



STRATEGIC CAPABILITIES AND SERVICE DELIVERY OF PRIVATE HOSPITALS IN NAIROBI COUNTY, KENYA

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Abstract

Private hospitals play an important role in Kenya's healthcare system by complementing public health facilities and addressing the growing demand for quality medical services. In Nairobi County, private hospitals contribute significantly to healthcare provision by offering specialized services, improved access to care, and modern medical technologies. However, despite their contribution, many private hospitals face challenges related to inefficiencies in service delivery, limited technological adoption, and inadequate strategic management practices. These challenges may negatively affect the quality, accessibility, responsiveness, and overall effectiveness of healthcare services offered to patients. This study examined the influence of strategic capabilities on service delivery among private hospitals in Nairobi County, Kenya. The study specifically focused on managerial capabilities, technological capabilities, and marketing capabilities as key strategic factors influencing service delivery. The study was guided by Resource Based View Theory, Dynamic Capability Theory, Market Based View Theory, and Stakeholder Theory to explain how organizational capabilities influence performance outcomes. A descriptive research design was adopted targeting management level employees working in private hospitals within Nairobi County. Primary data were collected using structured questionnaires administered to respondents selected through a stratified sampling technique. The collected data were analyzed using descriptive statistics and inferential techniques to

determine the relationship between strategic capabilities and service delivery. Service delivery was assessed using dimensions derived from the SERVQUAL model including reliability, responsiveness, assurance, empathy, and tangibility. The findings revealed that managerial capabilities, technological capabilities, and marketing capabilities have a positive and statistically significant influence on service delivery in private hospitals. The study concludes that strengthening strategic capabilities can significantly improve the quality and efficiency of healthcare service delivery in private hospitals in Nairobi County.

Keywords: Strategic Capabilities, Managerial Capabilities, Technological Capabilities, Marketing Capabilities, Service Delivery, Private Hospitals, Nairobi County, Kenya

INTRODUCTION

Service delivery refers to how services are provided to consumers, with a strong emphasis on efficiency, quality, accountability, and responsiveness. Within the healthcare sector, service delivery encompasses the structures, procedures, and processes that ensure patients receive the goods and services they require. Effective healthcare service delivery is essential not only for achieving better health outcomes but also for the optimum use of available resources and maximizing patient satisfaction. It is intrinsically linked to broader healthcare system goals, including Universal Health Coverage (UHC), equity, efficiency, and long-term sustainability. Conversely, ineffectiveness, poor responsiveness, and organizational misconduct can significantly undermine the quantity, quality, and availability of healthcare services.

In Kenya, private hospitals constitute a substantial proportion of the total healthcare landscape, accounting for approximately 52% of the country's total healthcare provision. These institutions play a vital role in meeting the growing healthcare demands of the population, often leveraging the latest technologies and employing highly skilled medical professionals. Despite their significance, challenges such as poor remuneration of health workers, abuse of authority, and inadequate staff facilities continue to negatively affect service delivery efficiency within these institutions (Naher et al., 2020).

To address such operational challenges, organizations must develop and leverage strategic capabilities. Strategic capabilities involve the integration of organizational skills, resources, and processes to establish a competitive advantage that directly influences service delivery efficiency. For private hospitals, these capabilities typically include managerial, technological, and marketing competencies, all of which can significantly impact service quality, responsiveness, and patient satisfaction (Singh & Dixit, 2020). Organizations are established with specific objectives, and the ability to harness strategic capabilities is one of the most critical factors in achieving those goals.

Strategic competence enables an organization to deploy its resources effectively, create financial value, and maintain a sustained competitive edge (Morris, 2022).

At the global level, developed economies have recognized the direct relationship between healthcare investment and economic productivity. China, for example, has been systematically increasing its biomedical research spending by 20–25% annually. This investment is expected to drive economic growth by raising labor productivity across the country. Former Chinese Health Minister Chen Zhu famously regarded investment in citizens' health as one of the wisest decisions any government could make (Collins, 2023). Developing nations in Africa have similarly acknowledged the role of efficient healthcare delivery in driving economic growth. Ghana, for instance, has decentralized its health services to enhance community participation in planning and service provision, while its National Health Insurance Scheme (NHIS) has earned international recognition as a model for improving healthcare accessibility (Akweongo et al., 2021).

The Kenyan government has demonstrated a firm commitment to improving the health of its citizens through multiple reforms. Since the establishment of the National Hospital Insurance Fund (NHIF) in 1966, coverage has steadily expanded. By 2018, the NHIF covered 16.7% of Kenyan residents, and the healthcare sector contributed a 5.7% increase in value-added GDP. Government budget allocation to healthcare also rose to 5.4% during the 2018–2019 financial year (Zeng et al., 2022). A well-functioning healthcare sector ultimately strengthens national health outcomes and enhances overall population productivity (Mugo, 2023).

Strategic Capabilities

Strategic capabilities are the organizational competencies critical in ensuring that the performance of private hospitals is enhanced, service delivery improved, and competitive advantage maintained within the healthcare industry. These capabilities represent the sum of knowledge, skills, processes, and resources applied by hospitals to implement strategies successfully and react to changing environmental conditions. On a general scale, these capabilities are grouped into three key areas: managerial, technological, and marketing, all of which are essential to enhancing efficiency, accountability, patient satisfaction, and general competitiveness in Nairobi County's private healthcare sector.

