



OPERATIONAL EFFICIENCY AND ORGANIZATIONAL PERFORMANCE OF KENYA AIRPORTS AUTHORITY IN NAIROBI

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ABSTRACT

This study examined how operational efficiency affects Kenya Airports Authority's performance. The research employed a descriptive research design. The targeted population for the study was 267 staff employed at Kenya Airports Authority. The study adopted dis-proportionate stratified sampling for selecting 161 sampled participants based on departments. The study employed semi-structured questionnaires for collecting primary data. Data coding and entry was done with SPSS assistance to prepare the data for analysis. The analysis of the gathered quantitative data was through descriptive statistics including frequency, percentage, mean, and standard deviations. In addition, content analysis method was utilized to analyse the qualitative data, and the findings were presented in the form of paragraphs. Further, inferential statistics were done in form of multiple regression analysis. The study established that process optimization has a significant effect on organizational performance of Kenya Airports Authority ($B=0.765$; $p=0.000$). The study found that service automation has a significant effect on organizational performance of Kenya Airports Authority ($B=0.730$; $p=0.000$). It was established that resource management has a significant effect on organizational performance of Kenya Airports Authority ($B=0.696$; $p=0.000$). The study established that stakeholders' collaboration has a significant effect on organizational performance of Kenya Airports Authority ($B=0.793$; $p=0.000$). The study concluded that process optimization, service automation, resource management and stakeholders' collaboration significantly affect organizational performance of Kenya Airports Authority. The study recommends that management at Kenya Airports Authority should provide adequate staff training geared towards supporting process optimization initiatives. The study also recommended that there is need for government of Kenya through KAA to initiate and expedite the implementation of automated passport control systems and automated security checks like biometric screening in every airport in Kenya.

Key Words: Optimization, Service Automation, Resource Management, Stakeholders' Collaboration

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INTRODUCTION

From global perspective, companies in United States of America are achieving organizational performance by developing new products and services, improving operational efficiency, adopting emerging technologies, adopting eco-friendly practices, reducing carbon emissions and sourcing materials sustainably (Khan, Yu, & Farooq, 2023). From a regional perspective, companies and organizations in Africa are making efforts to keep up with multinational companies by enhancing their organizational performance. For instance, organizations in Nigeria have made efforts to enhance organizational performance by adopting the green economy model to reduce waste and improve their sustainability (Akpviroro & Owotutu, 2018). However, overexploitation of natural resources like minerals and oil in many African countries could lead to depletion and environmental degradation which continues to undermine the performance of allied industries (Masron & Subramaniam, 2019). Locally, several issues and trends are affecting the ability of companies and organizations in Kenya to enhance organizational performance. There is a growing concern about environmental sustainability in Kenya and companies that adopt environmentally friendly practices have a competitive edge as consumers are likely to choose environmentally responsible companies (Kising'u & Mugambi, 2016).

In the present-day, rapid and fiercely competitive corporate landscape, companies are increasingly seeking to enhance their performance by improving their operational efficiency (Madhani, 2020; Rathor & Saxena, 2020). Companies that are able to improve their operational efficiency are better equipped to compete in the market, as they can produce goods or services at a lower cost and with higher quality than their competitors. Additionally, by optimizing their operational efficiency, companies can reduce waste, minimize environmental impact, and increase their profitability, which are all key components of sustainability (Iris, & Lam, 2019). Therefore, it is indispensable for companies to comprehend the

effect of operational efficiency on organizational performance (Kuncoro & Suriani, 2018). Operational efficiency can be achieved by undertaking process optimization, service automation, having effective resource management and strong stakeholders' collaboration and partnerships. Moreover, organizations and companies are enhancing operational efficiency by upgrading infrastructure to streamline processes by reducing bottlenecks and other inefficiencies (Cheng, Goh & Kim, 2018).

According to Panigrahi and Vachhani (2021), measuring the organizational performance can be done by use of financial measurements including profitability and revenue generated, returns on asset (ROA) and also returns on equity (ROE). These metrics can help determine if a company is generating profits that exceed the cost of capital and if it is using its assets and equity efficiently. Moreover, Pillai and Sivathanu (2022) argued that another approach for measuring organizational performance is by use of non-financial metrics, like customer satisfaction, brand recognition, and market share which provide insight into a company's capability to distinguish itself from its rivals and maintain a loyal customer base. Enhancing organizational performance requires building of a brand reputation where a company that have built a strong brand reputation can leverage it to gain customer loyalty and trust, which can be difficult for competitors to replicate. Creating strong connections with customers can serve as a potent way of enhancing organizational performance (Singh & Sarkar, 2022). The organizational performance in this study was measured using profitability, market share, customer satisfaction and aircraft movements.

The Kenya Airports Authority (KAA) is a state corporation that manages and operates airports in Kenya. It was founded in 1991 through provisions of the Kenyan constitution. KAA is in charge of the management, maintenance, and expansion of airports and airstrips in Kenya. It operates several airports which including JKIA and Moi-International Airport among others (Walumbwa, 2017). KAA's main

functions include managing and developing airport infrastructure, providing air navigation services, ensuring safety and security at airports, promoting air travel and tourism, and collecting revenue from airport operations. KAA also works closely with other aviation-related organizations in Kenya, including Kenya Civil Aviation Authority, the Kenya Airways, and the Kenya Airports Police Unit. Its mission is to provide safe, secure, efficient, and profitable airports that meet international standards and contribute to Kenya's economic growth. Kenya Airports Authority (KAA) has continued to attain organizational performance because of various reasons (Odhiambo, 2016).

KAA has established partnerships with airlines, aviation service providers, and other stakeholders in the aviation industry to enhance its competitiveness. For example, KAA partnered with Turkish Airlines to launch direct flights from Istanbul to Mombasa, which has increased the number of tourists visiting Kenya (KAA, 2021). To cope with the increase in passenger growth, KAA has been investing in infrastructure development and expansion. For instance, there is an ongoing construction of a new terminal at JKIA as well as a construction of a new terminal and runway rehabilitation at Moi International Airport. In 2020, Jomo Kenyatta International Airport is the largest air cargo hub, handling over 350,000 metric tonnes as compared to Moi International Airport which handled over 20,000 metric tonnes and Eldoret International Airport which handled about 2,000 metric tonnes (KAA, 2021). In terms of infrastructure, Jomo Kenyatta International Airport has two runways and three terminals, while Moi International Airport, Eldoret and Kisumu International Airport has one runway and one terminal (KAA, 2022). In an effort to enhance organizational performance, Kenya airports authority have adopted various operational efficiency practices such as process optimization, service automation, resource management and stakeholders' collaboration. Hence, this study sought to examine the effect that operational efficiency has on performance of KAA.

