoption through five stages which include knowledge, persuasion, decision and execution and confirmation. The theory categorizes five crucial features that affect adoption rates: relative advantage (the extent to which people see an innovation as more valuable than current options) and compatibility (how well the system matches users existing beliefs and their personal experiences and their actual requirements) and complexity (the level at which users find it hard to comprehend and operate the new system) and trialability (the degree to which users can test the new system) and observability (the degree to which people can see the outcomes of the new system).

The theory explains variations in strategic innovation adoption rates among companies. Insurers who identify substantial technological benefits from artificial intelligence and blockchain innovations will adopt these technologies at higher rates because they expect operational improvements and better customer experiences (Eling & Lehmann, 2022). Companies with flexible organizational structures will adopt new process innovations because their existing organizational culture and infrastructure make it easier to implement workflow improvements. Organizations adopt product innovations based on their complexity because customers prefer to use simple products which require minimal understanding rather than complex items (Talke & Heidenreich, 2021). Market innovation adoption depends on observability because successful early adopter market penetration of new segments will motivate other insurers to adopt similar approaches. The theory holds importance for the research because it creates a framework which helps researchers understand the different success rates between insurance companies that implement strategic innovations and those which do not their operational environments.

Schumpeter's Theory of Entrepreneurial Innovation

Joseph Schumpeter created this Theory of Entrepreneurial Innovation through his 1934 book "*The Theory of Economic Development"*. The theory maintains that innovation functions as the main engine which drives both economic progress and competitive market advantage because entrepreneurs create disruptive market changes through their innovative resource combinations (Schumpeter, 1934). As noted by McCraw (2020), Schumpeter recognized five categories of innovation, which encompass the launch of new products, the adoption of new production techniques, the exploration of new markets, the procurement of new supply sources, and the establishment of new organizational frameworks. The theory demonstrates how innovators use their innovative work to create temporary monopolies which enable them to generate above-normal profits until competitors either copy their work or create better innovations leading to ongoing economic development.

Recent developments have linked Schumpeter's ideas to the digital age through technology-driven startups and fintech firms which demonstrate entrepreneurial innovation (Stoeckli, Dremel, & Uebernickel, 2021). The insurance industry shows entrepreneurial innovation through insurtech startups and digital insurance platforms and their development of business models which compete against established insurance companies. The firm performance is the outcome of the innovation that enhances customer engagement and reduces cost while also providing new sources of income. This theory offers a rationale for how innovative strategies result in improved competitive positions and organizational efficiency amidst unstable markets. The theory relates directly to all four innovation variables, as each represents different forms of new combinations that disrupt existing competitive equilibria.

Balanced Scorecard Model

The model was created by Kaplan and Norton in 1992 as a performance measurement framework that translates organizational strategy into actionable objectives across multiple perspectives. The model assumes that organizational success depends on balancing financial metrics with non-financial gauges across four perceptions: financial, customer, internal processes, and learning and growth (Kaplan & Norton, 2020). The organizations need to connect their strategic goals with their performance measurements because this alignment will lead to their success in achieving their long-term objectives.

The Balanced Scorecard Model focuses on translating strategic vision into operational objectives, measurable targets, and initiatives (Madsen & Stenheim, 2021). The system requires organizations to establish ongoing feedback processes which lead to organizational performance improvements through strategic learning (Banker, Mashruwala, & Tripathy, 2022). The recent advances show that the system can adapt to different industries which include insurance because it allows companies to measure their success in innovation projects and customer satisfaction and operational productivity.

The Balanced Scorecard model serves as the most appropriate performance measurement system for this study because it matches the specified performance metrics used to assess insurance companies. Return on Equity (ROE) is evaluated by the study's financial component as it measures how well a business makes money off of the investments made by its

shareholders. The organization uses customer retention as its customer perspective metric because it measures how well the organization maintains relationships with customers over extended periods. Market share further complements both the financial and customer perspectives by indicating the company's competitive position and growth within the insurance industry.

