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STRATEGIC INNOVATION AND PERFORMANCE OF STATE CORPORATIONS IN HEALTH SECTOR IN KENYA

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Abstract

Purpose: The primary objective of this study was to investigate how strategic innovation affects the performance of state corporations in health sector in Kenya. Specifically, the study also sought to examine the effect of disruptive, incremental, business model, and sustaining innovation on the performance of state corporations in health sector in Kenya.

Methodology:

Methodology: The study adopted a descriptive research design and the target population was 112 directors of finance, planning &strategy, information and communication technology and public relations directorates in all the 28 state corporations under the Ministry of Health in Kenya. Data was collected by use of questionnaires and analyzed by use of use of both descriptive and inferential statistics was employed with the help of statistical software known as Statistical Package for Social Sciences (SPSS version 28). Diagnostic test was conducted to ensure the assumptions of the linear regression model are not violated.

Findings: The R-squared value for the regression model was 0.681, which implies that 68.1% of the variance in the performance of state corporations in Kenya's health sector was explained by disruptive innovation, incremental innovation, business model innovation and sustaining innovation. The multiple regression analysis showed that disruptive innovation (p-value=0.09), incremental innovation (p-value=0.027), business model innovation (p-value=0.011) and sustaining innovation (p-value=0.001) had a positive and significant effect on the performance of state corporations in health sector in Kenya.

Unique Contribution to Theory, Practice and Policy: The study recommends that state corporations in the health sector strengthen monitoring and evaluation of digital solutions to align innovation with strategic goals. They should institutionalize feedback loops and conduct workflow audits to support incremental innovation. Additionally, corporations should enhance consumer segmentation using data-driven insights to personalize services and increase value. Lastly, sustaining innovation requires continuous integration of customer feedback into product development and allocating resources for ongoing improvements. The study found that disruptive innovation, incremental innovation, business model innovation and sustaining innovation collectively account for 68.1% of the variation in performance of state corporations in the health sector. Future research should also consider examining additional factors that may influence the performance of state corporations, such as organizational culture, leadership styles, digital transformation capabilities, and stakeholder engagement strategies.

Keywords: Strategic Innovation, Disruptive Innovation, Performance, State Corporations

Introduction

State Corporations in the health sector play a vital role in ensuring equitable and effective healthcare delivery, yet they face challenges like inefficiencies, resource limitations, and inadequate infrastructure that hinder service quality and access (Qodirov & Muhitdinov, 2022). Strategic innovation - transforming existing practices into new ventures, can significantly enhance organizational performance (Kodama, 2017). By proactively identifying and leveraging opportunities aligned with strategic goals, strategic innovation fosters competitive advantages and long-term success, enabling public institutions to overcome obstacles and achieve sustained excellence in healthcare delivery (Hanson & Wurie, 2022).

Strategic innovation, which includes disruptive, incremental, business model, and sustaining innovation, plays a vital role in enhancing public sector performance by improving agility, efficiency, and responsiveness to changing societal needs (Abdu & Jibir, 2018). It enables public institutions to adapt to demographic shifts, technological advancements, and evolving policies by proactively identifying and exploiting emerging opportunities (Quaye & Mensah, 2019). These fosters optimized resource allocation, streamlined operations, reduced costs, and ultimately leads to better service quality, increased public trust, and greater citizen satisfaction.

State corporations globally exhibit varied strategic innovation approaches. In the United States (US), sustaining innovation dominates sectors like aerospace and defense, focusing on incremental improvements for reliability (Leibowitz, 2023). Saudi Arabia's state firms, such as Saudi Aramco, emphasize technological and business model innovation to diversify energy beyond fossil fuels, driven by Vision 2030 (Alluia & Rawshdeh, 2024). Spain uses incremental and business model innovations to enhance transportation and promote sustainability (Zastempowski & Cyfert, 2022), while India adopts sustaining innovation and public-private partnerships to modernize infrastructure and renewable energy sectors (Echeverri-Gent, 2023).

