

**MANAGEMENT INFORMATION SYSTEM INTEGRATION AND
PERFORMANCE OF CORPORATE INSTITUTIONS IN KENYA**

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**A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS,
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DECLARATION

This research project is entirely my own work and has not been presented for evaluation at any other academic institution. Copying any segment of this project without permission from the author or Kenyatta University is not allowed.

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I am the university supervisor who has approved this research project for the oral defense.

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DEDICATION

I make this project to my family members who play had a critical influence in propelling and supporting my scholastic process all along. I trust that this project's success will also inspire them and the people in their vicinity.

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I might want to offer my true thanks to every individual who has helped me. Your financial support and spiritual guidance have been invaluable in helping me get my research to this point. I might particularly want to thank my manager, Mr. Morrison Mutuku, for his extraordinary help. In addition, I want to thank my wife Nelly Yebei and my whole family for creating a supportive learning environment that has been crucial to my academic endeavors.

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ABBREVIATIONS AND ACRONYMS

MIS	Management Information System
AMOS	Analysis of Moment Structures
SPSS	Statistical Package for Social Science
CRM	Customer Relationship Management
IT	Information Technology
IFMIS	Integrated Financial Management System
ICT	Information Communication Technology
IBM	International Business Machines
SME	Small and Medium Enterprises
HRMIS	Human Resource Management Information System
HR	Human Resources
FOIS	Freight Operations Information System
KR	Kenya Railways Authority
PMIS	Procurement Management Information System
SEM	Structural Equation Modelling

OPERATIONAL DEFINITION OF TERMS

Organizational Performance	The limit of the association to accomplish its goals and amplify results.
Management Information System Integration	A technique of consolidating information from multiple departments and areas, providing decision-makers from a comprehensive viewpoint of the organization's data.
Financial Management Information System	Involves the automation of a company's financial operations, facilitating the execution of all tasks through a single system.
Procurement Management Information System	Includes gathering, storing, and optimizing procurement data and tasks.
Marketing Management Information System	A tool that assists companies in collecting and analyzing data on their customers, competitors, and market trends.
Human Resource Management Information System	A program that saves, organizes, and monitors information pertaining to employees.

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 management information system integration on the performance of corporate entities in Kenya, with a particular emphasis on Kenya Railways Corporation. The specific objectives of the study were to determine the influence of financial management information systems, procurement management information systems, and financial management information systems on the performance of corporate institutions in Kenya. The study was guided by multiple theoretical frameworks, such as the resource-based view theory, technology acceptance theory, agency theory, and the balanced scorecard model. This study employed a descriptive research design. The unit of analysis was state-owned corporation with a particular focus on Kenya Railways. Stratified sampling methods were utilized, and participants were chosen through a simple random sampling approach, targeting a final sample size of 385 people. A structured questionnaire was employed to gather primary data. Prior to data collection, a pilot test was performed with 38 participants from the same organization, accounting for 10% of the overall population, and this group was not included in the final analysis. Construct and content validity were evaluated, while reliability was assessed through Cronbach's alpha. The quantitative information was examined through descriptive statistics, concentrating on means and standard deviations, and displayed in tables and charts. 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, marketing, and human resource management information systems 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 Procurement Management Information System enhances procurement activities, reducing the time and effort of manual processes, while the Marketing Management Information System offers valuable insights into market trends and customer preferences. The human resource management systems streamline recruitment by speeding up job postings, applications, and candidate tracking. The study recommends enhancing the financial management information system with user-friendly, scalable technology for large data management. It also emphasizes ensuring compatibility of the procurement management system with KRC's financial, inventory, and project management systems. Additionally, a centralized database should be established to consolidate data from customer interactions, sales, market trends, and competitor analysis. Finally, integrating the human resource management system with payroll, finance, and project management systems is essential.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The improvement of how a firm performs can be realized through a perpetuating process that requires a holistic methodology encompassing the examination and refinement of numerous dimensions of the organization, including processes, technology, culture, communication, and resource allocation (Melville, Kraemer & Gurbaxani, 2019). As elucidated by Madonsela (2020), a viable strategy to enhance organizational effectiveness involves the integration of technology and automation. This may encompass the adoption of software systems designed to automate repetitive tasks, optimize data management, and improve collaborative efforts among team members. Consequently, by minimizing manual labor and human error, technology possesses the potential to significantly elevate productivity and efficiency.

A Management Information System (MIS) occupies a crucial position in enhancing organizational performance through integration, which synthesizes diverse components or functions within an organization to operate in a cohesive manner towards the realization of common objectives (Chapman & Kihn, 2019). Bhima, Zahra, Nurtino, and Firli (2023) assert that an MIS promotes the unification of various departments and functions within an organization, thereby dismantling operational silos and nurturing collaboration and communication among disparate teams. As a result, this data integration strengthens organizational performance by facilitating proactive planning, efficient resource allocation, and effective risk management.

Kharuddin et al. (2020) observe that the utilization of MIS in associations is perpetually on the rise, with these systems being implemented globally to improve the dissemination

of information across all organizational levels, specifically to ensure that data reaches its intended recipients in a timely, accurate, and suitably formatted manner, thereby rendering a beneficial contribution to the organization. In the pursuit of operational efficacy and cost reduction, Bhatiasevi and Naglis (2020) indicate that the domain of information technology (IT) has garnered considerable attention among organizations, with a significant segment of organizational budgets now being allocated to the introduction, implementation, and expansion of MIS usage within the entity. Accordingly, the strategic execution of MIS, in alignment with the overarching business strategy of the organization, exerts a pronounced influence on organizational performance.

Japan, as a nation defined by high population density in urban locales, has recognized the critical importance of advancing railway systems. Railway companies have witnessed a decline in passenger numbers, especially in rural areas, attributable to factors such as an ageing demographic and the pervasive use of the internet (Hidalgo & Lopez, 2019). As delineated by Jia, Xu, and Wang (2021), the implementation of a management information system within Japan's railway sector through this methodology has facilitated the ongoing evaluation of safety risks and a comprehensive assessment procedure. Such accomplishments are achieved through the proficient collection, storage, and management of various data types, encompassing daily inspection records, equipment specifications, fundamental geographic information, and adherence to data standards and regulations. These strategies proffer pragmatic solutions for the quotidian operations and management processes across multiple departments.

The digitalization initiatives undertaken within Tanzania's transportation sector, as articulated by Mwendapole (2022), have markedly augmented passenger engagement and enhanced service delivery on a global scale. The adoption of digital systems, particularly in developed countries characterized by sophisticated railway infrastructures, such as high-speed rail systems, has been instrumental in facilitating this transformation. Moreover, as asserted by Said (2023), despite the escalating number of Information Technology users accessing data via the internet and mobile platforms, railway statistics in Tanzania predominantly depend on antiquated data compilations disseminated through government websites, exhibiting a scarcity of real-time updates.

In Kenya, railway transportation constitutes the second most prevalent mode of transport, trailing behind road transport, for both cargo and passenger transit. The nation's economic expansion and demographic dynamics within urban regions have underscored the pressing necessity for the development of a proficient railway network (Chiaji, 2021). Ali (2023) underscores that the advent of the Standard Gauge Railway (SGR) in Kenya has catalyzed the incorporation of innovative technologies within the rail sector. These advancements encompass the shift from meter gauge to standard gauge rail systems, the implementation of diesel electric locomotives, provisions for electric traction, the digitalization of operational frameworks, and the modernization of ticketing systems. The organization is devoted to upholding high-quality and reliable ICT resources to facilitate the attainment of its objectives as delineated in Kenya Vision 2030.

The organizations with well-integrated MIS can achieve superior performance since they are more efficient, responsive, and innovative and can informed decisions quickly and optimize their resources to drive success (Alawamleh, ALShibly & Ali, 2021). According

to Argyris (2021), many organizations struggle with data being trapped in separate departments and integrating MIS often means altering existing workflows, which can meet with skepticism from employees accustomed to their routines. Babaei and Beikzad (2023) show that through fostering collaboration, investing in training, choosing the right technology, and prioritizing data security, organizations can leverage MIS integration to enhance their performance significantly.

1.1.1 Organizational Performance

A firm performance alludes to the limit of an association to capably and effectively fulfill its goals and objectives through the judicious allocation of its resources, the management of its processes, and the ability to adapt to environmental fluctuations to achieve the desired results (Townley, Cooper & Oakes, 2018). According to Almatrooshi, Singh, and Farouk (2019), the articulated objectives of an organization address and broadly encapsulate the challenges encountered by the organization, thereby providing a coherent strategic direction informed by critical performance indicators. As a result, performance assessment is focused on both monetary and non-monetary elements of the association, encompassing effectiveness, efficiency, and innovation.

Henri (2019) posits that organizational effectiveness is contingent upon the organization's capacity to adapt to external transformations. In the contemporary epoch marked by dynamism and competitiveness within the commercial sphere, organizations are compelled to exhibit agility and responsiveness to market fluctuations, technological advancements, and consumer demands. This imperative necessitates the cultivation of a culture that prioritizes innovation, continuous learning, and adaptability in the modification of strategies and operations as deemed necessary. According to Gawande

and Wheeler (2022), organizational effectiveness constitutes a holistic construct that integrates numerous factors contributing to organizational success. Therefore, effectiveness equips organizations to achieve short-term objectives, thereby establishing a sustainable and resilient entity capable of enduring over the long term.

Efficiency is regarded as a pivotal metric of organizational performance, as it directly reflects the degree to which an association uses its assets accomplish its goals (Bartuseviciene & Sakalyte, 2018). As articulated by Mihaiu, Opreana, and Cristescu (2022), efficiency is intricately linked to employee productivity and satisfaction. When an organization operates with efficiency, employees are enabled to perform optimally, unencumbered by unnecessary bottlenecks or impediments. Streamlined procedures and systems empower employees to focus on their primary responsibilities, thereby mitigating dissatisfaction and fostering job fulfillment. Consequently, an efficient organization is capable of maximizing output while minimizing input, ultimately resulting in enhanced productivity and cost-effectiveness.

Innovation plays a crucial role in augmenting organizational performance, as it drives growth by persistently pursuing novel ideas, products, and services. In doing so, organizations can penetrate new markets and expand their customer base (Ivanov & Avasilcai, 2018). Saunila and Ukko (2022) assert that innovation fosters sustainability by enabling organizations to adapt to changing circumstances and navigate challenges. In an incessantly evolving business landscape, organizations that disregard innovation risk obsolescence. Therefore, by embracing innovation, organizations can identify and seize new opportunities, overcome obstacles, and adeptly navigate disruptions.

Tahir (2022) posits that the railway sector in Pakistan is currently facing a profound crisis, which adversely affects its operational efficiency and overall effectiveness. Over the course of the last fifty years, the railway sector in Pakistan has encountered a myriad of challenges, resulting in a notable decline in its performance. At present, Irfan, Kee, and Shahbaz (2023) underscore that various factors, including political influence, positions within public enterprises, labor unions, collective bargaining entities, and monopolistic practices, are obstructing the advancement of Pakistan Railways. As a result, railway budgets sanctioned by the government and proposed enhancement initiatives remain unrealized.

