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INFLUENCE OF FINANCIAL MANAGEMENT INFORMATION SYSTEMS ON THE PERFORMANCE OF CORPORATE ORGANIZATIONS IN KENYA

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Abstract: **The ongoing expansion of the market, coupled with rapid technological advancements, has greatly influenced the increasing demand for superior services from consumers. As a result, many organizations, including Kenya Railways, are adopting technological solutions such as Management Information Systems (MIS) to enhance their operational efficiency and service delivery. However, insufficient integration of MIS can lead to poor data sharing among various organizational departments, which in turn can cause a significant drop in productivity within the organization. Therefore, the main objective of this research was to investigate the effects of financial management information systems on the performance of corporate oragnizations in Kenya. A descriptive research design was utilized for this investigation. The unit of analysis was the state-owned corporation, specifically Kenya Railways, while the unit of observation comprised the employees of Kenya Railways, which has a total workforce of 2,700 individuals. Stratified sampling techniques were employed, and participants were selected using a simple random sampling method, aiming for a target sample size of 385 individuals. A systematic questionnaire was used to collect primary data. Before data collection, a pilot test was conducted with 38 participants from the same organization, representing 10% of the total population, and this group was excluded from the final analysis. Construct and content validity were assessed, and reliability was evaluated using Cronbach's alpha. The quantitative data was analyzed using descriptive statistics, focusing on means and standard deviations, and presented in tables and graphs. Qualitative data underwent thematic analysis, while inferential statistics, including multiple regression analysis, were also applied. The findings indicated a significant positive correlation between financial, procurement and the performance of Kenya Railways Corporation. The study concludes that the Financial Management Information System (FMIS) provides accurate and timely financial information, enabling KRC to make informed decisions on budget allocations and financial planning. The study recommends enhancing the financial management information system with user-friendly, scalable technology for large data management.**

Keywords: **Financial Management Information Systems, Performance.**

1. INTRODUCTION

Enhancing an organization's performance can be achieved through a continuous process that calls for a comprehensive approach that includes the analysis and improvement of many organizational aspects, such as procedures, technology, culture, communication, and resource distribution (Melville, Kraemer & Gurbaxani, 2019). According to Madonsela (2020), integrating automation and technology is a practical way to improve organizational effectiveness. This could include implementing software programs made to automate tedious jobs, enhance data administration, and foster better teamwork. Therefore, technology has the ability to greatly increase production and efficiency by reducing manual labor and human error.

A Management Information System (MIS) plays an essential role in improving organizational performance by integrating various components or functions within an organization, allowing them to work together effectively towards achieving shared goals (Chapman & Kihn, 2019). Bhima, Zahra, Nurtino, and Firli (2023) claim that a Management Information System fosters the integration of different departments and functions within a company, thus breaking down operational silos and encouraging collaboration and communication among diverse teams. Consequently, this data integration enhances organizational performance by enabling proactive planning, optimal resource allocation, and efficient risk management.

Kharuddin, Foong, and Senik (2020) note that the use of MIS in organizations is consistently increasing, as these systems are being adopted worldwide to enhance the flow of information throughout all levels of the organization, particularly to guarantee that data is delivered to its intended audiences in a prompt, precise, and appropriately formatted way, thus providing a positive impact on the organization. In striving for operational efficiency and cost savings, Bhatiasevi and Naglis (2020) assert that the field of information technology (IT) has attracted substantial interest from organizations, with a considerable portion of organizational budgets now dedicated to the adoption, implementation, and growth of MIS usage within the organization. Thus, the strategic implementation of MIS, in accordance with the overall business strategy of the organization, significantly impacts organizational performance.

Japan, characterized by its high population density in urban areas, has acknowledged the vital need to improve railway systems. Railway firms have observed a drop in ridership, particularly in rural regions, due to reasons like an older population and the widespread adoption of the internet (Hidalgo & Lopez, 2019). As outlined by Jia, Xu, and Wang (2021), utilizing this methodology for implementing a management information system in Japan's railway industry has enabled continuous safety risk evaluation and an extensive assessment process. These achievements are realized through the skilled gathering, preservation, and oversight of diverse data types, including daily inspection logs, equipment details, essential geographic data, and compliance with data standards and regulations. These strategies offer practical solutions for the daily operations and management processes across various departments.

According to Mwendapole (2022), the digital initiatives implemented in Tanzania's transportation sector have significantly increased passenger interaction and improved service provision worldwide. The implementation of digital systems, especially in developed nations known for advanced railway networks like high-speed rail systems, has played a crucial role in enabling this change. Furthermore, as claimed by Said (2023), even with the increasing count of Information Technology users retrieving data online and through mobile platforms, railway statistics in Tanzania mainly rely on outdated data collections provided by government websites, showing a lack of real-time updates.