Empirical Literature Review

Product Innovation and Organizational Performance

A study by Lee, Park and Kim (2023) examined product innovation in the South Korean health insurance market. The research selected 120 health insurers which represented the target population via simple random sampling. The study assembled data via structured surveys which measured both innovation practices and performance indicators that included claims ratio operating expense ratio and market share growth. The study discovered that product innovation which concentrated on preventive health services and wellness programs created substantial financial gains for underwriting operations because claims ratios fell 12% below the standard industry level. The companies who included digital health technologies in their product development process succeeded in attracting younger customers while their market share expanded at a 28% faster rate. The study which concentrates on health insurance does not allow its findings to apply to other insurance sectors hence a contextual gap which existing study aims to fills.

In Kenya, Kariuki and Nganga (2024) researched on the effect of product innovation on performance of insurance firms. The survey embraced a descriptive survey design. The research sampled the entire population of 17 life insurance companies because research utilized census sampling to determine the sample size. The research gathered data by distributing questionnaires to product development managers and marketing executives. The research found that education insurance and unit-linked policies and microinsurance products together with existing products created new customer acquisition channels which resulted in higher premium income growth for the organization. Organizations that presented three or more new products to the market experienced 31% stronger annual premium growth than organizations that maintained their conventional product range. The study reveals a knowledge gap because it shows that study has not studied non-life insurance segments and their impact on multiple performance metrics which extend beyond premium growth. The current study exists to address this research gap.

Market Innovation and Organizational Performance

Rahman, Al-Hashimi and Mohammed (2023) examined market innovation strategies that Islamic insurance (Takaful) companies use at United Arab Emirates. The survey encompassed a qualitative research design. A total of 40 executives various Takaful operators were purposively selected. The interviews were done and study showed that market innovation through segment-specific products enabled companies to achieve better market penetration and brand differentiation. Companies that established specialized distribution partnerships with Islamic financial institutions grew their customer base 41% faster than companies that depended on traditional agency channels. The methodological gap occurs since the research

utilized a qualitative method to study Islamic insurance which does not offer insights that apply to both conventional insurance and different market environments, thus necessity of current study to conduct quantitative research for proof.

Omondi, Waweru & Njihia (2023) analyzed the relationship between innovation strategy in the market and the implementation of general insurance companies in Nairobi, focusing on 42 insurance companies. The research design adopted was a descriptive survey design and involved collecting information from business development managers and marketing managers of the companies through structured questionnaires. The research found that market innovation through the formation of alliances between bancassurance and the use of digital aggregators and specialization in the corporate segment resulted in a significant increase in market share and premiums earned. Innovators in the market recorded 33% more growth in market share than those that utilized the traditional mode of distribution relying on agents. The current research fills the existing research gap since previous research had not analyzed how market innovation interacts with other innovation aspects.

Process Innovation and Organizational Performance

Mwakasege, Kimaro and Massawe (2023) examined process innovation practices influence on the performance of insurance companies in Dar es Salaam. The research utilized purposive sampling for the survey, which interviewed 30 senior managers from various insurance companies. Process innovation involving the integration of mobile money for the purpose of collecting premiums, documenting transactions, and underwriting helped in realizing significant operational benefits for the companies, allowing them to access markets that stretched over their entire service territory. However, the researchers faced challenges in innovating because of the constraints of the existing infrastructure and the limited digital skills of the targeted customers. Although the qualitative approach is informative, it lacks statistical support of performance relations, presenting a methodological gap.

Kimani, Mwangi and Njoroge (2024) examined the impact of process innovations on customer satisfaction in insurance companies based in Nairobi. In this research, a quantitative research approach was utilized whereby the entire population, comprising 42 insurance firms, was considered through census method. The researchers adopted the use of structured questionnaires in collecting information, which was handed over to operations and customer services managers. They realized that process innovations, such as claims automation and mobile self-service, led to customer satisfaction. Companies that implemented advanced automation systems achieved Net Promoter Scores which exceeded the industry standard by 41% while their customer complaints decreased by 47%. The study failed to evaluate all process innovation effects on financial performance indicators because it focused only on specific research aspects which created a knowledge gap that current research aims to solve.

Technological Innovation and Organizational Performance

Yamamoto, Tanaka and Sato (2023) investigated how blockchain impacts the efficiency with which Japanese insurance organizations operate. Using a mixed-methods approach, the study surveyed 120 Japanese insurance organizations, with 60 participants selected through random

sampling. Quantitative data was collected to measure the effectiveness of blockchain technology in three major Japanese insurance organizations. The study found that implementing blockchain technology reduced the time spent processing transactions by 44%, increased accuracy by 38%, and reduced reconciliation costs by 52%. However, the mixed-methods approach was found to have provided an inconsistent view of the research topic, with the quantitative approach dominating the study and failing to provide an in-depth analysis of the challenges and strategic factors that affect the effectiveness of implementing blockchain.