Statement of the Problem

Organizational performance issues at Kenya Airports Authority in the recent past include decreased profits, increased capital expenditure, reduced aircraft movements, reduced cargo movement and reduced number of passengers (Auditors Report, 2020; Auditors Report, 2021). This could be attributed to the fact that in 2021, KAA recorded a loss before tax of Kshs. 7.97 billion and recorded 180,800 aircraft movement which was a 26.64% decrease from 246, 460 recorded in 2020. Moreover, there is been a decrease in number of passengers with KAA recoding a 50.5% decrease in 2021 from 9.04 million passengers recorded in 2020 (Auditors Report, 2021). In addition, operating expenses has been increasing over the years with capital expenditure experiencing a 90.7% increase in 2021 from Kshs. 3.22 billion in 2020. Despite the huge investment by Kenya airports authority in revamping the airports, the value of cargo movement decreased from Kshs. 364.68 million in 2020 to Kshs. 357.1 million in 2021 (Auditors Report, 2021).

There are limited studies done in connection to operational efficiency and organizational performance with the existing studies exhibiting empirical and research gaps. For instance, a study by Abd-Elmageed and Abdel Megeid (2020) focused on how operational efficiency impacts financial performance in Egypt and not Kenya. The study also used financial metrics only to assess the performance and omitted important indicators like customer satisfaction and aircraft movements. In addition, Kosgei and Gitau (2016) assessed how supplier association management affects performance of Kenya Airways Limited, however the study did not cover all aspects of organizational performance as it omitted market share and customer satisfaction. The study only focused Kenya airways limited and could not be generalized to cover the entire KAA. The study also used cross sectional study design and could not be used to establish between the variables. Further, Mukui (2022) studied on how operational efficiency affects

financial performance of NSE listed processing companies in Kenya but it only examined manufacturing companies and not in aviation sector. The study also only focused on financial metrics of performance and omitted non-financial metrics like customer satisfaction. Mukui's study also used only secondary data which could not be applicable in the current study. The studies also exhibited contextual, conceptual and methodological gaps. Hence, the research intended to fill these research gaps by examining the effect of operational efficiency on organizational performance of Kenya Airports Authority.

Research Objectives

The study's main objective was to establish the effect of operational efficiency on organizational performance of Kenya Airports Authority. The specific objectives were:

- To assess the effect of process optimization on organizational performance of Kenya Airports Authority.
- To determine how service automation affects organizational performance of Kenya Airports Authority.
- To assess the effect of resource management on organizational performance of Kenya Airports Authority.
- To determine how stakeholders' collaboration, affect organizational performance of Kenya Airports Authority

LITERATURE REVIEW

Theoretical Review

Dynamic Capabilities Theory

Dynamic capability theory was postulated by Teece and Pisano (1994). This theory provides an explanation for how companies attain and maintain competitiveness by adapting to the dynamic and ever-changing environment. The development of this theory was prompted by the limitations of both resource-based and action-based theories in effectively addressing the challenges of dynamic economies. The competitiveness of companies

heavily relies on their capacity to adapt to market changes through innovation and process optimization (Teece, 2014). According to Bledy, Ali and Ibrahim (2018), the core driving force behind capitalism lies in the creation of new products, novel production methods, untapped markets, and innovative forms of industrial structure. Dynamic capabilities can arise from routines focused on adaptation, the development of products, and the innovative managerial skills. They empower the company to harmonize their unique resources and competencies with the evolving conditions of the business landscape (Pisano, 2015).

Dynamic capabilities theory is highly relevant since it highlights the importance of a company's capacity to adjust, combine, and restructure its internal and external resources and abilities so as to adapt to evolving market circumstances. This theory offers a structure to comprehend how organizations can cultivate and utilize their capabilities to enhance performance in the long run. Dynamic capabilities involve sensing fluctuations in the exterior environment and identifying opportunities and threats. By continuously monitoring and sensing market dynamics, organizations can identify the need for process optimization to gain a competitive edge. Dynamic capabilities emphasize the capability to transform and align existing resources and capabilities to achieve organizational goals. By effectively managing the transformation process, organizations can align their capabilities with process optimization initiatives and achieve organizational performance. Hence, the theory was applied in understanding how process optimization affects organizational performance of Kenya Airports Authority.

Diffusion of Innovations Theory

The diffusion of innovations theory was founded by Everett Rogers in 1962. Diffusion of innovations theory elaborates how new ideas, products, technologies, or practices spread and are adopted by organizations to achieve a certain goal. It seeks to understand the process by which an innovation, which can be anything from a new

technology to a new behaviours, is transmitted among individuals within a social group through specific mediums over a period of time. (Kaminski, 2011). As per Wani and Ali (2015), the innovation's diffusion takes place over a period of time, and the rate of adoption can vary. Different individuals or groups may adopt the innovation at different rates, depending on factors such as their awareness, perceived benefits, and social influence. The extent that an innovation is alleged as better than the existing alternatives. Innovations that are seen as more advantageous tend to be adopted more quickly (Wonglimpiyarat & Yuberk, 2005).

The diffusion of innovations theory is pertinent since it explains how innovations, such as service automation, spread and are adopted by individuals or organizations. It delves into the manner in which novel concepts, technologies, or methods are shared and embraced within a societal framework. Diffusion of innovations theory can provide valuable insights into how and why organizations adopt automation technologies and how these technologies influence their performance. Diffusion of innovations theory recognizes that individuals and organizations consider the relative advantages and disadvantages of adopting an innovation before making a decision. By considering diffusion of innovations theory in the study of service automation and organizational performance, researchers can gain insights into the dynamics of adoption and the factors that shape organizational outcomes. The theory highlights how service automation can affect organizational performance of Kenya Airports Authority.

Resource Based View (RBV) Theory

Resource-Based View (RBV) theory was postulated by Jay Barney and Birger Wernerfelt in 1980s. The authors of RBV assert that a company's performance is tied to its internal resources rather than its competitive surroundings. Furthermore, they assert that a firm's capability to effectively handle the institutional framework surrounding its resource decisions is crucial for sustaining a competitive advantage (Barney, 2000). The theory

highlights the significance of the internal resources and abilities of a company in attaining long-lasting organizational performance. As per the RBV, resources and capabilities and of a company are the main factors that contribute to its organization performance, as they possess qualities of uniqueness, value, scarcity, and difficulty to replicate by rivals. These resources can take the form of tangible assets like physical infrastructure, financial resources, and technology, along with intangible assets such as intellectual property, brand image, and organizational knowledge (Lockett, O'Shea & Wright, 2008).

