Analysis of the Effect of Supply Chain Management Practices on Organizational Performance: A case of Kenya Revenue Authority, Kenya

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Abstract: State corporation currently have adopted supply chain management practices to optimize organizational performance fully. The study's general objective is to assess the effect of supply chain management practices on organizational performance in the Kenya Revenue Authority. Specifically, the study sought to analyse the impact of e-procurement, inventory management, quality management, and supplier management on the performance of the Kenya Revenue Authority’s organization. A cross-sectional survey design was adopted whereby stratified and simple random sampling techniques were integrated to determine the study sample population in this study. A structured questionnaire was the primary data collection instrument which had both open-ended and close-ended questions. The questionnaires were self-administered by the researcher himself physically or via an online link to the respondents. After some time, the questionnaires were retrieved (physical forms) and data extracted in readiness for analysis. The researcher used Statistical Package for the Social Sciences (SPSS) Version 28 as a significant tool for data analysis. The quantitative data extracted from the physical forms or received via the online link was cleaned and coded into the SPSS software for descriptive and inferential statistics. From the study findings, found out that all independent variables - E-procurement, Inventory Management, Quality Management and Supplier Management positively influenced Organizational Performance at KRA. In this case, the study made a conclusion that all the independent variables investigated in the study, E-procurement, Inventory Management, Quality Management and Supplier Management positively influenced Organizational Performance at KRA. However, the study concluded that E-procurement and supplier relationship manager had a higher positive influence to organizational performance at KRA compared to inventory management and quality management that showed a lower positive influence on organizational performance. The study made recommendations that KRA to stay ahead of technology and keep tabs with the new innovations in E-procurement and optimization of E-procurement systems within the public institutions to allow for integration of the most recent E-procurement technology to further make the supply chain leaner adequately reducing on costs related procurement as well as reduce lead time in material acquisition. The management of KRA to embrace effective supplier relationship management strategies in order to support efficient supply chain management. Effective supplier appraisal techniques to be adopted, better supplier selection strategies to be used, effective supplier selection process to be employed, better supplier performance methods to be applied, effective supplier relationship management techniques to be adopted and supplier development and supplier collaboration to be also considered, the management of KRA to apply the principle of economic order quantity in inventory management practices, use effective stores management practices, avoid procurement methods that lead to long lead time and embrace inventory management strategies that help in minimization of inventory costs. Also, the management of KRA is to integrate more quality management techniques within its supply chain. This way, it is able to continuously support the employees with ways to boost their expertise and experience – majorly through seminars and trainings, programmes for continuous improvement and quality circle programmes.

Key Words: Supply Chain Management Practices, Organizational Performance, Kenya Revenue Authority
Introduction

According to Miguel and Sukati et al. (2020), Supply Chain Management (SCM) practices can be defined as the set of activities undertaken by an organization to promote effective management of its supply chain. Sukati et al. (2020) defined SCM practices as a multi-dimensional construct that includes the supply chain's upstream and downstream sides. Further, Sukati et al. (2020) defined SCM practices as outsourcing, supplier partnership, information sharing, cycle time compression, and continuous process flow. Supply chain management practices can be traced back to 1990’s when competition amongst organizations began to intensify and markets became global resulting to challenges associated with getting a product and service to the right place at the right time and at the lowest cost (Sukati et al., 2020). Organizations began to realize that it is not enough to improve efficiencies within an organization but their whole supply chain has to be made competitive. The understanding and practicing of supply chain management practices has become an essential for staying competitive in the global market and for enhancing profitability (Sukati et al., 2020). Supply chain management (SCM) practices have gained much importance from government agencies worldwide as they strive to optimize operations, improve service delivery, and enhance overall performance (Kamruzzaman, 2021).

Most governments across the world have adopted technology in the management of supply chain activities. In Singapore, the GeBIZ platform is used to manage the supply chain activities of the different state agencies. Over the years, the GeBIZ platform has revolutionized supply chain activities and optimized government procurement by centralizing online purchasing processes (Kumar et al., 2020). By digitizing procurement, streamlining workflows, and enabling transparent bidding, GeBIZ adequately reduced transaction costs by up to 80% and significantly improved efficiency in government purchasing, leading to substantial cost savings for the government and taxpayers (Kamruzzaman, 2021). Further, in the UK, using GDS has resulted in agile SCM practices, transforming digital service delivery (Akter et al., 2021). In this case, by adopting user-centric design, iterative development, and cross-functional collaboration, GDS have improved the usability and accessibility of government services—for instance, the GOV.UK platform consolidated over 2,000 government websites into a single portal, making it easier for citizens to access information and services, thereby enhancing citizen satisfaction (Akter et al., 2021).

On the same note, the use of the ProZorro system in Ukraine introduced transparency and accountability into public procurement by digitizing the entire government procurement process (Krylova & Vovk, 2020). They did so by publishing procurement data in real-time, facilitating electronic bidding, and enabling public oversight; ProZorro reduced corruption and improved trust in government procurement. The system's transparency led to significant cost savings, with prices dropping by an average of 12.4% in competitive tenders (Krylova & Vovk, 2020). Canada's SSC implemented performance measurement frameworks to improve the efficiency and effectiveness of government IT procurement (Adaku et al., 2021). Regarding this, the Canadian government established clear KPIs, conducted regular assessments, and benchmarked against industry standards. The SSC identified areas for improvement and implemented corrective actions to optimize procurement processes within the government supply chains (Adaku et al., 2021). The agency's continuous improvement initiatives enhanced service delivery and cost savings for the government.

Effective supply chain management practices are therefore vital to build and sustain competition in products and services of the firm. (Kamruzzaman, 2021), stated that the performance of the supply chain is influenced by managing and integrating key element of information into them supply chain. To achieve effective organizational performance, firms need to practice effective supply chain management practices which will see them gain competitive advantage through numerous supply chain dimensions such as quality, cost, flexibility, delivery and profit. Supply chain management (SCM) practices have gained much importance from government agencies worldwide as they strive to optimize operations, improve service delivery, and enhance overall performance (Kamruzzaman, 2021). Most governments across the world have adopted technology in the management of supply chain activities. In Singapore, the GeBIZ platform is used to manage the supply chain activities of the different state agencies. Over the years, the GeBIZ platform has revolutionized supply chain activities and optimized government procurement by centralizing online purchasing processes (Kumar et al., 2020). By digitizing procurement, streamlining workflows, and enabling transparent bidding, GeBIZ adequately reduced transaction costs by up to 80% and significantly improved efficiency in government purchasing, leading to substantial cost savings for the government and taxpayers (Kamruzzaman, 2021). Further, in the UK, using GDS has resulted in agile SCM practices, transforming digital service delivery (Akter et al., 2021). In this case, by adopting user-centric design, iterative development, and cross-functional collaboration, GDS have improved the usability and accessibility of government services—for instance, the GOV.UK platform consolidated over 2,000 government websites into a single portal, making it easier for citizens to access information and services, thereby enhancing citizen satisfaction (Akter et al., 2021). On the same note, the use of the ProZorro system in Ukraine introduced transparency and accountability into public procurement by digitizing the entire government procurement process (Krylova & Vovk, 2020). They did
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In the past ten years, supply chain management (SCM) practices have increasingly become an area of interest to government agencies within the African continent. Most government institutions in the region have realized the importance of supply chain management (SCM) practices to enhance the organizational performance of state corporations (Kimenyi et al., 2020). Drawing from recent studies on SCM implementation in government contexts in Africa, to streamline government supply chain operations, the Rwandan government implemented an e-Government Procurement System, which has currently streamlined the government procurement processes, reduced paperwork, and improved transparency within the supply chain (Kimenyi et al., 2020). In this case, the Rwandan government has achieved significant cost savings and improved efficiency in government purchasing, leading to better resource allocation and service delivery of the government agencies. However, challenges such as inadequate infrastructure and resistance to change still hinder fully realizing the system's benefits (Kimenyi et al., 2020).

