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Firm Capabilities and Performance of Parastatals in Kenya: A Case Study of Kenya Ports Authority

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Abstract

The study evaluated the relationship between various company capabilities and the performance of the Kenya Ports Authority (KPA), with a focus on how managerial, technological, human resource, and service quality capabilities affect organizational success. A descriptive design was employed, utilizing the Resource-Based View (RBV) theory, Technology Acceptance Model (TAM), Human Capital Theory (HCT), and the SERVQUAL model. The study analyzed a population of 6,655 support staff, 12 senior managers, and 45 middle-level managers at KPA. The sample consisted of 374 support employees, three middle-level managers, and one senior manager. Data was collected through questionnaires and assessed using both descriptive and inferential statistics. The results accounted for 70% of the variance, indicating that KPA's performance was significantly influenced by all four capabilities. Technological capabilities had the greatest positive influence (β=0.503, p=0.000), followed by managerial (β=0.204, p=0.000), service quality (β=0.102, p=0.002), and human resource capabilities (β=0.073, p=0.021). The study concludes that the performance of the Kenya Ports Authority is significantly influenced by technological, managerial, service quality, and human resource capabilities, with technological capabilities having the greatest impact. The study recommends that KPA continue to invest in technological development, enhance management practices, refine human resource strategies, and maintain high service quality standards to further boost organizational performance and success.

Keywords: *Firm capabilities, Parastatal performance, Managerial capabilities, Technological capabilities, Service quality*

1.1 Introduction

Firm capabilities, including managerial, technological, human resource, and service quality competencies, are essential for achieving organizational objectives and maintaining competitiveness (Bamgbade et al., 2022; Khan et al., 2021; Huang et al., 2020). Managerial capabilities, such as strategic planning and leadership, facilitate efficient decision-making and resource allocation, enabling organizations to adapt to external changes (Bamgbade et al., 2022). Technological capabilities drive innovation, data management, and cybersecurity, leading to enhanced operational efficiency and market competitiveness (Khan et al., 2021). Human resource capabilities focus on talent acquisition and development, ensuring a skilled and engaged workforce that fosters innovation and operational success (Khan et al., 2021). Service quality capabilities, which incorporate customer feedback, personalization, and process efficiency, boost customer satisfaction and contribute to long-term business success (Huang et al., 2020).

Organizational performance, measured through financial health, operational efficiency, and customer satisfaction, is critical for ensuring that organizations meet their objectives and remain sustainable (Rehman et al., 2019). For parastatals like the Kenya Ports Authority (KPA), performance metrics such as revenue growth, operational efficiency, customer satisfaction, and regulatory compliance are vital to achieving both commercial success and public service delivery (Fainschmidt et al., 2016). Research has demonstrated that firm capabilities are directly linked to improved organizational performance, with stronger capabilities driving higher levels of success across key indicators (Valdez-Juarez et al., 2021).

Both international and regional studies highlight the importance of firm capabilities. Ahmed (2017) found that managerial development initiatives enhance organizational performance in Pakistan, while Felipe et al. (2019) emphasized the role of IT capabilities in fostering agility and innovation. African studies, including those by Anning-Dorson (2018) and Fakhimi and Miremadi (2022), underscore the significant role of business capabilities in driving organizational success in areas like innovation and customer involvement. In Kenya, local research has demonstrated the critical role of firm capabilities, with Muraga (2021) identifying positive correlations between human resource practices and parastatal performance, and Khalif et al. (2022) highlighting the influence of sensing and operational capabilities on commercial state enterprises.

Parastatals in Kenya, such as KPA, are government-owned entities responsible for delivering public services while engaging in commercial activities. Governed by the State Corporations Act Cap 446, these entities play a crucial role in national development (Wekesa, 2020). KPA, which manages ports like the Port of Mombasa, is vital for regional trade and economic development. Its responsibilities include port infrastructure development, ensuring navigational safety, and aligning with national economic policies (Ng'etich, 2020). KPA also focuses on sustainability, aiming to reduce environmental impacts and foster economic growth through enhanced port operations (Maheri, 2020).

Firm capabilities are essential drivers of performance for parastatals, enabling them to achieve strategic objectives and support economic development. The Kenya Ports Authority exemplifies how capabilities in managerial, technological, human resource, and service quality domains can enhance operational efficiency, customer satisfaction, and long-term sustainability.

1.2 Statement of the Problem

The performance of state corporations and parastatals in Kenya, particularly when assessed against financial metrics, has raised significant concerns. According to the National Treasury and Economic Planning (2022), only 19 out of 236 state corporations met their dividend remittance targets, generating Kshs. 10.15 billion in dividends, a figure that surpassed expectations. However, a more troubling issue emerges when considering Return on Investment (ROI) as a performance measure. Out of the 31 corporations evaluated using ROI, only 10 (32.3%) met their targets, indicating a widespread underperformance across the sector. This highlights a fundamental issue within the financial and operational strategies employed by these corporations, as the majority are failing to meet expected financial outcomes.