Managerial capabilities include leadership, decision-making, and administrative skills that help hospital managers lead their organizations toward strategic goals. Effective leadership ensures executives communicate a clear vision, motivate workers, and instill a culture of accountability, teamwork, and innovation. Decision-making efficiency involves examining information and making timely, evidence-based decisions to improve organizational performance. Governance structures

ensure regulatory compliance and transparency, while employee performance management promotes constant professional growth, motivation, and retention of qualified healthcare professionals (Efunniyi et al., 2024). Technological capabilities refer to a hospital's capacity to implement and adopt modern technology to improve clinical and administrative output. This includes hospital information systems (HIS), digital health records, telemedicine, and superior medical infrastructure. HIS enables effective control over patient information, billing, and resources, improving coordination of activities (Shittu et al., 2024). Telemedicine and digital records offer greater accessibility, reducing waiting periods and administrative bottlenecks. Investment in AI and data analytics further enhances operational efficiency and decision-making.

Marketing capabilities are the strategic competencies that enable private hospitals to identify, attract, and retain patients while establishing a robust brand image. These include patient acquisition and retention strategies, brand reputation management, digital marketing, and customer satisfaction programs. Online campaigns and social media platforms enhance a hospital's visibility, while consistent patient feedback mechanisms identify service gaps and areas for improvement (Putri et al., 2024). Combined, these three capabilities constitute the foundation of any hospital's strategic competence and service delivery model, enabling improved care quality, patient responsiveness, accountability, and sustained competitiveness.

Service Delivery

From a strategic management perspective, service delivery in private hospitals is the systematic execution of healthcare services to meet patient needs while maintaining operational efficiency, competitiveness, and sustainability. Service delivery is a multidimensional construct encompassing quality of service, operational efficiency, responsiveness, accessibility, accountability, and competitive positioning.

Quality of service defines the hospital's ability to provide high-quality, evidence-based medical care that meets and exceeds patient expectations. Operational efficiency refers to delivering healthcare services cost-effectively, minimizing wastage and redundancy through lean management and optimized workflows (Dion et al., 2025). Responsiveness and accessibility ensure timely, patient-focused care across diverse healthcare demands, supported by telemedicine and online appointment systems. Accountability entails adherence to ethical, legal, and professional standards, supported by transparent governance structures and continuous performance audits (Amos, 2022). Competitive advantage is reinforced through branding, patient loyalty programs, and strategic partnerships with insurers and pharmaceutical companies. This study assesses service delivery using the SERVQUAL model across five dimensions: tangibility, reliability, responsiveness,

assurance, and empathy, enabling private hospitals to enhance patient outcomes and operational competitiveness in Kenya's evolving healthcare environment.

Nairobi County Private Hospitals

Nairobi houses the majority of Kenya's recognized private hospitals, which play a significant role in the country's healthcare arrangement. Private hospitals operate for both social and financial purposes, contributing substantially to improving public health (Africa Health Business, 2023). The sector continues expanding as public hospital operations deteriorate and funding resources remain scarce (Syengo and Suchman, 2020). Kenya's healthcare system comprises 9,696 institutions, with the private commercial sector controlling 3,696 facilities. Health insurance covers approximately 25% of Kenyans, meaning 75% pay for medical expenses out of pocket (Mugo, 2023). Government health budget allocation rose from 7.8% in FY 2012–13 to a peak of 9.5% of the entire government budget by FY 2019–20 (Health Policy Plus, 2021). Despite growth, the private health industry continues facing obstacles including low public funding, high medical costs, and limited healthcare personnel (Maritim et al., 2023).

Problem Statement

Private hospitals in Nairobi County contribute 52% of Kenya's total healthcare services, yet continue facing significant service delivery challenges affecting quality, efficiency, accessibility, and patient satisfaction. Key issues include weak governance structures, ineffective leadership, high staff turnover due to poor working conditions, and slow adoption of technologies such as HIS and telemedicine, collectively limiting hospitals' capacity to meet growing healthcare demands. Existing literature has predominantly focused on public healthcare institutions and international contexts, overlooking the specific strategic challenges facing private hospitals. Most studies examine isolated factors without incorporating managerial, technological, and marketing capabilities as central influences on hospital performance. Previous Kenyan studies, including Gautama and Kavindah (2022) on marketing capabilities at KRA, Nyukuri and Makokha (2022) on managerial capabilities in Kakamega County, and Lichtsteiner et al. (2022) on IT and service delivery in Switzerland, have not addressed private hospitals in Nairobi County. This study bridges that gap.

Objectives, Purpose and Significance of the Study

This study aims to explore the efficacy of strategic capabilities on service delivery of private hospitals in Nairobi County, guided by three specific objectives: investigating how managerial capabilities affect service delivery, examining the influence of technological

capabilities, and exploring the role of marketing capabilities in private hospitals across Nairobi County. The study holds practical, policy, and theoretical significance. Practically, it equips hospital administrators with insights to improve managerial, technological, and marketing capabilities, enhancing operational efficiency and patient satisfaction. From a policy perspective, it strengthens healthcare regulations, accreditation standards, and public-private partnerships while aligning private hospitals with Universal Health Coverage (UHC) goals. Theoretically, the study draws on Dynamic Capability, Resource-Based View, Market-Based View, and Stakeholder Theories, offering hospitals a framework to adapt, innovate, and remain competitive. The findings further contribute to academic knowledge by expanding understanding of how strategic capabilities influence healthcare service delivery within Kenya's private hospital sector.