Further, to streamline supply chain practices within its state corporations, South Africa introduced a mobile unit equipped with technology to provide services to remote areas through South Africa's Department of Home Affairs (Musheera & Daniels, 2021). By bringing services closer to citizens, the department improved accessibility and enhanced citizen satisfaction, particularly in underserved rural communities. However, challenges such as logistical constraints and funding shortages have continually been limited to the scalability and sustainability of mobile service delivery initiatives (Musheera & Daniels, 2021). Similarly, Ghana rolled out a National Digital Property Addressing System, which utilizes innovative technology to assign unique property addresses (Amissah et al., 2020). By streamlining supply chain operations in government institutions, Ghana aims to improve service delivery, facilitate e-commerce, and enhance government efficiency through better spatial planning and resource allocation. However, interoperability issues and capacity constraints have hindered the seamless integration of the addressing system with existing government systems and processes (Amissah et al., 2020).

Closer home, Ethiopia has an IFMIS system that centralizes government financial management processes, enables real-time monitoring and evaluation of government expenditures and oversees government procurement processes from bidding up to award of tenders (Tesfaye et al., 2021). Through this system, the government of Ethiopia has been able to establish clear performance metrics and adopt data-driven decisions, having in mind enhanced accountability, transparency, and performance in public financial management. However, challenges such as limited data quality and institutional resistance to change have challenged the effective utilization of IFMIS for performance measurement and continuous improvement initiatives within government institutions in Ethiopia (Tesfaye et al., 2021).

In Kenya, some organizations have successfully embraced effective supply chain management practices. Public organizations must understand and implement supply chain management practices to remain competitive and increase profitability. Effective supply chain management practices are critical to establishing and maintaining competition in the public corporation’s products and services (Maina, 2023). IFMIS system has been ideal for streamlining government supply chain practices. In this regard, all state agencies and ministries in Kenya must allocate budgets and pay suppliers via the IFMIS system (Maina, 2023). By doing so, the government has been able to curb the wastage of public funds, reduce corruption and adequately improve the overall organizational performance of state agencies and ministries (Maina, 2023).

Kenya Revenue Authority is a government agency responsible for the assessment, collection, and accounting of all revenues due to the government by the laws of Kenya (Kenya Revenue Authority, 2024). The Kenya Revenue Authority was established by an Act of Parliament, Chapter 469 of the laws of Kenya, which became effective on 1st July 1995 (Kenya Revenue Authority, 2024). KRA is charged with collecting revenue on behalf of Kenya's government. Supply chain management (SCM) practices are crucial in shaping the operational efficiency and effectiveness of public organizations in Kenya and in this context, the Kenya Revenue Authority (KRA) have been at the forefront of streamlined SCM practices, particularly in revenue collection, trade facilitation, E-procurement and regulatory compliance (Demberere et al., 2023). Implementing advanced technology solutions such as electronic data interchange (EDI)
systems and risk-based inspection frameworks at KRA has adversely expedited the movement of goods across borders while maintaining effective control over imports and exports (Demberere et al., 2023).

**Specific Objectives of the Study**

i. To determine the effect of Electronic procurement on organizational performance in Kenya Revenue Authority.

ii. To find out the effect of inventory management on organizational performance in the Kenya Revenue Authority.

iii. To determine how supplier relationship management affects organizational performance in Kenya Revenue Authority.

iv. To evaluate how quality management affects organizational performance in the Kenya Revenue Authority

**2.0 Literature Review**

The study was grounded on three theories, including Technology, Organization, and Environment Model(TOE), The Basic EOQ Model, Transaction Cost Economics Theory and Deming Cycle Model

**Conceptual Frame work**

Van der Poll (2023) postulates that a conceptual framework ideally conceptualizes the relationship between key variables in the study, which is shown diagrammatically. Apart from offering the direction of the study, through the conceptual framework, the researcher can demonstrate the relationships of the different constructs that a researcher wants to investigate.

The hypothesized variables included E-procurement, inventory management, supplier management, and quality management, while the dependent variable is Organization Performance as illustrated in the conceptual framework model. The conceptual framework is provided in Figure 1

![Conceptual Framework](source: Researcher (2024))

**2.2.1 Electronic procurement Practice and Organizational performance in Kenya Revenue Authority**

E-procurement, or electronic procurement, refers to using digital technology, particularly the Internet, to streamline and automate procurement processes within organizations. It involves the electronic exchange of purchasing-related documents between buyers and
suppliers, such as requisitions, purchase orders, invoices, and payments (Chilunjika, & Uwizeyimana, 2023). According to Maepa, Mpwanya, and Phume (2023), failure to merge procurement functions with information communication technology systems, like electronic data interchange, results in inefficient and ineffective manual procurement procedures, leading to wastage of procurement funds due to low transparency in the procurement processes.

Maepa, Mpwanya, and Phume (2023) asserted that information technology (IT) has permeated nearly every aspect of procurement and has the potential to enhance and deepen procurement reform efforts. Specifically, e-procurement facilitates economy and efficiency, enabling significant savings of public funds through increased competition and transparency. It achieves this by making procurement information readily available, including bidding opportunities, documents, notices, and relevant rules, thereby reducing opportunities for discretion and corruption and enhancing public confidence in government integrity (Maepa, Mpwanya & Phume, 2023).

Chilunjika, Chilunjika, and Uwizeyimana (2023) affirmed that e-procurement is essential in enhancing the adoption of more centralized procurement systems in public sector organizations. Centralized procurement systems create a central procurement database, fostering an environment conducive to effectively automating procurement processes. They note two primary types of procurement systems: electronic procurement and standard procurement. Both types are widely available and are often integrated into enterprise resource planning (ERP) or accounting software products. As purchasing departments have grown increasingly complex, organizations have increasingly adopted IT-based systems, creating a foundation for implementing automated procurement systems. These systems offer efficient cost savings and other business benefits by automating many purchasing processes.

A study by Maepa, Mpwanya and Phume (2023) sought to investigate the effect of ICT on supply chain activities such as procurement in public institutions in South Africa. A quantitative research design was adopted to sample 113 public procurement officials using a cluster sampling method from five identified national government departments across five ministerial clusters. The data was garnered using an online self-administered survey questionnaire and processed and analyzed through Stata Release 15 statistical analysis software. The study found that implementing ICT-based procurement methods in many African public institutions could have been improved by a lack of e-procurement methods, automated procurement systems, supportive ICT infrastructure, and ICT skills among procurement staff.

A study by Larbi (2023) sought to investigate the effect of E-procurement on organizational performance. A quantitative and descriptive research strategy remained employed for the study. A total of 286 respondents were sampled for the study and a questionnaire instrument was employed in gathering data from all the sampled respondents accordingly. Descriptive analysis was performed to aid the presentation of quantitative descriptions in addition to examining the outcomes of E-procurement on organizational performance. The study findings revealed that, there exist a significant and effective relationship between e-procurement and organizational performance. The study therefore commends those future studies looks at e-procurement and organizational performance in a broader perspective. Additionally, future studies should examine the topic in the context of other countries other than Ghana.