In the case of the Kenya Ports Authority (KPA), despite its significant revenue potential, persistent inefficiencies continue to hamper performance. The financial statements for 2021 reported an operating revenue of Kshs. 48.16 billion, but undercharging for container storage contributed to suboptimal financial performance. Moreover, the Auditor-General (2022) identified additional

inefficiencies, such as improper salary payments for hours not worked, resulting in a loss of Kshs. 312 million. These operational inefficiencies point to a deeper issue in KPA's firm capabilities, particularly in technological, financial, and managerial management, which require closer examination to uncover the root causes of underperformance.

Previous research, including studies by Ahmed (2017) and Nyukuri and Makokha (2020), has highlighted the importance of managerial development and leadership in public sector performance. However, these studies have broadly addressed the public sector without delving into the specific dynamics of parastatals like KPA. Furthermore, studies by Mehta et al. (2020) and Khalif et al. (2022) offer valuable insights into managerial capabilities but are limited by their focus outside Kenya. This study fills these gaps by focusing directly on KPA, evaluating the influence of firm capabilities on its performance, and offering insights that are tailored to the Kenyan context. Addressing these capabilities is essential for enhancing KPA's operational efficiency and financial management, which, in turn, is critical for achieving better financial outcomes across Kenya's state corporations.

1.3 Research Objective

The study was guided by the main and specific objectives.

1.3.1 Main Objective

The main objective of the study was to analyze the influence of Firm capabilities on the performance of parastatals in Kenya.

1.3.2 Specific Objectives

i. To analyze the influence of Managerial capabilities on the performance of parastatals in Kenya.
ii. To examine the role of technological capabilities on the performance of parastatals in Kenya.
iii. To determine the effect of human resource capabilities on the performance of parastatals in Kenya.
iv. To evaluate the influence of service quality capabilities on the performance of parastatals in Kenya.

1.4 Research Questions

The study sought to answer the following research questions:

i. How do managerial capabilities influence the performance of parastatals in Kenya?
ii. What role do technological capabilities play in the performance of parastatals in Kenya?
iii. What is the effect of human resource capabilities on the performance of parastatals in Kenya?
iv. How do service quality capabilities influence the performance of parastatals in Kenya?

1.4 Scope of the Study

The research sought to evaluate how different firm capabilities affect the performance of state-owned enterprises, with a special focus on the Kenya Ports Authority (KPA). It specifically examined the impact of managerial, technological, human resource, service quality, and operational capabilities on the performance of parastatals in Kenya. The study's target population

included senior, middle, and support staff, totaling approximately 6,712 individuals. Conducted at KPA, the research involved an extensive data collection process to thoroughly assess these variables.

2.0 Literature Review

This section presents a review of empirical and theoretical literature that guided the study. The subsequent sections detail each of the underlying literature components.

2.1 Theoretical Literature Review

The study was guided by four key theories: The Resource-Based View (RBV), which emphasizes internal resources and capabilities; the Technology Acceptance Model (TAM), focusing on technology adoption; Human Capital Theory, highlighting the importance of employee development; and the Service Quality Model (SERVQUAL), assessing service delivery and customer satisfaction.

2.1.1 Resource-Based View Theory

The Resource-Based View (RBV) theory, introduced by scholars such as Jay Barney and Wernerfelt, posits that a firm's internal resources and capabilities are the key drivers of competitive advantage and performance (Lockett et al., 2009). RBV emphasizes the importance of unique, valuable, and inimitable resources—such as managerial capabilities, strategic decision-making, and resource allocation—in creating value and maintaining an edge in the marketplace (Taher, 2012). Firms that effectively leverage these internal resources are better equipped to outperform competitors and seize market opportunities. However, critics argue that RBV may overlook the significance of external environmental factors and the need for dynamic capabilities to adapt to market changes (Wade & Hulland, 2004). In this study, RBV informed the variable of managerial competence, providing a theoretical framework to examine how differences in managerial capabilities affect the performance of parastatals in Kenya.

2.1.2 Technology Acceptance Model

The Technology Acceptance Model (TAM), developed by Fred Davis in the late 1980s, provides a framework for understanding the factors that influence individuals' adoption and use of new technologies (Holden et al., 2010). TAM posits that perceived usefulness and ease of use are key determinants of technology acceptance, shaping individuals' attitudes toward adopting innovations (Chau, 1996). Organizations can use this model to tailor their technology implementation strategies to ensure smoother adoption and integration. However, TAM has been criticized for oversimplifying technology adoption by focusing mainly on individual perceptions, while neglecting social, organizational, and cultural factors that may also play a significant role (King & He, 2006). In this study, TAM guided the investigation of technological capabilities, focusing on how parastatals in Kenya adopt and utilize technology to improve operational efficiency and service delivery.

2.1.3 Human Capital Theory

Human Capital Theory emphasizes the role of human resource development in fostering economic growth and organizational success (Strobber, 1990). The theory suggests that investments in education, training, and skill-building initiatives enhance individual productivity and contribute to the overall progress of organizations and societies (Marginson, 2019). Human Capital Theory views employees not merely as labor inputs but as valuable assets whose knowledge and

competencies drive innovation and competitiveness. Critics of the theory, however, argue that it may overlook systemic barriers such as socio-economic inequalities that limit individuals' access to opportunities for human capital development (Tan, 2014). This study applied Human Capital Theory to examine how variations in human resource capabilities among Kenyan parastatals influence their ability to attract, develop, and retain skilled employees, ultimately affecting organizational performance.