The reforms instituted within the railway sector have largely focused on the engagement of the private sector with limited intervention from the government. In this context, the Nigerian railway system experienced substantial transformation as private investment increased to tackle the challenges facing the sector and to bolster workforce morale (Onatere, Nwagboso & Georgakis, 2019). Agbaeze and Onwuka (2023) have delineated several critical impediments to the exhibition of rail route transportation in Nigeria, which incorporate deficient subsidizing, significant working shortages, a shortage of locomotives and rolling stock, a shift in passenger preference towards road transport, and inconsistent political commitment. Furthermore, additional challenges encompass inadequate communication infrastructure, governmental interference in managerial practices, limited autonomy in tariff-setting, insufficient funding, declining levels of rolling stock, reduced traffic volumes for both freight and passengers, an inflexible bureaucratic structure, and irregular staff training initiatives.

1.1.2 Management Information System Integration

The integration of management information systems inside an association alludes to the most common way of merging different frameworks and advances to upgrade and streamline the stream of information and data across multiple departments and functions (McGrath, Dampney & More, 2022). As noted by Almeida, Domingues, and Sampaio (2023), the automation of diverse workflows and processes is facilitated by the integration of management information systems. For instance, by coordinating the Client Relationship The board (CRM) framework with deals and showcasing frameworks, associations can robotize lead age, customer segmentation, and targeted marketing campaigns. This research's evaluation of management information system integration primarily focused on financial, procurement, marketing, and human resource management information systems.

The financial MIS data framework is intended to smooth out and mechanize monetary cycles inside an association, giving continuous information and bits of knowledge that help informed independent direction. It consolidates various financial functions, such as budgeting, forecasting, accounting, and reporting, into a centralized system, thereby promoting enhanced coordination and communication among disparate departments (Hendriks, 2022). Azmi, Nasution, and Muda (2023) underscore the significance of integrating a financial management information system for organizations seeking to improve their financial operations and achieve strategic objectives. This system offers a comprehensive overview of the organization's financial health, thereby empowering superior planning, control, and resource management.

Gunasekaran and Ngai (2019) assert that a procurement management information system encompasses the processes of selecting, acquiring, and implementing a management information system specifically intended to meet the extraordinary necessities and prerequisites of the association. This system serves to streamline the procurement process, enhance operational efficiency, and improve decision-making capabilities within the organization. Similarly, Humphreys, Lai, and Sculli (2021) indicate that the implementation of such a system enables organizations to augment their ability to monitor and manage procurement activities, assess supplier performance, streamline purchasing processes, and make more informed decisions. Consequently, by utilizing a procurement management information system, organizations can achieve cost savings, increased efficiency, and overall performance improvement.

The approach to integrating a management information system within an organization can also be conceptualized as a marketing management information system. This perspective underscores the importance of collecting, analyzing, and leveraging data for marketing-related tasks and decision-making (Saaksjarvi & Talvinen, 2018). According to Kim and Narasimhan (2022), with regards to promoting, an administration data framework is specifically designed to gather and scrutinize information pertaining to various marketing activities. It provides managers with precise and current data, thereby facilitating informed decision-making and the development of effective marketing strategies. Thus, organizations can enhance their marketing effectiveness by aligning the management information system with marketing objectives and integrating it with other functional departments.

Belizon, Morley, and Gunnigle (2016) propose that Human Resource Management Information Systems (HRMIS) can streamline and enhance the procedures and roles associated with human resources within an organization. The integration of HRMIS with the management information system allows for effective oversight and utilization of human resources, leading to improvements in productivity, efficiency, and decision-making capabilities. Similarly, Budhwar and Budhwar (2022) assert that incorporating an HR-MIS into the organization's Management Information System (MIS) constitutes a strategic initiative aimed at refining HR processes, enhancing decision-making, and elevating overall organizational performance. Consequently, by leveraging technology and automation, an organization can proficiently manage its human resources, foster employee engagement, and ultimately bolster business success.

1.1.3 Kenya Railways Corporation

Kenya Railways (KR) is a Kenyan government agency tasked with overseeing and operating the national railway network. KR was established in 1977 after the dissolution of the East African Railway and Ports Authority, a state-owned company that served the independent states of Kenya, Tanzania and Uganda (Kariuki, 2000). The Kenyan government's decision to take over Kenya Railways completely was made to gain strategic control over the economy through rail transport (Kariuki, 2000). Kenya Railways was established as a public transport system that, unlike other modes of transport, could carry all kinds of freight, including bulk and long-distance, without discrimination. Kenya Railways, like many other state-owned companies, benefited from government protection and was able to operate as a monopoly for decades. However, the situation changed when the Kenyan economy was deregulated and these organisations

lost government protection and funding, with many facing possible collapse (Kariuki, 2000). Kenya Railways has not been spared from a decline in freight traffic in recent years. The government has undertaken various initiatives to reverse the downward trend. Strategies mentioned include purchasing and leasing new locomotives, creating short-term plans, obtaining government subsidies, privatising non-core sectors, maintaining rolling stock and restructuring the company (Kariuki, 2000). Despite all these attempts, the downward trend continued.

In recent years, with advances in technology, Kenya Railways has embarked on modernisation efforts to improve services and operations nationwide. The company recently launched the Freight Operation Information System (FOIS) to monitor cargo movements, improve cargo handling and reduce transit times. Karuki (2000) states that KR has introduced a Human Resource Management Information System (HRMIS) to streamline the handling of employee information such as payroll, leave and performance management.

1.2 Statement of the Problem

The improvement of Kenya Railways through modernization is crucial to improve effectiveness and reliability and meet customer needs (Affum, 2022). Furthermore, market expansion and technological advancements have significantly increased customer needs for world-class services. Thus, many corporate organizations such as Kenya Railways have adopted technology integration such as MIS to work on the adequacy and results of administration conveyance (Muzuva, 2022). However, ineffective MIS integration leads to poor data exchange between all departments of the company, which ultimately leads to a significant drop in productivity. Nthiga (2018) noted that internal

integration of technology systems has not resolved the major challenges arising from confidentiality barriers in organizational information, availability, integrity, and accessibility of organizational services. Collecting a variety of data and information will increase transparency and speed up access to information.

According to reports from the Kenya National Bureau of Statistics (KNBS) of 2024, the total volume of cargo transported by Kenya Railways jumped by roughly 30% from 2020 to 2022. Though the standard gauge railway, which has stood the core of Kenya's railway expansion, observed initial success, disruptions due to operational inefficiencies and the impacts of the pandemic have led to setbacks. The number of passengers traveling by rail reduced by nearly 25% during the same period. In a survey conducted in early 2023, almost 40% of commuters reported considering road travel as a more flexible and, at times, more reliable alternative. A 2022 audit indicated that more than 60% of the rolling stock was due for repair, yet only a fraction of the necessary maintenance tasks were completed. A study conducted in late 2023 demonstrated that about 55% of respondents mentioned dependability as their main concern concerning rail services. With frequent delays and cancellations, public trust in Kenya Railways is declining (KNBS, 2024).

Numerous scholars have explored the link between organizational performance and management information systems (MIS) integration. Kariuki and Nzuki (2019) found that ICT use in Nairobi supermarkets improved market share and performance through MIS capabilities. However, their study focused solely on grocery stores presenting a contextual gap. Odindo (2022) examined commercial banks in Nairobi, revealing that factors like information storage and ICT literacy significantly impacted performance, but the research was limited to the banking sector which presents contextual gap. Kamau

(2022) assessed ICT infrastructure in SMEs in Embu County, finding it adequate for effective communication via MIS, but this study was restricted to SMEs and employed cross-sectional research design which presents contextual and methodological gaps. Mkongoh and Kyalo (2023) examined the relationship between adoption of management information systems and performance of public agencies in Mombasa County, Kenya. The study revealed that internet connectivity and IS software are the key aspects of information Infrastructure which affect the performance of public agencies in Mombasa to great extents. However, the study presents conceptual gap. Therefore, this study investigated the influence of management information system integration on performance of corporate institutions in Kenya: A case of Kenya Railways Corporation.

1.3 Objectives of the Study

This section presents the general and specific objectives of the study;

1.3.1 General Objective

The general objective of the study was to investigate the influence of management information system integration on performance of corporate institutions in Kenya: A case of Kenya Railways Corporation.

1.3.2 Specific Objectives

The specific objectives of the study were to;

- i. Evaluate the influence of financial management information systems on performance of corporate institutions in Kenya.
- ii. Assess the influence of procurement management information systems on performance of corporate institutions in Kenya.

- iii. Establish the influence of marketing management information systems on performance of corporate institutions in Kenya.
- iv. Examine the influence of human resource management information systems on performance of corporate institutions in Kenya.

1.4 Research Questions

The study was guided by the following research questions;

- i. What is the influence of financial management information systems on performance of corporate institutions in Kenya?
- ii. How do procurement management information systems influence the performance of corporate institutions in Kenya?
- iii. To what extent does marketing management information systems influence performance of corporate institutions in Kenya?
- iv. What is the relationship between human resource management information systems and performance of corporate institutions in Kenya?

1.5 Significance of the Study

The research aims to assist Kenya Railways in improving its efficiency through better service delivery. By examining findings from the study, the research intends to bolster service provision and decision-making processes at Kenya Railways, allowing managers to promptly resolve issues and make well-informed decisions based on relevant data. Given that Kenya Railways is a government-owned entity, the findings of this research would be beneficial to the Kenyan government by identifying challenges faced by the organization and proposing strategies for improving service delivery. Ultimately, the research would contribute to the advancement of technology utilization in both private

and public areas, together with the development of technological solutions within business organizations. Additionally, this research would provide insights for academics and business leaders regarding the significance of embracing and exploring new technologies to enhance their daily operations.

1.6 Scope of the Study

The study examined corporate organizations in Kenya, focusing specifically on Kenya Railways Corporation. The management information system integration was measured in terms of financial management information system, procurement management information system, marketing management information system and human resource management information system. Performance was measured in terms of effectiveness, efficiency and innovation. The study was guided by resource based view theory, technology acceptance theory, agency theory and balance scorecard model. The study used descriptive research design. The respondents were employees working with Kenya Railway Corporation. Data was collected using semi-structured questionnaire. The analysis of data was done using descriptive statistics and inferential analysis statistics. Performance of Kenya Railway Corporation was analysed from the year 2020 to 2024.

1.7 Limitations of the Study

Researchers faced challenges in drawing in the members due to worries about possible harm. Nonetheless, the individuals were guaranteed that their information would remain confidential. The sample population size may restrict research studies. However, a census approach was employed. Research investigations are required to adhere to ethical guidelines and principles to safeguard the well-being and rights of participants. These constraints may limit specific research methods or topics that could harm or exploit

individuals or groups. However, the relevant authorities gotten an authority letter from the school, alongside a research permit granted by NACOSTI.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents theoretical review, empirical review, summary of literature reviewed and research gaps and conceptual framework.

2.2 Theoretical Review

This section discusses theories and a model that are used in guiding the study namely; resource-based view theory, technology acceptance theory, agency theory and balance scorecard model.

2.2.1 Resource Based View Theory

The theory, introduced by Penrose (1959), asserts that a company's capacity to adjust its resources to the changing conditions of the business landscape dictates its ability to sustain a competitive edge. A business is considered an organization with distinct skills and resources that can be used to satisfy the requirements of partners. The organization's expertise in efficiently utilizing its restricted resources in a synchronized way to achieve set objectives is known as capability. Additionally, this theory implies that the durability of a business relies on resources that are distinct and cannot be substituted by rivals in the market.

Huston, Lippincott, & Reck (2013) showed that the efficient management of both tangible and intangible assets like financial resources, innovative methods, and time management can influence a company's operational performance. The research likewise recognizes that a firm can use its one-of-a-kind segment qualities like age, foundation, proprietorship, infrastructure, and labor force to achieve a competitive advantage.