In Kenya, railway transport is the second most common means of transportation, following road transport, for both passengers and cargo. The country's economic growth and population changes in urban areas have highlighted the urgent need for a skilled railway system (Chiaji, 2021). Ali (2023) emphasizes that the introduction of the Standard Gauge Railway (SGR) in Kenya has driven the adoption of modern technologies in the rail industry. These innovations include the transition from meter gauge to standard gauge rail systems, the introduction of diesel electric locomotives, facilities for electric traction, the digitization of operational structures, and the upgrading of ticketing systems. The organization is committed to maintaining high-quality and dependable ICT resources to support the achievement of its goals as outlined in Kenya Vision 2030.

Organizational performance denotes the ability of an organization to efficiently and effectively achieve its goals and objectives by wisely allocating its resources, managing its processes, and adapting to environmental changes to attain the desired outcomes (Townley, Cooper & Oakes, 2018). As stated by Almatrooshi, Singh, and Farouk (2019), the defined goals of an organization respond to and broadly encompass the difficulties faced by the organization, thus offering a clear strategic path guided by essential performance metrics. Consequently, performance evaluation targets both the financial and non-financial aspects of the organization, including effectiveness, efficiency, and innovation.

The incorporation of management information systems in an organization denotes the process of merging different systems and technologies to improve and streamline the exchange of information and data across various departments and functions (McGrath, Dampney & More, 2022). According to Almeida, Domingues, and Sampaio (2023), the incorporation of management information systems aids in the automation of various workflows and procedures. For instance, by combining

the Customer Relationship Management (CRM) system with sales and marketing platforms, companies can streamline lead generation, customer segmentation, and focused marketing efforts.

The financial management information system aims to simplify and automate an organization's financial operations, delivering real-time data and insights that facilitate informed decision-making. It integrates multiple financial activities, including budgeting, forecasting, accounting, and reporting, into a unified system, thus facilitating improved coordination and communication between different departments (Hendriks, 2022). Azmi, Nasution, and Muda (2023) highlight the importance of adopting a financial management information system for organizations aiming to enhance their financial processes and reach strategic goals. This system provides an all-encompassing view of the organization's financial status, thus enabling enhanced planning, oversight, and resource allocation.

Kenya Railways (KR) is a government entity in Kenya responsible for managing and running the national railway system. KR was formed in 1977 following the disbandment of the East African Railway and Ports Authority, a government entity that operated for the independent nations of Kenya, Tanzania, and Uganda (Kariuki, 2000). The choice of the Kenyan government to fully assume control of Kenya Railways was aimed at achieving strategic influence over the economy via rail transportation (Kariuki, 2000). Kenya Railways was created as a public transit network that, in contrast to other transport methods, could transport various types of cargo, including bulk and long-distance goods, without bias. Kenya Railways, similar to various other state-owned enterprises, gained from government support and managed to function as a monopoly for many years. Nonetheless, the scenario shifted when the Kenyan economy saw deregulation, leading to these organizations losing governmental support and funding, resulting in numerous ones confronting potential failure (Kariuki, 2000). Kenya Railways has also faced a drop in freight traffic in recent years. The government has launched several efforts to counteract the declining trend. The strategies discussed involve buying and leasing new locomotives, developing short-term plans, securing government subsidies, privatizing non-essential sectors, preserving rolling stock, and reorganizing the company (Kariuki, 2000). In spite of all these efforts, the decline persisted.

In recent years, due to technological advancements, Kenya Railways has initiated modernisation initiatives to enhance services and operations across the country. The company has recently introduced the Freight Operation Information System (FOIS) to track cargo movements, enhance cargo handling, and decrease transit durations. Karuki (2000) mentions that KR has implemented a Human Resource Management Information System (HRMIS) to enhance the management of employee data, including payroll, leave, and performance evaluations.

2. STATEMENT OF THE PROBLEM

Modernizing Kenya Railways is essential for enhancing its efficiency and reliability while satisfying customer demands (Affum, 2022). Moreover, the growth of markets and innovations in technology have greatly heightened customer demands for top-notch services. As a result, numerous corporate entities like Kenya Railways have embraced technology integration, including MIS, to enhance the efficiency and results of service provision (Muzuva, 2022). Nevertheless, inadequate integration of MIS results in weak data sharing among the company's various departments, ultimately causing a notable decline in productivity. Nthiga (2018) observed that the internal integration of technology systems has not addressed the significant issues stemming from confidentiality barriers in organizational information, as well as the availability, integrity, and accessibility of organizational services. Gathering diverse data and information will enhance transparency and accelerate access to details.