The RBV theory is pertinent since it offers a comprehensive lens to understand the role of resource management in improving the organizational success. The RBV helps in uncovering the key factors and mechanisms through which effective resource management contributes to sustained competitive advantage in a dynamic business environment. RBV provides valuable insights into how firms can effectively utilize and develop their resources to create long-term competitive advantages that are difficult for competitors to replicate. Resource immobility: RBV also highlights the importance of resource immobility, meaning that valuable resources are not easily transferable between firms thereby enhancing organizational performance. The theory highlights how resource management practices can enhance the value, rarity, inimitability, and organizational support of company's resources, ultimately leading to enhanced organizational performance. This theory supports the third independent variable, that is resource management and how it affects organizational performance of Kenya Airports Authority.

Stakeholder Theory

Stakeholder theory was postulated by Edward Freeman in 1984. Stakeholder theory argues that organizations need to deliberate on the interests and concerns of different stakeholders, not just shareholders or owners. It argues that a company's success should be measured not only by financial

performance but also by how well it meets the interests of every stakeholder (Freeman, 2015). In stakeholder theory, stakeholders are individuals, groups, or entities that have a stake on a company including shareholders, suppliers and even the natural environment. According to Mainardes, Alves and Raposo (2011), stakeholders can directly impact the operations of a company. Stakeholder theory offers a more comprehensive and ethical approach to business than traditional shareholder primacy, which focuses primarily on maximizing profits for shareholders. They believe that by considering the interests of all stakeholders, a company can build trust, enhance reputation, foster innovation, and mitigate risks (Jones, Wicks & Freeman, 2017).

Stakeholder theory is highly pertinent since it provides a framework for identifying and classifying relevant stakeholders for the study. Understanding the key stakeholders and their respective interests, it is possible to assess the potential impact on organizational performance. Stakeholder theory emphasizes the importance of understanding the power and influence of different stakeholders and highlights the significance of managing stakeholder relationships and meeting their expectations. Stakeholder theory recognizes that organizations depend on resources and support from various stakeholders through resource acquisition and access to expertise, which can contribute to enhanced organizational performance. Stakeholder theory promotes a long-term perspective by considering the interests of multiple stakeholders beyond short-term financial gains. Therefore, the theory was applied in understanding how stakeholders' collaboration affect organizational performance of Kenya Airports Authority.

Michael Porter Theory

Michael Porter Theory was developed by Michael E Porter (1979). The theory provides a precise framework for appraising and analyzing a business organization's competitive prowess and performance. This theory argues that the competitive environment of a business is shaped by

five primary forces. This involves assessing the ease of new competitors entering the market, evaluating the influence of buyers and suppliers on industry firms, and analyzing the intensity of competition among existing rivals, including the threat of substitutes (Porter, 1981). Porter's theory suggests that businesses can analyse these five forces to understand the competitive dynamics of their industry and develop strategies to position themselves advantageously. By identifying and addressing the relative strengths and weaknesses of these forces, companies can make informed decisions to gain a competitive edge (Porter, 1979).

The theory was pertinent to the research since it supports efforts towards achieving organizational performance. Porter argues that organizations can achieve superior performance by either cost leadership or differentiation. Understanding these concepts is crucial for assessing how well an organization performs compared to its competitors. Porter's Five Forces model helps in analyzing the competitive forces in an industry, which can impact an organization's performance. It assesses the influence wielded by suppliers, buyers, the potential for new competitors, the possibility of alternative products or services, and the level of competition. This analysis can guide strategic decisions to improve performance. According to the theory, organizations can strategically choose the scope of their operations and target specific market segments to enhance organizational performance.

Empirical Review

According to Khafizov, Jurenoks and Saidova (2021), process optimization aims at improving efficiency, effectiveness, and overall performance of a process within an organization. It involves analyzing and streamlining various aspects of a process to eliminate bottlenecks, reduce waste, and enhance productivity in a bid to achieve maximum output with minimal resources, while meeting quality standards and customer expectations. Moreover, Hutter and Pfennig (2023) focused on ground times reduction in passenger air- transport as a strategy to improve organizational performance of aviation industry in

Germany. The study adopted desk research and used secondary sources. The study established that efficient and timely completion of a turnaround take crucial roles in Arline's performance, significantly influencing their competitive edge. The study revealed that reducing time an aircraft spends on the ground can maximize airlines' utilization by increasing the number of flights it can operate in a given day. It was also revealed that shorter ground times reduce the chances of delays or disruptions in the airline's flight schedule which enhances customer satisfaction and loyalty, as passengers value punctuality and reliability in air travel. On methodological gaps, the study adopted desk research whereas the current study adopted a descriptive research design which is more suitable. On conceptual gaps, the study focused on turnaround time as only aspect of process optimization while the current study focused on four aspects including turnaround time, cost reduction, process error rates and enhanced customer experience. On contextual gap, the research was conducted in Germany and not focusing on organizations in Kenya.

Olukade and Emmanuel (2021) studied the process improvement and performance of Nigerian manufacturing companies. The research used a survey research design. The participants in the research were employees working in specific manufacturing firms located in Nigeria. The number of individuals included in the study's sample was 275. It was established that that enhancing process has a notable impact on performance of firms. The results specify that maintaining a consistently positive performance in an organization requires a conscious effort to continuously enhance the organization's processes and operational activities. Regarding methodological gaps, the study utilized survey designs whereas this research opted to adopt descriptive research design. In addition, the research exhibited a conceptual gap as it only used profitability as measure of performance while the current study uses market share, customer satisfaction and aircraft movements. In relation to a

contextual gap, the research was conducted in Nigeria and not focusing on Kenyan organizations.

According to Willcocks and Lacity (2016), service automation advocates for use of technology and software applications to automate various aspects of service delivery and management. Willcocks and Lacity (2016) argued that service automation involves the integration of tools, processes, and systems to streamline and optimize service-related tasks and activities. A study by Ng'ang'a (2013) focused on how automation influences operations of IQPlus (K) Limited. The research employed a descriptive survey methodology, wherein information was gathered using an interview guide specifically designed for individuals holding managerial roles. The study established that the implementation of automated business processes enables IQPlus to gain a global competitive edge by allowing decision-makers to monitor both local and international market trends, as well as the marketing efforts of competitors. The study also found that that the implementation of automation contributes to the enhancement of IQPlus sales performance on a global scale. Employing automation can serve as a viable option for companies aiming to boost organizational performance. In relation to methodological gaps, the study only relied on qualitative data gathered through interviews unlike this research that used quantitative data collected utilizing a questionnaire. The study focused on international operations while this research focused on performance. In regard to contextual gap, the research was done in IQ plus (K) Limited while the current study focused on Kenya airports authority.

