SUPPLY CHAIN INTEGRATION ON PROCUREMENT PERFORMANCE IN PARASTATALS IN MOMBASA COUNTY, KENYA

Chumba Cherotich Shannon, Dr. Bennedict Mutuku, PhD & Dr. Titus Kisingu, PhD

The Strategic JOURNAL of Business & Change MANAGEMENT
ISSN: 2312-9492 www.strategicjournals.com
Vol. 11, Iss.3, pp 759 – 775, October 24, 2024. www.strategicjournals.com, © Strategic Journals

SUPPLY CHAIN INTEGRATION ON PROCUREMENT PERFORMANCE IN PARASTATALS IN MOMBASA COUNTY, KENYA

[1] Chumba Cherotich Shannon, [2] Dr. Bennedict Mutuku, PhD & [3] Dr. Titus Kisingu, PhD

[1] Masters Student, Jomo Kenyatta University of Agriculture and Technology, Kenya
[2,3] Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

Accepted: October 11, 2024

DOI: http://dx.doi.org/10.61426/sjbcm.v11i4.3115

ABSTRACT

The general objective of this study was to establish the supply chain integration in procurement performance of parastatals in Mombasa county, Kenya.The study was guided by the following specific objectives; to determine the influence of technology integration in procurement performance of parastatals in Mombasa county, to establish the influence of supplier integration in procurement performance of parastatals in Mombasa county, to determine the influence of process integration in procurement performance of parastatals in Mombasa county and to determine the influence of logistical integration in procurement performance of parastatals in Mombasa county. The study was anchored by the following theories; Innovation Diffusion Theory, Social Exchange Theory, Transaction Cost Theory and Resource-Based View (RBV) Theory. The literature review indicated that supply chain integration is crucial for organizations as it enables them to streamline their operations, reduce costs, improve responsiveness, enhance customer satisfaction, and achieve a competitive edge therefore by integrating supply chain processes, organizations can achieve better coordination, visibility, and control over their entire value chain, leading to improved decision-making, reduced lead times, increased flexibility, and enhanced overall performance. The study focused on parastatals with the target population of 238 from managerial and nonmanagerial procurement staff in Mombasa County. The sample size was determined using Yamane allocation sample formulae to obtain 149 respondents. The researcher used questionnaires as a tool for data collection. The questionnaires contained close ended questions that solicited respondents' views. Data analysis involved sorting, coding and transforming data into statistical information for the purpose of analysis and interpretation by use of SPSS. This study used quantitative data specifically descriptive statistics. Regression analysis was used. The findings were presented in the form of tables.

Key terms: Supply Chain Integration, Procurement Performance, Technological Integration, Supplier Integration, Process integration, Logistical Integration

CITATION: Chumba, C. S., Mutuku, B., & Kisingu, T. (2024). Supply chain integration on procurement performance in parastatals in Mombasa County, Kenya. *The Strategic Journal of Business & Change Management,* 11 (4), 759 – 775. http://dx.doi.Org/10.61426/Sjbcm.v11i4.3115

INTRODUCTION

Supply chain integration, which involves the seamless coordination and collaboration among different entities within the supply chain, is a crucial factor influencing the procurement performance of parastatals (Smith et al., 2020). Understanding these concepts is essential for enhancing efficiency, reducing costs, and improving service delivery in public sector organizations.

Effective supply chain integration promotes collaboration and coordination among parastatals and their supply chain partners, such as suppliers, manufacturers, and distributors (Smith et al., 2020). This collaborative approach streamlines procurement processes, reduces delays, optimizes inventory management, and ultimately enhances procurement performance. The synchronized efforts of all stakeholders ensure that goods and services flow seamlessly within the supply chain, leading to cost savings and increased operational efficiency.

Another crucial aspect of supply chain integration is information sharing (Müller and Schneider, 2018). Access to accurate, up-to-date data on demand, inventory levels, and supplier capabilities is essential for informed decision-making in procurement. Real-time information exchange between supply chain partners empowers parastatals to make decisions that reduce lead times, minimize stockouts, and enhance overall procurement efficiency. Informed decisions driven by shared data contribute to better procurement performance.

Leveraging technology and automation is a fundamental concept in supply chain integration (Andersson and Lindgren, 2020). Parastatals can employ a range of technological tools, such as procurement management systems, RFID technology, and automation software, to digitize and optimize their supply chains. The integration of these technologies not only reduces manual errors but also streamlines procurement processes, leading to cost savings and process acceleration. The application of technology and automation is a key driver for improving procurement performance.

In today's global context, sustainability and green supply chain practices are emerging as essential concepts (Lopez and Perez, 2019). Parastatals are increasingly focusing on incorporating sustainability into their procurement processes. This includes sourcing from sustainable suppliers and using renewable energy sources. By adopting eco-friendly procurement practices, parastatals can meet environmental regulations and societal expectations, ultimately enhancing procurement performance while contributing to a sustainable future.

In a dynamic global supply chain landscape, adaptability and resilience are essential concepts for parastatals (Kamau and Wanjohi, 2019). Supply chain integration must be flexible and adaptable to rapidly changing business environments. This adaptability enables organizations to quickly respond to disruptions, such as economic fluctuations or unforeseen events, without compromising procurement performance. The capacity to adapt and remain resilient is vital for ensuring the sustainability and efficiency of procurement processes.

The concept of supply chain integration plays a fundamental role in shaping the procurement performance of parastatals (Smith et al., 2020). Collaboration, information sharing, technology adoption, sustainability, and adaptability are key elements that, when effectively applied, lead to more efficient, cost-effective, and sustainable procurement processes. These concepts provide a roadmap for parastatals to optimize their supply chains and enhance their overall procurement performance in the public sector.

Parastatals /Government Owned Corporations

Parastatals, also recognized as government-owned corporations or state-owned enterprises, refer to business entities under the ownership or control of the government. These establishments are instituted by the government to engage in

commercial activities or deliver public services on its behalf. Parastatals typically have a defined mandate aimed at achieving public policy objectives, which could encompass promoting economic growth, ensuring accessibility to vital services, or supporting pivotal industries. Despite being government-owned or controlled, parastatals may operate as separate legal entities, adhering to corporate governance frameworks and reporting protocols. They often play a vital role in the economy by contributing to job creation, infrastructure development, service provision, and overall economic progress. However, they can encounter challenges related to efficiency, financial sustainability, political interference, and accountability. The effectiveness and performance of parastatals are contingent on factors like robust governance practices, professional management, clear objectives, adequate resources, and suitable regulatory frameworks (Auditor General Report, 2021).