LITERATURE REVIEW

Theoretical Review

Dynamic Capability Theory

Proposed by Pisano and Teece (1994), Dynamic Capability Theory suggests that for a business to succeed, it must combine, develop, and reorganize internal and external competencies to create new forms of competitive advantage (Panasiewicz, 2023). Prosperous businesses are those that create innovative products and react swiftly to changing conditions. Teece defines "dynamic" as a firm's ability to reallocate capabilities to accomplish concordance with an ever-changing context, which is crucial in circumstances where market timing is critical and rivalry is difficult to evaluate (Taghizadeh et al., 2024).

Dynamic capabilities enable organizations to monitor ongoing change and respond to external stimuli. According to Singh et al. (2022), a company with strategic capability can cater to opportunities and threats present in the market. Businesses use a mix of active actions and deliberate approaches to business planning, developing explicit abilities in correspondence with business environment changes. The theory aims to maximize the firm's limited resources to be deployed with a competitive advantage. A dynamic capability such as employee competency can be developed through training to support learning new skills compatible with the constantly changing work environment. This research is based on the notion that a firm's distinct talents enable an organization to create, expand, or modify its asset base to improve its performance (Chowdhury & Quaddus, 2017).

The theory fits private hospitals because they require improved service delivery through technological innovation, enhanced managerial operations, and strategic marketing implementation. It directly supports managerial and technological capabilities within this study. However, the framework lacks targeted service delivery specifications within healthcare,

producing comprehension gaps for private hospitals seeking to apply these capabilities to enhance patient care delivery.

Market-Based View Theory

Proposed by Mason and Bain in 1950, the Market-Based View (MBV) theory argues that the number of market participants, barriers to entry, and demand elasticity are essential factors in organizational success (Keels, 2021). This view asserts that external influences impact an organization's performance more than its internal traits, with industrial structure offering avenues for sustainable competitive advantage. The theory relies on the idea that resources are homogeneous and highly mobile. Five competitive forces shape industry dynamics: customers' bargaining power, suppliers' negotiating strength, threat of new competitors, threat of substitutes, and intensity of rivalry. These forces affect a firm's return on investment, pricing, costs, and required investments. To succeed, organizations must adopt one of three generic strategies: differentiation, focus, or cost leadership. Porter argues that success requires adherence to one of these tactics.

Based on MBV, an industry's attractiveness and an organization's placement within its structure are essential to achieving sustained competitive advantage. Critics, however, argue the theory is biased toward industry structure while neglecting a firm's internal operations.

The MBV theory is appropriate for this study because it places great importance on market conditions in shaping organizational strategy, directly supporting marketing capability. For private hospitals to attract patients, they must brand, engage with customers, and position themselves competitively. Nevertheless, a conceptual gap exists as MBV does not fully address how internal hospital capabilities in leadership and technology relate to service delivery outcomes, limiting its standalone applicability in explaining private hospital performance.

Resource-Based View (RBV) Theory

First proposed by Birger and Barney in 1991, the Resource-Based View theory holds that resources, capabilities, and assets are the best baselines for competitive advantage and superior organizational performance (Adam et al., 2022). RBV asserts that only resources that are valuable, rare, non-imitable, and non-substitutable can help an organization sustain competitive advantage. In private hospitals, strategic capabilities, managerial, technological, and marketing, are considered valuable resources that determine the success of service provision (Al-Worafi, 2023).

Managerial capability encompasses what managers can do in directing hospital operations and service delivery. Technological assets encompass the services, systems, and

facilities used in healthcare delivery. Marketing competence refers to strengths in marketing hospital services, winning and retaining patients, and building brand loyalty. Where these capabilities are established as internal resources, private hospitals can improve service delivery quality, increase patient satisfaction, and maintain competitiveness (Yu et al., 2021).

Consistent with RBV, the conceptual framework of this research positions managerial, technological, and marketing capabilities as independent variables affecting service delivery. The model recognizes that when strategic capabilities are managed as valuable assets, they are indispensable in enhancing private hospitals' service quality and efficiency (Moshood et al., 2022). Combined, these capabilities enhance operational efficiency, timely response to patients, and overall patient satisfaction. The RBV directly addresses this study's interest in internal resources shaping service delivery. However, a research gap remains in the specific linkage between these capabilities and measurable service delivery outcomes within private hospitals.

Empirical Literature

Several studies have examined the influence of managerial and technological capabilities on service delivery across various sectors. Ramadhan and Onyango (2021) found that managerial skills positively correlate with the performance of Kenya's microfinance banks, while Gautama and Kavindah (2022) established that managerial competence significantly enhances organizational effectiveness at the KRA, particularly in motivating staff and fostering employee engagement. Nyukuri and Makokha (2022) confirmed a positive relationship between managerial capabilities and Kakamega County Government performance, and Mugo and Deya (2023) further established that increased managerial competencies enhance the performance of Kenya's independent commissions through improved hiring, training, and compensation practices. On the technological front, Omboti et al. (2019) confirmed that strategic technology capability significantly improves service delivery at the Directorate of Immigration, while Riyadh and Fahlevi (2020) demonstrated a strong positive influence between IT adoption and service delivery in Indonesian state organizations.