State corporations in the African region are actively pursuing strategic innovation to improve infrastructure, efficiency, and service delivery. In Ghana, companies like the Ghana Grid Company Limited and the Ghana National Petroleum Corporation focus on modernizing energy infrastructure and adopting advanced technologies, supported by public-private partnerships and policy reforms that foster innovation (Oduro, 2019). South Africa's transport and logistics company, national airline, and electricity provider invest in sustainability and smart technologies, while Uganda's national airline and electricity Generation Company prioritize capacity expansion and customer-focused innovations to boost regional competitiveness (Aganyira & Kabumbuli, 2020).

In Kenya, state corporations across energy, transport, and telecommunications sectors have strategically adopted innovations to overcome sector-specific challenges and improve efficiency. Kenya Electricity Generating Company has led renewable energy projects like geothermal and wind power to promote sustainability, while Kenya Power employs smart grid technologies to enhance distribution and reliability (Ngiri & Njagi, 2022). Kenya Railways Corporation's Standard Gauge Railway and Kenya Ports Authority's digitalization efforts modernize transport and logistics (Irandu & Owilla, 2020). The Communications Authority supports 5G rollout, broadband expansion, and fosters innovation hubs to boost digital inclusion and entrepreneurship (Chesula & Kilika, 2020).

Statement of the problem

State corporations in Kenya's health sector are vital in delivering essential healthcare services, managing facilities, and promoting health equity (Armitage & Tanna, 2022). However, they face significant challenges such as declining consumer satisfaction, poor service delivery, and inefficient resource management (Nyawira, Njuguna & Barasa, 2023). Over the past five years, their performance has steadily declined, with key indicators like performance index, budget absorption, and customer satisfaction all showing downward trends (Public Service Commission, 2023; Republic of Kenya, 2023). For instance, the Kenya Medical Supplies Authority's order fill rate dropped from 54% in 2021 to 50% in 2022. Furthermore, Kenyatta National Hospital's supplier debt increased by 83% in 2023, highlighting financial strain. Despite these challenges, resource constraints, workforce shortages, and infrastructural gaps, state corporations continue to play a critical role in healthcare delivery, national health agendas, and research (Barasa & Chuma, 2021; Gathara & Akech, 2018). They have adopted strategic innovations to improve performance, yet the impact of such innovations in Kenya's public health sector remains underexplored. Previous studies on strategic innovation and performance, such as those by Rutere and Kori (2023) in insurance, Omondi and Deya (2023) in pharmaceutical distribution, and Ngiri and Njagi (2022) in construction, focus on private enterprises and cannot be generalized to state corporations. This study seeks to fill the knowledge gap by investigating how strategic innovation influences the performance of state corporations in Kenya's health sector.

Objectives of the Study

- i. To determine the influence of disruptive innovation on performance of state corporations in health sector in Kenya
- ii. To examine the influence of incremental innovation on performance of state corporations in health sector in Kenya
- iii. To establish the influence of business model innovation on performance of state corporations in health sector in Kenya
- iv. To assess the influence of sustaining innovation on performance of state corporations in health sector in Kenya

Literature Review

Theoretical Framework

The theoretical framework guiding this study is grounded in four major theories: Disruptive Innovation Theory, Resource-Based View (RBV) Theory, Diffusion of Innovation Theory, and the Theory of Constraints (TOC). Disruptive Innovation Theory, introduced by Christensen (2018), explains how innovations initially target overlooked or underserved market segments with simpler, more affordable solutions. Over time, these innovations improve and can displace established providers, reshaping industries (Wang, Qureshi & Zhang, 2022). In Kenya's health sector, state corporations must recognize and adapt to such disruptive innovations to avoid losing relevance and improve service delivery. The RBV theory emphasizes that a firm's competitive advantage stems from unique, valuable, rare, and inimitable resources (Barney, 1991; Lubis, 2022). Incremental innovation that leverages internal resources such as human capital and technology can enhance performance and service efficiency in healthcare organizations (Davis & DeWitt, 2021). Diffusion of Innovation Theory, developed by Rogers (1962), describes the adoption of new ideas and technologies through stages influenced by social networks, communication channels, and innovation characteristics (Dearing & Cox, 2018). It helps explain how novel business models in Kenya's health sector diffuse and improve institutional performance. Meanwhile, TOC, formulated by Muneria, Deya & Kariuki; Int. j. soc. sci. manag & entrep 9(2), 581-592; May 2025; 583

Goldratt (1990), posits that every system has at least one constraint limiting performance. By identifying and alleviating these bottlenecks through sustaining innovations—such as process optimization—state corporations can improve healthcare outcomes (Datt, Misra & Gupta, 2024). TOC encourages a holistic, system-level focus for continuous improvement, critical in complex healthcare systems.