According to resource-based theory, this research indicates that State-owned enterprises in Kenya can enhance operational performance and efficiency by leveraging both tangible and intangible resources across departments such as procurement, marketing, finance, and human resources. Developing service delivery models that incorporate advanced technology and prioritize customer needs would benefit both state-owned organizations in the public sector and the international sector.

The theory is relevant to Kenya Railway Corporation which operates within a unique context, with a variety of resources crucial for its operation. These include infrastructure, human capital, technology and financial resources. Therefore, effective deployment of these resources helps KRC maintain steady growth in various ways.

2.2.2 Technology Acceptance Theory

In 1989, Davis presented the theory, which is based on three core perspectives. The viewpoints of perceived value and perceived usefulness clarify how a user may find it simpler to use a recently presented framework or innovation. A person's viewpoint on technology can influence their education, interaction, and conduct, both before and after utilizing a technology or system. Oberi (2010) argued that although culture and personal factors may influence the compelling utilization of innovation in the public eye, the significance of technology can also affect its acceptance and implementation.

Abraham and Taylor (2013) suggested that for a company to remain viable, it should regard technology as essential for enhancing operational efficiency. Alexander & Young (2011) further highlighted that in a competitive business landscape, technological progress and fulfilling consumer needs are vital for global corporations. Failing to

embrace modern technology may result in financial setbacks for an organization because of adhering to outdated operational methods. The readiness of consumers to adopt or reject a newly introduced innovation is shaped by their perception of how difficult and complicated it is to use the technological advancement (Kimanzi & Njonde, 2014).

Peninah, Sarah, and Selfano (2014) suggested that how business customers perceive the use of technology may influence the performance of a state corporation positively or negatively. Adequate education and awareness among the public regarding the ICT platforms developed by companies will lead to enhanced efficiency and effectiveness within the organization. The theory indicates that state-run enterprises can improve their operational effectiveness by employing suitable technology while serving customers, resulting in better quality, lower costs, increased reliability, greater flexibility, and reduced waste.

2.2.3 Agency Theory

In 1972, Armen Alchian and William Demsetz presented the concept of agency, which was later elaborated by Jensen and Richard C. Meckling in 1976. They argued that businesses can be viewed as a hub for a network of contractual relationships among individuals. Agency theory analyzes firm behavior by investigating the contracts that are present between various involved parties. Shareholders who supply capital for a company's operations are not regarded as the owners; instead, they are viewed as those assuming risks for the company. In truth, company executives obtain capital from investors who have confidence in their skill to proficiently and adeptly utilize resources to produce profits for the business. Managers enter into agreements that specify their responsibilities and establish the division of profits between managers and investors.

Because of the difficulties in forecasting and clarifying future uncertainties, managers struggle to implement the contracts they have consented to (Shleifer & Vishny, 2017).

The agency relationship occurs when one party relies on the actions of another. The agency relationship refers to a legal contract where the chief draws in an individual (the specialist) to perform explicit errands for its sake, appointing dynamic obligations (Eisenhardt, 2019). Daly (2021) explains that agency theory posits that the actions and decisions of the agent impact the effectiveness of the principal, choices are made amidst uncertainty and risk by the parties involved, and there are, to some extent, opposing objectives linking principal and agent.

The theory can provide insights into the buyer-supplier relationship and guide research in the procurement area. Helping to understand the potential challenges of adverse selection and moral hazards in buyer-supplier interactions. The theory may also be applied to explore the presence of various types of agency problems in public procurement, especially in relation to corruption and its effect on tax morale. Additionally, agency theory can be utilized to analyze how agency operates within the public procurement framework, considering issues such as adverse selection and moral hazard.

2.2.4 Balance Scorecard Model

Applying Kaplan and Norton's (1996) balanced scorecard framework in a firm necessitates the creation of a strategic management system that aligns business participation in actions with the organization's vision and strategic goals. This framework offers a comprehensive structure for evaluating and managing performance, covering four main perspectives: financial, customer, internal processes, and learning and growth.

Martello, Watson, and Fischer (2018) argue that the balanced scorecard framework aids in the successful conversion of strategic ambitions into specific performance indicators and targets. This takes into consideration a more extensive perspective on exhibition the executives by thinking about monetary results as well as consumer loyalty, inside processes, and the improvement of hierarchical capacities.

Butler, Letza, and Neale (2017) highlight that the balanced scorecard framework encourages communication and teamwork across different organizational tiers by providing a common language and framework to evaluate and converse about performance. This can help ensure that everyone is committed to the same strategic goals and objectives. Therefore, applying the balanced scorecard framework within an organization can lead to improved strategic alignment, superior decision-making, and ultimately enhanced performance.

2.3 Empirical Review

This section offers a summary of the literature related to the variables under investigation. This is demonstrated in the subsequent way;

2.3.1 Financial MIS and Performance

Njonde and Kimanzi (2024) investigated the effect of integrated financial management information system on performance of public sector: A case of Nairobi County Government. Descriptive research design was used. The population of the study was 1066 staffs of the Ministry for East Africa, Commerce and Tourism. The target population comprised of 94 staff working in the finance, accounts, procurement and audit departments. A census technique was used and therefore, the sample size was 94

respondents, representing 100% of the target population size. The data collection method used in this study was a questionnaire and the response rate was 75.5%. The data was analyzed using Spearman's Rank Correlation Coefficient, made possible by the use of SPSS (Statistical Package for the Social Sciences). The findings were presented in tables. The study found that in terms of the effect of IFMIS on financial reporting in public sector organizations, there was a statistically significant positive correlation between IFMIS and improved financial reporting. However, the study focused on performance of Nairobi County Government.

Gichuhi and Muna (2024) assessed the relationship between integrated financial management information system and performance of government ministries in Kenya. The study adopted a descriptive research design. The study targeted 6 selected government ministries. Stratified random sampling was deployed to gather information from operational staff, middle-level managers and top executives notably 384 participants across these groups. Data was collected primarily using questionnaires. Descriptive and inferential analysis was used to analyse data. All ethical considerations were duly followed. The outcome yielded that staff competence in IFMIS significantly and positively affects the performance of government ministries; internal control in IFMIS insignificant yet positively affects the performance of government ministries. However, the study examined performance of government ministries in Kenya.

Maluki (2022) conducted a thorough investigation into the relationship between the information systems that oversee the financial operations of small and medium-sized enterprises (SMEs) in Nairobi County, Kenya, and their financial results. The objective of the study was to assess the influence of financial management information systems on

the performance of SMEs in Kenya by utilizing a dual approach that combined cross-sectional and descriptive survey techniques. The primary emphasis of the research was on small and medium-sized enterprises situated on Moi Avenue in the Nairobi Central Business District (CBD). To achieve a representative sample, 135 interviews were conducted with managers and owners of businesses as part of the study. The review considered the effectiveness of financial management information systems and the financial performance of SMEs in Nairobi County to be interconnected. However, the research primarily concentrated on the financial aspects of SMEs operating within Nairobi County, Kenya.

The study conducted by Wanyonyi and Theuri (2021) examined the effect of the integrated financial management information system on the financial performance of Trans Nzoia County, Kenya. The analysis utilized descriptive statistics, which included metrics such as the mean, mode, and median. Additionally, the research incorporated sophisticated statistical methods, such as regression analysis and Pearson's correlation coefficient. The findings indicated that IFMIS is extensively utilized in Trans Nzoia County, resulting in notable enhancements in monitoring responsibilities and a reduction in the discrepancies between budget allocations and actual expenditures. However, the focus of the research was specifically on Trans Nzoia County in Kenya.

Mutui (2019) conducted an exploratory study examining the impact of implementing an integrated financial management information system on procurement performance within the public sector of Kenya. The approach taken by the researcher was descriptive in nature. The target population for the study included employees from various departments at the main offices of state ministries located in Nairobi. Department heads, their

assistants, supervisors, and other officials collaborated to address the research questions. This research primarily relied on questionnaires to collect primary data. Additionally, statistical descriptions and content analysis were utilized for data evaluation. The study's findings indicated that the Integrated Financial Management Information System (IFMIS) has been moderately adopted by Kenyan government ministries. However, the research focused specifically on the procurement efficiency within the government sector in Kenya.

2.3.2 Procurement MIS and Performance

Maina (2023) investigated the effect of e-procurement on performance of the public sector in Kenya: a case study of the ministry of devolution and planning in Kenya. The study adopted a descriptive research design. The target population of the study was 118 staff working in the Procurement Department of the Ministry of Devolution and Planning in its headquarters in Nairobi. The study was a census survey. The study used primary data which was collected using a self-administered questionnaire. In data analysis, the study data was analyzed through descriptive statistics using the Statistical Package for Social Science (SPSS version 23.0) and presented through percentages, frequencies, mean and standard deviation. Further, linear regression analysis was used to analyze the relationship between the study variables. The study results revealed that the study respondents agreed that e-tendering helped reduce the procuring period. However, the study investigated ministry of devolution and planning in Kenya.

Moronge and Munyao (2022) assessed the influence of E-procurement Practices on the performance of procurement in Public Universities in Kenya. A census research design was adopted in this study. The target population in this study was 31 public universities

chartered by the Commission on University Education (CUE) as at July 2017. Statistical package for social science (version 20) was used to facilitate data analysis. It was established that e-tendering, e-sourcing and e-ordering positively and significantly affect procurement performance while e-payment has a positive but not significant effect on procurement performance. However, all the four e-procurement practices were adapted to a moderate extent among the public universities in Kenya. However, the study examined performance of procurement in Public Universities in Kenya.

In a study conducted in 2022, Nadine investigated the intricacies of procurement management information systems alongside the procurement practices of various non-governmental organizations located in Kigali, Rwanda. The research predominantly employed a descriptive and correlational design, utilizing quantitative methodology. The three selected organizations collectively employed a total of 152 individuals. A sample was obtained from each organization in accordance with the Slovene formula. The data was presented, analyzed, and interpreted using SPSS. The results indicated that male respondents surpassed female respondents in this survey; the majority were aged between 31 and 40 years and possessed 3-4 years of experience in procurement. The analysis revealed that the selected organizations exhibited a high level of PMIS utilization. However, the study focused specifically on NGOs in Kigali, Rwanda.

In 2020, Kilonzo conducted a study to explore the impact of procurement best practices on organizational performance. An unstructured survey was utilized to gather a variety of information. The collected data was then summarized, organized, and displayed in a tabular format. The findings of the research indicated that the company adopted leading procurement practices in its purchasing decisions. The study concluded that the company

emphasized performance by implementing procurement best practices to achieve cost savings, effectively utilize contracts, manage motivation, enhance the capabilities of procurement staff, reduce procurement cycle time, and streamline payment processing time. However, this was an analysis of Cadbury's Kenya Limited.

An investigation into the effects of electronic procurement on the performance of commercial state-owned corporations was carried out by Oppong (2020). The exploration utilized an elucidating concentrate on plan, utilizing delineated inspecting procedures to choose 40 members. A questionnaire was used to conduct a survey of supply chain officers to gather primary data. After that, a study was done to see how performance was affected by electronic procurement. The discoveries demonstrate that while state-claimed undertakings in Ghana have taken on electronic acquisition, they continue to perform various tasks manually. Nevertheless, the research concentrated on state-owned companies in Ghana that operate commercially.