Chatterjee, Chaudhuri, Kumar, Aranega, and Biswas (2023) conducted a study on the development of an integrated model for Electronic Vendor Relationship Management (EVRM) aimed at enhancing technological innovation, promoting social change, and improving sustainability performance. The study yielded three primary findings. Firstly, it was found that EVRM capability has a significant and positive effect on the Business-to-Business (B2B) dynamic association capability between the firm and its vendors. Secondly, B2B dynamic relationship management capability was found to significantly and positively impact the sustainability performance of firms, with this effect being arbitrated through the firm’s environmental, financial, and operational performance. Lastly, the study revealed that environmental dynamics (ED) significantly moderate the ability to manage B2B dynamic relationships.

A study by Oppong (2020) was conducted on electronic procurement and organizational performance among commercial state corporations in Ghana. The study aimed to achieve two objectives: To establish the extent to which state corporations have adopted e-procurement and to find the effects of e-procurement on the performance of commercial state corporations in Ghana. The study adopted a descriptive research design where a sample size of 40 respondents who were selected through stratified sampling was involved in the study. Primary data was collected from supply chain officers by use of a questionnaire. The data was analysed and presented in tables, pie charts and histograms. A regression was also conducted to establish the relationship between e-procurement and performance. The findings indicate that commercial state corporations in Ghana have adopted e-procurement but there are several functions they still perform manually. These include, short listing of suppliers, call for proposals and tendering process. It was also established that e-procurement has led to cost reduction, improved transparency, and accountability among others. The study encountered limitations such inadequate time and finances to exhaust all the aspects of electronic procurement and organizational performance well as uncooperative respondents who were unwilling to fill the questionnaires due to the high degree of confidentiality required among the state corporations in Ghana.

On the other hand, Kumar, Singh, and Modgil (2023) tested a conceptual model based on the association between the data-driven supply chain quality management practices (DDSCQMP) and the performance of organized Indian retailing firms. Based on the core research objectives, the data was garnered using a structured questionnaire from Indian retailers. Overall, 133 questionnaires were answered.
successfully by retailers. The model was tested using structured equation modelling (SEM) through PLS 3.0. The research findings confirmed the hypotheses and observed a statistically significant association between DDSCQMP and the performance of retailers at an aggregated level. However, the study results of the individual-level analysis of DDSCQMP varied from one practice to the other. Among many DDSCQMP, "customer focus" with the highest beta (β) value was found to have the most significant impact on performance, followed by "employee relations".

Also, Gebisa (2023) conducted an empirical study investigating the influence of information sharing and inventory management practices on firm performance in supply chain operations. The research collected data from 170 individuals knowledgeable about the supply chain practices of their respective companies and employed structural equation modelling (SEM) for analysis. The study's results revealed enhanced information-sharing and effective inventory management practices are associated with improved firm performance. Furthermore, the study found that increased information-sharing leads to better inventory management, enhancing strong performance.

On the same, Bor (2021) sought to establish the significance of green supply chain management practices on the performance of Kenyan food and beverage processing firms. The specific study objectives were to assess the impact of green manufacturing, reverse logistics, green procurement, and green packaging on the performance of food and beverage processing firms in Kenya. To achieve the study objectives, the researcher developed five key hypotheses in line with the study-specific objectives. Further, the study employed five theories to ground the study findings. These theories included the transaction cost economics theory, the resource-based theory, the institutional theory, the theory of reasoned action and the diffusion innovation theory. The study also adopted an explanatory research design. Data was collected from a single key respondent in each of the organizations working in the sample population-187 of food and beverage processing firms registered with the Kenya Association of Manufacturers. The coefficient of determination in the study was established to be 0.633.

This observation signified that all the green supply chain management practices under observation in this study contributed 63.3 per cent of the overall performance of the Kenyan food and beverage processing firms, with legislation as a key moderating variable. The researcher concluded that properly implementing green supply chain management practices can result in better performance in Kenyan food and beverage processing firms. The study recommended that Kenyan manufacturing firms go green in all phases of the supply chain. Such supply chain phases include the procurement of raw materials, manufacturing, packaging, and distribution, as well as the end-of-life disposal of their produce. The study findings are of the essence to regulators to enhance the implementation of green supply chain management practices through enforcing stricter environmental regulations and rewarding firms that implement these practices.

### 2.2.2 Inventory Management Practice and Organizational performance in Kenya Revenue Authority

Inventory management is the most significant part of working capital management in the majority of business organizations since inventories constitute, on average, about 60 per cent of the total current assets (Sukati, Sanyal & Awaain, 2020). The success of any industry depends upon the effective utilization of its inventory. The inventory manager is expected to ensure the proper inventory at the right time, with the right quality from the right place and at the right price, in order to minimize the cost of manufacturing products or services. The most challenging area for the management of a firm is the management of inventory. A firm need to pay more attention to the management of inventories to ensure its long-run profitability, which may ultimately fail (Sukati, Sanyal & Awaain, 2020). For any organization, it is possible to reduce its level of inventory to a considerable extent without any adverse effect on production and sales by using simple inventory management techniques. This reduction of inventory volume carries a positive impact on the profitability of the organization (Gebisa, 2023). Inventory management involves using data collection, demand forecasting, lean principles, and operational strategies to oversee the total inventory within the supply chain at any given moment and to regulate inventory holding costs (Gebisa, 2023). The investment in inventory constitutes a significant portion of a company's working capital and often represents a substantial portion of its total assets.

Inventory holding entails expenses such as interest, insurance, obsolescence, depreciation, pilferage, storage, and handling, averaging approximately 10% of the inventory's annual value (Gebisa, 2023). Improving return on investment by enhancing the inventory turnover rate is a primary objective of any organization's management, aiming for economic efficiency. Effective inventory management enables firms to offer lower costs, swift response times, and enhanced customer flexibility (Gebisa, 2023). The adoption of the just-in-time philosophy has become widespread globally in recent years. This philosophy focuses on reducing total production costs by manufacturing what is only immediately required and eliminating waste. It diverges significantly from conventional manufacturing practices and serves as a highly effective means of minimizing inventory wastage and enhancing its management (Gebisa, 2023).

A study by Mbugi and Lutego (2022) was about the effect of inventory control management systems on organization performance in Tanzania manufacturing industry, with the major focus to the food and beverage manufacturing company in Mwanza City. The specific objectives of the study were to: determine the types and purposes of inventory control management practices followed ascertain the influence of inventory control management practices on organizational performance and determine how technology adopted in operationalization of inventory control management practices affect organization performance. In order to accomplish the objectives,
qualitative approach method was adopted. Using purposive sampling, five participants in the inventory and production department were selected and interviewed. Data was analyzed using content analysis techniques with the aid of Nvivo Qualitative Analysis software. Other data was collected from documentary review company and industry published reports. The findings of the study revealed that the food and beverage manufacturing company had evidence of different types of inventories which included raw materials, work-in-progress and finished goods managed under FIFO system for cost reduction and production efficiency. It was also evident that the company carried inventory control management using perpetual inventory system done on periodic basis and inventory system is combined with a computerized database of inventory quantities at various locations for up-dating in real time by store and warehouse using barcode scanners. It was also revealed that inventory control management system using principles of Economic order quantity affects organizational performance in terms of cost reduction, production efficiency, flexibility and profitability. The study recommends an implementation of new practices/models such as Vendor Managed Inventory (VMI) in the company’s inventory control management.