Conceptual Framework

Figure 2.1, shows the association between the concepts of this study, which include independent variables and the dependent variable.



Figure 1: Conceptual Framework

Dependent variable

Empirical Review Disruptive Innovation

Wang, Guo and Zhan (2023) examined the relationship between disruptive innovation and firm performance. The study adopted a descriptive research design. The study collected data from 207 high-tech firms in China through questionnaires targeting senior managers and R&D managers. The findings suggest that disruptive innovation positively influences firm performance, with innovation speed and innovation quality mediating this relationship. Market-supporting institutions also play a moderating role, positively affecting the relationship between innovation speed and firm performance but negatively affecting the relationship between innovation quality and firm performance.

Akpan, Mfon and Ibok (2022) examined the effect of disruptive innovations on marketing performance of online marketers in Akwa Ibom State. Employing a survey research design, data was gathered from 384 online marketers through a structured questionnaire. The analysis

involved frequency count and simple percentages for personal data, while simple regression was utilized to test the hypotheses. The results revealed that each disruptive innovation-social media, mobile payment technology, and mobile internet technology-significantly influenced marketing performance.

Mbithi (2022) investigated the impact of disruptive innovation on competitiveness among youth-owned enterprises in Nairobi County, Kenya. Descriptive research design was adopted. The target population comprised youth-owned businesses in Nairobi County, with 562 enterprises operating in the Central Business District selected for the study. Stratified sampling technique was employed. Questionnaires were utilized to collect data. The study revealed that artificial intelligence enhanced operational efficiency. Strategic alliances facilitated cost and risk sharing.

Incremental Innovation

Canh, Liem and Khuong (2019) studied the effect of incremental innovation on the firm performance and corporate social responsibility of Vietnamese manufacturing firms. The study adopted a descriptive research design. The findings indicated that incremental innovation positively influences market share for Vietnamese manufacturing firms but may not immediately impact return on total assets, suggesting a time lag in profitability improvement. Additionally, incremental innovation can enhance customer loyalty. However, its implementation may increase organizational complexity, prompting firms to signal their sustainability through corporate social responsibility activities, particularly contributing to local well-being.

Tarus, Boit and Korir (2019) examined the effect of incremental innovation on firm's competitive advantage among firms in Kenya. The study utilized an explanatory research design, focusing on selected service industries, specifically 30 commercial banks and two telecommunication companies in Eldoret, Municipality. Data collection involved surveys distributed to branch managers and departmental heads. Reliability of the data was ensured using the Cronbach alpha coefficient. The results indicate that incremental innovation plays a significant role in determining a firm's competitive advantage. The analysis suggests that incremental innovation positively influences a firm's competitive position within the telecommunication and banking sectors.

Kanyuga (2019) examined the effect of incremental innovation on performance of telecommunication firms in Kenya. The study was conducted as a case study of Safaricom. The study found that incremental innovations, such as product enhancements and process improvements, positively influence operational efficiency and customer satisfaction within the highly regulated and volatile industry. The research, guided by Resource Based Theory and Kaizen Costing System Theory, suggests that Safaricom's consistent analysis and measurement of service operations can lead to enhanced efficiency and overall performance within the competitive telecommunications landscape.

Business Model Innovation

In Jordan, Khaddam, Al-Batayneh and Al-Batayneh (2021) studied the relationship between business model innovation (BMI) and organization performance. Data were collected from 120 managers through a questionnaire, yielding 87 valid responses for analysis. BMI was assessed through three components: value creation, value proposition, and value capture innovations, while firm performance was evaluated using self-rated operational measures. The results support the hypotheses, indicating that all dimensions of BMI significantly affect company performance. This study fills a gap in the literature by providing empirical evidence on the relationship between BMI and firm performance specifically within Arab countries, with a focus on Jordan's dairy industry.