Ndanu (2020) found that IT capacity greatly enhances Kenyan private universities' performance, and Lichtsteiner et al. (2022) revealed that technology integration within Swiss customer care centers significantly improves service delivery efficiency. Gautama and Kavindah (2022) further established that IT capabilities positively impact KRA performance, while Ngundi and Omwenga (2023) confirmed a positive relationship between technical knowledge and performance among Kenyan insurance firms. Mugo and Deya (2023) similarly found that ICT management capabilities significantly influence the effectiveness of Kenya's independent commissions.

Regarding marketing capabilities, Cavazos-Arroyo and Puente-Diaz (2019) demonstrated that marketing competence positively boosts social innovation and value creation in Mexican social enterprises, while Joensuu-Salo et al. (2020) established that marketing capability significantly enhances firm growth among Finnish SMEs. Santiago et al. (2020) found that marketing capability favorably impacted sales performance among chemical distributors, and Hariandja et al. (2021) confirmed that dynamic marketing capability positively and significantly affects hotel service excellence in Kenya. Gautama and Kavindah (2022) further revealed that marketing capabilities positively influence KRA performance, enabling more effective brand positioning than competitors. While these studies collectively demonstrate the positive influence of managerial, technological, and marketing capabilities on organizational performance across diverse sectors and contexts, most are concentrated on public institutions, government agencies, SMEs, and non-healthcare industries. A contextual gap therefore exists, as limited research has specifically examined how these three strategic capabilities collectively influence service delivery in private hospitals within Nairobi County, Kenya, which this study seeks to address.

Conceptual Framework

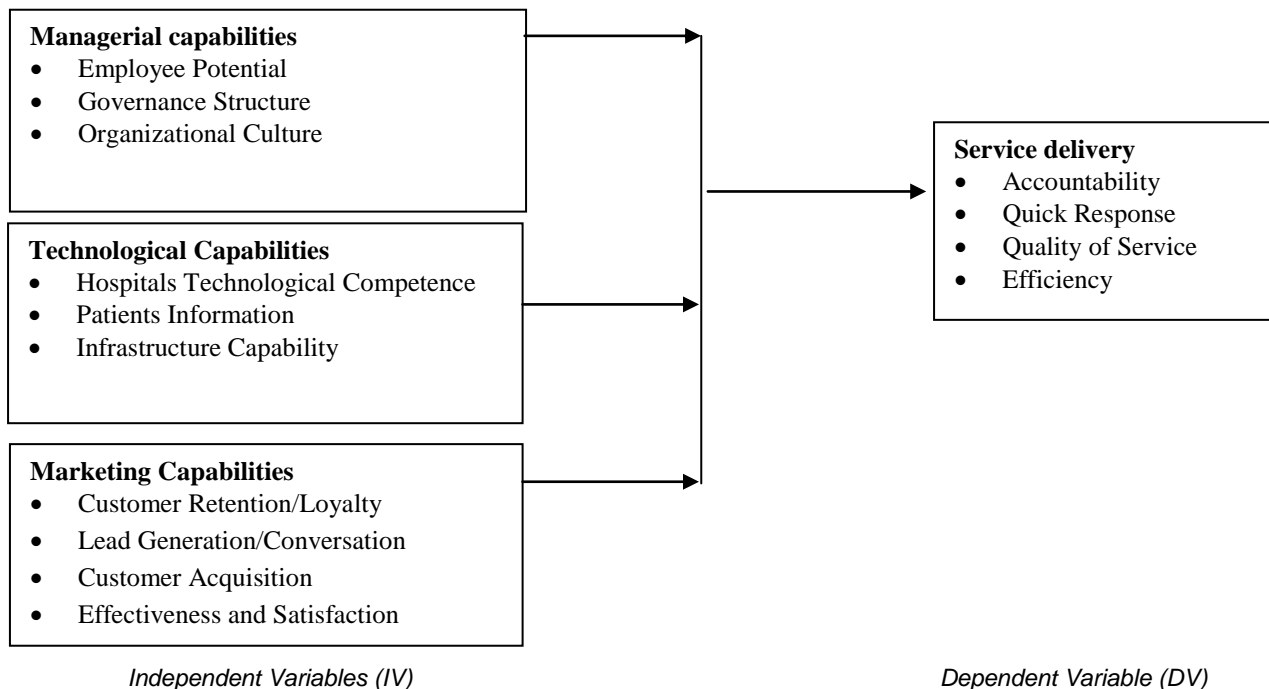


Figure 1: Conceptual Framework Linking Strategic Capabilities to Service Delivery of Private Hospitals Nairobi County