2.1.4 Service Quality Model

The Service Quality Model (SERVQUAL) is a widely used framework for assessing service quality by examining five key dimensions: reliability, responsiveness, assurance, empathy, and tangibles (Kang & James, 2004; Seth et al., 2005). These dimensions help organizations evaluate and enhance their service delivery, ensuring customer satisfaction and loyalty. The model's emphasis on customer perceptions of service quality has made it a valuable tool for service-oriented industries. However, critics argue that SERVQUAL may oversimplify service quality by focusing solely on customer perceptions, potentially neglecting other factors such as service design and process efficiency (Lin, 2007; Ojasalo, 2010). In this study, SERVQUAL was used to analyze service quality capabilities, exploring how these capabilities affect the performance of parastatals in Kenya in terms of customer satisfaction and reputation-building.

2.2 Empirical Literature Review

The influence of managerial capabilities on organizational performance has been explored in various contexts. Ahmed (2017) examined the role of development initiatives in enhancing managerial capabilities across diverse organizational settings in Pakistan. The study demonstrated that efforts such as fostering learning cultures significantly strengthened managerial capabilities, particularly in multinational and large-sized organizations, which led to improved performance. Conversely, smaller organizations struggled due to limited investment in capability development. Similarly, Mehta et al. (2020) found that dynamic managerial capabilities moderated the relationship between marketing capabilities and competitive advantage, underscoring that strong managerial competencies directly impact organizational outcomes. These studies emphasize the importance of managerial capabilities as a key driver of competitive advantage and performance in diverse organizational settings.

Technological capabilities have also been shown to play a critical role in organizational performance, particularly in innovation-driven industries. Felipe et al. (2019) highlighted the role of IT capabilities in enhancing organizational agility, enabling firms to swiftly adapt to market changes and foster innovation. The study emphasized that firms with well-integrated IT systems are better equipped to streamline operations and respond effectively to external pressures. In Kenya, Michael (2016) found that technology implementation contributed to 7% of performance variations in state corporations, further illustrating the importance of technology adoption in improving performance. These findings underscore the necessity for organizations to continuously invest in technological capabilities to maintain operational efficiency and a competitive edge.

Human resource capabilities are equally critical to firm performance. Subramony et al. (2023) found that leadership development programs (LDPs) positively impacted both human and social capital, with differentiation LDPs enhancing intrapersonal skills and integration LDPs improving interpersonal skills. This points to the importance of strategic HRM practices in enhancing employee capabilities. In Kenya, Muraga (2021) supported this view, identifying positive

correlations between training, performance management, compensation practices, and parastatal performance. These studies highlight that strong human resource capabilities are vital for driving organizational performance and sustaining a competitive advantage.

Service quality capabilities also play a significant role in shaping customer satisfaction and organizational performance. Anning-Dorson (2018) examined customer involvement in service quality and found contrasting outcomes in different geographical contexts. In Ghana, customer involvement positively influenced performance, while in the UK, the impact was negative, suggesting that service quality strategies must be tailored to specific contexts to be effective. Similarly, Pakurar et al. (2019) found that factors such as access, financial considerations, and employee competence were key to enhancing service quality in the banking sector. These studies demonstrate the multifaceted nature of service quality capabilities and their critical role in improving performance across various industries.

In the context of higher education, service quality has also been shown to be a significant determinant of performance. Cheruiyot and Maru (2015) found substantial variations in service quality across universities in Kenya, with higher service quality leading to improved institutional performance. This reinforces the importance of service quality capabilities in delivering superior outcomes, not only in traditional service sectors like banking but also in education.

Taken together, these studies illustrate that firm capabilities—whether managerial, technological, human resource, or service quality—are fundamental to enhancing organizational performance. Each capability contributes uniquely, depending on the organizational context and industry, but the overarching theme remains consistent: organizations that invest in and develop their internal capabilities are better positioned to achieve superior performance. As seen in both local and international studies, the ability to adapt, innovate, and leverage these capabilities is essential for sustained success.

2.3 Conceptual Framework

Conceptual framework is a structure or system of conceptual categories, assumptions, propositions and hypotheses for understanding a phenomenon or concept. It has order in the analysis of the various factors and elements and helps in explaining the correlation between the different variables and the ideas involved. A general overview of the framework is illustrated in figure 1 below.