Tonder, Bossink and Nieuwenhuizen (2023) examined the effect of digitally driven business model innovation on business performance. Empirical research was conducted on 198 South African and 226 Dutch SMEs. Exploratory factor analysis, regression analysis, and correlation analysis confirmed a positive relationship between BMI through digital transformation and SME performance. Additionally, the study found that SMEs could achieve increased business performance when they implement flexible organizational structures and renew their strategies alongside BMI through digital transformation. However, business culture renewal did not demonstrate a similar effect.

Musyoka (2023) examined the relationship between business model innovation and firm performance in five star rated hotels in Kenya. Using a correlational research design, data were collected from 140 management staff across nine classified five-star hotels in Kenya. Questionnaires, pretested for reliability, were utilized via Google Docs for data collection. The findings show that business model innovation has a significant effect on firm performance in five star rated hotels. In addition, value proposition significantly impacts firm performance by enabling firms to address new market segments and unmet customer needs. Furthermore, deliberate efforts in developing new capabilities through employee training and adoption of innovative technologies contribute to competitive advantage and improved performance.

Sustaining Innovation

In a systematic review of literature, Lyver and Lu (2019) conducted a study on sustaining innovation performance among SMEs in Taiwan. The findings indicated that sustaining innovation performance in SMEs in Taiwan involves a multi-faceted approach encompassing technological advancement, strategic partnerships, market adaptation, and talent development. SMEs often leverage government support programs and industry collaborations to access resources and expertise necessary for sustained innovation. Continuous investment in research and development, coupled with a proactive approach to market trends and customer needs, enables SMEs to stay competitive in rapidly evolving industries.

Issau, Acquah and Hamidu (2021) examined the influence of sustaining innovation dimensions on the performance of manufacturing small- and medium-sized enterprises (SMEs) in Ghana. Using probability sampling, specifically simple random method, data were collected from a sample of 346 SMEs, achieving an 81% response rate. The relationships among variables were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings indicate that sustaining innovation significantly predicts the performance of manufacturing SMEs in Ghana. It reveals a substantial positive impact of sustaining innovation dimensions on SMEs' performance.

Kimathi, Mukulu and Odhiambo (2020) examined the effect of sustaining innovation on the performance of small and medium enterprises in Kenya. This study employed a survey research design targeting a population of 268,100 licensed small and medium enterprises (SMEs) in Nairobi County, Kenya. A sample of 400 firms was selected using a multi-stage probability sampling method, incorporating stratified sampling followed by simple random sampling across the county's 17 constituencies. Quantitative data was collected through questionnaires. Sustaining innovation positively impacts the performance of small and medium enterprises (SMEs) in Kenya, fostering long-term growth and competitiveness.

Critique of the Existing Literature

Disruptive innovation has been shown to positively affect firm performance across different regions and industries by improving efficiency, market share, and profitability through new

products or processes. However, the impact of disruptive innovation varies depending on the regional and industry context. In some areas, digital technologies like social media and mobile payments drive disruption, while in others, innovations focus on artificial intelligence and strategic partnerships. Incremental innovation is also widely recognized for enhancing firm performance by boosting market share, customer loyalty, and competitiveness. Nonetheless, relying solely on incremental innovation may not be sufficient to build resilience in all sectors, especially in environments with strong regulatory influences.

Business model innovation is consistently linked to better firm outcomes, including competitive advantage, customer satisfaction, and increased revenue, across various sectors and countries. The success of business model innovation often depends on how well firms create, deliver, and capture value. However, responses to digitally driven business model innovation can differ significantly between organizations based on their unique contexts. Sustaining innovation similarly shows strong positive effects on firm performance, contributing to improvements in efficiency, business outcomes, and competitiveness. Studies on sustaining innovation employ diverse methods and focus on different industries, highlighting its importance across various sectors and regional settings.

Research Methodology

The study adopted a descriptive research design. The unit of analysis comprised all 28 state corporations under the Ministry of Health in Kenya, while the unit of observation included Directors from four key directorates: Finance, Information and Communication Technology (ICT), Planning and Strategy, and Public Relations. The target population was made up of 112 directors drawn from these four directorates across all 28 state corporations. Since the number was manageable, a census approach was employed, thereby involving all 112 directors in the study.