Further, Wong and Ngin (2017) studied the automation and performance of electronics industrial firms in Singapore. The research utilized a cross sectional research design. The study targeted 56 senior managers of manufacturing firms. A survey questionnaire that individuals could complete on their own was created in order to collect this information. The study revealed a perception that automation substantially impacted

the operational performance and the well-being of workers, rather than on the effectiveness of labor management and the compensation of workers. The study found that automation initiatives were executed with a significant emphasis on enhancing operational efficiency so as to attain a higher competitiveness level. Regarding methodological gaps, the study adopted cross sectional research design that could not be utilized for the current study as it employs descriptive research design. Furthermore, in relation to conceptual gaps, the study measured automation using only digitization of systems while the current study focused on service automation in terms of self-service check-in kiosks, baggage handling systems, automated passport control and digital signage and wayfinding. In relation to contextual gaps, the research was conducted in Singapore and not the KAA in Kenya.

Bratton, Gold, Bratton and Steele (2021) argue that resource management involves planning, allocating, and optimizing resources to achieve organizational goals efficiently. Resource management play a critical role in enhancing performance of organizations. Efficient utilization of resources is vital for enhancing organizational performance as efficient management of resources allow companies to achieve cost advantages and deliver superior value to customers (Bratton, *et al.*, 2021). A study conducted by Abdul-Malek, Shahzad, Takala, Bojnec, Papler and Liu (2015) focused on strategic resource management to achieve operational performance of firms in Finland. This research employed novel comprehensive analytical assessment methods for measuring the manufacturing strategy index, sense and respond capability, and models related to operational performance. The findings indicate that implementing the suggested comprehensive analytical models can be beneficial for strategically overseeing business operations by making changes to competitive priorities within manufacturing strategies. The study concluded that that allocation of resources has been key capabilities in an environment of business in which firms should emphasize on improving operational performance.

Folake (2018) studied how staff training affects organizational performance of First Bank of Nigeria Plc. The research employed a survey research design and utilized questionnaires for collecting data. The study found that training requirements were properly identified prior to the training programs, and it is crucial for the training to be applicable to the job so as to positively influence on performance and the growth of both the Bank and its staff. When employees receive training, they gain increased confidence in their work, which serves as a source of motivation for them to excel and find job satisfaction. The study concluded that a well-structured training process, involving the identification and selection of suitable employees, would lead to a notable enhancement in the overall performance of the organization. Regarding methodological gaps, the research used survey research design whereas this research employs descriptive research design. Moreover, the study exhibited conceptual gaps as the study focused on staff training as the only aspect of resource management while the current study focused on every aspect of resource management including maintenance of airport infrastructure, financial resources' management, staff training and maintenance of airport technology. Concerning the contextual gap, the research was carried out in Nigeria and not KAA in Kenya.

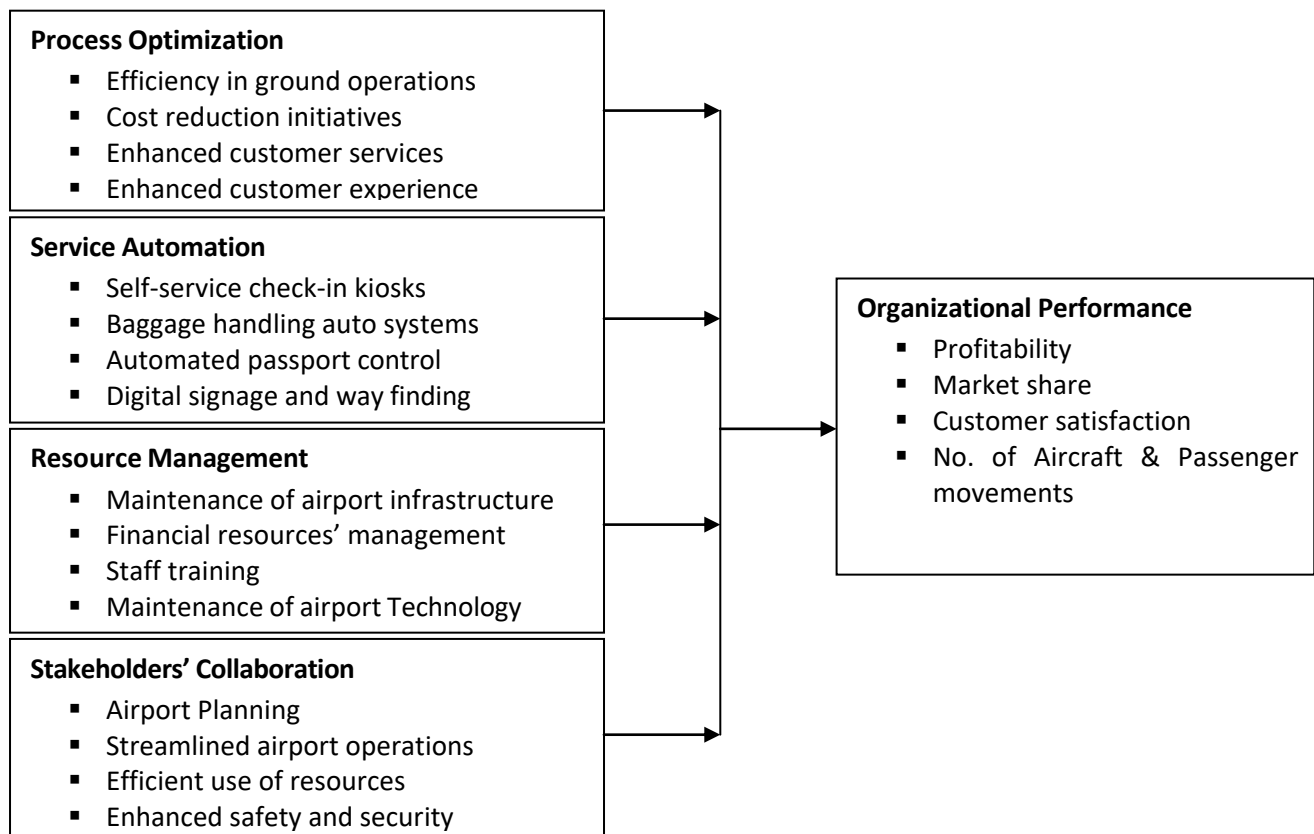
According to Jones, Harrison and Felps (2018), stakeholder collaboration fosters an environment of open communication and knowledge sharing which encourages innovation and creativity within the company, resulting to the advancement of new product and service that could enhance performance of organizations (Jones, *et al.*, 2018). A study done by Demirkesen and Reinhardt (2021) focused on how stakeholder involvement affects performance of the government projects in Poland. Descriptive research design was employed and research focused on 13 government projects as the target population. Research questionnaires were employed as the primary tools for collecting data. The study results showed that the participation of

stakeholders play a critical role in enhancing project performance. It was concluded that stakeholder participation has a substantial and favourably association with the performance of the project. Stakeholder involvement encompasses ensuring that all relevant parties participate in decision-making and the execution of the project. The active engagement of stakeholders holds great significance in the progress of project tasks. In relation to methodological gaps, the study used correlation analysis while the current study adopted regression analysis. Further in relation to conceptual gaps, the study focused on project performance and not organizational performance. In relation to contextual gap, the study was done in Poland whereas this study focused on case of Kenya airports authority in Kenya.