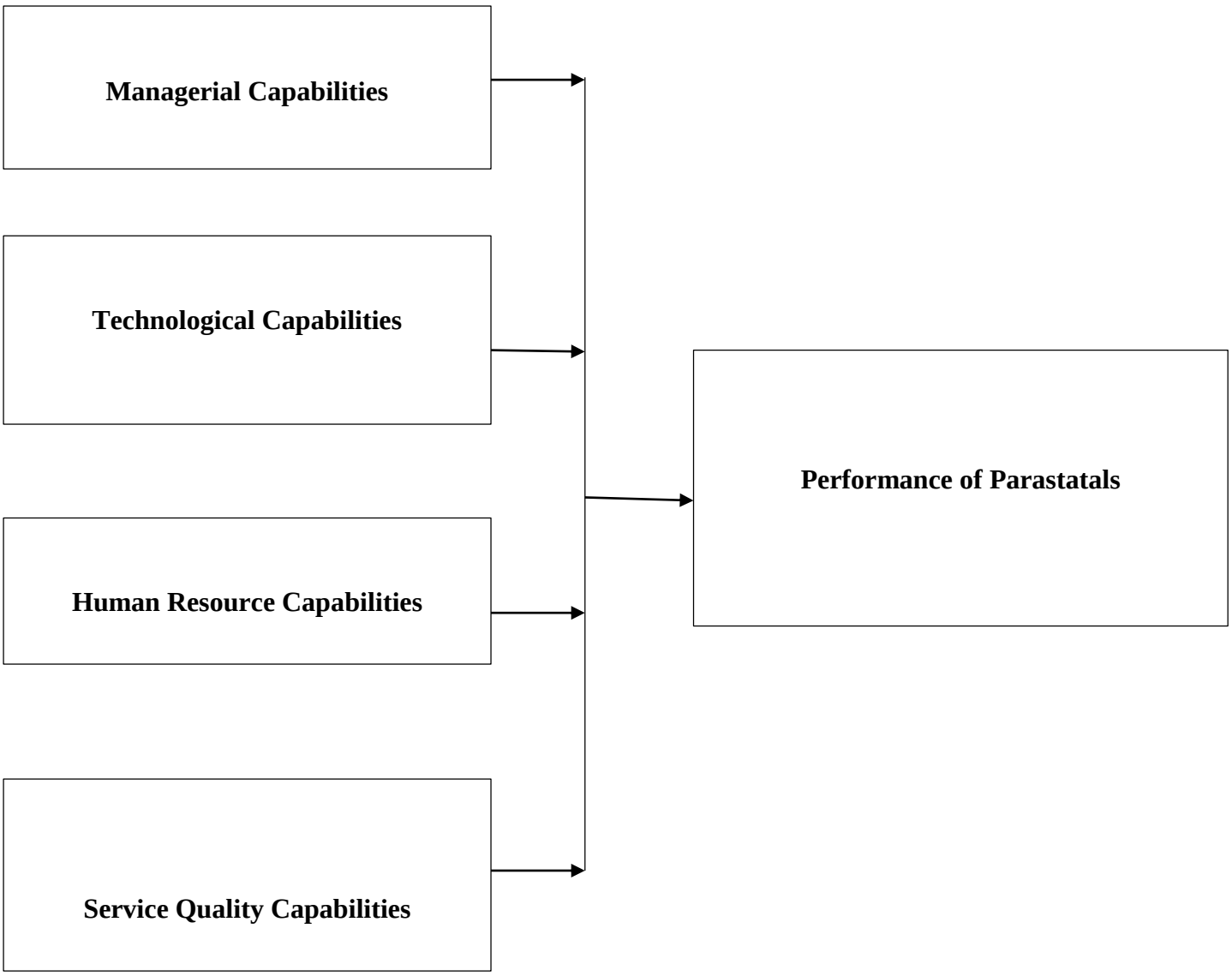

Figure 1: Conceptual Framework

3.0 Research Methodology

The study employed a descriptive research design, as outlined by Cooper & Schindler (2011), Gupta (2012), and Dubey & Kothari (2022), to systematically analyze managerial, technological, human resource, and service quality capabilities at Kenya Ports Authority (KPA). The target population comprised 6,712 employees, including senior and middle-level managers, with a stratified random sampling technique used to select a sample size of 378, following Yamane's (1967) formula. Data was collected using structured questionnaires and interviews, with a pilot study conducted at Kenya Airports Authority to ensure validity and reliability, assessed through the Kaiser-Meyer-Olkin (KMO) and Cronbach's alpha coefficient. The collected data was analyzed using SPSS (version 25) through descriptive and inferential statistics, and ethical considerations were rigorously observed, including informed consent, confidentiality, and

anonymity, supported by research permits from NACOSTI and the Management University of Africa.

4.0 Results and Findings

This section presents the key findings of the study, focusing on the impact of managerial, technological, human resource, and service quality capabilities on the performance of the Kenya Ports Authority (KPA). The analysis highlights the significant role these capabilities play in enhancing organizational outcomes and driving overall performance.

4.1 Descriptive Statistics

The objective of the investigation was to ascertain a variety of firm capabilities. The mean and standard deviation of the data are illustrated for each variable. The results are displayed in accordance with the objectives and are elaborated upon in the corresponding sections.