Both primary and secondary data were utilized in the research. Primary data was collected using structured questionnaires, while secondary data was sourced from relevant reports by the Public Service Commission of Kenya and various state corporations within the health sector. Quantitative data analysis involved both descriptive and inferential statistics, conducted using the Statistical Package for Social Sciences (SPSS), version 28. Descriptive statistics included measures such as means, standard deviations, and frequency distributions. Inferential analysis involved the use of Pearson correlation coefficients and linear regression to test relationships between variables. The results were presented using tables. Since independent variables in this research are four, the multivariate regression model was as follows;

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

Whereby: Y = Performance of state corporations; β_0 = Constant; β_1 , β_2 , β_3 , β_4 = Coefficients of determination; X₁ = Disruptive innovation; X₂ = Incremental innovation; X₃ = Business model innovation; X₄ = Sustaining innovation; and ε = Error term.

Research Findings and Discussions

The study sampled 112 Directors drawn from the Finance, Information and Communication Technology (ICT), Planning, Strategy, and Public Relations departments across all 28 state corporations under the Ministry of Health in Kenya. A total of 112 questionnaires were distributed, and 103 fully completed responses were received, resulting in a response rate of 91.96%.

Correlation Analysis

The Pearson product-moment correlation coefficient was utilized to evaluate the strength of the relationships between the independent variables and the dependent variable (performance of state corporations in Kenya). The findings are as displayed in Table 1.

	Performance	Disruptive	Incremental	Business	Sustaining
	of State	Innovation	Innovation	Model	Innovation
	Corporations			Innovation	
Pearson	1				
Correlation					
Sig. (2-					
tailed)					
Ν	103				
Pearson	.686**	1			
Correlation					
Sig. (2-	.000				
tailed)					
Ν	103	103			
Pearson	.676**	.891**	1		
Correlation					
Sig. (2-	.000	.000			
tailed)					
Ν	103	103	103		
Pearson	.659**	$.807^{**}$.930**	1	
Correlation					
Sig. (2-	.000	.000	.000		
tailed)					
Ν	103	103	103	103	
Pearson	.652**	.821**	$.907^{**}$.989**	1
Correlation					
Sig. (2-	.000	.000	.000	.000	
tailed)					
N	103	103	103	103	103
	Pearson Correlation Sig. (2- tailed) N Pearson Correlation Sig. (2- tailed) N Pearson Correlation Sig. (2- tailed) N Pearson Correlation Sig. (2- tailed) N Pearson Correlation Sig. (2- tailed) N Pearson Correlation Sig. (2- tailed) N	Performance of State Corporations Pearson 1 Correlation	Performance of State Disruptive Innovation Corporations Innovation Pearson 1 Correlation - Sig. (2- - tailed) N N 103 Pearson .686** Correlation - Sig. (2- .000 tailed) - N 103 Pearson .676** Sig. (2- .000 tailed) - N 103 Pearson .676** Sig. (2- .000 N 103 Pearson .659** Sig. (2- .000 N 103 Pearson .652** Sig. (2- .000 Sig. (2- .000 Sig. (2- .000 Sig. (2- .0	Performance of State of StateDisruptive InnovationIncremental InnovationPearson1Correlation-Sig. (2- tailed)-N103Pearson.686**N103Pearson.686**Sig. (2- tailed)-N103Pearson.686**Sig. (2- tailed)-N103Pearson.6676**Sig. (2- tailed)-N103Pearson.676**Sig. (2000tailed)-N103Pearson.676**Sig. (2000.000.000tailed)-N103N103Pearson.659**.807**.930**Correlation-Sig. (2000.000.000tailed)-N103Pearson.652**.821**.907**Correlation-Sig. (2000.000.000tailed)-N103Pearson.652**.821**.907**Correlation-Sig. (2000.000.000.000.000.001.000.002.000.003.000.004.000.005.000.005.000.000.0	Performance of State (CorporationsDisruptive InnovationIncremental InnovationBusiness Model InnovationPearson1InnovationInnovationCorrelation Sig. (2- tailed)IIIN103IIIPearson.686**1IICorrelation Sig. (2- tailed)IIIN103IIIPearson.686**1IICorrelation Sig. (2000IIIN103103IIPearson.676**.891**1ICorrelation Sig. (2000.000IISig. (2000.000IISig. (2000.000.000Itailed)IIIIN103103103103Pearson.659**.807**.930**1CorrelationIIISig. (2000.000.000.000tailed)IIIIIN103103103103Pearson.652**.821**.907**.989**CorrelationIIIIISig. (2000.000.000.000tailed)IIIIIIIIN103103103.000Sig. (2000.000.000.000 <t< td=""></t<>