Kenyoru (2015) assessed the engagement of stakeholders and performance of KPLC in Kenya.

The research utilized a descriptive research design. The study sampled 215 employees and customers was chosen through the application of stratified random sampling. To gather data, participants were given closed-ended questionnaires to complete on their own, and both descriptive and inferential statistic was used for analyzing the collected data. The research established that promoting employee investment in a company as a strategy to engage them has an impact on the performance of the KPLC. By providing opportunities for employees to invest in the companies they work for, these companies will experience improvements in their overall performance. Establishing platforms where employees and other stakeholders can actively contribute and share their opinions regarding company matters will enable the company to enhance its operations and achieve better performance.

Conceptual Framework



Independent Variables

Dependent Variable

Figure 1: Conceptual Framework

Source: Author (2023)

METHODOLOGY

This study employed a descriptive research design. Target Population. The targeted population for the study was 267 staff from Kenya Airports Authority in Nairobi head office. The study adopted disproportionate stratified sampling for selecting the sample of participants. The computation of sample size was done using Nassiuma (2000) formula and found a sample size of 161 respondents. Primary data for the study was obtained using a semi-structured questionnaire. The pilot study was done to pre-test the validity and reliability of instruments for collecting data. To test the reliability of the data collection tool, internal consistency reliability was tested. This is measured using Cronbach's alpha which was computed in SPSS to examine the interrelatedness of items within a scale or questionnaire. The collected questionnaires were sorted and edited to clean the data by removing any inconsistencies and errors. Data coding and entry was then done with the help of SPSS to prepare the data for analysis. The gathered quantitative data

was analyzed through descriptive statistic including frequency percentage, mean, and standard deviation. Further, inferential statistics were conducted in form of multiple regression analysis to establish how operational efficiency affects organizational performance of Kenya Airports Authority.

FINDINGS

Descriptive Analysis

This section highlights the descriptive statistics for process optimization, service automation, resource management, stakeholders' collaboration and organizational performance of Kenya Airports Authority.

Process Optimization

The study sought to assess the effect of process optimization on organizational performance of Kenya Airports Authority. The participants were requested to specify the extent to which process optimization affects organizational performance of KAA. The findings are illustrated in Table 1:

Table 1: Agreement with Statements on Process Optimization at KAA

| | N | Mean | Std. Dev. |
|---|-----|--------------|--------------|
| The operational costs at Kenya Airports Authority have reduced | 122 | 2.385 | 0.787 |
| There has been reduction in time taken between landing and take-off among flights in Kenyan Airports | 122 | 3.951 | 0.641 |
| Process optimization enables KAA in responding quickly to changes in global demands in the market | 122 | 4.139 | 0.535 |
| There is an improvement in delivery of customer services at Kenya Airports Authority | 122 | 3.918 | 0.734 |
| There is enhanced customer experience at KAA | 122 | 3.844 | 0.803 |
| Kenya Airports Authority provides adequate training and resources to support process optimization initiatives | 122 | 2.328 | 0.743 |
| There are enhanced ground operations to increase the number of operational flights on daily basis | 122 | 4.082 | 0.723 |
| Kenya Airports Authority encourages employees to contribute ideas for process improvement | 122 | 2.287 | 0.777 |
| Implementing process optimization measures have enhanced safety and security standards | 122 | 4.016 | 0.782 |
| Aggregate Mean and Standard Deviation | | 3.439 | 0.725 |

As per the results in Table 1: the participants agreed that process optimization enables KAA in responding quickly to changes in global demands in the market (Mean=4.139; SD=0.535), that there are enhanced ground operations to increase the

number of operational flights on daily basis (Mean=4.082; SD=0.723) and that implementing process optimization measures have enhanced safety and security standards (Mean=4.016; SD=0.782). The participants also agreed that there

has been reduction in time taken between landing and take-off among flights in Kenyan Airports (Mean=3.951; SD=0.641), that there is an improvement in delivery of customer services at Kenya Airports Authority (Mean=3.918; SD=0.734) and that there is enhanced customer experience at KAA (Mean=3.844; SD=0.803). The findings imply that process optimization enables KAA in responding quickly to changes in global demands in the market, enhances ground operations and safety and enhances delivery of customer services. The findings are supported by Olukade and Emmanuel (2021) who noted that maintaining a consistently positive performance in an organization requires a conscious effort to continuously enhance the organization's processes and operational activities. Mwilu and Wainaina (2021) asserts that process improvement allows the firms to enhance its current business processes to meet the highest industry benchmarks and enhance customer satisfaction.

However, the participants disagreed that the operational costs at Kenya Airports Authority have reduced (Mean=2.385; SD=0.787) and that Kenya

Airports Authority provides adequate training and resources to support process optimization initiatives (Mean=2.328; SD=0.743). Additionally, the participants disagreed that Kenya Airports Authority encourages employees to contribute ideas for process improvement (Mean=2.287; SD=0.777). The findings imply that process optimization have not enabled KAA to reduce operational costs which could be linked to inadequate or no training and resources provided to support process optimization initiatives. The findings disagree with Mukira, Kariuki and Muturi (2022) who noted that strategies reduction of costs significantly and positively affects commercial banks' performance. Implementing measures to decrease operational costs also contributes to the improved commercial banks' performance.

Service Automation

The study further sought to determine how service automation affects organizational performance of Kenya Airports Authority. The participants were requested to indicate the degree to which service automation affects organizational performance of KAA. The results are illustrated in Table 2:

Table 2: Agreement with Statements on Service Automation at KAA

| | N | Mean | Std. Dev. |
|---|----------|--------------|------------------|
| Kenya Airports authority have ensured there are self-service check-in kiosks | 122 | 4.148 | 0.639 |
| There are automated security checks like biometric screening in every airport in Kenya. | 122 | 2.164 | 0.754 |
| There is an effective baggage handling system accessible to every airline industry | 122 | 4.049 | 0.601 |
| The KAA have ensured that there is automation of flight information through monitor displays | 122 | 3.902 | 0.765 |
| The Kenya airports authority have implemented a system for automated passport control | 122 | 2.312 | 0.631 |
| Service automation at Kenya Airports Authority has improved the efficiency of airport processes | 122 | 4.164 | 0.754 |
| There are electronic screens in every airport for disseminating information to customers | 122 | 3.828 | 0.664 |
| Digital signage has facilitated efficient communication within every airport in Kenya | 122 | 4.164 | 0.775 |
| Service automation has reduced waiting times for passengers | 122 | 4.066 | 0.758 |
| Aggregate Mean and Standard Deviation | | 3.644 | 0.705 |

As per the results in Table 2: most of the participants agreed that service automation at

Kenya Airports Authority has improved the efficiency of airport processes (Mean=4.164;

SD=0.754) and that digital signage has facilitated efficient communication within every airport in Kenya (Mean=4.164; SD=0.775). The participants also agreed that Kenya Airports authority have ensured there are self-service check-in kiosks (Mean=4.148; SD=0.639) and that service automation has reduced waiting times for passengers (Mean=4.066; SD=0.758). The findings imply that service automation have improved the efficiency of airport processes, facilitated efficient communication and reduced waiting times for passengers since there are self-service check-in kiosks. The results are supported by Kemboi (2018) who noted that the bank implemented automation in its primary systems, like ATMs, mobile banking, and internet banking. As a result, customers were able to utilize these systems to conduct their own personal transactions. Automation has enhanced the quality of service, ensuring it is consistently available, eliminating errors and unnecessary data, and ultimately saving time through rapid service delivery.