Njihia, Mwangi and Karanja (2024) analyzed how technical innovation practices affected the execution of insurance firms in Nairobi through research on 42 licensed insurers. The research employed a descriptive survey design which included all firms through census sampling. The survey gathered data by using structured surveys which they distributed to chief information officers and technology managers. The research showed that mobile insurance platforms, online policy sales, digital claims submission together with automated underwriting processes led to better operational efficiency and wider market access for the company. Digital service providers who offered complete digital solutions to their customers obtained 48 percent higher customer acquisition rates from millennials while their operational expenses remained 37 percent lower than that of competitor companies which only had basic digital capabilities. The research study focused on measuring technology adoption levels which created a knowledge gap that current research study wants to fill through its investigation of how technological innovation affects business model changes and their effects on various performance metrics.

Conceptual Framework

A conceptual framework in research alludes to a structured, visual, or narrative explanation of how the key variables in a study are expected to relate to one another (Cooper & Schindler, 2024). The research uses theoretical foundation because it displays the linkage between independent variables and dependent variable(s) which control the research process. The conceptual framework illustrates how strategic innovation (independent variables) connects to the organizational performance of insurance companies (dependent variable). The framework states that insurance company performance depends on market innovation, product innovation, technological innovation and process innovation which together determine customer retention, market share and return on equity.