Arasa and Achuora (2020) sought to establish the influence of strategic inventory management practices on the performance of supermarkets in Nairobi County, Kenya. Specifically, the study examined the effect of vendor managed inventory, lean-inventory system, e-inventory management system and activity-based costing system on performance of supermarkets in Nairobi County. The study was grounded on the resource-based view theory. A descriptive cross-sectional survey research design was employed and stratified random sampling approach used to ensure representativeness of the study population. From the target population of 158 supermarkets a sample size of 113 supermarkets was picked. A structured questionnaire was used to collect primary data and was administered to the heads of supply chain management in the respective firms. Descriptive statistics and multiple regression equation were applied to analyze data with the help of Statistical Package for Social Sciences (version 21.0). The study established a positive significant relationship between strategic inventory management practices and performance of supermarkets. Explicitly, e-inventory management system and activity-based costing system registered the highest influence on performance of supermarkets while lean inventory management systems had no significant influence on performance. The study concludes that strategic inventory management practices significantly improve performance of supermarkets.

Consequently, the study recommends that management of supermarkets in the County should implement e-inventory management systems and practice activity-based costing in order to improve their performance through reduction of operation costs and improved inventory control, the management of supermarkets should institutionalize employment of cost accountants as part of supply chain management team for effective application of activity-based costing in inventory management. and the government should give tax rebate on IT infrastructure related to e-inventory management systems to encourage up take of the systems by firm as a way of boosting their performance and growth. Further the study suggests that future research should focus on undertaking a comparable study incorporating a wider spatial and population scope as well as give attention to constructs affecting the effectiveness of strategic inventory management practices once they are implemented by supermarkets in order to obtain a comprehensive understanding of the subject matter and contribute towards the existing body of knowledge in this area.

A study by Anisere-Hameed and Bodunde (2021) sought to investigate the effect of Inventory Management on the profitability of the manufacturing industry. The objectives of the study are to examine the effect of Inventory management on return on asset, investment, net operating margin, and net income of manufacturing firms in Nigeria using manufacturing companies in food and beverages operating in Nigeria as at the time of this study. This study employed the ex-post facto research design and covered a period of five years from 2015 to 2019. Both descriptive and inferential methods of data analysis were employed. The study reveals that inventory management has significant effect on return on asset, investment, net operating margin, and net income of manufacturing firms in Nigeria. Based on the findings of this study, the following recommendations were proffered: management should avoid tying down of capital on inventory by employing Just-in-Time (JIT) system of inventory; they should also reduce credit sales or average collection period for easy conversion of inventory to cash. This will enable companies to have enough cash to settle their obligations as at when due; the companies should maintain a closer watch on their inventory conversion period by constantly reviewing processes of payment by creditors so to avoid liquidation. and professionals in the field of inventory management should be hired by these companies for advice.

2.2.3 Supplier Relationship Management practice and Organizational Performance in Kenya Revenue Authority

Shukla et al. (2023) outlined that supplier relationship management (SRM) is a discipline centered on collaborating closely with suppliers, which is crucial to the success of one's organization and to optimize the value potential of those relationships. SRM entails fostering two-way, mutually advantageous partnerships with key supply partners to achieve higher levels of innovation and competitive advantage than could be attained through independent operations.

Chatterjee et al. (2023) argued that SRM managers should oversee at most three supplier relationships to ensure adequate attention to each. Therefore, individuals engaged in SRM activities should possess a blend of commercial, technical, and interpersonal skills. While expertise in commercial acumen, market knowledge, analytical capabilities, and project management is essential, proficiency in "softer" skills like communication, active listening, influencing, and change management is crucial for cultivating robust and trusting working relationships. SRM managers comprehend their suppliers’ business and strategic objectives, empathizing with the supplier’s perspective while balancing organizational requirements and priorities (Shukla et al., 2023). Chatterjee et al. (2023) further contend that supplier...
relationship management encompasses a comprehensive approach to managing an enterprise's interactions with its suppliers, akin to how customer relationship management (CRM) aims to optimize customer interactions.

Chatterjee et al. (2023) agreed that SRM encompasses both business practices and software and is an integral part of the information flow aspect of supply chain management (SCM). SRM practices establish a common platform for effective communication between an enterprise and suppliers, facilitating communication across varying business practices and terminology. Consequently, SRM enhances the efficiency of procurement, inventory management, and materials processing processes. In this case, adopting SRM software can result in reduced production costs and better quality, ultimately resulting in lower-priced, higher-quality end products (Chatterjee et al. 2023).

Further, a study by Kiriinya (2021) sought to establish the influence of supply chain relationship management practices on the organizational performance of pharmaceutical firms in Kenya. Like previous studies, the study concentrated on supply chain relationship management and performance in the pharmaceutical industry. The study was of significance to policymakers, researchers, pharmaceutical firms and supply chain practitioners. A conceptual framework was used to depict how the conceptualized independent variables, Transparency, Resilience Building, Collaborative Planning and Process Alignment, relate to a dependent variable, Organizational Performance. The study sought to establish the moderating effect of inter-organization systems (IOS) on the nature of the association between supply chain relationship management practices and organizational performance. The study was underpinned by stakeholder theory, dynamic capabilities theory, systems theory, network theory, social-technical systems theory and strategic choice theory. Descriptive research design was used to explain what, where, when and how of the problem. A census sampling technique was utilized to enumerate all 171 pharmaceutical firms that formed the study population.

Some of the limitations faced during the study included the reluctance of the respondents to answer the questionnaires for fear of information leaking to competitors, the tight schedules of respondents and caution when dealing with members of the public. A drop-and-pick method of data collection was adopted, and a questionnaire was administered per firm to supply chain managers or their representatives. The study showed a significant but positive relationship between Transparency, resilience building, collaborative planning, process alignment and firm performance. The results further revealed that the inter-organization systems significantly influenced the nature of the association firm's performance and supply chain relationship management practices. The study made an important conclusion that when relationship management is correctly done, then collaboration, Transparency, resilience building, and process alignment will improve the performance of pharmaceutical firms by increasing their market share, higher returns on investment, improving customer service levels, reducing lead times, responsiveness and stable supply chains.

A study by Muthoni and Mose (2020) sought to find the influence of supply chain management practices on the organizational performance of food and beverage manufacturing companies in Kenya. For the researcher to achieve the study objectives, a descriptive survey research design method was adopted. This research design helped the researcher collect both qualitative and quantitative data required in the study. Therefore, the study surveyed 187 food and beverage manufacturing companies in the Kenyan industry, of which 125 were chosen to comprise the sample population. A questionnaire was the principal data collection instrument in the study. The study findings revealed an R-value of 0.887, which showed a high positive correlation between the independent and dependent variables. These findings also revealed that the four independent variables jointly influenced 78.70% of the performance of F & B manufacturing firms in Kenya. Additionally, the findings meant that these variables were significant and must be considered to elevate the performance of Kenya's F & B manufacturing firms. Also, the study observed that production management positively affected the performance of food and beverage manufacturing firms in Kenya. Regarding this, Kenya's food and beverage manufacturing firms have yet to effectively apply demand forecasting, supplier collaboration, and production planning to improve organizational performance.