Research Gaps

Despite the growing body of literature on strategic capabilities and organizational performance, significant contextual, sectoral, and geographical gaps remain. Studies on managerial capabilities have predominantly focused on Kenya's microfinance banks (Ramadhan & Onyango, 2021), the Kenya Revenue Authority (Gautama & Kavindah, 2022), Kakamega County Government (Nyukuri & Makokha, 2022), and Kenya's independent commissions (Mugo & Deya, 2023). Technological capability studies have similarly been confined to the Directorate of Immigration (Omboti et al., 2019), Indonesian state organizations (Riyadh & Fahlevi, 2020), Kenyan private universities (Ndanu, 2020), Swiss public customer service centers (Lichtsteiner et al., 2022), Kenyan insurance companies on the NSE (Ngundi & Omwenga, 2023), and Kenya's independent commissions (Mugo & Deya, 2023). Research on marketing capabilities has likewise been restricted to Mexican social enterprises (Cavazos-Arroyo & Puente-Diaz, 2019), Finnish SMEs (Joensuu-Salo et al., 2020), chemical companies (Santiago et al., 2020), Kenya's hotel industry (Hariandja et al., 2021), and the Kenya Revenue Authority (Gautama & Kavindah, 2022). Collectively, none of these studies examine how managerial, technological, and marketing capabilities jointly influence service delivery in private hospitals within Nairobi County, Kenya, a critical gap this study addresses.

RESEARCH METHODOLOGY

Design

This study employed a descriptive research design, justified by its capacity to offer a comprehensive understanding of the impact of strategic capabilities on service delivery in private hospitals. This design allows for systematic data collection, analysis, and interpretation related to managerial, technological, and marketing capabilities and their influence on hospital performance, efficiency, and patient satisfaction. A cross-sectional approach was adopted as data was gathered within a single period, making responses relevant only to the studied timeframe. The design facilitates examination of actual healthcare operations without altering the research environment, making it particularly effective for exploring patterns, relationships, and trends among private hospitals in Nairobi County.

Population and Sampling

The target population comprised 166 management-level employees drawn from 53 private hospitals in Nairobi County (Kenyapharmtech, 2020), stratified into top managers (32), middle managers (63), and lower managers (71). Stratified random sampling was employed to ensure proportional representation across all managerial hierarchies, enhancing construct validity and

minimizing sample bias. Management-level employees were specifically selected due to their significant involvement in hospital management activities and strategic decision-making.

Instrumentation and Data collection

Primary data was collected through semi-structured questionnaires containing both closed and open-ended questions aligned with the study's conceptual framework. The questionnaire comprised two sections: the first captured demographic information, while the second gathered data on the study variables. Questionnaires were administered using a drop-and-pick method, allowing participants sufficient time to complete responses. Prior to data collection, the researcher obtained an introductory letter from the study institution and a research permit from the National Commission for Science, Technology, and Innovation (NACOSTI). Participant confidentiality and anonymity were strictly maintained throughout the process, with all collected information used exclusively for research purposes. Descriptive and inferential statistics, including regression and correlation analysis, were used to analyze the collected data.

Stability and Validity of Instrumentation of Data Collection Tool

Validity refers to the relevance and accuracy of the research instrument (Van der Kleij & Lipnevich, 2021). Content validity was ensured by having the questionnaire items reviewed by the supervisor and subject specialists, confirming alignment with the study's conceptual framework. The questionnaire was structured into multiple sections, each targeted at a specific objective, to ensure construct validity and clearly demonstrate the study variables. Regarding reliability, Sürücü and Maslakci (2020) define it as a measure's capacity to consistently produce comparable results under similar conditions. Cronbach's Alpha was employed to assess internal coherence using SPSS, computing correlations and averages across measurable items. Consistent with Schrepp (2020) and Field's recommendation, a minimum Cronbach's Alpha coefficient of 0.7 was adopted as the acceptable reliability cutoff for this study.

FINDINGS & DISCUSSIONS

Demographic Characteristics of Respondents

The demographic profile of the 72 respondents reveals a diverse and experienced management base across Nairobi's private hospitals. In terms of gender, 61.1% were male and 38.9% female, reflecting the broader demographic of Kenya's healthcare administration where men predominantly occupy senior management roles involved in strategic goal setting and service delivery coordination (Nzinga et al., 2018). Regarding age, the majority of respondents (46.5%) were between 31 and 40 years old, followed by those under 30 (25.4%), between 41

and 50 (21.1%), and above 50 (7%). This mature age profile suggests considerable institutional knowledge and professional experience, enabling respondents to effectively evaluate how strategic capabilities influence service delivery over time.

Educationally, the respondents were highly qualified, with 44.4% holding bachelor's degrees, 23.6% master's degrees, 20.8% diplomas, and 11.1% PhDs. This concentration of academic achievement aligns with the Resource-Based View theory, which regards education as a valuable, intangible, and difficult-to-imitate strategic resource (Arslan & Alqatan, 2020). Advanced qualifications equip managers with evidence-based decision-making capabilities, stronger governance systems, and greater capacity to integrate technological advancements in healthcare delivery. The figure 2 below shows the distribution of respondents by education level.