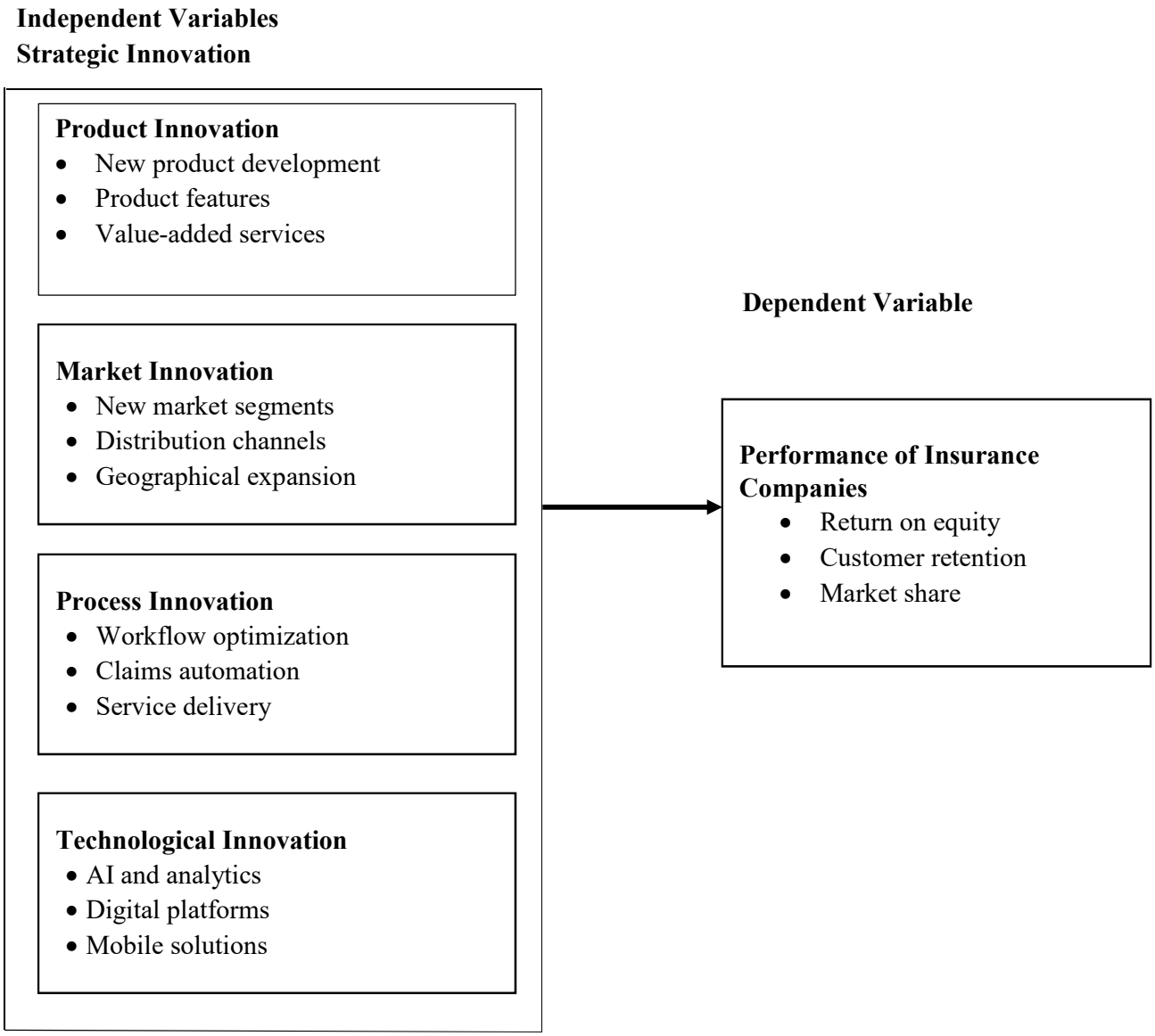


Figure 2.1 Conceptual Framework
Source: Author (2025)

RESEARCH METHODOLOGY

Research Design

The research utilized a descriptive research design. This design primarily utilized to systematically describe features of a population, phenomenon, or relationship without manipulating variables (Creswell & Creswell, 2023). A descriptive research design allowed for large amounts of data to be gathered in relatively short time periods while still adhering to systematic and structured methods of data collection and analysis (Bell, Bryman, & Harley 2022).

Target population, Sampling Techniques and Sample Size

The target population was 42 insurance companies that worked in Nairobi City County. These companies were licensed with the Insurance Regulatory Authority, which meant they were officially recognized in Kenya for the year 2024. Nairobi City County had a lot of types of insurance companies including 17 general insurance firms, 12 composite insurance firms, 8 life insurance firms and 5 reinsurance firms. The unit of observation was 168 senior management and functional heads who worked on innovation strategy and implementation.

The research utilized a census approach which required the study to include all members of the target population instead of choosing a specific portion to analyze. According to Saunders, Lewis, and Thornhill (2023), using a census worked best when the population was small, easy to reach, and when it was important to cover everyone to ensure accurate research results. This study involved all 42 licensed insurance firms in Nairobi City County, resulting in 168 participants.

Data Collection and Analysis

The research employed primary and secondary data. A semi-structured questionnaire was employed to gather primary data, whereas secondary data was obtained via a document review guide. The Statistical Package for the Social Sciences (SPSS version 27) was utilized in analyzing the quantitative data collected from the closed-ended questions. The research utilized Pearson correlation and multiple linear regression for inferential statistical analysis to evaluate how strategic innovation dimensions which served as independent variables affected organizational performance which acted as the dependent variable. The regression model was specified as:

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon}$$

Where:

Y = Performance of Insurance Companies

β_0 = Intercept coefficient

X_1 = Product Innovation

X_2 = Market Innovation

X_3 = Process Innovation

X_4 = Technological Innovation

$\beta_1, \beta_2, \beta_3, \beta_4$ = Regression coefficients

ε = Error term

FINDINGS AND DISCUSSIONS

Pearson correlation analysis and multiple regression analysis were utilized in this study to examine the relationships and effects of strategic innovation practices (product innovation, market innovation, process innovation, and technological innovation) on the organisational performance of insurance companies in Nairobi City County, Kenya.

Pearson Correlation Analysis

To ascertain the degree and direction of the association between the dependent variable (insurance company performance) and the independent factors (product innovation, market innovation, process innovation, and technical innovation), a Pearson correlation analysis was performed. The outcomes are exhibited in Table 4.1.