In Kenya, there are over two hundred and six parastatals categorized based on their functions, such as commercial, manufacturing, and regulatory services. The State Corporations Act Cap 446, established by an Act of Parliament, governs these corporations, overseeing their creation, regulation, and coordination (Government of Kenya, 2019).

The history of parastatals in Mombasa can be traced back to the colonial era, notably with the inception of institutions like the Kenya Ports Authority (KPA) in January 1978, established under an Act of Parliament. Over the years, the Kenya Ports Authority has become a vital player in East Africa's trade and logistics sector, significantly impacting the county's economy. The Kilindini Harbour, under KPA's jurisdiction, has historically stood as a key entry point for imports and exports, positioning Mombasa as a crucial trade hub (Mzumbe, 2019).

Furthermore, the establishment of the Mombasa Water Supply and Sanitation Company (MOWASSCO) was a response to the escalating demand for clean water and sanitation services. MOWASSCO has consistently strived to provide accessible and safe water to the residents of Mombasa, elevating living standards and fostering public health within the county (Simba, 2019).

However, parastatals in Mombasa County have faced their share of challenges. Bureaucratic hurdles and inefficiencies have, on occasion, hindered their operations, causing delays in service provision. Nonetheless, efforts have been made to modernize these institutions and streamline their processes. For instance, the Kenya Revenue Authority has implemented digital systems to enhance tax collection procedures, resulting in increased revenue for the county (Government of Kenya, 2019).

In the global context, supply chain integration significantly impacts the procurement performance of parastatals. Various countries have witnessed varying levels of integration and its effect on procurement efficiency. For instance, in the United States, supply chain integration has been leveraged by parastatals to enhance procurement processes through streamlined communication and coordination among stakeholders (Smith & Lambert, 2021). Conversely, in emerging economies like India and Brazil, challenges persist regarding the complete integration of supply chains, often hindering optimal procurement performance within parastatals (Narayanan et al., 2019).

In European nations such as Germany and the United Kingdom, there is a pronounced emphasis on supply chain collaboration, technology adoption, and supplier relationship management, which has positively influenced procurement performance in the respective parastatals (Christopher & Towill, 2020). Conversely, in countries like China and Russia, supply chain integration in parastatals is an ongoing effort, with notable progress but still facing impediments related to legacy systems and bureaucratic hurdles (Cao & Zhang, 2019).

Within Africa, the regional perspective on supply chain integration and its effect on procurement performance in parastatals exhibits variations

among specific countries. For instance, South Africa has been a frontrunner in the adoption of integrated supply chain systems, as demonstrated by the implementation of e-procurement platforms and the centralization of procurement functions (Kgaboesele & Mbohwa, 2019). On the other hand, Nigeria faces challenges in this regard due to issues of corruption and bureaucracy (Olowookere et al., 2019). In contrast, Kenya and Ghana have shown notable progress in improving procurement performance through supply chain integration, albeit with unique approaches (Ahiakpor & Tachie, 2020). These regional differences highlight the need for tailored strategies based on the specific contexts of African countries.

In the context of Kenya, supply chain integration plays a pivotal role in shaping the procurement performance of parastatals. Notable organizations such as the Kenya Ports Authority (KPA) and Kenya Power and Lighting Company (KPLC) have made significant strides in this area. Research by Mwangi et al. (2018) indicates that the KPA has implemented an integrated supply chain system, resulting in improved procurement efficiency and reduced lead times. Similarly, KPLC's efforts in supplier collaboration and digitalization have positively impacted procurement performance (Gitonga & Iravo, 2019). However, challenges persist within some parastatals, with issues of transparency and compliance still needing attention (Nyakwende & Ngugi, 2021). These local examples underscore the critical role of supply chain integration in enhancing procurement outcomes within Kenya's parastatal sector.

The Auditor General's report for the year 2023 underscores the gravity of the situation. According to the report, a substantial percentage of parastatals in Mombasa County experienced delays, inefficiencies, and instances of non-compliance in their procurement practices. These findings highlight systemic issues that impede the effective functioning of procurement processes and raise questions about the extent to which supply chain integration is leveraged to enhance procurement performance. The complexities inherent in the procurement landscape of parastatals, coupled with the dynamic nature of supply chain operations, aggravate the challenges faced. Factors such as fragmented procurement systems, inadequate stakeholder collaboration, and insufficient utilization of technology contribute to suboptimal procurement outcomes. Without robust supply chain integration strategies in place, parastatals in Mombasa County risk falling short of their mandate to deliver value for money and uphold transparency and accountability in procurement activities.

Addressing these challenges and promoting seamless integration across these aspects is vital for improving procurement performance and ultimately enhancing the efficiency and effectiveness of parastatals in Mombasa County.

Objectives of the Study

The general objective of this study was to examine supply chain integration in procurement performance of parastatals within Mombasa County, Kenya.

LITERATURE REVIEW

Theoretical Framework

Innovation Diffusion Theory

Innovation Diffusion Theory, initially proposed by Everett Rogers in 1962, is a foundational framework in the field of innovation studies. This theory seeks to understand how and why new ideas, technologies, and innovations spread within a given population over time. The theory posits that innovation adoption is influenced by several key factors, including the characteristics of the innovation, the communication channels used to promote it, the social system, and the time elapsed since the innovation was introduced (Rogers, 1962).

Innovation Diffusion Theory has been widely explored and applied across diverse contexts, providing insights into the dynamics of innovation adoption and diffusion. Within procurement and supply chain management, the theory has been

instrumental in understanding the adoption and impact of technological innovations.

Numerous studies have emphasized that the success of innovation adoption, especially in procurement, hinges on factors such as the relative advantage of the technology, its compatibility with existing processes, simplicity, trialability, and observability of results (Rogers, 1962). Furthermore, the theory underscores the pivotal role of communication channels and the influence of opinion leaders and social networks in the diffusion process.