Oduru, Nyarku and Gbadeyan (2020) sought to investigate the effect of supplier relationship management on organizational performance. The purpose of the study integrated the social exchange and resource dependency theories, the study aims to comparatively examine the supplier relationship management (SRM) dimensions and organizational performance links of private and public hospitals in Ghana. Comparative in nature; employing a quantitative approach; and using simple random and convenience sampling techniques, the study tested the proposed hypotheses using structural equation model-partial least square based on 205 usable questionnaires. Partial least square-multigroup analysis (PLS-MGA) was performed to test the significance of the difference in the parameters between the two samples: private and public hospitals in Ghana. The dimensions of SRM (communication, cooperation, trust, atmosphere and adaptation) have a significant, positive impact on private hospitals’ performance in Ghana. Similarly, communication and trust were found to be positively and significantly correlated to public hospitals’ performance. In contrast, cooperation, atmosphere and adaptation dimensions showed no significant, positive effect on public hospitals’ performance. PLS-MGA disclosed that these observed differences in the findings between the private and public hospitals in Ghana are statistically significant. The findings of the study, while limited to hospitals in Ghana, are likely to be relevant in other emerging economies for effective and enhanced supply chain relationship management. The findings provide pragmatic insights for marketing practitioners and organizational leaders of hospitals about the significance of SRM dimensions in today’s globalized marketplace, and how to nurture them to enhance organizational performance.

2.2.4 Quality Management Practice and Organizational Performance in Kenya Revenue Authority

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The globalization and globalization of market economies have compelled corporations across all sectors to maintain a sustainable competitive advantage closely linked to ensuring service quality and productivity (Kumar et al., 2023). A practical framework for achieving such success is Total Quality Management (TQM), which is a management philosophy centered on quality, involving the participation of all members of the organization and aiming for long-term success via customer satisfaction and benefits to all stakeholders, as defined by the International Organization for Standardization (ISO). TQM entails coordinating efforts to enhance customer satisfaction, increase employee involvement, strengthen supplier relationships, and foster a culture of progressive quality improvement within the organization (Hussain et al., 2020).

Organizations implementing TQM after attending short-term seminars must improve in their initial attempt to adopt the total quality approach. This is because they look at total quality as just another management innovation rather than a new way of doing business that requires an entirely new corporate culture (Hussain et al., 2020). More organizations need to begin the implementation of total quality behind management labor discord ad infinitum without achieving consensus. From the perspective of total quality, who or what is to blame for adversarial management–labor relations are irrelevant. What is important is this: to apply the total quality approach, organizations must have unity of purpose. This means that internal politics have no place in a total quality organization. Instead, collaboration should be the norm (Hussain et al., 2020).

Kumar, Singh, and Modgil (2023) further elaborated that TQM is an approach to enhance an organization’s effectiveness, competitiveness, and flexibility. It involves meticulous planning, organizing, and understanding each activity, relying on the contribution of every individual at every level. TQM necessitates maintaining high-quality standards across all business operations, ensuring that processes are executed correctly the first time and that defects and waste are eliminated. Organizations dedicated to quality continuously strive to improve their services and product quality and are open to change, even though they may initially prefer stability (Ali, Hilman & Gorondutse (2020).

Change within an organization is often precipitated by compelling reasons, either internal or external, prompting managers to recognize the need for business improvement. With fierce competition on both national and global scales, achieving excellence becomes imperative for companies to survive and thrive in the competitive landscape. According to Zhao et al. (2023), quality plays a crucial role in enabling business firms to attain competitive advantage, as all strategies aimed at achieving such an advantage incorporate quality considerations, particularly in manufacturing environments. Quality has also demonstrated similar significance in administrative and service industries.

A study by Asad, Chethiyar and Ali (2020) sought to examine the role of Total Quality Management practices in operational performance of hotels as one of the service industries. Hotels employees were surveyed for data collection through instrument. The reliability of measures was established before carrying out the causal analysis. Regression was used to analyse the hypothesis. The findings propose a positive relationship between Total Quality Management practices operational performance of hotels in the context of developing countries. Total Quality Management practice of Recruitment and selection has stronger implication in enhancing hotel’s operational performance compared to the rest of practices. The investigation may be triangulated with other research strategies and data collection methods. The findings are significant while implementing quality practices in the service industry. The study has considered specific context for use of Total Quality Management practices as a competitive strategy by hotels in developing countries.

A study by Hassan and Jaaron (2021) investigated the underlying relationship between total quality management (TQM) and the level of green manufacturing (GM) practices implementation in Palestinian food manufacturing companies (PFMC). The paper also investigated how GM practices mediate the relationship between TQM and Organizational Performance (OP) of PFMC. A quantitative research method using a survey instrument collected data from senior, quality, and human resources (HR) managers from 250 PFMC. The statistical data analysis indicated a significant positive correlation between TQM practices and overall OP ($r = 0.605; p \leq 0.01$). This indicates that TQM practices significantly supports achieving overall OP objectives. Also, results found a significant positive correlation between the TQM practices and the implementation level of GM practices ($r = 0.650; p \leq 0.01$), suggesting the significant role of TQM in enhancing organizational capabilities in implementing GM practices. Moreover, the results indicated that GM practices are equally important to TQM practices in enhancing overall OP; as GM practices were found to have a positive correlation with improving overall OP of PFMC ($r = 0.827; p \leq 0.01$). Finally, TQM practices are found to have a significant indirect effect on OP mediated by GM practices ($\beta = 0.55, p \leq 0.05$), whereas a significant total effect of TQM practices on OP were found ($\beta = 0.64, p \leq 0.05$), reflecting those the GM practices’ mediating effect partially accounts for roughly 86% of total effect of TQM practices on overall OP. This empirical study is considered as the first study investigating the impact of TQM practices on implementation of GM practices and their complementary impact on OP in Palestine, adding great value to literature via responding to calls to counter environmental issues in developing countries’ context.

A study by Daqar and Constantinovits (2020) aimed at to exploring the role of total quality management (TQM) in enhancing the service quality of the private healthcare sector in the Northern Area of West Bank Palestine. The study involves a questionnaire-based survey, private hospitals, and healthcare centers selected in North West Bank. The administrative employees are the population of the study; 200 employees were selected via stratified sampling method. By using the Structural Equation Modeling (SEM), the findings show that all TQM factors are positively and directly related to each other in the private healthcare sector. There is a positive and direct relationship
between four TQM factors (customer satisfaction, employee involvement, continual improvements, and top management commitment) and service quality, while there is a negative direct relationship between processes and service quality.

TQM factors (customer satisfaction, employee involvement, continual improvements, processes, and top management commitment) explained 95% of the variance in healthcare service quality ($R^2 = 0.950$, $P < 0.05$). Continual improvements are the main pillar in TQM application in healthcare sector, and it is highly associated with the private healthcare processes ($R^2 = 0.907$, $P < 0.01$), while top management commitment is the most significant factor in improving the service quality. Full understanding and commitment by the managers across all levels and activating the effective communication between employees at all levels in the organization are the key factors of a successful TQM implementation; it helps in strengthening the teamwork efficiency. Top management is required to avoid the monotonic managerial practices, especially in the organizational processes, as it has a negative impact on the private healthcare service quality.

3.0 Research Methodology

3.1. Research Design

According to Carter et al. (2023), a research design is a plan and structure of investigation designed to get answers to research questions and control variances. It is therefore a plan for selecting subjects, research sites, and data collection procedures to answer the research question. Carter et al. (2023), further indicated that a sound research design aims to provide results that are judged to be credible. This study integrated a cross-sectional survey research design to help indicate trends in attitudes and behaviours and enable the generalization of the findings. The cross-sectional survey is a method that incorporates the analysis of data gathered from a population, or a representative subset, at one specific point in time (Carter et al., 2023). This design is appropriate for this study because the study utilized a questionnaire as the data collection tool, which saves on time and expenses, and the amount of quality information yielded is valid. At the same time, interviewer bias is reduced because participants complete identically worded self-reported measures (Carter et al., 2023).