4.1.1 Descriptive Statistics for Managerial Capabilities

The descriptive statistics for managerial capabilities are presented in Table 1:

Table 1: Descriptive Statistics for Managerial Capabilities

Managerial Capabilities	N	Mean	Std. Deviation
I am confident in the strategic vision and planning abilities of our management team.	324	3.99	0.84
Management consistently demonstrates high-quality decision-making skills.	324	4.08	0.82
Our leaders effectively build and nurture cohesive teams within the organization.	324	4.03	0.79
Resources are efficiently allocated and optimized by management.	324	4.01	0.84
Management encourages innovation and forward-thinking in strategic planning.	324	4.10	0.77
There is clear communication of organizational goals and objectives from management.	324	4.02	0.84
Average	**324**	**4.04**	**0.82**

The results presented in Table 1 indicate that a majority of the respondents are confident in the management's ability to encourage innovation and forward-thinking in strategic planning (mean = 4.10, SD = 0.77). Additionally, respondents expressed strong agreement regarding the high-quality decision-making skills of management (mean = 4.08, SD = 0.82) and the effective team-building capabilities of the leaders (mean = 4.03, SD = 0.79). There is also a positive perception of the efficient allocation and optimization of resources by management (mean = 4.01, SD = 0.84), along with clear communication of organizational goals and objectives (mean = 4.02, SD = 0.84). The average mean of 4.04 suggests that respondents generally agree on the effectiveness of managerial capabilities within Kenya Ports Authority. This strong consensus highlights the critical role of effective management in driving organizational performance.

4.1.2 Descriptive Statistics for Technological Capabilities

The descriptive statistics for managerial capabilities are presented in Table 2:

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Table 2: Descriptive Statistics for Technological Capabilities

Technological Capabilities	N	Mean	Std. Deviation
Our organization actively fosters innovation and encourages the development of new technologies.	324	4.01	0.81
The digital infrastructure within our organization supports efficient operations and processes.	324	3.97	0.86
Technological Capabilities	**N**	**Mean**	**Std. Deviation**
Data management practices are well-established and effectively utilized within our organization.	324	4.12	0.82
Our organization prioritizes cybersecurity risk management to safeguard against potential threats.	324	4.07	0.81
Continuous improvement and adaptation to technological advancements are integral to our organizational culture.	324	3.97	0.86
There are clear protocols in place for maintaining and updating our technological infrastructure.	324	4.03	0.86
Average	**324**	**4.03**	**0.83**

The findings in Table 2 reveal that a majority of respondents perceive data management practices as well-established and effectively utilized within the organization (mean = 4.12, SD = 0.82). Additionally, respondents acknowledge the organization's prioritization of cybersecurity risk management (mean = 4.07, SD = 0.81) and the presence of clear protocols for maintaining and updating technological infrastructure (mean = 4.03, SD = 0.86). The organization's active fostering of innovation and development of new technologies is also positively perceived (mean = 4.01, SD = 0.81). The average mean of 4.03 indicates a strong agreement among respondents regarding the robustness of technological capabilities at Kenya Ports Authority, suggesting that these capabilities are integral to enhancing operational efficiency and supporting organizational performance.

4.1.3 Descriptive Statistics for Human Resource Capabilities

The descriptive statistics for human resource capabilities are presented in Table 3:

Table 3: Descriptive Statistics for Human Resource Capabilities

Human Resource Capabilities	N	Mean	Std. Deviation
Our organization effectively attracts and recruits top talent in the industry.	324	3.94	0.82
Employee training and development programs are consistently implemented to enhance skills and knowledge.	324	4.01	0.78

Performance management systems are transparent and facilitate regular feedback and evaluation.	324	4.02	0.83
Our organization values and promotes diversity within the workforce.	324	4.04	0.82
Continuous learning and professional development opportunities are readily available to all employees.	324	4.03	0.82
The performance appraisal process is fair and objective, encouraging employee growth and development.	324	4.01	0.80
Average	**324**	**4.01**	**0.81**

As indicated in Table 3, a majority of respondents agree that the organization values and promotes diversity within the workforce (mean = 4.04, SD = 0.82). Additionally, respondents perceive continuous learning and professional development opportunities as readily available to all employees (mean = 4.03, SD = 0.82), and the performance management systems are seen as transparent and facilitating regular feedback (mean = 4.02, SD = 0.83). Employee training and development programs are also viewed positively, with a mean of 4.01 (SD = 0.78). The average mean of 4.01 suggests that respondents generally agree on the strength of human resource capabilities, particularly in promoting diversity, continuous learning, and transparent evaluation processes. This indicates that the organization's HR practices are effectively contributing to employee development and organizational success.

4.1.4 Descriptive Statistics for Service Quality Capabilities

The descriptive statistics for service quality capabilities are presented in Table 4:

Table 4: Descriptive Statistics for Service Quality Capabilities

Service Quality Capabilities	N	Mean	Std. Deviation
Our organization actively seeks and incorporates customer feedback to improve service quality.	324	4.10	0.84
Reliability is a cornerstone of our service delivery, ensuring consistency and dependability.	324	4.02	0.88
We offer personalized and customized solutions to meet the unique needs of our customers.	324	4.07	0.82
Our service processes are designed for efficiency, minimizing wait times and maximizing productivity.	324	4.10	0.79
Continuous monitoring and improvement efforts are in place to enhance service efficiency and effectiveness.	324	4.07	0.80
Customer satisfaction is a top priority, and we strive to exceed expectations in every interaction.	324	4.06	0.83
Average	**324**	**4.07**	**0.83**

Table 4 shows that a majority of respondents believe the organization actively seeks and incorporates customer feedback to improve service quality (mean = 4.10, SD = 0.84). Additionally, respondents agree that service processes are designed for efficiency, minimizing wait times and maximizing productivity (mean = 4.10, SD = 0.79). The organization's commitment to offering personalized and customized solutions to meet customer needs is also perceived positively (mean

= 4.07, SD = 0.82), along with continuous monitoring and improvement efforts (mean = 4.07, SD = 0.80). The average mean of 4.07 suggests that respondents generally agree on the high level of service quality capabilities within the organization, emphasizing the importance of customer feedback, efficiency, and continuous improvement in enhancing service delivery.