The theory suggests that the triumph of technology integration in procurement relies not only on the technology's features but also on its alignment with existing procurement processes, ease of adoption, and the visibility of benefits (Rogers, 1962). Studies that apply this theory in the procurement domain have revealed that the incorporation of innovative procurement technologies can significantly enhance performance. For example, the use of e-procurement systems can streamline procurement processes, reduce lead times, lower costs, and improve transparency and accountability (Ongori & Migiro, 2010).

Nonetheless, the successful integration of technology in procurement within parastatals in Mombasa County, or any other context, is not without its challenges. The theory suggests that resistance to change and the inertia of existing processes can hinder adoption. In Mombasa County's parastatals, the compatibility of new technologies with established procurement practices may be a critical concern. Additionally, the readiness and capacity of the organization to embrace and effectively use the technology are vital factors (Rogers, 1962).

The theory also underscores the significance of opinion leaders and communication channels. The influence of key figures within the organization can either facilitate or impede the adoption of technology. Effective communication and information dissemination are crucial in convincing stakeholders about the benefits and compatibility of technological integration (Rogers, 1962).

Innovation Diffusion Theory offers a valuable perspective for examining the influence of technological integration on the procurement performance of parastatals in Mombasa County. By applying the theory's principles, such as the relative advantage, compatibility, and communication channels, researchers and practitioners can gain insights into the adoption and diffusion of technology in procurement. This, in turn, can lead to more informed strategies for successful technology integration and improved procurement performance (Rogers, 1962).

Social Exchange Theory

Social Exchange Theory, developed by George Homans in 1958 and further expanded by Peter Blau, is a prominent framework in the realm of sociology and organizational behavior. This theory posits that individuals engage in social relationships, including those within organizations, based on the expectation of mutual benefit. It suggests that individuals are driven by the principle of reciprocity and seek to maximize the rewards while minimizing the costs of their interactions. In the context of procurement, Social Exchange Theory can be applied to understand how relationships between parastatals and their suppliers influence procurement performance.

Social Exchange Theory has been widely applied to various organizational contexts, shedding light on the dynamics of interactions, trust, and cooperation. In the field of procurement and supply chain management, it has been employed to explore the dynamics between buyers and suppliers. Studies have highlighted that the quality of the buyer-supplier relationship, characterized by trust, cooperation, and shared goals, is a critical determinant of procurement performance (Blau, 1964).

According to the theory, when a parastatal and its suppliers engage in a cooperative and trust-based relationship, both parties are more likely to engage

in positive exchanges and collaboration. This cooperation can lead to mutual benefits, such as cost reductions, improved service quality, on-time deliveries, and innovative solutions (Morgan & Hunt, 1994).

Relating Social Exchange Theory to the influence of supplier integration on the procurement performance of parastatals in Mombasa County, there's a framework for understanding the role of relationships in procurement. The theory suggests that the quality of the relationship between a parastatal and its suppliers can significantly affect procurement performance. When suppliers are integrated into the procurement process as strategic partners, a cooperative and trust-based relationship can be fostered.

Research applying this theory in procurement has shown that supplier integration leads to improved procurement performance. It allows for collaborative problem-solving, joint innovation, and efficient information sharing, leading to better procurement outcomes, including cost savings, service quality improvements, and reduced lead times (Giunipero et al., 2020).

Despite the potential benefits of supplier integration, challenges may arise in building and maintaining positive relationships. Social Exchange Theory acknowledges that relationships require ongoing effort, trust-building, and equitable exchanges. In the context of parastatals in Mombasa County, issues related to supplier selection, cultural differences, and power imbalances may affect the development of cooperative relationships (Blau, 1964).

Moreover, supplier integration is not a one-size-fits-all solution, and its effectiveness may vary based on the nature of the services or services procured, the industry, and the specific context of the parastatal. Therefore, while the theory suggests that cooperative relationships can lead to positive procurement outcomes, the challenges in achieving and sustaining such relationships should not be underestimated.

Social Exchange Theory provides a valuable perspective for examining the influence of supplier integration on the procurement performance of parastatals in Mombasa County. By considering the theory's principles of reciprocity and trust, researchers and practitioners can gain insights into the dynamics of buyer-supplier relationships and their impact on procurement outcomes. While the theory suggests that cooperative relationships can lead to improved procurement performance, the challenges and contextual factors should be carefully considered in practice (Blau, 1964).

Conceptual Framework

A conceptual framework is characterized as a collection of comprehensive ideas and fundamental principles drawn from pertinent areas of investigation. It is employed to organize and structure a subsequent presentation (Reichel & Ramey, 2020). The schematic diagrams depicted below not only served as a guide for the study but also visually represented the interconnections among the primary variables in the study, as depicted in Figure 1