Many researchers have investigated the connection between organizational effectiveness and the integration of management information systems (MIS). Kariuki and Nzuki (2019) discovered that the utilization of ICT in supermarkets in Nairobi enhanced market share and performance via MIS functionalities. Nonetheless, their research concentrated exclusively on supermarkets. Mutuku (2019) investigated the relationship between electronic commerce capability and performance of commercial banks in Kenya and found that Transaction capability had an insignificant effect of performance of commercial banks in Kenya. However, the study presents a contextual gap. Odindo (2022) investigated commercial banks in Nairobi, demonstrating that elements such as data management and ICT proficiency greatly influenced performance, although the study was confined to the banking industry. Kamau (2022) evaluated the ICT infrastructure in SMEs in Embu County, concluding it was sufficient for effective communication through MIS, but this research was limited to SMEs.

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3. LITERATURE REVIEW

Theoretical Literature Review

Balance Scorecard Model

Utilizing Kaplan and Norton's (1996) balanced scorecard framework within a company requires developing a strategic management system that synchronizes business involvement in activities with the organization's vision and strategic objectives. This framework provides an extensive system for assessing and managing performance, addressing four key perspectives: financial, customer, internal processes, and learning and growth. Martello, Watson, and Fischer (2018) contend that the balanced scorecard model facilitates the effective translation of strategic goals into concrete performance metrics and objectives. This enables a wider perspective on performance management by taking into account not just financial results but also customer satisfaction, internal procedures, and the enhancement of organizational skills.

Butler, Letza, and Neale (2017) emphasize that the balanced scorecard framework promotes communication and collaboration among various organizational levels by offering a shared language and structure to assess and discuss performance. This can aid in guaranteeing that all individuals are dedicated to the same strategic aims and objectives. Consequently, utilizing the balanced scorecard framework in an organization may result in better strategic alignment, improved decision-making, and ultimately increased performance.

Empirical Literature Review

Wanyonyi and Theuri (2021) conducted research on the impact of the integrated financial management information system on the financial performance of Trans Nzoia County, Kenya. The analysis was conducted using descriptive statistics, which included metrics like the mean, the mode, and the median. Additionally, the research utilized sophisticated statistical methods, such as regression analysis and Pearson's correlation coefficient. The study found that IFMIS is extensively utilized in Trans Nzoia County, resulting in major enhancements in oversight responsibilities and minimizing differences between budget allocations and spending. Nonetheless, the study focused on Trans Nzoia County in Kenya.

Maluki (2022) performed an in-depth examination of the connection between the information systems managing the financial operations of small and medium-sized enterprises (SMEs) in Nairobi County, Kenya, and their financial outcomes. Employing a dual approach that integrated cross-sectional and descriptive survey methods, the aim of the study was to investigate how financial management information systems influence the performance of small and medium-sized enterprises (SMEs) in Kenya. The primary focus of the study was small and medium-sized enterprises located on Moi Avenue in the Nairobi Central Business District. In order to achieve a balanced sample, 135 interviews with business managers and owners were conducted as part of the study. The study discovered a significant correlation between the effectiveness of financial management information systems and the financial performance of SMEs in Nairobi County. Nonetheless, the study primarily focused on the economic factors of SMEs functioning in Nairobi County, Kenya.

Mutui (2019) conducted a research study examining the impact of implementing a comprehensive financial management information system on procurement performance in Kenya's public sector. The approach used by the researcher was descriptive. The study aimed to focus on employees from various departments in the central offices of state ministries located in Nairobi. The department leaders, their aides, supervisors, and other officials all collaborated to address the research questions. This study mainly employed questionnaires to collect primary data. Furthermore, statistical descriptions and content assessment were utilized to analyze the data. The study's findings indicate that Kenyan government ministries have implemented IFMIS to a moderate extent. Nonetheless, the study focused on the procurement effectiveness of the government sector in Kenya.

4. RESEARCH METHODOLOGY

A descriptive research design was utilized for this investigation. The unit of analysis was the state-owned corporation, specifically Kenya Railways, while the unit of observation comprised the employees of Kenya Railways, which has a total workforce of 2,700 individuals. Stratified sampling techniques were employed, and participants were selected using a simple random sampling method, aiming for a target sample size of 385 individuals. A systematic questionnaire was used to collect primary data. Before data collection, a pilot test was conducted with 38 participants from the same organization, representing 10% of the total population, and this group was excluded from the final analysis. Construct and content validity

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were assessed, and reliability was evaluated using Cronbach's alpha. The quantitative data was analyzed using descriptive statistics, focusing on means and standard deviations, and presented in tables and graphs. Qualitative data underwent thematic analysis, while inferential statistics, including multiple regression analysis, were also applied.

5. FINDINGS

The descriptive statistics results on financial management information system are presented in Table 1.