3.2. Target Population

A population is an extensive collection of individuals, items or even objects that form the main focus of a scientific query and have similar characteristics (Mcleod, 2023). The target population defines those units for which the study's findings are meant to be generalized. The population list from which the researcher can select key subjects is known as a population frame. A population frame must thus contain an up-to-date list of the target population. The target population in this study was drawn from a population frame of 5,922 staff members of KRA.

3.3. Sample and Sampling Procedure

Zikmund, Babin, Carr and Griffin (2010) defined sampling as a selection of a subject of individuals from within a population to make predictions based on statistical inference. Sampling technique refers to the procedure used to generate data that may be used to generalize results to the entire population (Pandey, 2021). This study employed simple random sampling as the primary sampling technique to pick a sample representing the total population. A simple random sample is used when a population is homogeneous, and, in this case, our population is homogenous since the study targets any employee of KRA regardless of rank.

A sample size is the number of items or individuals selected from the universe to constitute a sample (Schoonenboom, 2023). A sample size of 375 respondents was taken from the target population of 5922 staff members of KRA. This sample size was regarded as representative and thorough in terms of study objectives coverage, as well as cost-effective in terms of time and money.

The study used the sample size formula developed by Yamane (1967) to calculate a sample size at 95 percent confidence level, with a precision or error of 5 percent. The Yamane formula was used due to its simplicity in scientific usage and applicability in large populations.

$$n = \frac{N}{1 + \frac{Ne^2}{N}}$$

Where $n$ = Sample size,

$N$ = Population size

e = the level of precision desired

$$n = \frac{5922}{1 + \frac{5922(0.05)}{5922}} = 374.69155 = 375 \text{ respondents (approx.)}$$

The sample size computed from Yamane formula comprises of 375 respondents to be selected from the KRA staff and management.
3.4. Data Collection Method

According to Mcleod (2023), the questionnaire is convenient for such a study because it is cheaper and relatively quicker to administer to respondents. It is also convenient for the respondents as they could fill them during their free time or when workloads are manageable. In this case, the questionnaires were delivered to Kenya Revenue Authority management and staff and filled out by respondents at their convenience. The researcher then picked them up a week after they have been duly filled out for processing and analysis.

3.5. Validity and Reliability of Research Instrument

The questionnaire's validity was evaluated using the construct validity method. According to Mcleod (2023), a measure's construct validity is how well it confirms predicted correlations with other theoretical prepositions; construct validity is how well test results can be explained by the explanatory constructs of a reliable theory. In order to evaluate the construct validity, we relate several extra prepositions to the results obtained by using a measuring method.

We can agree to construct validity if measurements on our created scale reveal the predicted link with these other prepositions (Schoonenboom, 2023). A panel of professionals with knowledge of the build-in logistics and procurement fields assisted in evaluating the construct's authenticity. The experts were used to determine if the questionnaires successfully established a link between the variables under inquiry (Schoonenboom, 2023).

Reliability refers to a study tool's capacity to deliver consistent results throughout several trials (Muhaise et al., 2020). Reliability measures how much trust may be put in the outcomes of a data-gathering instrument or process, according to Muhaise et al. (2020). It also pertains to the data's quality, consistency, and dependability (Muhaise et al., 2020). The researcher employed a structured questionnaire to gather data. In this case, its reliability was be tested by obtaining Cronbach's alpha to evaluate its reliability during the pilot test.

Therefore, the possible values of alpha calculated from the data garnered during the pilot test, which is the ratio of two variances, should be between zero and one. Even if only positive numbers make sense, the alpha estimates can have any value that is less than or equal to one, even negative, depending on the estimating technique used. Greater alpha values are more desirable than the lower ones (Muhaise et al., 2020). In this case, Cronbach's Alpha of at least 0.7 was admissible in the study. For the values below 0.7, the researcher had to improve on the questionnaire items by rephrasing the questions or improving on them.

4.0 Data Analysis and Discussion

Electronic procurement Practice and Organizational Performance

Electronic procurement, is the use of digital technology to streamline and automate procurement processes within an organization (Chan & Owusu, 2022). It involves the electronic exchange of purchasing-related documents between buyers and suppliers, such as requisitions, purchase orders, invoices, and payments. Study findings presented on Table 1, articulated that most employees (88%) had computer literacy level of over 60 percent while 12 percent of the employees had a computer literacy of 41-60 percent. Further, most employees (71%) confirmed that KRA’s level of automation was at over 60 percent while 29 percent of the employees indicated that the firm’s level of automation was at 41-60 percent. When asked about the level of usage for the procurement systems, 25 percent of the employees indicated that the usage level was over 60 percent, 60 percent of the employees indicated that it was between 41-60 percent, 10 percent of the employees indicated it was between 20 to 40 percent while 5 percent of the employees highlighted that it was less than 20 percent. Further, when asked about the level of E-procurement infrastructure in the organization, majority of the employees (71%) indicated that the level of E-procurement infrastructure was over 60 percent and 29 percent of the employees indicated that it was between 41-60 percent. On the same note, when the respondents were asked about the firm’s embracement level to E-procurement, 47 percent indicated that it was over 60 percent, 32 percent indicated that it was between 41-60 percent, 16 percent indicated it was between 20 to 40 percent while 5 percent of the respondents felt it was less than 20 percent.

Table 1: Electronic Procurement and Organizational Performance

<table>
<thead>
<tr>
<th>Statements of E-procurement on Organizational Performance</th>
<th>0%</th>
<th>&lt;20%</th>
<th>20-40%</th>
<th>41-60%</th>
<th>Over 60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>What percentage of employees in the firm are computer literate</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>12%</td>
<td>88%</td>
</tr>
<tr>
<td>What is the firm’s level of Automation</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>29%</td>
<td>71%</td>
</tr>
<tr>
<td>What is the level of procurement systems usage</td>
<td>0%</td>
<td>5%</td>
<td>10%</td>
<td>60%</td>
<td>25%</td>
</tr>
<tr>
<td>What is the level of E-procurement Infrastructure</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>29%</td>
<td>71%</td>
</tr>
<tr>
<td>What is the firm’s level of embracement of E-procurement</td>
<td>0%</td>
<td>5%</td>
<td>16%</td>
<td>32%</td>
<td>47%</td>
</tr>
</tbody>
</table>

Inventory Management Practice and Organizational Performance

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Inventory management is vital for any organization. While it encompasses data collection, demand and forecasting and lean management, it also involves application of operational principles to manage the total amount of inventory within the supply chain at any point in time and manage inventory holding costs. The balance between the above stated factors in what results to optimal inventory management resulting to organizational performance.

When the respondents were asked to indicate the inventory management, they felt impacted organizational performance at KRA, they indicated warehousing costs (39%), administrative costs (28%) security costs (22%), and damages scrapped costs (11%) as indicated in Figure 2. These findings concur with earlier findings made by Chilunjika et al. (2023) who indicated that Warehousing and Administrative costs carried the heaviest load within the supply chain of any organization.

Further, the respondents were asked to indicate the extent to which they thought implementation of inventory management practice influenced organization performance. Their opinions were to be rated as per the Likert Scale of 1 to 5 where 1 was to no extent at all while 5 was to a very great extent. From the findings plotted on Table 2, majority of the respondents agreed that implementation of inventory management practices influenced Organizational Performance with (mean 3.806 and Std Dev 0.872).