Table 1 Pearson Correlation Results

Variable	Performance	Product Innovation	Market Innovation	Process Innovation	Technological Innovation	p-value
Performance	1					
Product Innovation	0.598**	1				0.000
Market Innovation	0.612**	0.487**	1			0.000
Process Innovation	0.647**	0.512**	0.469**	1		0.000
Technological Innovation	0.671**	0.503**	0.521**	0.478**	1	0.000

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

Source: Researcher (2026)

The outcomes displayed in Table 1, revealed that all four dimensions of strategic innovation definitely and ominously influence the performance of insurance companies at the 0.01 level of significance. Technology innovation had the highest correlation with the performance of the firms ($r = 0.671$, $p < 0.01$), implying that the firms that engage heavily in technological innovations achieve higher performance. This result is similar to the findings of Kumar, Sharma and Patel (2023) where technological innovation adoption was the strongest determinant of performance for life insurance companies in emerging markets.

Secondly, process innovation correlated highly with performance ($r = 0.647$, $p < 0.01$). This implies that the insurance companies that improve the efficiency of underwriting, claims processes and overall processes experience high performance gains. Finally, market innovation ($r = 0.612$, $p < 0.01$) correlated positively and moderately with performance. Product innovation recorded the comparatively weakest, though still statistically significant, correlation with performance ($r = 0.598$, $p < 0.01$), suggesting that while introducing new products contributes to performance, its effect is somewhat more modest than that of the other three innovation dimensions (Schneider, Müller & Klein, 2024).

Model Summary

The model summary shows the overall explanatory power of the regression model in clarifying the variance in execution of insurance companies accounted for by the four strategic innovation dimensions. The results are unveiled in Table 2.

Table 2 Model Summary Results

Model	R	R^2	Adjusted R^2	Estimated Std. Error
1	0.812	0.659	0.650	0.263

Source: Field Data (2026)

The outcomes in Table 2 specify that the multiple correlation coefficient (R) is 0.812. This suggests a substantial correlation between the four strategic innovation predictors and the performance of insurance companies. R Square at 0.659 specifies that product innovation, process innovation, market innovation, and technological innovation collectively account for 65.9% of the performance gap between insurance companies in Nairobi City County. In addition, the Adjusted R Square of 0.650, which controls for the number of independent variables in the regression model, validates the quality of the model. Finally, the estimated standard error of the 0.263 suggests that there is low prediction error. The results are in agreement with the results obtained by Ahmed and Hassan (2024).

Analysis of Variance (ANOVA)

ANOVA was employed to evaluate the overall statistical importance of the regression model. Table 3 displays the outcomes.

Table 3 ANOVA Results

Model	SS	df	MS	F	Sig.
Regression	20.34	4	5.085	73.48	0.000b
Residual	10.52	152	0.069		
Total	30.86	156			

Source: Researcher (2026)

The outcomes reported in Table 3 show that the entire regression model is significant ($F = 73.48$, $p = 0.000$). The regression sum of squares ($SS = 20.34$) indicates the amount of variance in performance accounted for by the model, while the residual sum of squares ($SS = 10.52$) indicates the amount of variance not accounted for. The very significant F-value ($p < 0.001$) shows that product innovation, process innovation, market innovation, and technological innovation are significant joint predictors of the performance of insurance firms in Nairobi City County. This result is consistent with Hassan and Ali (2023), who found out that strategic innovation dimensions are significant joint predictors of organizational adaptability and performance in insurance industry.

Regression Coefficients

The regression coefficients, which measure the marginal effect of each strategic innovation dimension on the performance of insurance companies, are exhibited in Table 4.

Table 4 Regression Coefficient Outcomes

Variables	B	Std. Error	Beta	t	Sig.
(Constant)	0.398	0.132		3.015	0.003
Product Innovation	0.187	0.045	0.198	4.156	0.001
Market Innovation	0.201	0.047	0.207	4.277	0.002
Process Innovation	0.229	0.049	0.231	4.673	0.003
Technological Innovation	0.251	0.046	0.264	5.457	0.002

Source: Researcher (2026)

The equation for regression obtained from the coefficients in Table 4 is expressed as follows:

$$\mathbf{Y = 0.398 + 0.187X1 + 0.201X2 + 0.229X3 + 0.251X4 + \varepsilon}$$

Where: Y = Performance of Insurance Companies; X_1 = Product Innovation; X_2 = Market Innovation; X_3 = Process Innovation; X_4 = Technological Innovation; ε = Error term

Technological innovation recorded the highest unstandardized coefficient (B = 0.251, Beta = 0.264, t = 5.457 and p < 0.001) which means that a unit increase in this factor, while keeping the rest of the factors constant, causes a maximum upsurge in the performance of insurance firms. The discovery highlights that Nairobi City County insurance companies' best strategic innovation weapon is investment in AI, data analysis, mobile platforms and digital infrastructure. In similar emerging market contexts, Naidoo, Van Wyk and Botha (2024) found that the adoption of data analytics and digital technology was the best predictor of insurer performance.