Table 1: Financial Management Information System

Statements	Mean	Standard deviations
Budgeting allows the organization to create a comprehensive financial plan that projects income and expenses for a specific timeframe.	3.84	1.159
Effective budgeting enables the organization to strategize expenses, achieve business objectives, and anticipate operational shifts.	3.56	1.437
Sound financial forecasts form the basis of a robust annual operating plan and long-term strategy.	4.52	0.476
Forecasting serves as a guide for the organization's projected increases or decreases in key financial areas and investments.	4.51	0.487
Precise financial reporting aids in minimizing the organization's tax liabilities.	4.57	0.428
Precise financial reporting assists the organization in safeguarding its resources from rapid depletion.	4.01	0.907
Aggregate score of mean and standard deviation	**4.17**	**0.816**

The findings displayed in Table 4.4 demonstrate agreement among the respondents regarding the impact of financial management information systems on the performance of corporate organizations in Kenya, evidenced by a mean score of 4.17 and a standard deviation of 0.816. These results are consistent with Maluki (2022) research that highlights the critical role of financial management information systems (FMIS) in enhancing organizational efficiency and decision-making processes.

The finding indicates precise financial reporting enhances transparency, accountability, and tax compliance, with a mean score of 4.57 (SD=0.428) showing strong belief in its role in reducing tax obligations. The high mean score of 4.52 (SD=0.476) for reliable financial forecasts emphasizes their critical role in strategic planning, enabling effective resource allocation and adaptation to market changes. A solid annual operating plan based on reliable forecasts helps organizations navigate uncertainties and seize growth opportunities. Additionally, a mean score of 4.51 (SD=0.487) for forecasting as a tool for anticipating financial sector changes underscores the necessity of proactive financial management for long-term sustainability. These findings align with Hendriks (2022) research which highlighted the importance of accurate financial reporting and reliable forecasting for organizational success.

The participant agreed on the importance of financial practices in the organization, emphasizing that accurate financial reporting is crucial for protecting assets, reflected in a mean score of 4.01 and a standard deviation of 0.907. This indicates that participants see it as vital for maintaining financial stability and preventing resource mismanagement. They also noted that budgeting is essential for creating a financial plan that forecasts income and expenditures, with a mean score of 3.84 and a standard deviation of 1.159. This suggests a positive view of budgeting as a strategic tool for anticipating financial needs. Additionally, the participant pointed out that effective budgeting helps achieve business goals and adapt to operational changes, shown by a mean score of 3.56 and a standard deviation of 1.437. While there is general agreement on budgeting's importance, opinions on its effectiveness may vary. These results align with Azmi, Nasution, and Muda (2023) research observation on the critical roles of financial reporting and budgeting in organizational management, supporting effective decision-making and improved financial performance.

Regression Analysis Results

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.851[a]	.724	.702	1.0230

The model summary shows an R value of 0.851, indicating a strong positive correlation between the analyzed variables, meaning that as one increases, the other does as well. The R square value of 0.724 suggests that about 72.4% of the variance in corporate performance can be explained by the financial, procurement, marketing, and human resource management information systems (MIS) included in the model. This highlights the significance of these systems in influencing corporate performance. The adjusted R square value of 0.702 accounts for the number of predictors, indicating that a substantial portion of the variance of 29.8%in corporate performance is still explained by the MIS factors. The standard error of 1.0230 reflects the average distance of observed values from the regression line, with a lower value indicating a better model fit.

Table 3: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.715	0.316		2.263	0.002
	Financial MIS	0.796	0.254	0.1346	3.134	0.003

The study found that financial management information system (MIS) had a beta value of 0.1346 and was found to have a positive correlation with the independent variables, suggesting that increasing the latter may improve MIS performance, albeit to a limited extent. The significance value of 0.003 is well below the threshold of 0.05, confirming a statistically significant relationship. This is in accordance with Malyuki (2022), which determined a significant correlation between the effectiveness of financial management information systems and the financial indicators of the SME.

6. CONCLUSIONS

The study concludes that FMIS provides accurate and timely financial data, enabling KRC to make informed decisions regarding budget allocations and financial planning. FMIS allows for real-time financial reporting, which helps KRC monitor its financial health and operational performance continuously. FMIS aids in forecasting cash flows, allowing KRC to manage its liquidity effectively and ensure that it can meet its operational obligations. The system allows KRC to benchmark its performance against industry standards or competitors, identifying areas for improvement.

7. RECOMMENDATIONS

The study recommends that the organization should upgrade the existing FMIS to incorporate the latest technology, ensuring it is user-friendly, scalable, and capable of handling large volumes of data. Ensure that the FMIS is integrated with other operational systems (e.g., inventory management, human resources, and customer relationship management) to provide a holistic view of the organization's financial health. Conduct regular training sessions for staff on the use of the FMIS, financial management best practices, and data analysis techniques to enhance their skills and efficiency. Establish strong internal controls within the FMIS to prevent fraud, ensure compliance with regulations, and enhance the accuracy of financial reporting.

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