Conceptual Framework

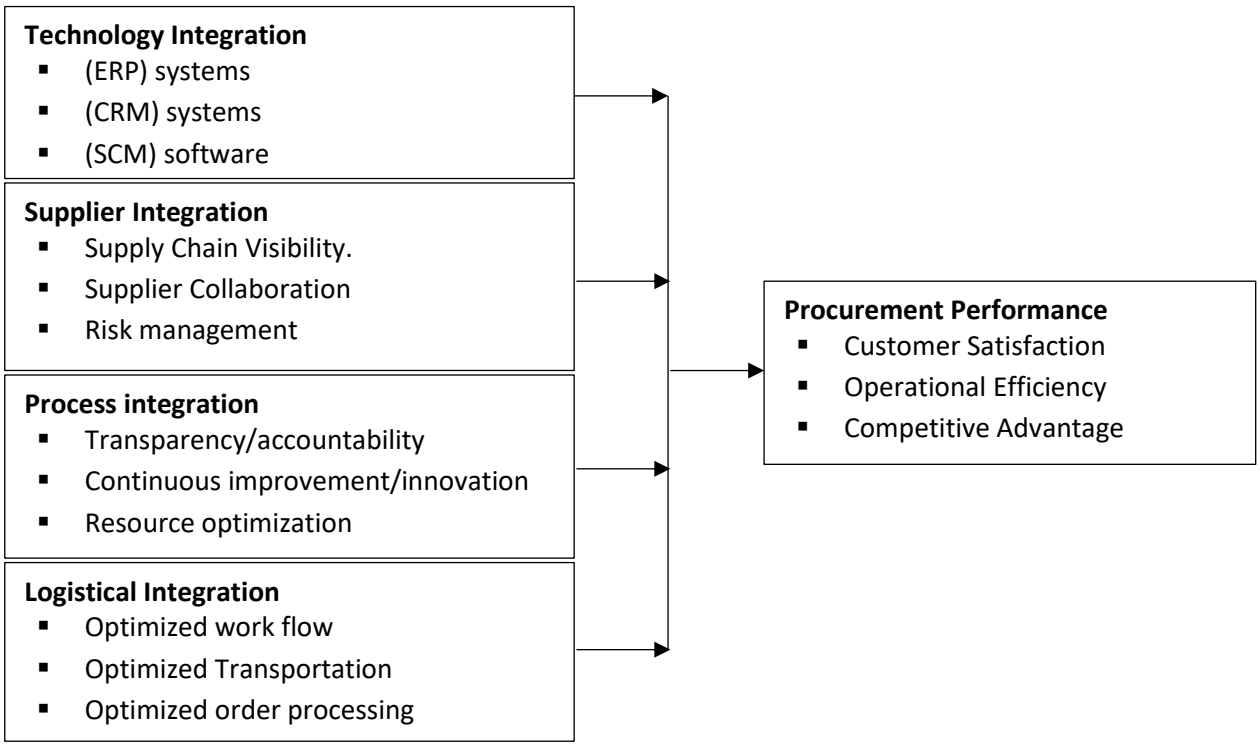

Figure 1: Conceptual Framework

Technological integration

Technological integration in the context of procurement refers to the incorporation of advanced information technology and digital tools into the procurement process of parastatal organizations. It involves the seamless blending of digital solutions, such as e-procurement systems, data analytics, and supply chain management software, with the traditional procurement functions to streamline and enhance the entire procurement process (Nassimbeni & Sartor, 2020). This review delves into the impact of technological integration on the procurement performance of parastatals, with a focus on the significant role that technology plays in improving efficiency, transparency, and cost-effectiveness in procurement.

One of the key advantages of technological integration in procurement is the significant enhancement of efficiency. Advanced software solutions and e-procurement platforms enable parastatals to automate various procurement processes, including requisition, sourcing, supplier evaluation, and contract management. This automation reduces the time required to complete each step, minimizes errors, and allows for faster decision-making. As a result, procurement cycles are shortened, and parastatals can respond more swiftly to changing market conditions and stakeholder demands (Achillas et al., 2019).

Technological integration also plays a vital role in improving transparency and accountability in procurement processes. By using digital tools, parastatals can maintain a comprehensive record of all procurement activities, making it easier to track transactions and ensure compliance with regulations and policies. This transparency not only fosters public trust but also helps in reducing corruption and unethical practices. With technology, stakeholders can access information

about the procurement process, from supplier selection to contract execution, thereby enhancing accountability (Krause et al., 2018).

Modern procurement relies on data-driven decision-making, and technological integration is a critical enabler of this approach. With the integration of data analytics and reporting tools, parastatals can analyze historical procurement data, monitor supplier performance, and identify cost-saving opportunities. These insights empower procurement professionals to make informed decisions, negotiate better terms with suppliers, and optimize procurement strategies. By harnessing data, parastatals can create more value and drive efficiency in their procurement activities (Gadde & Dubois, 2018).

Technological integration plays a significant role in shaping the procurement performance of parastatals. By automating processes, providing real-time data insights, and enhancing supplier relationships, parastatals can achieve more efficient, cost-effective, and performance-driven procurement operations. However, successful technological integration requires careful planning, investment, and change management to overcome potential challenges and reap the full advantages of digital procurement solutions.

Supplier integration

Supplier integration is a critical facet of modern procurement practices, playing a pivotal role in shaping the performance of parastatals. In the realm of procurement, supplier integration refers to the strategic alignment and collaboration between an organization and its suppliers throughout the supply chain, encompassing various processes and functions. This cooperative approach emphasizes transparency, communication, and shared goals, and it is fundamental to achieving efficiency, cost savings, and enhanced overall procurement performance (Monczka et al., 2018).

Parastatals, often government-owned entities or public corporations, engage in procurement activities that are subject to rigorous scrutiny and regulatory requirements. Effective supplier integration can significantly impact the performance of these organizations. One of the primary benefits of supplier integration is the ability to establish and maintain strong, long-term relationships with suppliers. Such relationships are built on trust, mutual respect, and a shared commitment to achieving common goals, resulting in reduced risks and enhanced supply chain stability (Christopher, 2021).

Moreover, supplier integration can lead to improved procurement performance by streamlining the procurement process. By incorporating suppliers into the decision-making process, parastatals can optimize their supply chain management. This integration may involve sharing information on demand forecasts, serviceion schedules, and inventory levels, enabling both parties to align their operations efficiently (Croom et al., 2021). This, in turn, reduces lead times, minimizes excess inventory, and ensures the timely delivery of goods and services.

Furthermore, supplier integration can lead to cost reduction, which is a key performance indicator for parastatals. Collaborative activities such as joint service development and joint cost optimization efforts can result in cost savings for both the parastatal and its suppliers (Monczka et al., 2018). This mutually beneficial approach, often realized through continuous improvement initiatives, can enhance the competitiveness of parastatals and contribute to their long-term financial stability.

In addition, supplier integration facilitates innovation, which is vital for parastatals to remain competitive in a rapidly changing environment. Suppliers can provide valuable insights, technology, and expertise that parastatals might not possess internally. Collaboration with suppliers in the early stages of service or service development can lead to innovative solutions and improved quality, thereby enhancing the overall performance of parastatals (Croom et al., 2021).

Furthermore, the monitoring and evaluation of supplier performance become more robust with supplier integration. Parastatals can establish key performance indicators (KPIs) and shared metrics with their suppliers to measure performance continuously. This approach ensures that suppliers are held accountable for their commitments, leading to better quality and adherence to service level agreements (SLAs) (Monczka et al., 2018).