4.1.5 Descriptive Statistics for Parastatal Performance

The descriptive statistics for parastatal performance are presented in Table 5:

Table 5: Descriptive Statistics for Parastatal Performance

Firm Performance	N	Mean	Std. Deviation
Our organization has achieved consistent revenue growth over the past few years.	324	4.09	0.80
We regularly evaluate and optimize our operational processes to improve efficiency and productivity.	324	4.02	0.82
Our customers consistently report high satisfaction levels with the services we provide.	324	4.03	0.82
Our organization consistently meets or exceeds all regulatory requirements and standards.	324	4.03	0.80
We have implemented effective measures to improve operational efficiency, resulting in noticeable cost savings and streamlined processes.	324	4.07	0.81
We actively collect and utilize customer feedback to enhance service delivery and overall organizational performance	324	4.03	0.81
Average	**324**	**4.05**	**0.81**

The results in Table 5 indicate that a majority of respondents believe the organization has achieved consistent revenue growth over the past few years (mean = 4.09, SD = 0.80). Additionally, respondents agree that the organization regularly evaluates and optimizes operational processes to improve efficiency and productivity (mean = 4.02, SD = 0.82), and that customer satisfaction levels are consistently high (mean = 4.03, SD = 0.82). The organization is also seen as consistently meeting or exceeding regulatory requirements and standards (mean = 4.03, SD = 0.80). The average mean of 4.05 suggests that respondents generally agree on the strong performance of Kenya Ports Authority, highlighting its success in revenue growth, operational efficiency, and regulatory compliance.

4.2 Inferential Analysis

The section entails correlation analysis and regression analysis.

4.2.1 Correlation Analysis

The correlation analysis is presented in Table 6

Table 6 Correlation Analysis

		Parastatal Performance	Managerial Capabilities	Technological Capabilities	Human Resource Capabilities	Service Quality Capabilities
Parastatal Performance	Pearson Correlation	1.000				
Managerial Capabilities	Pearson Correlation	.654**	1.000			
	Sig. (2-tailed)	0.000				
Technological Capabilities	Pearson Correlation	.794**	.583**	1.000		
	Sig. (2-tailed)	0.000	0.000			
Human Resource Capabilities	Pearson Correlation	.519**	.565**	.480**	1.000	
	Sig. (2-tailed)	0.000	0.000	0.000		
Service Quality Capabilities	Pearson Correlation	.633**	.447**	.698**	.335**	1.000
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	

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

The correlation results from Table 6 reveal a substantial and positive relationship between the performance of parastatals and four key capabilities: technological, managerial, human resource, and service quality. Among these, technological capabilities show the strongest positive correlation ($r = .794$, $p = .000$), indicating that the integration and effective utilization of technology within an organization are critical to enhancing its overall performance. The statistical significance of this relationship underscores the crucial role that technological advancements play in improving operational efficiency.

Managerial capabilities also exhibit a significant positive correlation with parastatal performance ($r = .654$, $p = .000$). This suggests that strategic vision, decision-making, and leadership abilities within the management team are vital drivers of organizational success. The strength of this correlation emphasizes the importance of managerial effectiveness in steering the organization towards better performance.

Service quality capabilities are similarly correlated with performance ($r = .633$, $p = .000$), indicating that maintaining high standards in service delivery, including process efficiency and customer satisfaction, is integral to achieving superior organizational outcomes. This finding

highlights the pivotal role that service quality plays in the success of parastatals, particularly in service-driven industries.

Lastly, human resource capabilities show a positive but comparatively weaker correlation with parastatal performance ($r = .519$, $p = .000$). Despite being the least significant among the four variables, this result is still statistically significant. It reflects the importance of effective human resource management practices, such as talent recruitment, training, and diversity promotion, in fostering organizational success.

In summary, the correlation analysis suggests that the performance of parastatals is closely tied to managerial, technological, human resource, and service quality capabilities. Technological capabilities have the strongest influence, underscoring their importance in driving operational efficiency and organizational success.

The findings of this study align with previous research, particularly in the area of technological capabilities. Felipe et al. (2019) highlighted the critical role of IT capabilities in enabling organizations to swiftly adapt to market changes, respond effectively to customer needs, and foster innovation. Their research found that firms with well-integrated IT systems are better positioned to streamline processes, minimize inefficiencies, and make timely, informed decisions. Similarly, Hereida et al. (2021) demonstrated that digital capabilities significantly enhance firm performance, particularly in dynamic business environments. The strong correlation between technological capabilities and parastatal performance in this study reinforces these conclusions, suggesting that successful deployment of technology is a key factor in the Kenya Ports Authority's (KPA) operational success.