2.3.3 Marketing MIS and Performance

Muala and Majali (2023) investigated the role of marketing information system on banking performance: case of Jordan. Population of this study consists of bank marketing managers in Jordanian banks, the population sizes of banks used in this study are (150) marketing. Results of this study showed that all antecedents of banks performance (attitude, ease of use, usefulness, market procedural, employee support, customer's knowledge and market responsiveness) have positive and significant influence on banks performance. However, the study examined performance of banking sector.

Ezekiel, Eze and Anyadighibe (2023) did a study of marketing information system (MIS) as a contributory factor in the performance of selected transport companies in Calabar Metropolis. The study adopted exploratory and survey research designs. Data were analyzed using Ordinary Least Square (OLS) method. The results from the test of hypotheses revealed that Internal Record, Marketing Intelligence, Marketing Research are contributory factors to the performance of public road transport companies in Calabar, Cross River State, Nigeria. The study recommended that the marketing information system should be used as the bases for analyzing segmentation targeting positioning and Competitor analysis. However, the study used exploratory and survey research designs.

Souchon, Cadogan, Procter, and Dewsnap (2019) conducted an examination on the utilization of marketing information and the performance of organizations, focusing on the mediating function of responsiveness. An organized survey was distributed to manufacturers in New Zealand, resulting in 253 valid responses by mail. Utilizing instrumental or conceptual information had a positive effect on responsiveness, according to the findings, albeit with a caveat of information overload affecting this impact. Additionally, it was determined that effective inter-functional coordination was deemed essential. It was then shown that there was a positive relationship linking hierarchical presentation and responsiveness. Nevertheless, the research was specifically centered on manufacturers in New Zealand.

An extensive investigation into the connection between marketing information systems and the performance of SMEs in Malaysia was carried out by Theodosiou and Beheshti (2021). This study was built upon a foundation of prior literature, drawing insights from

existing research to formulate conclusions. The results showed that the performance of SMEs in Malaysia is positively impacted by the deployment of a marketing information system. The study also highlighted the function of a marketing information system as an expert administration instrument planned to help showcasing related navigation. Organizational performance was found to be positively correlated with responsiveness, within highly competitive markets by furnishing essential information for various managerial levels. Nonetheless, the study specifically targeted SMEs in Malaysia.

Shkeer and Awang (2019) examined how different components of Marketing Information Systems (MIS) influence decision-making processes within organizations. Using a simple technique, the scientists chose 300 members from a different gathering of directors and leaders inside the friendliness area. After that, self-administered questionnaires were given to these participants, and they were free to complete them whenever they wanted. Inside a range of half a month, a sum of 230 reactions were assembled, which were thusly considered proper for investigation. The study's findings showed that the MIS, which includes marketing records, marketing intelligence, decision support systems, and marketing research, has a significant impact on how organizations make decisions. Nevertheless, the study was confined to five-star hotels in Jordan.

2.3.4 Human Resource MIS and Performance

Otieno (2023) examined the influence of human resource information systems on organization performance: A Case of United States International University-Africa. The study adopted descriptive research design and a stratified random sampling with the target population being the academic and non-academic staff of USIU- Africa. The sample size was 129. The study used primary data which was largely quantitative,

collected by use of questionnaires which were numbered, edited and coded. Descriptive and inferential analysis was conducted in data analysis. Descriptive analysis involved the use of frequency in their absolute and relative forms percentage, Mean and Standard Deviations was also used as measures of central tendencies and dispersion respectively. Inferential statistics was carried out using correlation and multiple regression models. The study established significant positive correlations between organization performance and the scores for access to human resource data, manager self-service systems and employee self-support systems. However, the study examined a case of United States International University-Africa.

Magege and Ngirwa (2023) investigated the effect of HR Data Framework (HRIS) on the presentation of associations inside the financial business. The research employed a descriptive methodology, focusing on a sample of 133 participants encompassing all employees at the headquarters of ABL. Data collection involved the administration of structured questionnaires, which were then subjected to both descriptive and inferential analysis. Furthermore, the study conducted analyses of correlation and regression based on predefined regression models. The results demonstrated a significant improvement in employees' and management's access to human resource data through HRIS within the institution. Additionally, a highly notable enhancement in working standards was observed as a consequence of HRIS implementation. Nevertheless, the study specifically concentrated on organizational performance within the banking sector.

Wairimu and Karanja (2022) explored the influence of human resource information systems on performance of the banking industry in Kenya. The research design employed in this study was descriptive research design in form of a survey. The population of

interest of this study comprised of 41 Commercial Banks in Kenya. A census 41 banks was done. Purposive method was used to obtain sample size of the study. A content analysis and descriptive analysis was employed. The data was coded to enable the responses to be grouped into various categories. Descriptive statistics was also used to help in data analysis. Inferential statistics regression was done to determine the role of human resource information systems on performance of commercial banks in Kenya. In addition, a multiple regression was used to measure the quantitative data. The study found that recruiting information systems influence performance of commercial banks in Kenya. The study also established that training and development information system influences performance of commercial banks. However, the study examined performance of the banking industry in Kenya.

The effect of Human Resource Information Systems (HRIS) on how well Kenyan oil and gas companies run their operations was carefully investigated in the study carried out by Kirija (2021). Utilizing a descriptive methodology, the study focused on 150 oil and gas marketing organizations that were all situated in Nairobi County as its specific target group. The study involved 150 respondents from ten different businesses. Following that, a 60-person purposive sample was chosen. The collected data was subjected to descriptive statistical analysis, complemented by inferential statistical techniques, particularly regression analysis, to elucidate the relationships between variables. Furthermore, the nature and magnitude of these relationships were investigated using Pearson's Coefficient Correlation analysis. The study's final conclusions demonstrated that HRIS significantly affects training and development as well as the general

performance of oil and gas companies. Nonetheless, the examination was barely centered around the exhibition elements of Oil and Gas Organizations inside Kenya.

In their research, Shkeer and Awang (2019) explored the influence of various elements within Marketing Information Systems (MIS) on the decision-making processes within organizations. The authors selected 300 participants using a straightforward method of random sampling and decision-makers within the hospitality industry. These participants were then distributed self-administered questionnaires, which they were permitted to complete at their convenience. Within a brief period, a collection of 230 responses was obtained, which were subsequently deemed suitable for analysis. The results of the study underscored the pivotal role of MIS components in shaping the decision-making processes within organizations. The findings revealed that HRIS has significantly enhanced access to human resource data for both employees and management within the institution.

2.4 Summary of Literature Reviewed and Research Gap

Table 2.1: Summary of Literature Reviewed and Research Gap

Name	Title	Result	Gap	Current Focus
Njonde and Kimanzi (2024)	Effect of integrated financial management information system on performance of public sector	Statistically significant positive correlation between IFMIS and improved financial reporting	The study focused on performance of Nairobi County Government	The performance of Kenya Railways Corporation
Gichuhi and Muna (2024)	Relationship between integrated financial management information system and performance of government ministries in Kenya	Staff competence in IFMIS significantly and positively affects the performance of government ministries	The study examined performance of government ministries in Kenya	The performance of Kenya Railways Corporation
Maina (2023)	E-procurement on performance of the public sector in Kenya: a case study of the ministry of devolution and planning in Kenya	The study respondents agreed that e-tendering helped reduce the procuring period	The study investigated ministry of devolution and planning in Kenya	The performance of Kenya Railways Corporation
Muala and Majali (2023)	Role of marketing information system on banking performance: case of Jordan	All antecedents of banks performance (attitude, easy of use, usefulness, market procedural, employee support, customer's knowledge and market responsiveness)	The study examined performance of banking sector	The performance of Kenya Railways Corporation

		have positive and significant influence on banks performance		
Ezekiel, Eze and Anyadighibe (2023)	Marketing information system (MIS) as a contributory factor in the performance of selected transport companies in Calabar Metropolis	Internal Record, Marketing Intelligence, Marketing Research are contributory factors to the performance of public road transport companies in Calabar, Cross River State, Nigeria	The study used exploratory and survey research designs	The study used descriptive research design
Otieno (2023)	Influence of human resource information systems on organization performance	The study established significant positive correlations between organization performance and the scores for access to human resource data, manager self-service systems and employee self-support systems	The study examined a case of United States International University-Africa	The performance of Kenya Railways Corporation
Magege and Ngirwa (2023)	HRIS and performance of organizations	A significant improvement in employees' and management's admittance to human asset information through HRIS inside the foundation	Concentrated on organizational effectiveness in the banking industry	The performance of Kenya Railways Corporation
Morongee and Munyao (2022)	The influence of E-procurement Practices on the performance of procurement in Public	E-tendering, e-sourcing and e-ordering positively and significantly affect procurement performance	The study examined performance of procurement in Public Universities in	The performance of Kenya Railways Corporation

	Universities in Kenya		Kenya	
Wairimu and Karanja (2022)	Influence of human resource information systems on performance of the banking industry in Kenya	Recruiting information systems influence performance of commercial banks in Kenya	The study examined performance of the banking industry in Kenya.	The performance of Kenya Railways Corporation
Maluki (2022)	the financial MIS and performance	There is areas of strength for a between SMEs' monetary presentation and the effectiveness of monetary administration data frameworks.	The research was primarily centered on the economic aspects of SMEs operating within Nairobi County, Kenya	The performance of Kenya Railways Corporation
Wanyonyi and Theuri (2021)	Integrated financial MIS and financial performance	IFMIS is widely used in Trans Nzoia County, leading to significant improvements in monitoring duties and reducing discrepancies between budget allocation and expenditures	The research concentrated on Trans Nzoia County in Kenya.	The performance of Kenya Railways Corporation
Oppong (2020)	E-procurement and organizational performance	While state-owned enterprises in Ghana have adopted electronic procurement, they continue to perform various tasks manually	The research concentrated on state-owned companies in Ghana that operate commercially	The performance of Kenya Railways Corporation
Souchon, Cadogan, Procter and Dewsnap	The utilization of marketing information and the	Positive influence of the utilization of instrumental/conceptual information on	The research was specifically centered on	The performance of Kenya Railways

(2019)	performance of organizations, focusing on the mediating function of responsiveness	responsiveness, albeit with a caveat of information overload affecting this impact	manufacturers in New Zealand.	Corporation
Shkeer and Awang (2019)	Impact of various components of Marketing MIS on the decision-making processes within organizations	The MIS assumes a critical part in impacting the dynamic cycles within organizations. This includes marketing records, marketing intelligence, marketing research, and decision support systems.	The study was confined to five-star hotels in Jordan	The performance of Kenya Railways Corporation
Otieno (2016)	Influence of various elements within Marketing Information Systems (MIS) on the decision-making processes within organizations	HRIS has significantly enhanced access to human resource data for both employees and management within the institution.	The study was centered on the case of USIU	The performance of Kenya Railways Corporation