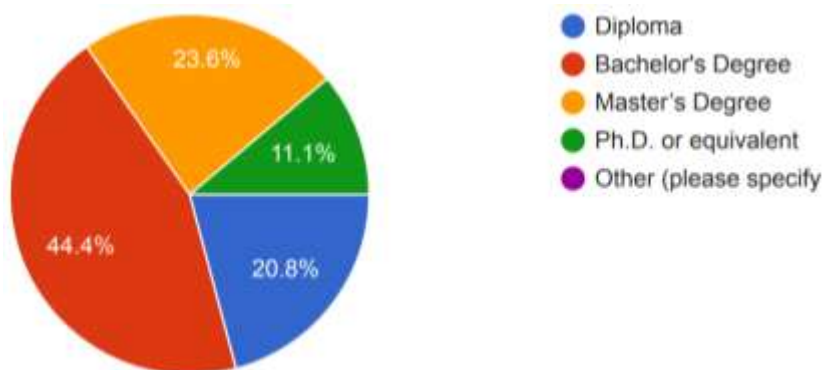


Figure 2: Respondents' education level

In terms of experience, 62.5% of respondents had two to five years in healthcare management, 18.1% between six and ten years, 13.9% less than two years, and 5.6% more than ten years. This blend of seasoned and newer managers supports both institutional stability and innovative thinking, consistent with Dynamic Capability Theory. The figure 3 below shows the distribution of respondents by years of experience.

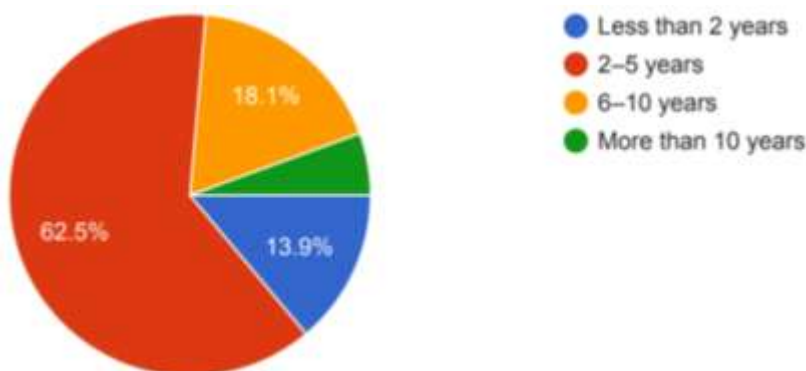


Figure 3: Respondents' years of experience

Finally, respondents represented diverse hospital types, including general private hospitals (62.5%), specialist clinics (61.1%), faith-based or NGO-supported hospitals (36.1%), tertiary referral hospitals (27.8%), and investor-owned chain hospitals (26.4%). This institutional diversity ensures comprehensive understanding of strategic capability deployment across various organizational models within Nairobi's private healthcare sector.

Descriptive Statistics

The findings reveal a robust managerial, technological, and marketing capability environment across private hospitals in Nairobi County. Regarding managerial capabilities, over three-quarters of respondents viewed their leaders as critical in providing strategic direction, with 22.2% strongly agreeing and 54.2% agreeing that hospital leadership effectively drives strategic goals. Decision-making processes also received positive feedback, with 30.6% strongly agreeing and 50% agreeing that processes are structured and timely. Governance scored well, with 20.8% and 59.7% strongly agreeing and agreeing respectively on organizational accountability. These findings align with Stakeholder Theory, signifying a corporate culture that balances regulatory compliance, patient welfare, and transparency. However, neutral and dissenting responses indicate room for improvement, particularly in streamlining governance structures and reducing bureaucratic bottlenecks that may slow institutional responsiveness to patient demands.

Regarding technological capabilities, 8.3% strongly agreed and 62.5% agreed that their hospital operates a fully functional Hospital Information System (HIS), though notable neutrality suggests uneven integration across facilities. Telemedicine adoption showed positive trends, with 14.1% strongly agreeing and 42.3% agreeing that such tools are incorporated in service delivery, with momentum likely accelerated by the COVID-19 pandemic (Onsongo et al., 2023). Modern diagnostic and treatment equipment was confirmed by 16.9% strongly agreeing and 60.6% agreeing, supporting the SERVQUAL dimensions of tangibles and reliability. Overall, technological preparedness is high, though ambivalent responses suggest that training, maintenance, and system integration require further attention to maximize these investments. Table 1 shows managerial and technological capability indicators.

On marketing capabilities, technological advancement was identified by 50% of respondents as having the most significant impact on patient care, followed by marketing and patient engagement at 37.5%, and leadership and management at 11.1%. Looking ahead, 70.8% identified marketing and branding as the area most requiring future improvement, reflecting growing recognition that clinical quality alone is insufficient for differentiation in a competitive healthcare market (Kwame & Petrucka, 2021).

Table 1: Managerial and Technological Capability Indicators

Capability Category	Statement	Strongly Agree (%)	Agree (%)	Neutral/Disagree (%)
Managerial Capability	Leadership provides strategic direction	22.2	54.2	23.6
	Decision making processes are structured and timely	30.6	50.0	19.4
	Governance ensures accountability	20.8	59.7	19.5
Technological Capability	Functional Hospital Information System (HIS)	8.3	62.5	29.2
	Telemedicine tools are used in service delivery	14.1	42.3	43.6
	Availability of modern diagnostic equipment	16.9	60.6	22.5

Service delivery outcomes presented a mixed but generally positive picture. While 18.1% rated overall service quality as excellent and consistent, 51.4% described it as generally good with occasional delays, and 29.2% reported mixed quality across departments, indicating structural and operational imbalances within hospitals. Notably, no respondent rated service as critically poor. Patient access patterns revealed a strong shift toward digital connectivity, with 62.9% of patients arriving through referrals and 21.4% using online booking or telemedicine platforms, signifying the growing importance of digital infrastructure in service delivery. The most pressing operational challenge identified was equipment and system failures (65.3%), followed by staff shortages (18.1%), poor communication and coordination (12.5%), and overcrowding (4.2%).