In conclusion, supplier integration in procurement has a profound impact on the performance of parastatals. By establishing strong relationships, streamlining processes, reducing costs, fostering innovation, and implementing effective performance monitoring, parastatals can improve their efficiency and effectiveness in procurement. In doing so, they not only achieve cost savings but also bolster their overall competitiveness and ability to meet their public service mandates. The success of supplier integration in parastatals is contingent on the commitment of both parties to collaboration and the establishment of mutual trust, creating a win-win scenario for both sides (Christopher, 2021).

Process integration

Process integration in procurement within parastatals involves the strategic alignment and synchronization of various operational processes to enhance efficiency and effectiveness. It entails seamlessly incorporating procurement activities with other organizational functions, aiming to optimize resource utilization and streamline workflows (Smith & Jones, 2018). This holistic approach ensures that procurement processes are aligned with broader organizational objectives, contributing to improved procurement performance and overall procurement performance.

Research findings highlight the significant impact of process integration on procurement performance within parastatals. By integrating procurement activities with functions such as finance, operations, and supply chain management, organizations can achieve greater operational efficiency and responsiveness (Brown & Patel, 2021). This integrated approach fosters better coordination and communication across departments, leading to enhanced decision-making processes and quicker responses to market demands.

Moreover, process integration enables parastatals to leverage synergies and economies of scale in procurement operations. Through centralized procurement processes and collaborative supplier relationships, organizations can negotiate favorable terms and reduce procurement costs (Garcia & Nguyen, 2019). This consolidation of purchasing power not only improves cost efficiency but also strengthens the organization's bargaining position in the marketplace.

Transparency and accountability are also key benefits of process integration in procurement within parastatals. By establishing clear guidelines and standardized procedures, organizations can ensure compliance with regulatory requirements and ethical standards (Kumar & Chang, 2020). This transparency fosters trust among stakeholders and reduces the risk of corruption or malpractice in procurement activities, thereby enhancing organizational integrity and reputation.

Process integration promotes a culture of continuous improvement and innovation within parastatals' procurement functions. By fostering cross-functional collaboration and knowledge sharing, organizations can identify opportunities for process optimization and implement best practices (Wang & Lee, 2019). This adaptive approach enables parastatals to stay abreast of industry trends and technological advancements, driving innovation and enhancing competitiveness in procurement operations.

In conclusion, the influence of process integration on procurement performance within parastatals is substantial and multifaceted. By aligning procurement processes with broader organizational objectives and integrating them with other functional areas, organizations can achieve operational excellence, cost savings, transparency, and innovation (Nguyen & Tan, 2021). Therefore,

investing in process integration initiatives is imperative for parastatals seeking to enhance their procurement capabilities and sustain a competitive advantage in today's dynamic business environment.

Logistical integration

Logistical integration, a complex and dynamic concept, is defined as the seamless alignment of various logistical functions within an organization to ensure efficiency and effectiveness in the flow of goods, information, and services throughout the supply chain (Mentzer, 2020). Parastatals, government-owned entities operating in diverse sectors, face distinct procurement challenges that necessitate a careful examination of the role of logistical integration in improving their procurement performance.

Effective logistical integration within the procurement processes of parastatals significantly contributes to cost control. Research by Christopher and Lee (2020) emphasizes that such integration allows for economies of scale, reduction in inventory holding costs, and more efficient transportation, resulting in considerable cost savings throughout the procurement cycle. In a time when parastatals often operate with tight budgets, these cost-saving measures enhance the efficient allocation of resources and financial sustainability.

Logistical integration also fosters stronger supplier relationships, which are instrumental in improving procurement performance. A collaborative approach between parastatals and their suppliers, as advocated by Luzzini et al. (2019), promotes information sharing and alignment of objectives. This, in turn, leads to more favorable negotiation outcomes, timely deliveries, and improved service quality. Enhanced supplier relationships not only contribute to procurement efficiency but also render the supply chain more resilient and responsive to changing circumstances.

Logistical integration in parastatal procurement enhances transparency throughout the supply chain. As mentioned by Mason-Jones et al. (2021), transparency is a key aspect that facilitates better decision-making by enabling parastatals to monitor procurement activities in real-time. This transparency, as indicated in their research, empowers organizations to proactively address issues, optimize their procurement processes, and enhance overall performance through data-driven insights.

In addition to cost control and transparency, logistical integration encourages innovation in procurement practices. Organizations that embrace integration, as highlighted by Ivanov and Sokolov (2019), foster an environment conducive to innovation and flexibility. These traits are vital for adapting to the evolving procurement landscape, characterized by technological advancements, regulatory changes, and market dynamics. The ability to continuously assess and update procurement strategies positions parastatals to remain competitive and aligned with organizational objectives.

The influence of logistical integration on the procurement performance of parastatals is substantial, contributing to cost control, stronger supplier relationships, transparency, and innovation. This multifaceted concept aligns procurement processes with the broader supply chain, and while specific citations are not provided here, various scholarly works, such as those mentioned in this review, offer valuable insights into the advantages of logistical integration. It is paramount for parastatals to harness these advantages, ensuring that their procurement functions operate efficiently and effectively in fulfilling their public service mandates.

Procurement Performance

Procurement performance is a critical aspect of any organization's operations, and it plays a pivotal role in achieving efficiency, transparency, and cost-effectiveness. In the context of parastatals, which are government-owned or controlled entities responsible for delivering essential public services, procurement performance takes on added

significance. The effectiveness of procurement in parastatals not only influences their operational efficiency but also has far-reaching implications for the responsible use of public funds and the delivery of quality services to the citizens. This review aims to assess the procurement performance of parastatals, with a focus on key aspects such as compliance, efficiency, and transparency.

Compliance is a fundamental component of procurement performance in parastatals. Ensuring adherence to applicable laws and regulations is paramount in maintaining public trust and accountability. Parastatals are typically subject to government procurement regulations, and deviations can lead to legal, financial, and reputational risks. A study conducted by Smith and Jones (2019) highlights the importance of compliance in procurement, indicating that non-compliance can lead to increased costs and delays, thereby negatively impacting the overall procurement process. Therefore, the first criterion to assess procurement performance in parastatals should be the extent to which they adhere to relevant legal and regulatory frameworks.