Source: Literature Review

2.5 Conceptual Framework

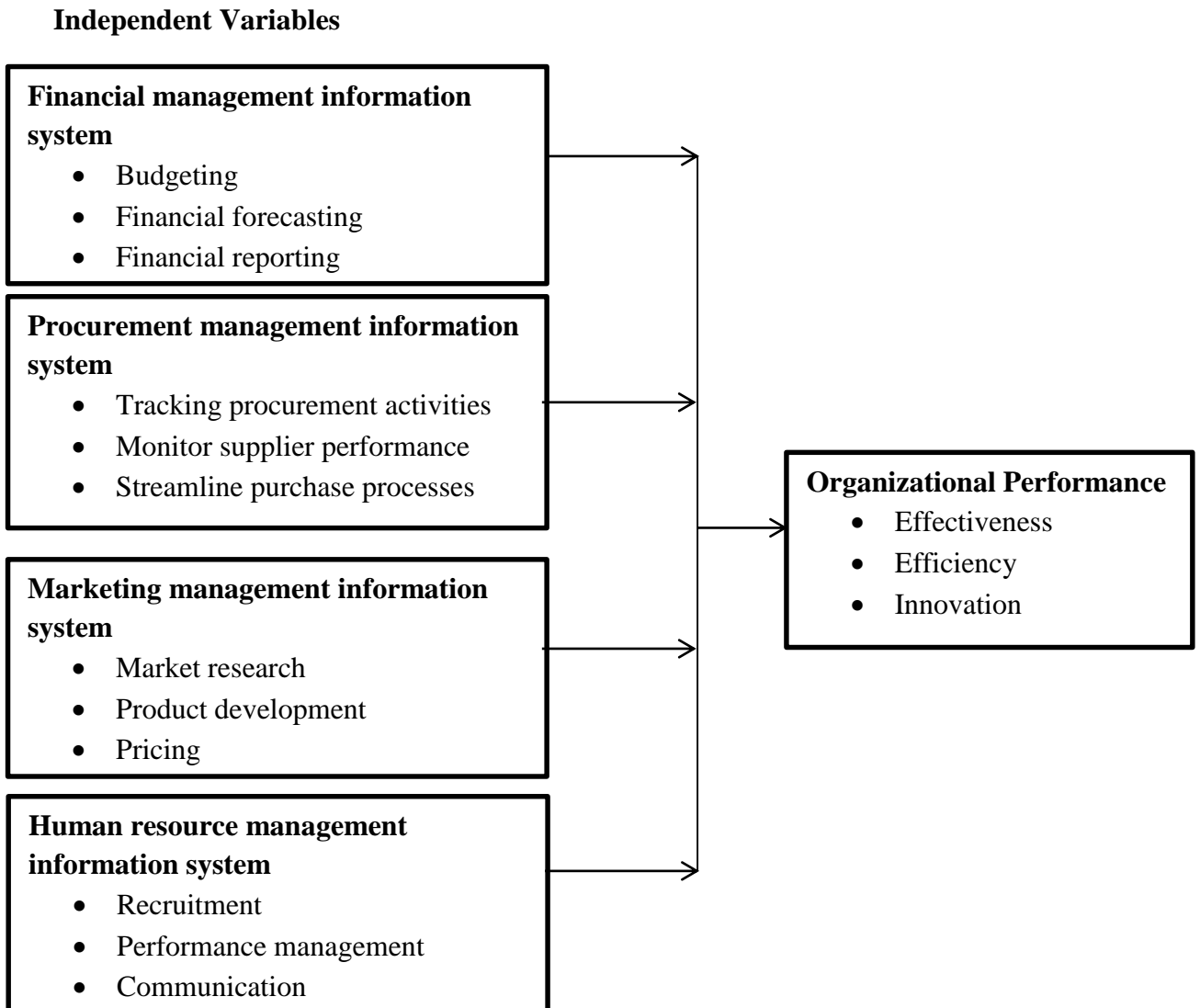


Figure 2.1: Conceptual Framework

Source: Researcher (2025)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the research plan and the group of people being studied, the methodology for selecting participants, the appropriate sample size, the instruments utilized for data collection, the process of conducting a pilot study, the techniques for gathering data, the methods for analyzing the data, and the moral factors that need to be thought about.

3.2 Research Design

A descriptive research design was employed in this study. According to Dulock (2020), descriptive research design involves collecting information from a sample through interviews or questionnaires. The reason for selecting a descriptive research design is its ability to generalize findings to a broader population precisely by delineating events in a meticulously organized sequence.

3.3 Target Population

The process of determining target population includes the whole of the gathering from which the example is chosen, representing well-defined units with common characteristics (Willie, 2024). The analysis unit was Kenya Railways, a state-owned corporation, while the observation unit was its employees who were obtained from various departments of Kenya Railways Corporation in Nairobi, Mombasa, and other branches, including ICT, Human Resources, Finance, and operational departments. The study focused on experienced individuals within the corporation. Kenya Railways had a total of 2400 employees.

Table 3.1: Population

Department	No of Employees	Percentage (%)
ICT	162	6%
Finance	81	3%
Human Resource	216	8%
Operation	1941	83%
Total	2400	100%

Source: Kenya Railway Corporation Report of 2023

3.4 Sampling Design and Sample Size

A sampling design is definite plan for obtaining a sample from a given population (Salganik, 2021). The respondents in this study were stratified according to their respective companies. In stratification, Morrison (2022) indicates that the population is divided into groups called strata, and a random sample is chosen from each stratum proportional to the total number of subjects. A simple random sampling technique was used to choose the respondents from each stratum, guaranteeing that every member of the population had an equally likely chance of being chosen.

To determine the sample size for employees to participate in the study, the following Taro Yamane (1967) formula was used.

$$n = \frac{N}{1 + N(e^2)}$$

Where n= Sample size

N = Population under study

e= The margin error (in this study it will be 0.05)

$$n = \frac{2400}{1 + 2400(0.05)^2} = 385$$

The sample size will be 385 employees which represents a 16.04%. Therefore, determination of respondents from each stratum will be based proportionately as presented in Table 3.2.

Table 3.2: Sample Size

Department	Population	Percentage	Sample Size
ICT	162	16.04%	26
Finance	81	16.04%	13
Human Resource	216	16.04%	35
Operation	1941	16.04%	311
Total	2400	16.04%	385

Source: Researcher (2025)

3.5 Data Collection Instrument

This study used questionnaire as a data collection tool to all the respondents. Jack and Clarke (2021) indicate that the questionnaire is appropriate because the targeted population is considered literate which minimizes the interpretation of the questions for their understanding to capture reliable information. The questionnaire is divided into 6 different sections covering the objectives of the study whereby Section A collected data on respondents' demographic data, Section B collected data on financial management information system variable, Section C collect data on procurement management information system variable, Section D collected data on marketing management information system variable, Section E collected data on human resources management information system variable and Section F collected data on performance of Kenya Railway Corporation variable. Likert scale was used in questions which tested on the degree of the respondents' agreement with particular variables of the study.

3.6 Piloting Test

Kezar (2020) indicate that a pilot study is a small test involving a small number of respondents to assist the researcher in checking for the quality of the questionnaires and identify any weaknesses before going for the final data collection process. Questionnaires were piloted to 38 employees working with the same organization but were not included in the final study. This is in line with Mugenda and Mugenda (2003) who indicate that pilot study is made up of a one-tenth of the population that is homogenous. The questionnaires were piloted to make sure that any error or missing items in it is identified and addressed so as to make sure they are valid and reliable.

3.6.1 Validity of Research Instrument

The extent to which research tools effectively and successfully measure their stated goals is what is meant by validity (Orodho, 2005). The researcher applied Cronbach's (1955) construct validity, which links the measuring tool to the overarching theoretical framework to ascertain its alignment with the theories and conceptual frameworks. Furthermore, content validity was evaluated to ensure simplicity and clarity. The researcher created questions in a clear manner, using language familiar to respondents to enhance understanding. Discussion with the supervisor, serving as the research specialist, was sought to validate the research instrument's content.

3.6.2 Reliability of Research Instrument

The concept of reliability, as described by Cooper and Schindler (2011), pertains to the guarantee of how successfully a review estimates its planned targets or the exactness of its results. To assess reliability, Cronbach's alpha coefficient was employed. This coefficient evaluates the level of methodical or predictable difference in a bunch of

experimental outcomes. On a Likert scale, each declaration was exposed to the Cronbach's alpha test. The scope of Cronbach's alpha qualities is 0 to 1, where higher qualities show higher dependability. A coefficient of 0.6 to 0.7 signifies satisfactory unwavering quality, while a coefficient of 0.7 or higher indicates good reliability, according to Mugenda and Mugenda (2003).

Table 3.3: Reliability Tests Results

Variable	Alpha Value
Financial MIS	0.753
Procurement MIS	0.786
Marketing MIS	0.779
Human resource MIS	0.706
Performance	0.803
Aggregate Score	0.765

The discoveries showed in Table 3.3 demonstrate that alpha values for all variables surpassed 0.7, culminating in an aggregate score of 0.765. This suggests that the items within the study instrument were reliable.

3.7 Data Collection Procedure

The Administration of Kenya Railways Corporation was formally contacted in order to seek permission for the research to be conducted within the organization. The administration of questionnaire to the picked respondents was done using the technique for drop and pick. A duration of two weeks was designated for the respondents to respond to the surveys.

3.8 Data Analysis and Presentation

This study collected both quantitative data and qualitative data. Qualitative data was analysed thematically according to the study themes and presented in a narrative form. Quantitative data was analyzed using descriptive statistics such as mean and standard

deviation. In addition, the study conducted inferential statistics that involved correlation analysis and multiple regression analysis to test the relationship between independent variables and dependent variable. The findings were presented in tables, and figures which be generated using Statistical Package for Social Sciences (SPSS) version 20.0.

The equation of regression was addressed as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Y = Organizational Performance

X₁ = Financial MIS

X₂ = Procurement MIS

X₃ = Marketing MIS

X₄ = Human MIS

β₁ to β₄ = Coefficients

ε = Error term

3.9 Ethical Considerations

Besides acquiring a research permit from NACOSTI, the researcher is required to secure a formal approval letter from the university. The study's scope and objectives was appropriately communicated to participants. Due to the delicate nature of certain information to be gathered, it was incumbent upon the researcher to manage it with the highest level of discretion. To address any reluctance on the part of respondents to disclose certain details, the researcher guaranteed them that their information would be kept confidential.

CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This section showcases the findings of the study, arranged into sub-sections that correspond to the research goals.

4.2 Response Rate

The response rate was derived from 385 questionnaires that were given to participants chosen from the ICT, finance, human resources, and operations divisions of Kenya Railways Corporation.

Table 4.1: Response Rate

Category	Frequency	Percentage
Questionnaires not submitted	35	9.1
Questionnaires submitted	350	90.9
Total	385	100

Source: Research Data (2025)

The results indicate that the research attained a response rate of 90.9% since out of the 385 questionnaires distributed, 350 were returned fully completed. The non-response rate was 9.1%, due to 35 questionnaires not being returned. According to Saunders, Lewis, and Thornhill (2011), a response rate of no less than 70% is deemed suitable for analysis, therefore, in this study, data analysis was performed to obtain results that conformed to this guideline.

4.3 Respondents' Background Information

4.3.1 Gender

The gender of the respondents was analysed and the findings obtained are presented in Figure 4.1.