Regarding competitive advantage, 75% of respondents agreed that their hospitals are gaining a competitive edge through strategic capabilities, consistent with Resource-Based View theory, which identifies valuable, rare, and hard-to-imitate resources as the foundation of sustained competitive advantage (D'Oria et al., 2021). For future priorities, 70.8% identified technology infrastructure and managerial systems as requiring the most significant investment, while 12.5% prioritized marketing and branding, and 4.2% identified staff training and development. Table 2 shows service delivery outcomes, patient access, operational challenges and competitive advantage

Table 2: Service Delivery Outcomes, Patient Access, Operational Challenges and Competitive Advantage

Category	Indicator	Response	Percentage (%)
Service Delivery Outcomes	Overall service quality	Excellent and consistent	18.1
		Generally good with occasional delays	51.4
		Mixed quality across departments	29.2
		Critically poor	0.0
Patient Access Methods	Mode of accessing services	Referrals	62.9
		Online booking/telemedicine	21.4
		Other methods	15.7
Operational Challenges	Key operational challenges	Equipment/system failures	65.3
		Staff shortages	18.1
		Communication problems	12.5
		Overcrowding	4.2
Competitive Advantage Perception	Hospitals gaining competitive advantage	Yes	75.0
	Future priority investment areas	Technology and managerial systems	70.8
		Marketing priority	12.5
		Staff training priority	4.2

Regression Analysis of Strategic Capabilities and Service Delivery

To determine the influence of strategic capabilities on service delivery among private hospitals in Nairobi County, a multiple regression analysis was conducted. The regression model examined the combined effect of managerial capabilities, technological capabilities, and marketing capabilities on service delivery. The general regression model guiding this study was expressed as:

$$SD = \beta_0 + \beta_1MC + \beta_2TC + \beta_3MKC + \varepsilon$$

Where:

SD = Service Delivery

β_0 = Constant term

$\beta_1 \beta_2 \beta_3$ = Regression coefficients

MC = Managerial Capabilities

TC = Technological Capabilities

MKC = Marketing Capabilities

ε = Error term

Based on the regression output obtained from the statistical analysis, the estimated regression equation for the study was:

$$SD = 1.301 + 0.314(MC) + 0.196(TC) + 0.219(MKC) + \varepsilon$$

The model summary results indicate that the regression model explains a considerable proportion of variation in service delivery. The coefficient of determination ($R^2 = 0.400$) indicates that approximately 40 percent of the variation in service delivery among private hospitals in Nairobi County is explained by managerial capabilities, technological capabilities, and marketing capabilities. This demonstrates that the model has moderate explanatory power in predicting service delivery outcomes. The adjusted R^2 value of 0.364 further confirms that the model remains reliable after accounting for the number of predictor variables included in the regression analysis.

The results of the Analysis of Variance (ANOVA) indicate that the regression model was statistically significant ($F = 11.172$, $p < 0.001$). This implies that the combined influence of managerial capabilities, technological capabilities, and marketing capabilities significantly affects service delivery among private hospitals in Nairobi County. The statistical significance of the model confirms that strategic capabilities play an important role in determining the quality-of-service delivery within the healthcare sector.

Further analysis of the regression coefficients reveals the specific contribution of each independent variable to service delivery. Managerial capabilities showed a positive and statistically significant influence on service delivery ($\beta = 0.314$, standardized $\beta = 0.406$, $p = 0.035$). This indicates that structured and timely decision making enhances operational efficiency and improves service delivery performance. The finding suggests that strengthening managerial capabilities is essential for improving healthcare outcomes.

Technological capabilities demonstrated a positive and statistically significant effect on service delivery ($\beta = 0.196$, standardized $\beta = 0.261$, $p = 0.006$). This suggests that technological systems contribute to improved efficiency, their effect on service delivery is also sufficiently strong and is considered statistically meaningful within this model. Enhanced system utilization and continuous staff training may therefore be required to maximize their impact. Marketing capabilities showed a positive and statistically significant relationship with service delivery ($\beta =$

0.202, standardized $\beta = 0.219$, $p = 0.010$). This indicates that marketing related initiatives such as telemedicine may contribute to service delivery.

The constant term ($\beta_0 = 1.301$, $p < 0.001$) represents the baseline level of service delivery when all independent variables are held constant. This indicates that a minimum level of service delivery exists even in the absence of the predictor variables included in the model.

Overall, the regression results demonstrate that strategic capabilities significantly influence service delivery among private hospitals in Nairobi County, with managerial capabilities emerging as the most significant predictor of service delivery performance. These findings highlight the importance of strengthening managerial processes while enhancing technological systems and marketing related innovations to improve overall healthcare service delivery.