Respondents with a mean of 3.563 and 1.221 standard deviation, agreed that Manpower and other administrative cost has gone down. Similarly, majority felt that Quality of products has really improved with a mean of 3.602 at 1.189 standard deviations. On the same, majority of the respondents felt implementation of inventory management practice has resulted to effective inventory management enables firms to offer lower costs, with a mean of 3.755 at 1.260 standard deviations. Further, majority of the respondents felt implementation of inventory management practice has helped in reduction in Material handling cost (Labor charges) to very great extent with a mean of 3.924 at 0.248 standard deviations. Also, majority of respondents felt that Inventory management has assisted our organization to give swift response times with a mean of 4.062 at 0.244 standard deviations. On the same case, majority of the respondents felt that implementation Inventory management has enhanced customer flexibility with a mean of 3.931 at 1.072 standard deviations.

Table 2: Inventory management Practices and Organizational Performance

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manpower and other administrative cost has gone down</td>
<td>3.563</td>
<td>1.221</td>
</tr>
<tr>
<td>Quality of products has really improved</td>
<td>3.602</td>
<td>1.189</td>
</tr>
<tr>
<td>Effective inventory management enables firms to offer lower costs,</td>
<td>3.755</td>
<td>1.260</td>
</tr>
<tr>
<td>There is reduction in Material handling cost(Labor charges)</td>
<td>3.924</td>
<td>0.248</td>
</tr>
<tr>
<td>Inventory management has assisted our organization to give swift response times</td>
<td>4.062</td>
<td>0.244</td>
</tr>
<tr>
<td>Inventory management has enhanced customer flexibility</td>
<td>3.931</td>
<td>1.072</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>3.806</strong></td>
<td><strong>0.872</strong></td>
</tr>
</tbody>
</table>

Supplier Relationship Management and Organizational Performance

The respondents were asked to indicate the extent of their agreement to statements on effect of supplier relationship management on organizational performance. From the study findings on Table 3, most respondents agreed to all statements on effect of supplier relationship management on organizational performance. In this regard, the agreed that supplier relationship management were built of mutual trust (Mean=4.276, SD=1.304), cooperation (Mean=3.453, SD=1.270), long term commitments (Mean=3.833, SD=1.153) and strategic partnerships (Mean=3.961, SD=1.475).

Table 3: Supplier Relationship Management on Organizational Performance

<table>
<thead>
<tr>
<th>Statements on Supplier Relationship Management</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutual trust</td>
<td>332</td>
<td>4.276</td>
<td>1.304</td>
</tr>
<tr>
<td>Cooperation</td>
<td>332</td>
<td>3.453</td>
<td>1.27</td>
</tr>
<tr>
<td>Long term commitment</td>
<td>332</td>
<td>3.833</td>
<td>1.153</td>
</tr>
<tr>
<td>Strategic partnerships</td>
<td>332</td>
<td>3.961</td>
<td>1.475</td>
</tr>
</tbody>
</table>

Shukla et al. (2023) defined supplier relationship management (SRM) as a discipline centered on collaborating closely with suppliers, which is crucial to the success of one’s organization and what maximizes the value potential of those relationships. Therefore, SRM entails fostering two-way, mutually advantageous partnerships with key supply partners to achieve higher levels of innovation and competitive advantage than could be attained through independent operations. As per earlier findings by Kumar, Singh and Modgil (2023), mutual trust, openness and cooperation are vital between parties in business in today’s world. Therefore, how a company relates with its vendors adequating influences its profitability and organizational performance in general. Kirinna (2021) also added weight to this when he outlined that effective supplier relationship management resulted into cost effectiveness, increased efficiency in operations and quality in an organization. Similarly, Chatterjee et al. (2023) observed that proper management of supplier relationship management enhances the efficiency of
procurement, inventory management and materials processing processes. In this case, they alluded that adopting measures to improve SRM in an organization can result in reduced production costs and better quality, ultimately resulting in lower-priced, higher-quality end products which are all components of a good organizational performance.

Management of interactions between the company and its suppliers is vital for any organization. Supplier management is therefore the act of ensuring interaction between a company and its suppliers are well organized and maintained. A supplier in this context is any person or organization that sells something to the company practicing supplier management. The primary goal of supplier management is to improve the efficiency and effectiveness of inter-organizational processes, with the delivery of superior value to customers taking precedence.

Quality Management and Organizational Performance

The employees were further asked to rate the extent of their agreement to statements on effect of quality management on organizational performance. From the findings made on Table 4, most respondents highly agreed that the organization had implemented programs for continuous improvement (Mean =4.594, SD=0.6524), the organization had implemented quality circle programs (Mean =4.626, SD=0.7138) and that the organization had evaluation and effective supplier selection (Mean =4.324, SD=1.253).

However, the respondents highly disagreed that the organization had implemented multifunctional skills training programs (Mean=1.588, SD=0.8245). These findings agreed to findings made by Hussain et al. (2020) who alluded that organizations who develop practical ways of improving on supply chain practices for their employees performs better in terms of profit, growth and expansion. Something Ali, Hilman & Goroudtuse (2020) echoed when they found out that indeed total quality management highly contributed to key performance enhancements in an organization.

Quality Management can be seen as the process of coordinating efforts to enhance customer satisfaction, increase employee involvement, strengthen supplier relationships, and foster a culture of progressive quality improvement within the organization (Kumar et al., 2023). In this case, any changes on quality management may result in a direct shift in organizational performance.

Table 4: Quality Management on Organizational Performance

<table>
<thead>
<tr>
<th>Statements</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implemented programs for Continuous improvement</td>
<td>332</td>
<td>4.594</td>
<td>0.6524</td>
</tr>
<tr>
<td>Implemented multifunctional skills training programs</td>
<td>332</td>
<td>1.588</td>
<td>0.8245</td>
</tr>
<tr>
<td>Implemented of Quality circle programs</td>
<td>332</td>
<td>4.629</td>
<td>0.7138</td>
</tr>
<tr>
<td>Evaluation and effective supplier selection</td>
<td>332</td>
<td>4.324</td>
<td>1.253</td>
</tr>
</tbody>
</table>

4.8 Regression Analysis

A multiple regression model was adopted by the researcher to determine whether independent variables notably, X1 = E-procurement, X2 = Inventory management, X3 = Supplier Management and X4 = Quality Management simultaneously had an effect on the dependent variable Y = Organization Performance. This subsection therefore elaborates on whether the multiple regression equation can be used to explain the nature of the relationship that exists between the listed independent variables and the dependent variable.

Based on the study results, the regression model Organization Performance coefficient of determination R Square was 0.893 and R was 0.896. The coefficient of determination R Square indicated that 89.3 percent of the variation on Organization Performance were explained by the set of independent variables investigated: X1 = E-Procurement, X2 = Inventory management, X3 = Supplier Management and X4 = Quality Management. The remaining 10.7% of variation in organization performance can be explained by other variables not included in this model.

This shows that the model was a good fit since the value is above 80 percent. According to Onyutha (2020), R-squared is always between 0 and 100 percent, where 0 percent indicates that the model explains none of the variability of the response data around its mean and 100 percent indicates that the model explains the variability of the response data around its mean. In this case, the higher the R-squared, the better the model fits to explain the data. The adjusted R square was slightly lower than the R square which implied that the regression model may be over fitted because of having too many independent variables in the study. Dropping one of the independent variables would significantly reduce the R square value to the value of the adjusted R square.