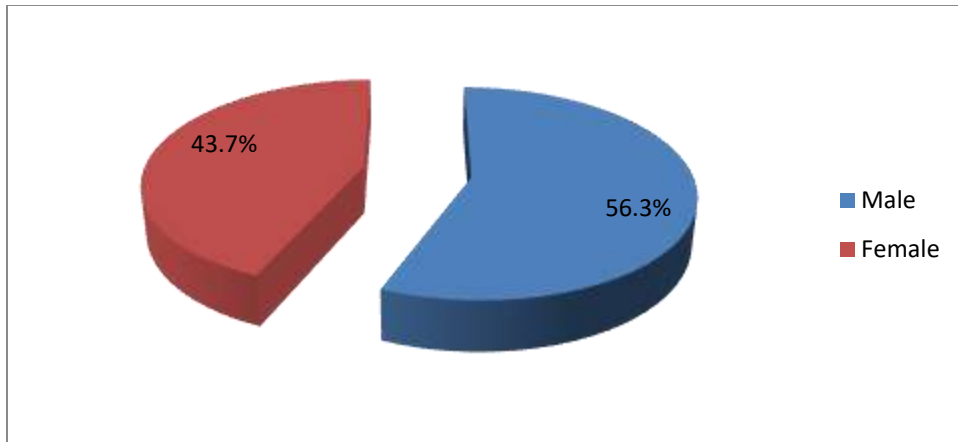


Figure 4.1: Gender
Source: Research Data (2025)

The findings reveal that the gender breakdown of the respondents consisted of 56.3% males and 43.7% females, indicating a well-balanced gender representation in the sample chosen for the research.

4.3.2 Age Category

The age category of the respondents was analysed and the findings obtained are presented in Table 4.2.

Table 4.2: Age Category

Years	Frequencies	Percentages
30 to 39	116	33.1
40 to 49	142	40.6
50 +	17	4.9
Less than 29	75	21.4
Total	350	100

Source: Research Data (2025)

The findings indicate that a notable portion of the participants (40.6%) fell within the 40-49 years age. Also, 33.1% were between 30-39 years, 21.4% were below 29 years and 4.9% were 50 years or older. This distribution shows that representatives of different age groups participated in the study, including young and older employees.

4.3.3 Educational Qualifications

The education qualifications of the respondents were analyzed and the findings obtained are presented in Figure 4.2.

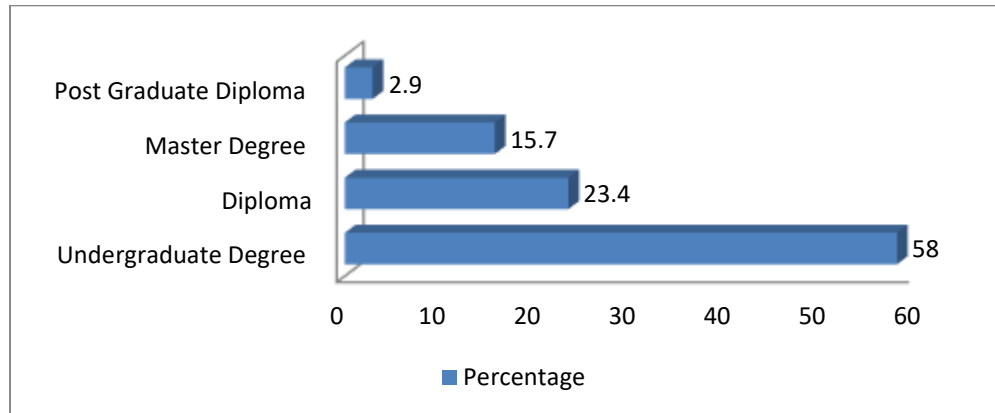


Figure 4.2: Educational Qualifications

Source: Research Data (2025)

Figure 4.2 shows that the results of educational qualifications indicate that most of the respondents, especially 58.0 %, had the level of education. In addition, 23.4 % had a graduation certificate, 15.7 % had a master, and 2.9 % obtained a third cycle graduation certificate. This suggests that most participants in the study possessed advanced education.

4.3.4 Duration of Employment with Kenya Railways Corporation

The duration of employment with KRC of the respondents was analysed and the findings obtained are presented in Table 4.3.

Table 4.3: Duration of Employment with Kenya Railways Corporation

Years	Frequency	Percentage
Below 5	22	6.3
5 to 9	55	15.7
10 to15	172	49.1
Exceeding 15	101	28.9
Total	350	100

Source: Research Data (2025)

The findings show that 49.1% of the participants had been employed by organizations for 10 to 15 years. Following this, 28.7 % had more than 15 years, and 15.7 % consisted of 6.3 % aged 5 to 9 years, while 6.3 % were employed for fewer than 5 years. Results indicate that a considerable percentage of participants possessed considerable experience with organizations.

4.4 Descriptive Statistics Results

The results of the descriptive analysis were shown using the Mean (M) and Standard deviation (SD) according to the goals of the research. The results are displayed in the following manner.

4.4.1 Financial MIS

The respondents were required to express their level of agreement with the statement concerning the influence of financial management information systems on performance of corporate institutions in Kenya. The results are shown in Table 4.4.

Table 4.4: Financial MIS

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
Overall Score	4.17	0.816

Source: Research Data (2025)

The results show agreement among the participants about the effect of financial management information systems on the performance of corporate entities in Kenya, as indicated by a mean score of 4.17 and a standard deviation of 0.816. These findings align with Maluki's (2022) study, which emphasizes the essential function of financial management information systems (FMIS) in improving 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 (M=4.01, SD=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 (M=3.84, SD=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 (M=3.56, SD=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.

4.4.2 Procurement MIS

The respondents were required to express their level of agreement with the statement concerning the influence of procurement management information systems on performance of corporate institutions in Kenya. The results are shown in Table 4.5.

Table 4.5: Procurement MIS

Statements	Mean	Standard Deviations
The procurement tracking software offers a centralized platform to monitor all procurement activities, facilitating contract management.	4.61	0.386
The procurement tracking software offers a centralized platform to oversee all procurement activities, simplifying spending monitoring.	4.05	0.947
Supervising supplier performance enables the organization to maintain uniform quality assurance across the entire supply chain.	3.99	1.005
Supervising supplier performance enables the organization to pinpoint discrepancies and address them promptly.	4.55	0.446
Optimizing business processes eliminates duplications and guarantees efficient resource allocation.	3.84	1.159
Optimized processes contribute to a more favorable work environment for employees by minimizing stress related to complex workflows.	4.59	0.407
Overall Score	4.27	0.725

Source: Research Data (2025)

The finding provides compelling evidence of a strong agreement among the respondents concerning the impact of procurement MIS on the effectiveness of corporate entities in

Kenya. This consensus is quantitatively reflected in the data, which shows a mean score of 4.27. This score indicates a generally positive perception among the respondents about the effectiveness of PMIS in enhancing organizational performance. Furthermore, (SD=0.725) suggests that there is a relatively low level of variability in the responses, indicating that most respondents share similar views on the subject. This alignment with earlier research by Kilonzo (2020) who observed the positive impact of PMIS is a well-established phenomenon, further underscoring the requirement for associations to put resources into and leverage these systems to enhance their operational capabilities and competitive advantage in the marketplace.

The respondent showed strong agreement with statements about the procurement tracking software's positive impact on procurement management, particularly in contract management (M=4.61, SD=0.386). This indicates that the software helps organize and streamline contract oversight. Additionally, the software fosters a better work environment (M=4.59, SD=0.407), suggesting it minimizes stress from complex workflows and enhances job satisfaction and productivity. Respondents also highlighted the software's ability to monitor supplier performance, scoring 4.55 with a standard deviation of 0.446. This feature is crucial for identifying and addressing supplier inconsistencies, thereby maintaining quality and strong supplier relationships. These findings align with Humphreys, Lai, and Sculli (2021) research observation on integrated procurement systems, which emphasize their role in streamlining operations and improving communication.

The respondent strongly agreed that the procurement tracking software effectively enhances organizational efficiency. They noted it serves as a centralized platform for

managing procurement activities, significantly improving expenditure monitoring (M=4.05, SD=0.947). Additionally, the respondent emphasized the importance of overseeing supplier performance for consistent quality assurance (M=3.99, SD=1.005), indicating general agreement on its positive impact. They also highlighted that the software optimizes business processes, eliminating redundancies and improving resource allocation (M=3.84, SD=1.159). These results are consistent with Gunasekaran and Ngai (2019) research observations which reinforced the concept that the procurement tracking software not only aids in financial oversight but also contributes to maintaining high standards of quality and optimizing resource use within the organization

4.4.3 Marketing MIS

The respondents were required to express their level of agreement with the statement concerning the influence of marketing management information systems on performance of corporate institutions in Kenya. The results are shown in Table 4.6.

Table 4.6: Marketing MIS

Statements	Mean	Standard Deviations
Market research facilitates the organization in acquiring a more profound comprehension of its consumer base, thereby enabling a transition towards a customer-centric approach.	3.71	1.286
Regular market research aids the organization in identifying new opportunities for enhancement and expansion.	4.60	0.399
Product development ensures that the organization remains current and adapts to evolving consumer preferences.	4.56	0.368
The organization designs products specifically to meet consumer needs, offering the greatest value.	4.53	0.468
The organization's services are priced lower than those of competitors in the market.	3.81	1.189
The organization's pricing strategy for products and services is comparatively affordable, attracting a larger consumer base.	4.54	0.455
Overall Score	4.29	0.694

Source: Research Data (2025)

The results indicate a significant consensus among the participants regarding the impact of marketing MIS on the performance of corporate entities in Kenya. This agreement is quantitatively demonstrated by an average score of 4.29, showing a solid consensus among participants about the beneficial impacts of marketing MIS on organizational performance. Moreover, the standard deviation of 0.694 indicates a comparatively low degree of variability in the responses, further reinforcing the idea that the respondents share a common perspective on this issue. These findings align with Souchon, Cadogan, Procter, and Dewsnap (2019) research in the field, which has similarly highlighted the importance of effective marketing management information systems in fostering improved performance metrics for businesses.

The respondent showed strong agreement as follows: the respondents believe ongoing market research is essential for identifying improvement and growth opportunities, with a consensus on its importance ($M=4.60$, $SD=0.399$). The statement that product development keeps the organization relevant received a mean score of 4.56 ($SD = 0.368$), highlighting the need for continuous innovation to meet changing consumer preferences, with strong alignment in opinions. The pricing strategy, viewed as affordable and appealing to a broad consumer base, scored 4.54 ($SD = 0.455$). This suggests general agreement on its effectiveness, though some variation in opinions exists. Finally, the statement that the organization creates products specifically tailored to fulfill consumer needs, providing maximum value ($M=4.53$, $SD=0.468$). This finding indicates a strong belief among respondents that the organization prioritizes consumer-centric product development, ensuring that offerings are aligned with customer expectations and preferences. The findings are consistent with Kim and Narasimhan (2022) research that

emphasizes the critical role of market research, product development, competitive pricing, and consumer-focused strategies in driving organizational success

Research indicates that organizations prioritizing customer understanding through market analysis can better tailor their offerings, leading to increased satisfaction and loyalty. The average score of 3.71 indicates a moderate level of agreement regarding the efficacy of market research, suggesting room for improvement in its application. Additionally, the higher mean score of 3.81 regarding competitive pricing indicates that respondents view the organization as a cost-effective option, which can attract price-sensitive consumers and enhance market share. The standard deviations of 1.286 and 1.189 show moderate variability in responses, indicating some differing opinions. These findings are consistent with Saaksjarvi and Talvinen (2018) research observation on the importance of market research in informing strategic decisions and enhancing customer engagement.

4.4.4 Human Resource MIS

The respondents were required to express their level of agreement with the statement concerning the influence of human resource management information systems on performance of corporate institutions in Kenya. The results are shown in Table 4.7.