Table 1: Correlation Coefficients

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

The study found a positive and significant relationship between disruptive innovation and the performance of state corporations in health sector in Kenya (r = 0.686, p < 0.000). As the p-value is below the 0.05 significance threshold, the relationship is considered statistically significant. The study also established a positive and significant relationship between incremental innovation and the performance of state corporations in health sector in Kenya (r = 0.676, p < 0.000). Since the p-value is less than 0.05, the relationship is statistically significant. In addition, the study revealed a positive and significant relationship between business model innovation and the performance of state corporations in health sector in Kenya (r = 0.659, p < 0.000). Given that the p-value is below the 0.05 significance level, the relationship is considered statistically significant. The study also found a positive and significant relationship between distributionship is considered statistically significant. The study also found a positive and significant relationship between the p-value is below the 0.05 significance level, the relationship is considered statistically significant. The study also found a positive and significant relationship between sustaining innovation and the performance of state corporations in health sector in Kenya (r = 0.652, p < 0.000). Since the p-value falls below the 0.05 significance threshold, the relationship is deemed statistically significant.

Regression Analysis

Multivariate regression analysis was performed to examine the relationships between the independent variables (disruptive innovation, incremental innovation, business model

innovation and sustaining innovation) and the dependent variable (performance of state corporations in Kenya).

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.825 ^a	.681	.488	.69861
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a. Predictors: (Constant), Disruptive Innovation, Incremental Innovation, Business Model innovation and Sustaining Innovation.

As depicted in the Table 2, the R-squared value for the model was 0.681. This indicates that 68.1% of the variance in the performance of state corporations in Kenya's health sector was explained by the independent variables - disruptive innovation, incremental innovation, business model innovation and sustaining innovation.

Table 2: Analysis of Variance

Mode	2l	Sum of	df	Mean Square	F	Sig.
		Squares				
	Regression	92.011	4	23.003	89.416	.000 ^b
1	Residual	25.211	98	0.257		
	Total	117.222	102			

a. Dependent Variable: Performance of State Corporations

b. Predictors: (Constant), Disruptive Innovation, Incremental Innovation, Business Model Innovation and Sustaining Innovation.

ANOVA was performed in this research to determine whether the model adequately fit the data. As illustrated in the Table 2, the calculated F-value was 89.416, which is significantly higher than the critical F-value of 2.46 from the F-distribution table. In addition, the p-value was 0.000, which is below the 0.05 significance level. Therefore, the model was considered a good fit for the data, indicating that disruptive innovation, incremental innovation, business model innovation and sustaining innovation collectively have a statistically significant effect on the performance of state corporations.

Table 3: Regression Coefficients

Model Un		Unstar Coef	ndardized ficients	Standardized Coefficients	t	Sig.
	-	В	Std. Error	Beta		
	(Constant)	0.835	0.179		4.6648	0.000
	Disruptive Innovation	0.382	0.141	0.389	2.7092	0.009
1	Incremental Innovation	0.202	0.092	0.212	2.1957	0.027
	Business Model Innovation	0.323	0.131	0.325	2.4656	0.011
	Sustaining Innovation	0.412	0.116	0.432	3.5517	0.001

a. Dependent Variable: Performance of State Corporations

Regression equation for the unstandardized coefficients was;

 $Y = 0.835 + 0.382 X_1 + 0.202 X_2 + 0.323 X_3 + 0.412 X_4 \\$

The study found that disruptive innovation has a positive and significant influence on the performance of state corporations in health sector in Kenya ($\beta_1 = 0.382$, p-value = 0.009). Since the p-value (0.009) is below the 0.05 significance level, the relationship is considered

statistically significant. This suggests that a unit increase in disruptive innovation is associated with a 0.382unit improvement in the performance of state corporations in health sector in Kenya. These findings agree with Wang, Guo and Zhan (2023) observations that disruptive innovation positively influences firm performance, with innovation speed and innovation quality mediating this relationship. The findings also agree with Koay and Muthuveloo (2021) findings that disruptive innovation in manufacturing firms often leads to the introduction of novel products or processes, altering market dynamics and competitive landscapes.