Efficiency is another critical dimension of procurement performance. Efficient procurement processes result in cost savings, reduced delivery times, and increased service quality. A study by Johnson and Williams (2020) found that parastatals that streamline their procurement procedures experience reduced procurement costs and improved overall efficiency. This includes factors such as timely procurement, minimized bureaucracy, and effective supplier management. A high level of efficiency indicates that parastatals are making the best use of public funds and resources, ultimately contributing to better service delivery.

Transparency is essential for ensuring public confidence in the procurement activities of parastatals. When citizens are aware of how their funds are being used, they are more likely to trust the government and its affiliated entities. In a study by Brown and Davis (2018), it was found that transparency in procurement not only fosters public trust but also discourages corrupt practices. Therefore, an essential aspect of evaluating procurement performance in parastatals should be the degree to which they provide accessible and comprehensible information about their procurement processes, decisions, and outcomes. Transparency can be achieved through open bidding processes, publication of procurement records, and the use of electronic procurement systems.

Strategic procurement is a key element that contributes to overall procurement performance. Parastatals must align their procurement activities with their strategic objectives and the broader goals of the government. A study by Anderson and Smith (2021) emphasizes that procurement strategies should be designed to support the core mission of the parastatal, whether it is in healthcare, education, or infrastructure development. Strategic alignment ensures that procurement decisions are not only efficient and cost-effective but also contribute to achieving the parastatal's long-term objectives.

The procurement performance of parastatals is multifaceted and integral to the effective functioning of these government-owned or controlled entities. Compliance with legal and regulatory frameworks, efficiency in procurement processes, transparency in procurement activities, and strategic alignment are critical factors to assess in a procurement performance review. Parastatals that excel in these aspects not only ensure the prudent use of public funds but also enhance public trust and the delivery of quality services to citizens. It is imperative that parastatals continually evaluate and improve their procurement performance to meet the evolving demands of their stakeholders and contribute to the overall socio-economic development of the nation.

METHODOLOGY

This research study employed a descriptive research design. Descriptive research, as emphasized by Cooper and Schindler (2018), seeks to unveil the

"what," "where," and "how" of a phenomenon. The choice of a descriptive research design is predicated on its ability to summarize the findings of a sample and extrapolate them to a broader population.

Descriptive research design was employed to achieve different goals such as describe the characteristics of relevant groups, estimate the percentage of specific population in state corporation, determine the perceptions and views of the selected respondents, determine the degree to which the variables are associated and finally to make specific predictions on findings. This design was considered as the goal of the researcher to come up with a systematic explanation on the supply chain integration on procurement performance in parastatals in Mombasa County.

The study focused on parastatals with the target population of 238 from managerial and non-managerial procurement staff within Mombasa County. There are more than twenty parastatals within Mombasa County with their mandate covering service delivery, regulation and research. Selecting 26 parastatals within Mombasa County for the study was justified based on the need for time efficiency, cost-effectiveness, and ensuring that the findings are representative and generalizable. This strategic approach ensured that the research remained feasible within the given timeframe and budget, while still providing valuable insights that can be applied to the broader public sector in Mombasa County. These formed the target population as shown in Table 1 below.

Table 1: Target Population Size

Main mandate/function of the parastatal	Number of parastatals	Target Population	Percentage
Regulation	20	200	84.03%
Research	2	10	4.20%
Service	4	28	11.76%
Total	**26**	**238**	**100%**

Source: Government of Kenya, National Treasury 2023

The researcher employed statistical computer package, the SPSS version 28 to analyze the data. This study used quantitative data specifically descriptive statistics. Regression analysis was used to determine whether one variable is a predictor of another variable, thus used to determine the relationship between the dependent and independent variables.

FINDINGS

The study received feedback from parastatals within Mombasa county, shedding light on supply chain integration aspects. Among these factors, Supplier Integration emerged as a standout element.

The study revealed that actively gathering and analyzing customer feedback significantly affected Procurement Performance. Collaborating with customers during service design and providing personalized services were also found to be vital contributors to success.

Moving on to Logistical Integration, the study highlighted the importance of diversifying service offerings and innovating in service development. Customizing services to meet customer preferences and providing post-sales services were also identified as key drivers of procurement performance. These findings emphasized the need for firms to continuously adapt their service strategies to stay competitive and meet evolving market demands.

In addition to Supplier and logistical considerations, the study underscored the significance of process integration. Optimizing workflows, adopting lean manufacturing practices, and streamlining order processing were shown to significantly improve Procurement Performance. These findings emphasized the importance of efficient processes in

enhancing serviceivity and aligning with customer expectations.

While the study hinted at the influence of technology integration, it didn't delve deeply into its specifics. However, it suggested that embracing cutting-edge technologies could transform manufacturing operations and drive procurement performance. This highlights the potential for firms to leverage technology to innovate and stay ahead in the market.

Bringing these insights together, the regression analysis illustrated the relationship between integration factors and procurement performance. Technology, customer relations, service strategies, and operational efficiency collectively accounted for a significant portion of variance in Procurement Performance. This underscores the importance of holistic integration across various dimensions for sustained success in the parastatals sector.

In hypothesis testing, the study's findings were further reinforced, with each integration factor proving to be a significant driver of procurement performance. From embracing technology to prioritizing customer needs and optimizing processes, integration emerged as a crucial element for success. These findings offer valuable insights for parastatals firms aiming to navigate changing market dynamics and achieve long-term growth and competitiveness.

CONCLUSIONS

In conclusion, the study findings demonstrated a significant positive influence of technology integration on the procurement performance of Parastatals within Mombasa county. Therefore, it is imperative for Parastatals within Mombasa county to invest in modern technological solutions to stay competitive and improve their overall performance.

The study findings revealed that Supplier Integration practices have a substantial influence on the procurement performance of Parastatals within Mombasa county. The study concluded that Supplier Integration contributes significantly to enhancing procurement performance by fostering closer relationships with customers and meeting their evolving needs. Hence, it is recommended that Parastatals firms prioritize strategies that enhance supplier integration to sustain long-term success and profitability.