Table 4.7: Human Resource MIS

Statements	Mean	Standard Deviations
E-recruitment offers a user-friendly recruitment experience by automating many aspects of the hiring process.	3.94	1.057
E-recruitment facilitates in obtaining the right type of people with the required skills.	4.35	0.648
The execution of the executives plays a vital role in ensuring that employees remain aligned with the organization's mission and values.	4.02	0.976
Performance management facilitates the selection of appropriate training methods to enhance the skills of each individual employee.	3.58	1.419
Employees are able to communicate better through having exactly the same information available to them at each time.	4.66	0.337
There is proper matching of data between systems and departments communicated	4.49	0.505
Overall Score	4.17	0.824

Source: Research Data (2025)

The results indicate agreement among the participants concerning the influence of human resource management information systems (HRMIS) on the performance of corporate entities in Kenya, as shown by a mean score of 4.17 and a standard deviation of 0.824. This suggests that, generally, participants view HRMIS as having a considerable positive impact on organizational performance, accompanied by a fairly low degree of variability in their answers. The finding is in line with Magege and Ngirwa (2023) research which found that organizations that effectively leverage HRMIS experience improved employee engagement and productivity, which in turn leads to better organizational outcomes.

The respondent demonstrated a high level of agreement with the following assertions: Employees can enhance their communication by having access to identical information at all times (M=4.66, SD=0.337). This proposes that most of respondents accept that uniform admittance to data fundamentally contributes to improved communication among team members. These findings are consistent with the previous research by

Budhwar and Budhwar (2022) which has highlighted the importance of information sharing in fostering effective communication within organizations.

The respondent agreed on several key points regarding the effectiveness of organizational practices. They noted strong alignment of data across systems and departments, with a mean score of 4.49, indicating confidence in data integration for informed decision-making. E-recruitment was highlighted as effective in attracting skilled candidates, scoring 4.35, which enhances the talent acquisition process. Performance management was deemed essential for aligning employees with the organization's mission, scoring 4.02, fostering a cohesive culture. Additionally, e-recruitment was recognized for streamlining the hiring process through automation, with a score of 3.94, allowing HR to focus on strategic tasks. Lastly, performance management was acknowledged for identifying training needs, scoring 3.58, emphasizing its role in employee development. These findings are consistent with Belizon, Morley and Gunnigle (2016) research that emphasize the importance of data alignment, effective recruitment strategies, and strong performance management systems in achieving organizational goals and enhancing employee engagement and development.

4.4.5 Organizational Performance

The respondents were required to express their level of agreement with the statement concerning the performance of corporate institutions in Kenya. The results are shown in Table 4.8.

Table 4.8: Organizational Performance

Statements	M	SD
The Kenya Railway Corporation offers efficient services.	3.25	1.748
There has been a noticeable enhancement in operational efficiency at the Kenya Railway Corporation.	2.96	1.040
Kenya Railway Corporation has demonstrated a high level of innovation.	3.17	1.729
Overall Score	3.13	1.506

Source: Research Data (2025)

The finding reveals a general moderate consensus among the respondents regarding the statements used to evaluate the performance of corporate organizations in Kenya (M=3.13, SD=1.506). The finding aligns with previous research by Townley, Cooper and Oakes (2018) that indicates a similar level of agreement among stakeholders when assessing corporate performance metrics.

Participants expressed a neutral view on the Kenya Railway Corporation's efficiency (M=3.25, SD=1.748), innovation (M=3.17, SD=1.729), and operational improvements (M=2.96, SD=1.040). This contrasts with previous research by Henri (2019), showing higher satisfaction levels, where mean scores often exceeded 4.0, indicating a more positive perception of service reliability and innovation. Additionally, current findings differ from industry reports and user testimonials by Gawande and Wheeler (2022) that highlight advancements in technology and service delivery, which have generally been well-received. The shift in public perception may stem from recent operational challenges, service disruptions, or management changes, reflecting a broader skepticism about public transport effectiveness amid modernization efforts.

Multiple Regression Analysis Results

The results of multiple regression analysis results based on model summary, Analysis of Variance (ANOVA) and coefficients are presented in Table 4.9, 4.10 and Table 4.11.

Table 4.9: Model Summary

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

Source: Research Data (2025)

The model summary presents the adjusted R square value of 0.702 reflects the number of predictors, signifying that a significant part of the 29.8% variance in corporate performance remains attributable to the MIS factors. The standard error of 1.0230 shows the mean deviation of observed values from the regression line, where a smaller value signifies a more accurate model fit.

Table 4.10: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	864.523	4	216.1308	297.0565	0.002
	Residual	251.0132	345	0.727574		
Total		1115.536	349			

Source: Research Data (2025)

The ANOVA table reveals the F value of 297.0565 indicates a notable difference among the means of the MIS categories (financial, procurement, marketing, and human resource) suggesting at least one significantly affects performance metrics. The mean value of 216.1308 serves as a benchmark for average performance linked to MIS implementations, indicating effective contributions to operational efficiency. The significance level of 0.002 is notably lower than the 0.05 limit, confirms the statistical significance of these findings, suggesting a strong relationship between MIS and corporate performance.

Table 4.11: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.715	0.316		2.262658	0.002
Financial MIS	0.796	0.254	0.1346	3.133858	0.003
Procurement MIS	0.706	0.119	0.1254	5.932773	0.001
Marketing MIS	0.802	0.208	0.3078	3.855769	0.004
Human resource MIS	0.754	0.311	0.229	2.424437	0.002

Source: Research Data (2025)

The findings indicate that the performance of Kenya Railways Corporation would be 0.715 if financial MIS, procurement MIS, marketing MIS and human resource MIS variables are kept constant. The resultant regression equation is expressed as;

$$\text{Performance} = 0.715 + 0.1346(\text{financial MIS}) + 0.1254(\text{procurement MIS}) + 0.3078(\text{marketing MIS}) + 0.229(\text{human resource MIS}).$$

The study found that financial 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 level of 0.003 is far beneath the cutoff of 0.05, confirming a statistically significant relationship. This is in accordance with Malyuki (2022), which identified a substantial link between the efficiency of financial management information systems and the financial metrics of the SME.

It was observed that the Procurement MIS exhibited a positive beta coefficient of 0.1254, suggesting that increased MIS effectiveness is linked to better procurement efficiency, cost savings, or overall organizational performance. A significance level of 0.001

indicates a substantial statistical significance, implying that this relationship is unlikely to be a result of random chance. This corresponds with Kilonzo's 2020 research, which emphasized that organizations implementing procurement best practices realized cost reductions, enhanced contract management, improved employee skills, shortened procurement cycle times, and streamlined payment processing.

The research found that the Marketing MIS has a beta coefficient of 0.3078, indicating a positive correlation between the independent and dependent variables. This indicates that an increase of one unit in the independent variable leads to roughly a 0.3078 unit rise in the dependent variable. The significance level of 0.004 is markedly below the 0.05 threshold, suggesting a statistically significant association and strong evidence of the MIS's effect on results. This aligns with findings from Souchon et al. (2019), who noted that marketing information positively influences organizational performance through responsiveness, although too much information may diminish this impact. The research highlighted the importance of efficient coordination between functions.

The research indicated a beta coefficient of 0.2290 for human resource MIS, illustrating a positive correlation between MIS effectiveness and the study's outcomes. The level of significance was 0.002, indicating a statistically meaningful relationship with a minimal likelihood of happening randomly. This is in agreement with Magege and Ngirwa (2023), who stated that HRIS facilitated access to HR information for both employees and management in the financial industry, resulting in better work standards.

4.5 Results of Qualitative Data Analysis

4.5.1 Financial MIS

The participants were requested to show how financial MIS impacted the performance of Kenya Railway Corporation. They provided the subsequent answers;

‘FMIS provides tools for assessing financial risks, enabling KRC to identify potential vulnerabilities in its financial operations and develop mitigation strategies. The system helps guarantee consistence with monetary guidelines and norms, decreasing the gamble of legitimate issues and enhancing the corporation's reputation. FMIS can integrate with other operational systems within KRC, such as inventory management and human resources, providing a comprehensive view of the corporation’s performance. Integration facilitates seamless data flow between departments, reducing duplication of efforts and improving overall operational efficiency.’

4.5.2 Procurement MIS

The participants were requested to show how procurement MIS impacted the performance of Kenya Railway Corporation. They provided the subsequent answers;

‘PMIS streamlines several procurement activities, including requisition, approval processes, and purchase order creation, minimizing manual involvement and the risk of mistakes. A PMIS offers a central location for all data related to procurement, simplifying the process of accessing and managing information concerning suppliers, contracts, and inventory. PMIS can assist in assessing and choosing suppliers by using performance metrics, cost, and dependability, making sure that KRC collaborates with

the top vendors. PMIS can aid in making certain that procurement processes adhere to local and international laws, minimizing the likelihood of legal problems.’

4.5.3 Marketing MIS

The participants were requested to show how marketing MIS impacted the performance of Kenya Railway Corporation. They provided the subsequent answers;

‘A MMIS gives admittance to ongoing information and investigation, empowering KRC the executives to go with informed choices based on current market trends, customer preferences, and operational performance. An MMIS enables KRC to design and implement targeted marketing campaigns based on customer data, prompting higher change rates and more proficient utilization of advertising spending plans. An MMIS can automate various marketing processes, such as customer relationship management (CRM) and reporting, freeing up staff to focus on strategic initiatives. An MMIS fosters better communication and collaboration among different departments within KRC, ensuring that marketing strategies align with operational capabilities and customer service goals.’

4.5.4 Human Resource MIS

The participants were requested to show how human resource MIS impacted the performance of Kenya Railway Corporation. They provided the subsequent answers;

‘HRMIS automates routine tasks such as payroll processing, leave management, and employee record maintenance, reducing the time and effort required for these activities. HRMIS gives a concentrated stage to putting away worker information, making it more straightforward to get to and oversee data. HRMIS can facilitate performance appraisals

and feedback mechanisms, helping employees understand their roles and contributions better. HRMIS can track employee training and development programs, ensuring that staff are outfitted with the important abilities and information. HRMIS can facilitate better communication between HR and employees, as well as among different departments, fostering a collaborative work environment.’

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter includes the summary, conclusions, suggestions, and proposals for subsequent research.

5.2 Summary of the Study

The research primarily examined the impact of integrating management information systems on the performance of corporate entities in Kenya: A case of Kenya Railways Corporation. The management information system integration was conceptualized in terms of financial MIS, procurement MIS, marketing MIS and human resource MIS. Data was gathered through a semi-structured questionnaire. Data analysis was conducted utilizing descriptive analysis and multiple regression analysis techniques. The subsequent findings are presented in a summarized format;

5.2.1 Financial Management Information System

The research assessed the impact of financial MIS on corporate performance in Kenya, finding a significant positive correlation between financial MIS and the performance of Kenya Railways Corporation. Precise financial reporting aids in minimizing the organization's tax liabilities, sound financial forecasts form the basis of a robust annual operating plan and long-term strategy, forecasting serves as a guide for the organization's projected increases or decreases in key financial areas and investments.

5.2.2 Procurement Management Information System

The research aimed to assess the impact of the procurement MIS on the performance of businesses in Kenya. A positive correlation was identified between the procurement MIS

and the performance of Kenya Railways Corporation. The procurement tracking software offers a centralized platform to monitor all procurement activities, facilitating contract management, optimized processes contribute to a more favorable work environment for employees by minimizing stress related to complex workflows, supervising supplier performance enables the organization to pinpoint discrepancies and address them promptly.

5.2.3 Marketing Management Information System

The research aimed to explore the influence of marketing MIS on the operational effectiveness of businesses in Kenya. A notable correlation was identified between the marketing MIS and the performance of Kenya Railways Corporation. Regular market research aids the organization in identifying new opportunities for enhancement and expansion, product development ensures that the organization remains current and adapts to evolving consumer preferences, the organization's pricing strategy for products and services is comparatively affordable, attracting a larger consumer base, the organization designs products specifically to meet consumer needs, offering the greatest value.