Integrated Interpretation

The overall results depict a robust managerial and technology-based environment supporting Nairobi's private healthcare industry, with marketing emerging as the next strategic frontier. Managerial strengths, including effective leadership, timely decision-making, and accountable governance, resonate with Resource-Based View theory, which emphasizes intangible resources such as leadership skills and institutional knowledge as durable and hard-to-imitate competitive assets (Nzinga et al., 2018). Technological preparedness, evidenced by widespread HIS adoption, telemedicine integration, and modern diagnostic equipment, reflects Dynamic Capability Theory's emphasis on proactively rearranging resources to respond to market changes (Saeedikiya et al., 2024). The growing emphasis on marketing and branding aligns with Market-Based View theory, while accountability and responsiveness reflect Stakeholder Theory's call to align patient, employee, regulator, and community expectations (Szántó et al., 2025). Despite these strengths, technology and infrastructure inefficiency remains the most significant operational barrier, contributing to inconsistent patient experiences. Addressing these gaps through streamlined processes and stronger information flows will enable private hospitals in Nairobi to convert strategic capabilities into sustained high performance and long-term patient satisfaction.

CONCLUSIONS

This study analyzed how managerial, technological, and marketing strategic capabilities affect service delivery in Nairobi County's private hospitals. The findings validate that these capabilities are intertwined and collectively significant in determining operational efficiency, patient satisfaction, and competitive positioning. Managerial capabilities emerged as critical

drivers of service quality, with effective leadership, timely decision-making, and accountable governance frameworks underpinning strategic alignment, though persistent bottlenecks in authorization and governance structures indicate room for improvement. Technological capabilities significantly enhanced operational performance and patient access, with widespread HIS adoption, telemedicine integration, and modern diagnostic equipment strengthening service reliability and tangibility as outlined in the SERVQUAL model. However, equipment failures, inadequate system integration, and insufficient staff training continue to limit the full realization of these investments. Marketing capabilities, though the least developed, are increasingly recognized as a strategic frontier, with brand positioning, patient engagement, and targeted outreach identified as priorities for future growth. Service delivery outcomes were generally positive but inconsistent across departments due to staffing shortages and coordination gaps. Grounded in Resource-Based View, Dynamic Capability, Market-Based View, and Stakeholder theories, the study concludes that private hospitals in Nairobi are well-positioned to achieve sustained high performance by effectively nurturing and integrating their strategic capabilities.

RECOMMENDATIONS

Based on the study findings, eight key recommendations are proposed to enhance strategic capabilities and service delivery in Nairobi's private hospitals. First, hospital leaders should enhance managerial discipline and hasten decision-making by implementing a streamlined RACI framework with threshold-driven delegation and a one-page KPI dashboard monitoring access, quality, cost, and growth monthly. Dashboard exceptions should initiate structured problem-solving within two weeks, reducing decision latency and institutionalizing timely processes (Sreedharan et al., 2024).

Second, equipment and system failures, identified by 65.3% of respondents as the most critical operational barrier, must be urgently addressed. Hospitals should adopt a Computerized Maintenance Management System (CMMS) with preventative maintenance planning and service-level agreements covering uptime, mean time between failure, and same-day replacement commitments. A formal downtime playbook should be created to ensure continuity of care during system outages (Larsen et al., 2019). Third, service quality inconsistency across departments, reported by 29.2% of respondents, should be addressed through service blueprints aligned with SERVQUAL dimensions. Daily management huddles, standardized triage procedures, and department-level cycle time monitoring would improve service uniformity and patient experience across all units.

Fourth, patient access channels should be optimized by establishing a dedicated Referral Relations team providing feedback letters to referring clinicians within 24–48 hours.

Digitally, hospitals should streamline online appointment booking, mobile check-in, price estimates, and integrated telemedicine workflows encompassing scheduling, EHR access, and pharmacy fulfilment. Fifth, technological resources should be translated into consistent performance by addressing interoperability gaps between HIS and billing systems, assigning clinician champions to promote technology adoption, and conducting regular simulation drills to test system downtime responses. Continuous digital process redesign under the Dynamic Capabilities framework will sustain technological agility (Lyon et al., 2023). Sixth, hospitals should strengthen brand positioning, transparency, and patient experience. A unified value proposition emphasizing speed, safety, and compassionate care should underpin all patient communications. Bundled service quotes, online cost estimators, and a patient CRM system would improve billing transparency and foster long-term patient relationships (Baashar et al., 2020).

Seventh, workforce capacity gaps should be addressed through demand-driven rostering systems, float pools covering high-variance departments, and retention programs offering professional growth, reward schemes, and upskilling in telehealth and HIS super-user training (Xue et al., 2025). Finally, hospitals should institutionalize a data-driven continuous improvement cycle incorporating uniform performance measures, weekly unit-level reporting, monthly Plan-Do-Check-Act (PDCA) improvement cycles, and executive review of persistent performance variations.

LIMITATIONS OF THE STUDY

Despite its valuable contributions, this study is subject to several limitations. First, the study was confined to private hospitals in Nairobi County, limiting the generalizability of findings to other counties and public healthcare institutions across Kenya. Second, the study relied exclusively on management-level employees as respondents, potentially excluding the perspectives of frontline healthcare workers, patients, and other key stakeholders whose experiences may significantly influence service delivery outcomes. Third, the use of self-administered questionnaires introduces the possibility of response bias, as respondents may have provided socially desirable answers rather than accurate reflections of their institutions' actual practices. Fourth, the cross-sectional research design captures data at a single point in time, making it difficult to assess how strategic capabilities and service delivery evolve over time. Finally, the study focused on three strategic capabilities, managerial, technological, and marketing, potentially overlooking other capability dimensions that may equally influence private hospital service delivery in Kenya.

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