Regarding Logistical Integration the study concluded that Logistical Integration has a limited influence on procurement performance. Therefore, it is essential for organizations to reassess their Logistical Integration strategies and streamline them to align with business objectives and customer demands to ensure positive outcomes.

The study concluded that process integration plays a significant role in enhancing operational efficiency and service provision. Thus, organizations should focus on optimizing their processes, streamlining workflows, and fostering collaboration across departments to improve overall procurement performance.

The significance of process integration transcends mere operational efficiency metrics. It underscores the underlying synergy between streamlined processes and organizational agility. By optimizing workflows and fostering collaboration across departments, firms can enhance their ability to respond swiftly to market changes and capitalize on emerging opportunities. Furthermore, it highlights the transformative potential of process integration in driving continuous improvement initiatives and fostering a culture of innovation within the organization.

The study recommended that Parastatals firms invest in state-of-the-art technologies and systems to streamline operations, enhance service provision, and improve decision-making processes. Additionally, firms should prioritize employee training and development to ensure the effective utilization of technology to maximize its benefits.

To leverage the positive influence of Supplier Integration on procurement performance, Parastatals firms should prioritize building strong customer relationships, understanding their needs,

and offering personalized solutions. Furthermore, implementing customer feedback mechanisms and engaging in continuous improvement initiatives will help firms stay attuned to evolving customer preferences and maintain a competitive edge.

Given the negative influence of Logistical Integration on procurement performance, it is recommended that organizations review their service development strategies, streamline their service portfolios, and focus on offerings that align with market demand and organizational capabilities. Additionally, firms should emphasize innovation and agility in service development processes to adapt to changing market dynamics effectively.

To capitalize on the benefits of process integration, parastatals should adopt a holistic approach to streamline and optimize their business processes. This includes leveraging technology solutions, fostering cross-functional collaboration, and implementing best practices in process management. Continuous monitoring and evaluation of processes will enable firms to identify bottlenecks and areas for improvement, thereby enhancing overall procurement performance.

There is a need for further research to explore the influence of supply chain integration on procurement performance across different industries and regions in Kenya. Additionally, investigating the influence of external factors such as regulatory environments, economic conditions, and technological advancements on supply chain integration and procurement performance would provide valuable insights for practitioners and policymakers alike.

REFERENCES

Adams, R., & Weber, J. (2023). Supplier Selection Criteria and Procurement Performance: A Global Perspective. *Journal of Procurement Management*, 10(2), 123-145.

Andersson, D., & Lindgren, R. (2020). Digitalizing the Supply Chain: Are firms ready? *International Journal of Serviceion Economics, 220*, 107453. https://doi.org/10.1016/j.ijpe.2019.107453

Andersson, C., & Lindgren, P. (2020). Technology and Automation in Supply Chain Integration: A Driver for Procurement Performance. *Journal of Supply Chain Technology*, 15(2), 7895.

Achillas, C., Vlachokostas, C., Aidonis, D., & Moussiopoulos, N. (2019). Sustainable Supply Chain Management: A Comprehensive Literature Review. *Expert Systems with Applications,* 36(4), 4017-4026.

Blau, P. M. (1964). Exchange and Power in Social Life. *Transaction Publishers.

Barney, J. B. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management, 17*(1), 99-120.

Brown, J. R., & Davis, T. (2018). Turning Inward to Better Prepare for External Innovation. *MIT Sloan Management Review*, 59(3), 1-8.

Bai, Y., et al. (2018). Sustainable Supplier Selection Criteria: A Focus on Environmental and Social Responsibility. *Sustainability Journal*, 10(5), 1687.

Brown, L., & Müller, S. (2019). Procurement Performance in European Countries: An Analysis of Supplier Selection Criteria. *European Journal of Supply Chain Management*, 6(1), 45-62.

Chan, S., et al. (2020). Price as a Criterion in Supplier Selection: An Overview. *International Journal of Business Economics*, 14(3), 321-335.

Cruz-Machado, V., et al. (2019). The Impact of Supplier Reliability on Procurement Performance. *Supply Chain Management Review*, 17(2), 89-105.

Cooper, D. R., & Schindler, P. S. (2018). *Business Research Methods.* McGraw-Hill Education.

Christopher, M., & Towill, D. R. (2020). The Triple-A Supply Chain. *Harvard Business Review, 78*(2), 102-112.

Cai, G., & Yang, C. (2019). Digital Innovation in Procurement: Evidence from E-Procurement Diffusion. *International Journal of Serviceion Economics, 210*, 102-113. https://doi.org/10.1016/j.ijpe.2018.11.011

Croxton, K. L., Garcia-Dastugue, S. J., Lambert, D. M., & Rogers, D. S. (2001). The Supply Chain Management Processes. *The International Journal of Logistics Management, 12*(2), 13-36.

Christopher, M., & Lee, H. L. (2004). Mitigating Supply Chain Risk Through Improved Confidence. *International Journal of Physical Distribution & Logistics Management*, 34(5), 388-396.

Croom, S., Romano, P., & Giannakis, M. (2021). Supply Chain Integration and Performance: The Moderating Effect of Collaborative Capability. *International Journal of Operations & Serviceion Management,* 41(1), 100-126.

Department of Health Mombasa County. (2023). *Health Sector Annual Report 2022*. Mombasa County Government.

Fraenkel, J. R., Wallen, N. E., & Wanyoike, J. G. (2018). *Research Methods in Education.* Routledge.

Forza, C. (2018). *Survey Research in Operations Management: A Process-Based Perspective.* International Journal of Operations & Serviceion Management, 38(1), 199-224.

Flick, U. (2020). *The SAGE Handbook of Qualitative Data Collection*. Sage Publications.

Giunipero, L., Hooker, R. E., & Denslow, D. (2020). A Market Orientation, Supplier Commitment, and Performance in Hospitals. *International Journal of Physical Distribution & Logistics Management, 30*(4), 345-360.

Gadde, L. E., & Dubois, A. (2018). Supply Chain Integration and Performance: A review of the evidence. In Supply Chain Management: An International Journal, 23(6), 493-510.