Managerial capabilities also play a vital role in enhancing performance, as supported by Ahmed (2017), who found that development efforts aimed at strengthening managerial capabilities—such as fostering a learning culture and investing in capacity building—positively impact organizational outcomes. Ahmed's research emphasized that organizations with strong managerial capabilities, especially in strategic vision and decision-making, are more likely to achieve exceptional performance. This view is further reinforced by Mehta et al. (2020), who found a significant correlation between dynamic managerial capabilities and competitive advantage. The results of the present study echo these findings, underscoring the influence of KPA's leadership and decision-making capabilities on its overall performance.

Service quality capabilities, which were strongly correlated with KPA's performance, are critical for customer satisfaction and operational success. Anning-Dorson (2018) demonstrated the importance of customer involvement in service quality, particularly in service-oriented sectors. His research found that feedback, reliability, and efficiency are essential components of service quality that drive high levels of organizational performance. This aligns with the present study's findings, which suggest that KPA's ability to maintain high service quality standards is integral to its success.

Finally, the positive correlation between human resource capabilities and performance is consistent with Muraga's (2021) findings, which revealed that strategic HR practices—such as training, performance management, and compensation—are significantly linked to parastatal performance in Kenya. Muraga's study emphasized that human resource capabilities are crucial for fostering organizational success, acting as partial mediators between HR practices and performance. Similarly, Mwandihi (2019) highlighted that public servant performance improves

significantly with the implementation of effective HRM practices, including employee training and career development opportunities. These findings support the current study's conclusion that KPA's investment in talent management and employee development is a key factor in its overall performance.

The study affirms that the performance of the Kenya Ports Authority is significantly influenced by its technological, managerial, human resource, and service quality capabilities. Technological capabilities emerge as the most critical factor, followed closely by managerial and service quality capabilities. Human resource capabilities, though slightly less influential, still play a vital role in driving organizational success. These findings emphasize the need for continuous investment and improvement in these areas to ensure the long-term competitiveness and operational efficiency of parastatals like KPA.

4.2.2 Regression Analysis

The study results presented in Table 7 depicts the study results on the regression model summary

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.837a	0.7	0.696	0.10619

a) Predictors: (Constant), Service Quality Capabilities, Human Resource Capabilities, Managerial Capabilities, Technological Capabilities

The performance of Kenya Ports Authority is significantly explained by managerial capabilities, technological capabilities, human resource capabilities, and service quality capabilities, as indicated by the results of Table 18. This is corroborated by the R Square value of 0.700 (70%), which suggests that these capabilities account for 70% of the performance fluctuations of Kenya Ports Authority. This high R Square value suggests that the firm capabilities under investigation are responsible for the majority of the organization's performance outcomes. Furthermore, the study results on the analysis of variance (ANOVA) is presented in Table 8

Table 8: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.39	4	2.098	186.017	.000b
	Residual	3.597	319	0.011		
	Total	11.988	323			

a) Dependent Variable: Parastatal Performance
b) Predictors: (Constant), Service Quality Capabilities, Human Resource Capabilities, Managerial Capabilities, Technological Capabilities

Table 8 shows that the model is statistically significant. According to the report, the Kenya Ports Authority's success is heavily influenced by its managerial, technological, human resource, and service quality capabilities. This is supported by a p-value of 0.000 and a F statistic of 186.017, both much lower than the conventional significance level of 0.05. As a result, it can be concluded that these four competencies are key indicators for the efficient assessment of the Kenya Ports

Authority's performance. Additionally, Table 9 illustrates the regression coefficients that were discovered in the study.

Table 9: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.34	0.099		13.477	0.000
	Managerial Capabilities	0.204	0.035	0.243	5.888	0.000
	Technological Capabilities	0.503	0.047	0.515	10.686	0.000
	Human Resource Capabilities	0.073	0.031	0.089	2.326	0.021
	Service Quality Capabilities	0.102	0.032	0.135	3.151	0.002

a) Dependent Variable: Parastatal Performance

The multiple regression model is:

$Y=1.34+0.204X_1+0.503X_2+0.073X_3+0.102X_4$

Table 9 presents significant positive associations between the performance of the Kenya Ports Authority (KPA) and key organizational capabilities, highlighting the critical role these factors play in enhancing performance. Managerial capabilities demonstrate a positive relationship with performance ($\beta = 0.204$, $p = 0.000$), indicating that a one-unit increase in managerial competencies would result in a 0.204-unit improvement in the Authority's performance, assuming all other variables remain constant. This finding underscores the importance of strong management practices, including strategic leadership and effective decision-making, in driving organizational success.

Technological capabilities show the strongest positive correlation with performance ($\beta = 0.503$, $p = 0.000$), suggesting that a one-unit improvement in technological abilities would lead to a 0.503-unit increase in KPA's performance. This highlights the significant impact of technological advancements on operational efficiency and effectiveness. The findings are consistent with those of Felipe et al. (2019), who emphasized the role of IT capabilities in fostering agility, enhancing innovation, and improving organizational processes. Additionally, Hereida et al. (2021) demonstrated that digital capabilities significantly improve firm performance, particularly in dynamic and technology-driven sectors. These results emphasize the necessity of continuous investment in technological capabilities to sustain competitive advantage.