Further, the participants agreed that there is an effective baggage handling system accessible to every airline industry (Mean=4.049; SD=0.601) and that the KAA have ensured that there is automation of flight information through monitor displays (Mean=3.902; SD=0.765). Moreover, the

participants agreed that there are electronic screens in every airport for disseminating information to customers (Mean=3.828; SD=0.664). However, the participants disagreed that the Kenya airports authority have implemented a system for automated passport control (Mean=2.312; SD=0.631) and that there are automated security checks like biometric screening in every airport in Kenya (Mean=2.164; SD=0.754). The findings imply that service automation have enhanced the efficiency in handling passengers' baggage and relaying information to customers. The results concur with Makokha (2017) who noted that digital tendering fosters transparency in the tendering process, thus enhancing the relationship between organizations and suppliers. It was revealed that the digitization of suppliers has significantly transformed market trends worldwide, revolutionizing business operations and models to align with the prevailing technological competitiveness.

Resource Management

The study sought to assess the effect of resource management on organizational performance of Kenya Airports Authority. The participants were requested to specify the degree to which resource management affect organizational performance of KAA. The results are illustrated in Table 3:

Table 3: Agreement with Statements on Resource Management at KAA

| | N | Mean | Std. Dev. |
|--|-----|--------------|--------------|
| The Kenya airports authority ensures regular maintenance of airport infrastructure to keep it up to date with global standards | 122 | 4.041 | 0.720 |
| There is effective management of financial resources at KAA | 122 | 2.426 | 0.822 |
| There are reduced cases of misappropriation of funds at KAA | 122 | 2.443 | 0.772 |
| The Kenya airports authority ensures their staff are trained to keep them up to date with emerging market demands | 122 | 4.016 | 0.782 |
| The Kenya airports authority effectively allocates resources to meet operational needs | 122 | 2.361 | 0.693 |
| Kenya airports authority ensures airport technology is regularly maintained at every airport | 122 | 3.975 | 0.818 |
| The Kenya Airports Authority actively seeks innovative approaches to resource management to enhance its organizational performance | 122 | 3.779 | 0.818 |
| There is efficient allocation of resources to support sustainability initiatives at KAA | 122 | 4.131 | 0.727 |
| Aggregate Mean and Standard Deviation | | 3.397 | 0.769 |

As per the results in Table 3: most of the participants agreed that there is efficient allocation of resources to support sustainability initiatives at KAA (Mean=4.131; SD=0.727) and that the Kenya airports authority ensures regular maintenance of airport infrastructure to keep it up to date with global standards (Mean=4.041; SD=0.720). The participants also agreed that the Kenya airports authority ensures their staff are trained to keep them up to date with emerging market demands (Mean=4.016; SD=0.782) and that Kenya airports authority ensures airport technology is regularly maintained at every airport (Mean=3.975; 0.818). The findings imply that resource management ensures regular maintenance of airport infrastructure to keep it up to date with global standards, ensures that the staff are trained to keep them up to date with emerging market demands and that airport technology is regularly maintained at every airport. The findings agree with Ali, Ogolla and Nzioki (2022) who noted that budgeting procedure ought to include the teams responsible for implementation and take their input into account, while ensuring that the budget is designed to be adaptable in order to accommodate any ongoing changes. It was concluded allocation of resources has positive and substantial effect on performance of Kenyan cement processing firms.

Further, the participants agreed that the Kenya Airports Authority actively seeks innovative approaches to resource management to enhance its

organizational performance (Mean=3.779; SD=0.818). However, most of the participants disagreed that there are reduced cases of misappropriation of funds at KAA (Mean=2.443; SD=0.772) and that there is effective management of financial resources at KAA (Mean=2.426; SD=0.822). Moreover, the participants disagreed that the Kenya airports authority effectively allocates resources to meet operational needs (Mean=2.361; SD=0.693). The findings imply that cases of funds misappropriation at KAA have not reduced and KAA have not efficiently allocated resources to meet operational need. The findings are not supported by Tedla (2018) who noted that there is substantial association amongst the performance of an organization and several aspects, including the processes of hiring and choosing employees, providing training and enhancing skills, offering competitive compensation and rewards, evaluating performance, and managing career growth.

Stakeholders' Collaboration

The study also sought to determine how stakeholders' collaboration affects organizational performance of Kenya Airports Authority. The participants were asked to specify the degree to which stakeholders' collaboration affect organizational performance of KAA. The results are illustrated in Table 4:

Table 4: Agreement with Statements on Stakeholders' Collaboration at KAA

| | N | Mean | Std. Dev. |
|---|-----|--------------|--------------|
| Every stakeholder is involved in airport planning. | 122 | 2.402 | 0.570 |
| Stakeholders such as taxicabs improves customers experience in Kenyan airports. | 122 | 4.148 | 0.651 |
| Security personnel are involved in streamlining airport operations like passenger screening. | 122 | 3.910 | 0.727 |
| Stakeholder collaboration have ensured efficient use of resources. | 122 | 4.164 | 0.697 |
| The engagement of stakeholder such as security personnel enhances safety and security at Kenyan airports. | 122 | 3.853 | 0.676 |
| The cooperation of stakeholders fosters a positive public image and reputation for Kenya Airports Authority. | 122 | 3.934 | 0.888 |
| The Kenya airports authority actively involves stakeholders in the identification and mitigation of risks that may affect airport operations. | 122 | 2.328 | 0.674 |
| Stakeholder collaboration encourages innovation and creativity to enhance airport operations | 122 | 4.246 | 0.696 |
| Aggregate Mean and Standard Deviation | | 3.623 | 0.697 |

As per the results in Table 4: the participants agreed that stakeholder collaboration encourages innovation and creativity to enhance airport operations (Mean=4.246; SD=0.696) and that stakeholder collaboration has ensured efficient use of resources (Mean=4.164; SD=0.697). Moreover, the participants agreed that stakeholders such as taxicabs improves customers experience in Kenyan airports (Mean=4.148; SD=0.651) and that the cooperation of stakeholders fosters a positive public image and reputation for Kenya Airports Authority (Mean=3.934; SD=0.888). The findings imply that stakeholder collaboration have encouraged innovation and creativity to enhance airport operations, ensured efficient use of resources and improved customers experience in Kenyan airports. The results are supported by Demirkesen and Reinhardt (2021) who argued that stakeholder participation has a substantial and favourably association with the performance of the project. Stakeholder involvement encompasses ensuring that all relevant parties participate in decision-making and the execution of the project.