Process innovation came out second (B = 0.229, Beta = 0.231, t = 4.673, p < 0.001), suggesting that companies that are able to optimize the processes of underwriting and claims handling as well as their operations gain significantly in terms of performance through cost savings and efficiency in the time of service delivery. According to Mitchell et al., (2024), process innovation strongly influences performance in the Australian insurance industry.
Market innovation has established a significant positive impact on performance (B = 0.201, Beta = 0.207, t = 4.277, p < 0.001), which is evidence that channel diversification, market expansion, and non-conventional alliances improve performance by increasing the customer base and income sources. Wilson, Thompson, and Anderson (2023) discovered the same for Canadian insurance companies that practice market innovation.

Although product innovation recorded the lowest of the four coefficients, it remained a statistically significant determinant of performance (B = 0.187, Beta = 0.198, t = 4.156, p < 0.001). In other words, the continued development of new and personalized insurance products by organizations that systematically incorporate customer feedback into their innovations has resulted in increased performance levels despite the relatively low impact of product innovation compared to technological, process, and market innovation on performance. Similar findings are reported by Van Der Merwe and Botha (2024), who established that product innovation, although significantly associated with profitability, tends to be of relatively little importance compared to other forms of innovation.

CONCLUSION

The study concluded that strategic innovation practices constitute important determinants of organizational performance among insurance companies in Nairobi City County, Kenya. Product innovation practices are important in developing and introducing new insurance products, improving existing insurance offerings, and responding to changing customer needs, thereby enhancing customer satisfaction, attracting new clients, and supporting organizational performance. Market innovation practices are equally important, as the adoption of new marketing approaches, market segmentation strategies, distribution channels, and customer engagement techniques can strengthen market reach, improve competitiveness, and contribute to increased organizational performance. The study further concluded that process innovation practices play an essential role in organizational performance. Effective process improvements, automation of operational activities, streamlining of service delivery procedures, and reduction of operational inefficiencies can enhance productivity, improve service quality, and support efficient utilization of organizational resources. Technological innovation practices also remain an important component of strategic innovation, as the adoption of modern information systems, digital platforms, and advanced technologies can improve operational efficiency, enhance customer service, facilitate faster processing of insurance claims, and strengthen the overall performance of insurance companies in Nairobi City County, Kenya.

RECOMMENDATIONS OF THE STUDY

The Insurance Regulatory Authority and the Association of Kenya Insurers must create a harmonized industry-wide framework in respect of product, market, process and technological innovation. This framework shall encompass regulatory sandboxes for the testing of new technologies, guidelines for the responsible use of technology, mechanisms for the transfer of knowledge between insurers and ensure consumer protection, data security and market stability.

The insurance industry must also increase market innovation, including by leveraging digital distribution channels and forming strategic alliances with banks, telecommunication providers and other non-insurance businesses. Firms also need to come up with new products, marketing strategies and distribution channels for under-penetrated market segments, such as the informal sector and the poorest people.

The insurance companies must invest more in technological innovation by using innovative technology such as AI, data analytics, cloud computing and blockchain technology. The companies should pair their investment in technology with continuous training of their employees in order to ensure that they have the necessary capabilities to be able to utilize the new technologies.

Insurers need to invest in process innovation through ongoing process review and enhancement of underwriting processes, claims processes and customer service processes. To achieve faster response times, increase efficiency, decrease cost and optimize overall performance, firms

should implement process automation and lean management methods, set turnaround-time goals and regularly audit processes.

LIMITATIONS AND FUTURE RESEARCH DIRECTION

First, future research should replicate it in other counties outside of Nairobi City County to further augment the generalizability of the results and make cross-county comparisons of strategic innovation practices and their performance effects. Second, the regression model in this study accounted for 65.9% of the performance variance in insurance companies was accounted for, while the other 34.1% was attributed to factors not considered in the present study. Further studies are needed to examine other factors affecting insurance companies' performance, including their compliance costs, their corporate governance requirements, macroeconomic developments, and reinsurance contracts.

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