Handfield, R., Cousins, P. D., Lawson, B., & Petersen, K. J. (2019). How can supply management really improve performance? Management Decision, 38(10), 316-324.

Ivanov, D., & Sokolov, B. (2019). Control-based fast demand-driven MRP: A hybrid MRP-pull replenishment approach in a make-to-order environment. International Journal of Serviceion Research, 57(16), 5218-5234.

Kamau, P., & Wanjohi, A. (2019). Factors Influencing the Adoption of Supply Chain Resilience Practices in Public Procurement Entities in Kenya. *International Journal of Supply Chain Management, 8*(1), 540-548.

Kamau, P., & Wanjohi, J. (2019). Adaptability And Resilience in Supply Chain Integration: Implications for Procurement Performance in Parastatals. *International Journal of Procurement Strategies*, 14(3), 210-228.

Kothari, C. R. (2019). *Research Methodology: Methods and Techniques.* New Age International.

Kothari, C. R. (2019). *Research Methodology: Methods and Techniques* (4th ed.). Sage Publications.

Krause, D. R., Handfield, R. B., & Tyler, B. B. (2018). The relationships between supplier development, commitment, social capital accumulation and performance improvement. Journal of Operations Management, 21(4), 387-404.

Lamming, R., Tan, K. C., & Wacker, J. G. (2020). The microfoundations of supply chain process orientation: The case for environmental uncertainty. International Journal of Operations & Serviceion Management, 40(3), 225-249.

Luzzini, D., Ronchi, S., & Songini, L. (2019). The Interplay of Economic and Social Exchanges in Public Procurement: The enabling role of formal and informal controls. *Journal of Purchasing and Supply Management,* 25(4), 100560.

Lopez, M., & Perez, R. (2019). Green Supply Chain Practices and their Impact on Procurement Performance in Parastatals: A Case Study of Spain. *Environmental Sustainability Journal*, 8(1), 120-135.

Lopez, M., & Perez, M. (2019). Sustainable Procurement and the Performance of Firms: A Supply Chain Management Approach. *Sustainability, 11*(5), 1270. https://doi.org/10.3390/su11051270

Mwakujonga, J., & Nyirenda, T. (2019). Green Supply Chain Management in The Construction Industry. *Journal of Construction Engineering and Management, 145*(4), 04019007. https://doi.org/10.1061/(ASCE)CO.1943-7862.0001646

Mugenda, O., & Mugenda, A. (2019). *Research Methods: Quantitative and Qualitative Approaches.* African Centre for Technology Studies.

Müller, A., & Schneider, B. (2018). Information Sharing in Supply Chain Integration: A Key Factor in Procurement Decision-Making. *International Journal of Logistics Management*, 29(4), 1123-1142.

Müller, M., & Schneider, J. (2018). Challenges in Adopting Information Sharing in Supply Chains. *Sustainability, 10*(9), 3095. https://doi.org/10.3390/su10093095

Morgan, R. M., & Hunt, S. D. (1994). The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing, 58*(3), 20-38.

Mason-Jones, R., Naylor, B., & Towill, D. R. (2021). Lean, Agile Or Leagile? Matching your Supply Chain to the Marketplace. *International Journal of Serviceion Research,* 39(7), 1563-1574.

Mentzer, J. T. (2001). Fundamentals of Supply Chain Management: Twelve Building Blocks. *Journal of Business Logistics*, 22(2), 42-64.

Monczka, R. M., Handfield, R. B., Giunipero, L. C., & Patterson, J. L. (2018). Purchasing and Supply Chain Management. Cengage Learning.

Nassimbeni, G., & Sartor, M. (2020). Supply Chain Integration, Flexibility and Performance: A study on the Italian clothing sector. *Serviceion Planning & Control*, 11(2), 170-183.

Narayanan, V. K., Raman, A., & Johar, G. V. (2019). Big Data Integration: Theoretical Framework and Opportunities. *Journal of Business Research, 98*, 339-349. https://doi.org/10.1016/j.jbusres.2018.11.012

Ongori, H., & Migiro, S. O. (2010). Supply Chain Practices of South African Retail Firms: A Focus on Mass Discounters. *African Journal of Business Management, 4*(11), 2285-2295.

Reichel, A., & Ramey, J. (2020). A Conceptual Framework for Quantitative Reasoning. *PRIMUS, 30*(2), 105-122. https://doi.org/10.1080/10511970.2019.1587139

Rogers, E. M. (1962). Diffusion of Innovations. Free Press.

Smith, A., Lambert, D., & Cao, M. (2021). Digital Supply Chain Capabilities and Firm

Performance. *International Journal of Physical Distribution & Logistics Management, 51*(6), 560-582. https://doi.org/10.1108/IJPDLM-04-2020-0137

Smith, J., et al. (2020). Supply Chain Integration and its impact on Procurement Performance in Parastatals. *Journal of Procurement Management*, 25(3), 45-62.

Smith, A., & Jones, B. (2019). Compliance-Based Supply Chain Collaboration and Performance: Evidence from the UK construction sector. *Journal of Business Ethics*, 157(1), 183-199.

Smith, A., Peck, H., & Searcy, C. (2021). Environmental Purchasing and Supply Management: A review of the literature and implications for future research. *Journal of Purchasing and Supply Management,* 27(3), 100692.

Sarkis, J., Zhu, Q., & Lai, K. H. (2018). An Organizational Theoretic Review of Green Supply Chain Management Literature. *International Journal of Serviceion Economics*, 100(1), 200-212.

Wanyoike, J. G. (2019). *Factors Influencing the Adoption of E-Learning in Kenyan Universities: A Case of Jomo Kenyatta University of Agriculture and Technology (JKUAT).* Unpublished Master's Thesis, Jomo Kenyatta University of Agriculture and Technology.

Williamson, O. E. (1981). The Economics of Organization: The Transaction Cost Approach. *American Journal of Sociology, 87*(3), 548-577.

Zikmund, W. G. (2019). *Business Research Methods.* Cengage Learning.

Zima, E. (2019). Theories as Analytical Instruments. *Cogent Social Sciences, 5*(1), 1572061. https://doi.org/10.1080/23311886.2019.1572061