Further, the participants agreed that security personnel are involved in streamlining airport

operations like passenger screening (Mean=3.910; SD=0.727) and that the engagement of stakeholder such as security personnel enhances safety and security at Kenyan airports (Mean=3.853; SD=0.676). However, the participants disagreed that every stakeholder is involved in airport planning (Mean=2.402; SD=0.570) and that the Kenya airports authority actively involves stakeholders in the identification and mitigation of risks that may affect airport operations (Mean=2.328; SD=0.674). The findings imply that stakeholder such as security personnel are involved in streamlining airport operations like passenger screening and have enhanced safety and security at Kenyan airports. The findings disagree with Kimani (2016) who argued that strategic collaboration was established to empower SMEs to cultivate robust business connections, enhance operational efficiency, attain cost advantages through significant cost reductions, and establish effectiveness.

Organizational Performance

The participants were asked to specify their agreement with statements regarding organizational performance of Kenya Airports Authority. The results are shown in Table 5:

Table 5: Agreement with Statements on Organizational Performance at KAA

| | N | Mean | Std. Dev. |
|--|-----|--------------|--------------|
| The Kenya airports authority have reported increased profits over the last one year. | 122 | 2.303 | 0.715 |
| The revenues of KAA have been on upward trends for the past two years | 122 | 2.377 | 0.621 |
| There has been an increase in market share of KAA in the global market. | 122 | 3.689 | 0.854 |
| There are increased aircraft movements over the last one year | 122 | 4.197 | 0.735 |
| There is increased customer base and loyalty at KAA. | 122 | 3.943 | 0.621 |
| KAA ensure customers are satisfied with services render at | 122 | 2.385 | 0.797 |
| Aggregate Mean and Standard Deviation | | 3.257 | 0.735 |

As per the findings in Table 5: the participants agreed that there are increased aircraft movements over the last one year (Mean=4.197; SD=0.735) and that KAA have ensured Kenyan airports have a

strong reputation in the industry (Mean=4.115; SD=0.670). The participants also agreed that Kenya airports authority has gained strong market position (Mean=3.984; SD=0.760), that there is increased

customer base and loyalty at KAA (Mean=3.943; SD=0.621) and that there has been an increase in market share of KAA in the global market (Mean=3.689; SD=0.854). However, the participants disagreed that KAA ensure customers are satisfied with services render at the airports (Mean=2.385; SD=0.797) and that the revenues of KAA have been on upward trends for the past two years (Mean=2.377; SD=0.621). The participants disagreed that KAA service delivery has constantly met the customer needs (Mean=2.320; SD=0.846) and that the Kenya airports authority have reported increased profits over the last one year (Mean=2.303; SD=0.715). The findings imply that there are increased aircraft movements, Kenyan airports have a strong reputation in the industry and has gained strong market position as well as an increase in market share of KAA in the global

market. Almatrooshi, Singh and Farouk (2016) noted that organizational performance is the success and productivity of a firm in accomplishing its desired outcomes and objectives. Pillai and Sivathanu (2022) argued that among the ways of enhancing organizational performance is building a brand reputation where a company that have built a strong brand reputation can leverage it to gain customer loyalty and trust, which can be difficult for competitors to replicate.

Document Analysis Matrix

The data collected between 2018 and 2022 was used for triangulation purposes to establish the consistency of the primary data with the actual secondary data from Auditors Report regarding KAA. The results are illustrated in Table 6:

Table 6: Document Analysis Results

| | 2018 | 2019 | 2020 | 2021 | 2022 | Mean |
|---------------------------------|--------|--------|--------|-------|--------|--------|
| Profits (millions) | 631.61 | 702.51 | 879.34 | -797 | 982 | 479.69 |
| Revenue generated (Billions) | 7.19 | 8.65 | 13.25 | 8.39 | 13.29 | 10.15 |
| Aircraft movements (Thousands) | 141.3 | 200.8 | 246.46 | 180.8 | 259.21 | 205.71 |
| Cargo movement (Millions) | 300.78 | 327.89 | 364.68 | 357.1 | 380.2 | 346.13 |
| Number of passengers (Millions) | 2.67 | 4.71 | 9.04 | 4.47 | 8.89 | 5.96 |

As per the results in Table 6: over the last 5 years, KAA reported an average profit of 479.69 million, average revenue generated of 10.15 billion, average aircraft movements of 205, 710, average cargo movement of 346.13 million and average number of passengers of 5.96 million. The profits, revenue generated, aircraft movements, cargo movement and number of passengers fluctuated over the last 5 years. This supports the primary data collected

regarding organizational performance of KAA as it showed that there has been an increase in market share, increased aircraft movements and increased customer base and loyalty.

Pearson Correlation Analysis

The study conducted Pearson correlation Analysis to establish the relationships between the different variables under study. The findings are shown in Table 7:

Table 7: Correlation Matrix

| | | Process Optimization | Service Automation | Resource Management | Stakeholders' Collaboration | Organizational Performance |
|-----------------------------|--|----------------------|--------------------|---------------------|-----------------------------|----------------------------|
| Process Optimization | Pearson Correlation Sig. (2-tailed) | 1 | | | | |
| | N | 122 | | | | |
| Service Automation | Pearson Correlation Sig. (2-tailed) | .826** | 1 | | | |
| | N | 122 | 122 | | | |
| Resource Management | Pearson Correlation Sig. (2-tailed) | .848** | .828** | 1 | | |
| | N | 122 | 122 | 122 | | |
| Stakeholders' Collaboration | Pearson Correlation Sig. (2-tailed) | .854** | .810** | .854** | 1 | |
| | N | 122 | 122 | 122 | 122 | |
| Organizational Performance | Pearson Correlation Sig. (2-tailed) | .783** | .701** | .802** | .845** | 1 |
| | N | 122 | 122 | 122 | 122 | 122 |

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

From the results in Table 7: the study established that there is a strong and significant relationship between process optimization and organizational performance of KAA as shown by correlation coefficient of 0.783 and p-value of 0.000. Further, the study also revealed that there is a strong and significant relationship between service automation and organizational performance of KAA as shown by correlation coefficient of 0.701 and p-value of 0.000. Further, the study found that there is a strong and significant relationship between resource management and organizational performance of KAA as shown by correlation coefficient of 0.802 and p-value of 0.000. Finally, the study established that there is a strong and significant relationship between stakeholders' collaboration and organizational performance of KAA as shown by correlation coefficient of 0.845 and p-value of 0.000. The findings imply that process optimization, service automation, resource management and

stakeholders' collaboration are significantly related to organizational performance of KAA.