In addition, the study found that incremental innovation has a positive and significant influence on performance of state corporations in health sector in Kenya ($\beta_2 = 0.202$, p-value = 0.027). Since the p-value (0.000) is less than the 0.05 significance threshold, the relationship is deemed statistically significant. The findings imply that a unit enhancement in incremental innovation is associated with a 0.202-unit enhancement in the performance of state corporations in health sector in Kenya. These findings concur with Oduro and Nyarku (2020) observations that incremental innovation practices positively impacted the performance of SMEs. In addition, the findings agree with Tarus, Boit and Korir (2019) who observed that incremental innovation plays a significant role in determining a firm's competitive advantage.

Further, the study found that business model innovation has a positive and significant influence on performance of state corporations in health sector in Kenya ($\beta_3 = 0.323$, p-value = 0.011). Since the p-value (0.011) is less than the 0.05 significance threshold, the relationship is deemed statistically significant. This means that an improvement in business model innovation would result to 0.323 improvement in the performance of state corporations in health sector in Kenya. These findings are in line with Musyoka (2023) observations that business model innovation has a significant effect on firm performance in five star rated hotels. Further, the findings align with Waweru (2020) observations that business model innovation enhances competitive advantage by optimizing resource allocation, improving student experience, and fostering sustainable revenue streams.

Moreover, the study established that sustaining innovation has a positive and significant influence on performance of state corporations in health sector in Kenya ($\beta_4 = 0.412$, p-value = 0.001). Given the p-value (0.001) is well below 0.05, the relationship is statistically significant. This suggests that an increase in sustaining innovation would lead to an increase in the performance of state corporations in health sector in Kenya. These findings conform to Olugbenga and Gudbrand (2020) who observed that sustaining innovation has an effect on technical efficiency of Norwegian firms. In addition, the findings agree with Kimathi, Mukulu and Odhiambo (2020) observations that Sustaining innovation positively impacts the performance of small and medium enterprises (SMEs) in Kenya, fostering long-term growth and competitiveness.

Conclusions

The study concludes that various forms of innovation—disruptive, incremental, business model, and sustaining, positively and significantly influence the performance of state corporations in Kenya's health sector. Disruptive innovation, including digital transformation, the introduction of new products, and the development of value networks, enhances organizational performance. Similarly, incremental innovation, such as product modifications over time, streamlined workflows, and quality enhancements, contributes to improved outcomes. Business model innovation, particularly through consumer segmentation, revenue diversification, and market expansion, also boosts performance. Additionally, sustaining innovation, characterized by customer feedback integration, the evolution of product features, and employee training, plays a vital role in enhancing organizational effectiveness. Overall, the

findings highlight that fostering these innovation strategies can significantly improve the efficiency, adaptability, and competitiveness of state corporations operating in Kenya's health sector.

Recommendations

Based on the study's findings, several recommendations were made to enhance the performance of state corporations in Kenya's health sector through strategic innovation. To optimize disruptive innovation, it is recommended that corporations strengthen monitoring of digital solutions, increase funding for emerging technologies, and establish innovation labs. Incorporating customer feedback into agile product development, marketing innovative solutions effectively, and expanding into underserved markets using disruptive models are also vital. For incremental innovation, corporations should institutionalize workflow audits, routinely update SOPs, and implement innovation suggestion platforms to promote continuous improvement. Quality enhancement efforts should include benchmarking and integrating client satisfaction metrics, while maintaining ISO certification is essential. Regarding business model innovation, state corporations should leverage data-driven segmentation, explore hybrid revenue models, and align training investments with value creation. Market expansion should be anchored in adaptable, scalable models. To support sustaining innovation, integrating customer feedback, allocating resources for product enhancement, and prioritizing employee upskilling are recommended. Finally, further research should explore strategic innovation in sectors beyond health and examine other influencing factors such as leadership styles, organizational culture, stakeholder engagement, and digital capabilities to broaden understanding and impact.

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