Table 5: Regression Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.896a</td>
<td>.893</td>
<td>.891793</td>
<td>.144438</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Supply Chain Practices
The study further used Analysis of Variance (ANOVA) in order to test the significance of the overall regression model. Kothari (2017) suggested that Analysis of Variance helps in determining the significance of relationship between the research variables. The results of Analysis of Variance (ANOVA) for regression coefficients in Table 6 revealed that the significance of the F statistics was 0.004 which is less than 0.05 and the value of F (3.406) being significant at 0.00 confidence level. The value of F is large enough to conclude that the set coefficients of the independent variables are not jointly equal to zero. This implies that all of the independent variables (E-procurement, Inventory management, Quality management and Supplier Management) have an effect on the dependent variable.

Table 6: ANOVA of Supply Chain Practices

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>13.245</td>
<td>6</td>
<td>2.208</td>
<td>3.406</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>55.280</td>
<td>63</td>
<td>.877</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>68.525</td>
<td>69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Organization Performance
b. Predictors: (Constant), Supply Chain Practices

Coefficients of the overall regression model were used to present the beta coefficients of all independent variables in the study (E-procurement, Inventory management, Quality management and Supplier Management) versus the dependent variable (Organization Performance) is shown in figure 7.

Table 7: Regression Coefficients of Supply Chain Practices

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.264</td>
<td>.472</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-procurement</td>
<td>.742</td>
<td>.228</td>
<td>.741</td>
<td>2.613</td>
</tr>
<tr>
<td>Supplier Relationship Management</td>
<td>.670</td>
<td>.106</td>
<td>.669</td>
<td>5.451</td>
</tr>
<tr>
<td>Inventory Management</td>
<td>.270</td>
<td>.176</td>
<td>.268</td>
<td>2.765</td>
</tr>
<tr>
<td>Quality Management</td>
<td>.148</td>
<td>.019</td>
<td>.147</td>
<td>2.644</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Organization Performance

In summary, if all independent variables (E-procurement, Inventory management, Quality Management and Supplier Management) were zero, organizational performance would remain constant at 0.264. In this case, a unit increase in E-procurement would result into a 0.742 in organizational performance. Similarly, a unit increase in supplier management would result into a 0.670 increase in organizational performance. Also, a unit increase in inventory management would result into a 0.270 increase in organizational performance while a unit increase in quality management would result in a 0.148 increase in organizational performance.

This was a clear indication that E-procurement had a significant positive influence on organization performance. Also, the beta coefficient of inventory management (X_2) was 0.270 which was greater than zero. The t-value of this coefficient is 2.765 with a p-value of 0.004 which is less than 0.05. This implied that the coefficient 0.270 was statistically significant, hence, an indication that inventory management had a significant positive effect on organization performance.

Y = 0.264+0.742X_1+0.670X_2+0.270X_3 + 0.148X_4

The study findings as indicated in Table 4.10 revealed that, E-procurement (X_1) had a beta coefficient of 0.742 which is greater than zero. The t-value was 2.613 which has a p-value of 0.000 which is less than 0.05 implies that the coefficient of X_1 was statistically significant at 0.05 level of significance. Further, the study findings indicated that quality management (X_3) had a coefficient of 0.148 which was greater than zero. The t statistics for the variable was 2.644 which had a p-value of 0.019 which was less than 0.05, implying that the coefficient of X_3 was statistically significant at 0.05 level of significance. This showed that quality management had a significant positive influence on organization performance. Lastly, the study findings revealed that Supplier Management (X_4) had a coefficient of 0.670 with a t-value of 5.451 which had a p-value of 0.000 which was less than 0.05. This implies that the coefficient of X_4 is statistically significant at 0.05 level of significance. This implied that Supplier Management had a significant positive influence on organization performance.
5.0 Summary of the findings.

Effects of supplier relationship management Practice on organizational performance in Kenya Revenue Authority

The first objective of the study sought to assess the effect of E-procurement on organizational performance at Kenya Revenue Authority. From the descriptive findings made in the study, the employees at KRA were computer literate and that KRA as an organization was well automated, had utilized procurement systems and that E-procurement infrastructures were well in place. In this case, E-procurement was well integrated as part of procurement in the organization. From the inferential findings, the regression analysis revealed that there existed a strong positive correlation between E-procurement and organizational performance. Meaning that an increase in a unit of E-procurement at KRA would subsequently result into a high increase in organizational performance.

Effects of Inventory management Practice on organizational performance in Kenya Revenue Authority

The second objective of the study sought to assess the effect of inventory management on organizational performance at KRA. Descriptive statistics in the study showed that employees at KRA acknowledged that inventory management was vital organizational performance. In this case, they outlined major costs that needed to be controlled in inventory management as warehousing and administrative costs. According to the inferential statistics from regression analysis, there existed a weak but positive correlation between inventory management and organizational performance at KRA. Meaning that a unit increase in inventory management at KRA would subsequently result into a low increase in organizational performance.

Effects of Supplier relationship management Practice on organizational performance in Kenya Revenue Authority

The third objective in the study was investigate the effect of supplier relationship management on organizational performance at KRA. From the descriptive statistics made in the study, mutual trust, openness and cooperation were vital to establishing a good rapport between an organization and its key suppliers what adequately improve on the efficiency of things get done. From the inferential findings made in the regression analysis, there existed a strong positive association between supplier relationship management and organizational performance. In this case, a unit increase in supplier relationship management at KRA would result into a high increase in organizational performance.

Effects of Quality Management Practice on Organizational performance in Kenya Revenue Authority

The fourth objective sought to assess the effect of quality management on organizational performance at KRA. According to the study descriptive findings made in the study most employees at KRA agreed that things like training and seminars had any effect on employee performance capabilities. Further, they agreed that the organization had implemented programs for continuous improvement, quality circle programs and evaluation and effective supplier selection mechanisms. From the inferential findings in the regression analysis, there existed a low positive correlation between quality management and organizational performance. In this case, a unit increase in quality management at KRA would result in a low increase in organizational performance.

6.0 Conclusion

Based on the key findings made in the study, the study made the conclusion that all the independent variables investigated in the study, E-procurement, Inventory Management, Quality Management and Supplier Management positively influenced Organizational Performance at KRA. However, the study concluded that E-procurement and supplier relationship manager had a higher positive influence to organizational performance at KRA compared to inventory management and quality management that showed a lower positive influence on organizational performance at KRA.

7.0 Recommendations
The management of KRA to stay ahead of technology and keep tabs with the new innovations in E-procurement and optimization of E-procurement systems within the public institutions. This is to allow for integration of the most recent E-procurement technology to further make the supply chain leaner adequately reducing on costs related procurement as well as reduce lead time in material acquisition.

The management of KRA to embrace effective supplier relationship management strategies in order to support efficient supply chain management. In this case, effective supplier appraisal techniques to be adopted, better supplier selection strategies to be used, effective supplier selection process to be employed, better supplier performance methods to be applied, effective supplier relationship management techniques to be adopted and supplier development and supplier collaboration to be also considered. In line to this, the study also recommended the development of a few nearby suppliers’ preferably local suppliers so as to increase supplier reliability and reduce lead times.

The management of KRA to apply the principle of economic order quantity in inventory management practices, use effective stores management practices, avoid procurement methods that lead to long lead time and embrace inventory management strategies that help in minimization of inventory costs. Efficiency in supply chain management in KRA cannot be realized without integration of quality management techniques within the supply chain of public parastatals. Regarding this, the management of KRA is to integrate more quality management techniques within its supply chain. This way, it is able to continuously support the employees with ways to boost their expertise and experience – majorly through seminars and trainings, programs for continuous improvement and quality circle programs.

References


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