SUMMARY

The main objective was to examine the effect of operational efficiency on organizational performance of Kenya Airports Authority. Specifically, the study intended to establish how process optimization, service automation, resource management and stakeholders' collaboration affects organizational performance of Kenya Airports Authority. The data for the study was collected using questionnaires and analysis was done using descriptive and inferential statistics.

The first objective sought to assess the effect of process optimization on organizational performance of Kenya Airports Authority. The study established that process optimization has a significant effect on organizational performance of Kenya Airports Authority (B=0.765; p=0.000). The study found that

process optimization greatly affects organizational performance of Kenya Airports Authority. The study established that process optimization enables KAA in responding quickly to changes in global demands in the market, that there are enhanced ground operations to increase the number of operational flights on daily basis and that implementing process optimization measures have enhanced safety and security standards.

The second objective sought to determine how service automation affects organizational performance of Kenya Airports Authority. The study found that service automation has a significant effect on organizational performance of Kenya Airports Authority ($B=0.730$; $p=0.000$). The study established that service automation greatly affects organizational performance of Kenya Airports Authority. The study found that service automation at Kenya Airports Authority has improved the efficiency of airport processes and that digital signage has facilitated efficient communication within every airport in Kenya.

The third objective sought to assess the effect of resource management on organizational performance of Kenya Airports Authority. The study established that resource management has a significant effect on organizational performance of Kenya Airports Authority ($B=0.696$; $p=0.000$). The study found that resource management have a great effect on organizational performance of KAA. The study found that there is efficient allocation of resources to support sustainability initiatives at KAA and that the Kenya airports authority ensures regular maintenance of airport infrastructure to keep it up to date with global standards.

The fourth objective sought to determine how stakeholders' collaboration affects organizational performance of Kenya Airports Authority. The study established that stakeholders' collaboration has a significant effect on organizational performance of Kenya Airports Authority ($B=0.793$; $p=0.000$). The study found that stakeholders' collaboration has a great effect on organizational performance of KAA. The study established that stakeholder collaboration

encourages innovation and creativity to enhance airport operations and that stakeholder collaboration has ensured efficient use of resources.

CONCLUSIONS

The study concluded that process optimization significantly affects organizational performance of Kenya Airports Authority. This could be attributed to the fact that process optimization enables KAA in responding quickly to changes in global demands in the market by enhancing safety and security standards. In addition, process optimization through reduced turnaround time increases the number of operational flights on daily basis.

The study also concluded that service automation significantly affects organizational performance of Kenya Airports Authority. Service automation at KAA have been done through digital signage, self-service check-in kiosks, automated baggage handling system and automation of flight information through monitor displays. This has improved the efficiency of airport processes, reduced waiting times for passengers, facilitated efficient communication within every airport and effective dissemination of information to customers. Service automation have also ensured there is an effective baggage handling system accessible to every airline industry. However, Kenya airports authority is yet to implement a system for automated passport control and automated security checks like biometric screening in every airport in Kenya.

It was concluded that resource management significantly affects organizational performance of Kenya Airports Authority. Kenya airports authority ensures airport technology is regularly maintained at every airport and actively seeks innovative approaches to resource management to enhance its organizational performance. Management of KAA have ensured that regular maintenance of airport infrastructure to keep it up to date with global standards by allocating resources though not sufficient to meet operational needs. In addition, staff at KAA are trained to keep them up to date with emerging market demands.

Further, the study concluded that stakeholders' collaboration significantly affects organizational performance of Kenya Airports Authority. Stakeholder collaboration encourages innovation and creativity to enhance airport operations and has ensured efficient use of resources. Further, stakeholders such as taxicabs improves customers experience while security personnel are involved in streamlining airport operations like passenger screening which enhances safety and security at Kenyan airports. However, not every stakeholder is involved in airport planning and in the identification and mitigation of risks that may affect airport operations.

RECOMMENDATIONS

The study recommends that management at Kenya Airports Authority should provide adequate staff training geared towards supporting process optimization initiatives. This would equip the staff with requisite skills needed to effectively ensure process optimization at Kenyan airports. KAA should also promote inter-departmental collaboration and open communication channels to ensure the successful implementation of process optimization initiatives.

There is need for Kenya airports authority to invest in modern technology and automation systems to streamline operations. This is because automation of repetitive tasks, such as baggage handling, security checks, and passenger check-in can significantly enhance efficiency and reduce operational costs.

The study also recommends that there is need for government of Kenya through KAA to initiate and expedite the implementation of automated passport control systems and automated security checks like biometric screening in every airport in Kenya. This will not only improve the safety and security at the airports but also improve service delivery.

There is need for KAA to implement a system for continuous monitoring and feedback collection from both internal and external stakeholders. Regular

feedback from passengers, airlines, employees, and other stakeholders would provide valuable insights for fine-tuning and improving service delivery at Kenyan airports.

The study recommends that there is need for Kenya Airports Authority needs to allocate adequate resources to meet operational needs. This would ensure that every operation at Kenyan airports runs seamlessly. There is also need to ensure there are efficient resource management practices in place to reduce the cases of funds misappropriation at KAA.

The Kenya Airports Authority should develop and implement an integrated resource management strategy that aligns with its long-term organizational goals and objectives. This strategy should encompass all key resources, including human resources, financial assets, infrastructure, and technology. KAA management should continuously monitor and evaluate the resource management strategy to make necessary adjustments to enhance resource management.

The study further recommends that all the stakeholders at KAA are involved in airport planning and in the identification and mitigation of risks that may affect airport operations. Effective stakeholder collaboration ensures smooth and efficient operation of airports and the overall growth and development of the aviation industry in Kenya.

The study also recommends that the Kenya Airports Authority should establish formalized strategies for engaging with various stakeholders, including airlines, government agencies, local communities, and private sector partners. This includes the development of a stakeholder engagement policy that outlines clear objectives, methods of communication, and channels for feedback to enhance transparency and trust, leading to better decision-making and collaborative problem-solving.

Suggestions for Further Study

Since the study focused only on Kenya Airports Authority, future studies should seek to examine how operational efficiency affect organizational performance of other state corporations in Kenya.

There is also need for future researchers to assess the environmental sustainability efforts by Kenyan airports, including energy efficiency, waste management, and carbon footprint reduction, and how these initiatives affect performance of Kenya

airports authority. Further, researchers should also investigate the role of public-private partnerships in airport management and their impact on organizational performance of KAA.

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