Human resource capabilities are also positively correlated with performance ($\beta = 0.073$, $p = 0.021$), indicating that a one-unit increase in human resource competencies would improve KPA's performance by 0.073 units. This finding underscores the importance of strategic human resource management, including talent development, employee engagement, and training, in achieving organizational success. The results are supported by Muraga (2021) and Mwandihi (2019), who demonstrated that effective human resource practices are essential drivers of improved public sector performance.

Service quality capabilities also exhibit a positive and significant relationship with performance ($\beta = 0.102$, $p = 0.002$). This suggests that a one-unit improvement in service quality capabilities leads to a 0.102-unit increase in KPA's performance. While the effect size is smaller compared to technological and managerial capabilities, this finding highlights the importance of maintaining high standards of service delivery and customer satisfaction in achieving superior organizational outcomes. The result aligns with the research of Anning-Dorson (2018) and Pakurar et al. (2019), who emphasized that factors such as reliability, efficiency, and customer feedback are integral to improving service quality and organizational performance.

The regression analysis demonstrates that KPA's performance is significantly and positively influenced by managerial, technological, human resource, and service quality capabilities. Among these, technological capabilities have the most substantial impact, underscoring their crucial role in enhancing operational efficiency and ensuring sustained competitiveness. The findings provide a clear indication that continuous development in these key areas is essential for the long-term success of parastatals such as KPA.

Additional evidence of the positive and significant correlation between human resource capabilities and parastatal performance ($\beta = 0.073$) is provided by the study undertaken by Muraga (2021). Research conducted by Muraga indicates that the success of Kenyan parastatals is significantly impacted by strategic human resources practices, including training, performance management, and talent development. It is further supported by the findings of Mwandihi (2019) that the study emphasized the significance of human resource capabilities as crucial mediators between HR practices and performance. The research conducted by Mwandihi provides evidence that the performance of public servants is directly linked to the implementation of efficient human resource management (HRM) strategies, such as employee training and career advancement prospects. The research findings are supported by the outcomes of this study, indicating that the performance of the Kenya Ports Authority relies on the requisite human resource capabilities.

Overall, the regression analysis validates that the capabilities of human resources, technology, management, and service quality are important factors that predict the success of parastatals. Among these factors, technological skills have the most striking influence. The obtained results align with the existing research, which emphasizes the crucial significance of these managerial competencies in enhancing the success of the Organisation. In order to improve and maintain its performance, the study underscores the need for the Kenya Ports Authority to persist in investing in these areas.

5.0 Summary

The study assessed the impact of firm capabilities—managerial, technological, human resource, and service quality—on the performance of the Kenya Ports Authority (KPA). Data collected from senior and middle-level managers, as well as support staff, through structured questionnaires and interviews revealed significant positive relationships between these capabilities and organizational performance. Managerial capabilities were found to play a crucial role, with recommendations for further exploration of internal control mechanisms and other performance-influencing factors in Kenyan parastatals. Technological capabilities exhibited a strong positive correlation with performance, with regression analysis showing that improvements in technological expertise directly enhance operational efficiency, aligning with studies by Felipe et al. (2019) and Hereida et al. (2021) on the importance of IT in fostering organizational agility. Human resource capabilities also demonstrated a positive and statistically significant impact on performance,

supporting findings by Muraga (2021) and Mwandihi (2019) on the role of strategic HR practices in public sector success. Additionally, service quality capabilities showed a strong positive relationship with performance, reinforcing the critical role of service quality, as highlighted by Anning-Dorson (2018) and Pakurar et al. (2019). Overall, the study concludes that strengthening these firm capabilities can significantly improve the performance of parastatals like KPA.

6.0 Conclusion

The study concludes that the performance of Kenya Ports Authority is significantly and positively influenced by managerial, technological, human resource, and service quality capabilities. Managerial capabilities contribute to a 0.204-unit improvement in performance by fostering strategic vision, innovation, and efficient resource allocation. Technological capabilities emerge as the most critical factor, driving a 0.503-unit increase in performance through effective cybersecurity, digital infrastructure management, and innovation. Human resource capabilities, contributing a 0.073-unit performance boost, highlight the importance of attracting and developing talent, while service quality capabilities add a 0.102-unit gain by enhancing customer satisfaction through reliable service delivery and continuous improvement. Collectively, these capabilities underscore the importance of integrated strategies to enhance operational efficiency and overall organizational success at KPA.

7.0 Recommendation

The study recommends that Kenya Ports Authority (KPA) enhance its managerial, technological, human resource, and service quality capabilities to improve organizational performance. This includes investing in leadership development, fostering innovation, and ensuring efficient resource allocation. KPA should continue advancing its technological infrastructure and cybersecurity measures while promoting a culture of innovation. Human resource practices should emphasize talent acquisition, employee development, and diversity, supported by consistent performance evaluations. Additionally, the organization should focus on optimizing service processes, integrating customer feedback, and tailoring services to meet customer needs. Finally, further research is suggested to explore factors like internal controls, capacity development, and information systems, and to conduct comparative studies across various sectors.

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