5.2.4 Human Resources Management Information System

The study sought to determine how human resource management information systems impact the performance of corporate institutions in Kenya. A positive relationship was found between the human resource management information system and Kenya Railways Corporation's performance. Employees are able to communicate better through having exactly the same information available to them at each time, there is proper matching of data between systems and departments communicated and e-recruitment facilitates in obtaining the right type of people with the required skills.

5.3 Conclusions of the Study

The 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 framework permits KRC to benchmark its presentation against industry guidelines or contenders, recognizing regions for development.

The study concludes that PMIS automates various procurement tasks such as requisition, approval workflows, and purchase orders, reducing the time and effort required for manual processes. A PMIS provides a centralized repository for all procurement-related data, making it simpler to get to and oversee data. The framework takes into consideration ongoing following of obtainment exercises, enabling KRC to generate reports and analyze data quickly for informed decision-making. PMIS enables KRC to monitor procurement budgets closely, helping to identify overspending and areas where cost savings can be achieved.

The study concludes that marketing MIS provides comprehensive data on market trends, customer preferences, and competitive analysis. This information enables KRC to make informed decisions regarding service offerings, pricing strategies, and promotional activities. The system collects and analyzes customer feedback and behavior, helping KRC understand customer needs and expectations. This insight can lead to improved customer service and satisfaction. Marketing MIS helps in optimizing resource allocation by providing insights into peak travel times, popular routes, and service demand. This

allows KRC to deploy resources more effectively, reducing operational costs and improving service delivery.

The study concludes that HRMIS automates the recruitment process, allowing for quicker job postings, applications, and candidate tracking. This leads to faster hiring times and ensures that the organization can fill critical positions promptly. HRMIS gives a unified information base to worker records, making it simpler to get to and make due information such as personal details, employment history, and performance evaluations. HRMIS allows for the establishment of clear performance goals and metrics, enabling managers to track employee performance effectively.

5.4 Recommendations of the Study

The organization ought to 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 give an all-encompassing perspective on the association's monetary wellbeing. 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.

The organization ought to guarantee that the PMIS is compatible with other systems used within KRC, such as financial management systems, inventory management systems, and project management tools. This will facilitate seamless data flow and reduce duplication

of efforts. Utilize open standards for data exchange to enhance interoperability with external stakeholders, including suppliers, regulatory bodies, and other government agencies. Develop and implement training programs for staff at all levels to ensure they are proficient in using the PMIS. This includes training on data entry, reporting, and analysis.

The organization ought to foster a concentrated information base that coordinates information from different sources, including client collaborations, deals, market patterns, and contender investigation as it will provide a holistic view of the market and customer behavior. Implement systems that allow for real-time data access and updates, ensuring that marketing teams have the most current information to make informed decisions. Employ foresighted analysis to predict consumer behavior and market trends. This could assist KRC anticipate demand, optimize pricing strategies, and tailor marketing campaigns. Lay out key execution pointers to quantify the viability of promoting efforts and overall customer satisfaction. Regular reporting can help identify areas for improvement.

The organization must guarantee that the HRMIS is integrated with other operational systems such as payroll, finance, and project management. This will facilitate seamless data flow and reduce redundancy. Redesign the HRMIS interface to be more intuitive and user-friendly, making it easier for employees and HR personnel to navigate and utilize the system effectively. Implement regular training sessions for HR staff and employees to ensure they are proficient in using the HRMIS. This can include workshops, online tutorials, and user manuals. Incorporate advanced analytics tools within the HRMIS to

analyze employee performance, turnover rates, and recruitment effectiveness. This data can inform strategic HR decisions.

5.5 Suggestions for Further Study

The research recommends exploring additional indicators of management information system integration in order to fill the 29.8% gap identified in the study using regression analysis. Moreover, the research proposes conducting additional studies on the performance of different organizations, not limited to the Kenya Railway Corporation.

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APPENDICES

Appendix I: Cover Letter

Dear Sir /Madam

Re: Participation in Academic Research Data Collection

I am a postgraduate student at Kenyatta University working on a research project: 'The impact of integrating management information systems on the efficiency of corporate organizations in Kenya: A case study of Kenya Railways Corporation'. This study is a mandatory component for the completion of my Master's degree.

In consideration of this matter, you have been chosen to partake in this study by supplying relevant information through completion of the questionnaire. It is important to acknowledge that the research is exclusively intended for academic purposes. Your cooperation in this endeavor is greatly appreciated in advance.

Appendix II: Questionnaire

- i. The purpose of this study is academic in nature.
- ii. Please answer the questions with honesty and precision.
- iii. Your responses will be kept confidential.
- iv. Avoid including your name or department on the questionnaire; instead, mark [] or provide necessary information in the designated spaces.

Section A: Background Information

Please specify your Gender:	[1] Male	[2] Female
Show the age group you belong to	Less than 29 [1]	30 to 39 [2]
	40 to 49 Years [3]	50 + [4]
Educational attainment.	Diploma [1]	Post Graduate Diploma [2]
	Undergraduate Degree [3]	Master Degree [4]
How many years have you served in your current position within the Kenya Railway Corporation?	Below 5 [1]	5 to 9 [2]
	10 to 15 years [3]	Exceeding 15 [4]

In the following sections B, C, D and E contains statement that relate to the influence of financial, procurement, marketing and human resource management information system respectively on the performance of corporate institutions in Kenya.

Please specify your level of agreement using the following scale:

1. I strongly agree with sthe statement.
2. I agree with the statement.
3. I am undecided on the statement.
4. I disagree with the statement.
5. I strongly disagree with the statement..

Section B: Financial Management Information System

Statement	1	2	3	4	5
Budgeting allows the organization to create a comprehensive financial plan that projects income and expenses for a specific timeframe.					
Effective budgeting enables the organization to strategize expenses, achieve business objectives, and anticipate operational shifts.					
Sound financial forecasts form the basis of a robust annual operating plan and long-term strategy.					
Forecasting serves as a guide for the organization's projected increases or decreases in key financial areas and investments.					
Precise financial reporting aids in minimizing the organization's tax liabilities.					
Precise financial reporting assists the organization in safeguarding its resources from rapid depletion.					

What other effects, in your opinion, does the financial management information system have on the operations of Kenyan corporate institutions?

Section C: Procurement Management Information System

Statement	1	2	3	4	5
The procurement tracking software offers a centralized platform to monitor all procurement activities, facilitating contract management.					
The procurement tracking software offers a centralized platform to oversee all procurement activities, simplifying spending monitoring.					
Supervising supplier performance enables the organization to maintain uniform quality assurance across the entire supply chain.					
Supervising supplier performance enables the organization to pinpoint discrepancies and address them promptly.					
Optimizing business processes eliminates duplications and guarantees efficient resource allocation.					
Optimized processes contribute to a more favorable work environment for employees by minimizing stress related to complex workflows.					

What other effects, in your opinion, does the procurement management information system have on the functioning of Kenyan corporate institutions?

Section D: Marketing Management Information System

Statement	1	2	3	4	5
Market research facilitates the organization in acquiring a more profound comprehension of its consumer base, thereby enabling a transition towards a customer-centric approach.					
Regular market research aids the organization in identifying new opportunities for enhancement and expansion.					
Product development ensures that the organization remains current and adapts to evolving consumer preferences.					
The organization designs products specifically to meet consumer needs, offering the greatest value.					
The organization's services are priced lower than those of competitors in the market.					
The organization's pricing strategy for products and services is comparatively affordable, attracting a larger consumer base.					

What other effects, in your opinion, does the marketing management information system have on the functioning of Kenyan corporate institutions?

Section E: Human Resource Management Information System

Statement	1	2	3	4	5
E-recruitment offers a user-friendly recruitment experience by automating many aspects of the hiring process.					
E-recruitment facilitates in obtaining the right type of people with the required skills.					
Performance management plays a crucial role in ensuring that employees remain aligned with the organization's mission and values.					
Performance management facilitates the selection of appropriate training methods to enhance the skills of each individual employee.					
Employees are able to communicate better through having exactly the same information available to them at each time.					
There is proper matching of data between systems and departments communicated					

What other effects, in your opinion, does the human resource management information system have on the functioning of Kenyan corporate institutions?

Section F: Organizational Performance

Statement	1	2	3	4	5
The Kenya Railway Corporation offers efficient services.					
There has been a noticeable enhancement in operational efficiency at the Kenya Railway Corporation.					
Kenya Railway Corporation has demonstrated a high level of innovation.					

Appendix III: University Approval Letter



**KENYATTA UNIVERSITY
GRADUATE SCHOOL**

E-mail: dean_graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: D53/CTY/PT/28549/2019

DATE: 21st November, 2024

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

**RE: RESEARCH AUTHORIZATION FOR EVANS KIPROTICH YEBEI - REG. NO.
D53/CTY/PT/28549/2019**

I write to introduce **Evans Kiprotich Yebei** who is a Postgraduate Student of this University. The student is registered for M.B.A degree programme in the **Department of Management Science**.

Evans intends to conduct research for a M.B.A Project Proposal entitled, **“Management Information System Integration and Performance of Corporate Institutions in Kenya: A Case of Kenya Railways Corporation.”**

Any assistance given will be highly appreciated.

Yours faithfully,

**PROF. ELIUD NJAGI
EXECUTIVE DEAN, GRADUATE SCHOOL**

AM/mw

Transforming Higher Education... Enhancing Lives
Kenyatta University is ISO 9001:2015 Certified



Page 1 of 1

Appendix IV: Research Authorization Letter



**KENYATTA UNIVERSITY
GRADUATE SCHOOL**

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 4150

Internal Memo

FROM: Executive Dean, Graduate School

DATE: 21st November, 2024

TO: Evans Kiprotich Yebei
C/o Management Science Dept.

REF: D53/CTY/PT/28549/2019

SUBJECT: APPROVAL OF RESEARCH PROJECT PROPOSAL

This is to inform you that Graduate School Board at its meeting of 15th November, 2024 approved your Research Project Proposal for the M.B.A Degree Entitled, "**Management Information System Integration and Performance of Corporate Institutions in Kenya: A Case of Kenya Railways Corporation.**"

You may now proceed with your Data Collection, Subject to Clearance with Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking and progress report Forms per semester. The Forms are available at the University's Website under Graduate School webpage downloads.

Also, please ensure that you publish article(s) from your project before submitting it to Graduate School for examination as per the Commission for University Education and Kenyatta University guidelines.

Thank you.


ANNBELL MWANIKI
FOR: EXECUTIVE DEAN, GRADUATE SCHOOL

c.c. Chairman, Management Science Dept.

Supervisors:

1. Dr. Morrison Mutuku
C/o Department of Management Science
Kenyatta University

AM/ma



Appendix V: NACOSTI Research Permit

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 370062	Date of Issue: 17/December/2024
RESEARCH LICENSE	
	
<p>This is to Certify that Mr.. EVANS KIPROTICH YEBEL of Kenyatta University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: MANAGEMENT INFORMATION SYSTEM INTEGRATION AND PERFORMANCE OF CORPORATE INSTITUTIONS IN KENYA: A CASE OF KENYA RAILWAYS CORPORATION for the period ending : 17/December/2025.</p>	
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Applicant Identification Number 370062	 Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
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