

**INFLUENCE OF HUMAN RESOURCE INFORMATION SYSTEMS ON
ORGANIZATIONAL OUTCOMES AMONG PRIVATE SUGAR
MANUFACTURING FIRMS IN WESTERN REGION, KENYA.**

Alice Akhanguha Andayi.

**A Research Proposal Submitted in Partial Fulfilment of the Requirements for the
Award of the Degree of Master of Science in Human Resource Management of
Masinde Muliro University of Science and Technology**

July, 2025

DECLARATION AND CERTIFICATION

This thesis is my original work and has not been presented for a degree in any other university or any other award.

Signature.....

Date:.....

Alice Akhanguha Andayi

BHR/G/01-70463/2022

CER

CERTIFICATION

The undersigned certify that they have read and hereby recommend for the acceptance Masinde Muliro University of Science and Technology a research proposal entitled, *“Influence of Human Resource Information System on Organizational Outcomes among Private sugar manufacturing firms in Western region, Kenya”*.

Signature.....

Date:.....

Prof. Robert Egessa

Department of Business Administration and Management Science

Masinde Muliro University of Science and Technology

Signature.....

Date:.....

Dr Albert Odhiambo

Department of Accounting and Finance

Signature

Date.....

COPYRIGHT

This thesis is a copyright material protected under the Berne Convention, the copyright Act 1999 and other international and national enactments in that behalf, on intellectual property. It may not be produced by any means in full or in part except for short extracts in fair dealing so for research or private study, critical scholarly review or discourse with acknowledgement, with written permission of the Director of Postgraduate Studies on behalf of both the author and Masinde Muliro University of Science and Technology.

DEDICATION

This thesis is dedicated to my dear mother for the great and many sacrifices she made during my studies. Her support, encouragement, concern, enthusiasm and love motivated me to put more effort in pursuing my master program.

ACKNOWLEDGEMENT

I am very grateful to the Almighty God for granting me the knowledge, wisdom and good health which enabled me to successfully accomplish this study. I wish to acknowledge and appreciate my supervisors, Prof Robert Egessa and Dr Albert Odhiambo and all my lecturers in School of Business and Economics for their guidance, support and suggestions in preparing this research proposal.

I also appreciate all my classmates for their contribution and input during development of this proposal. Lastly, I take this opportunity to appreciate the management of Masinde Muliro University of Science and Technology for their great contribution in the provision of resources and manpower to help me pursue my master's in Human resource management option.

ABSTRACT

Kenya's sugar industry, once a cornerstone of the economy, faces a crisis of declining operational performance. This has led to many of the sugar firms to embrace Management Information System (MIS) in operations by extension Human Resource Information System (HRIS). Some of the areas where HRIS has been used include HRIS recruitment and selection practices, employee records management practices, training and development programs and work scheduling. Despite firms in the sugar industry embracing HRIS, the extent to which this has enhanced organizational outcome has not been extensively explored. The general objective of the study was to investigate the influence of Human Resource Information System on Organizational Outcomes among private sugar manufacturing firms in Western region, Kenya. The specific objectives of this study was to: examine the influence of HRIS recruitment and selection practice, employee records management practices, training and development programs, and work scheduling on organizational outcomes among private sugar manufacturing firms in Western region, Kenya. The main theory of the study was Technology acceptance theory, and it will be supported by resource-based view theory, human capital theory and contingency theory. The target population was 97 employees comprising of top-level management employees, middle level management employees and low-level management employees. The study used census approach. The study's primary data was obtained using structured questionnaires. The research design was cause and effect research design. The researcher carried out a pilot study at Kibos sugar company in Kisumu County to ensure the data collection tool was reliable and valid. Face and content validity for the current research was determined by experts and researcher's supervisors. Cronbach's alpha coefficient was used to test the reliability of data. Quantitative data analysis was done using inferential and descriptive statistics. Descriptive statistics included percentages, frequency distribution, mean, and standard deviation. Multiple regression analysis and univariate regression analysis was employed for analysis of inferential data. SPSS software was used in the analysis. Data presentation was done using figures, tables and charts. The study's findings informed policy makers, management and regulators about the role of HRIS in enhancing organizational outcomes in the sugar manufacturing industry. Understanding the potential benefits of HRIS adoption can prompt policy makers to develop supportive regulations and incentives to encourage its implementation across sugar firms.

TABLE OF CONTENTS

DECLARATION AND CERTIFICATION	ii
COPYRIGHT	iii
DEDICATION	iv
ACKNOWLEDGEMENT	v
ABSTRACT	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xi
LIST OF FIGURES	xii
LIST OF ABBREVIATIONS AND ACRONYMS	xiii
DEFINITION OF TERMS	xiv
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the Study	1
1.2 Problem Statement.....	4
1.3 Objectives of the Study.....	5
1.3.1 General Objective	5
1.3.2 Specific Objectives	6
1.4 Research Hypothesis.....	6
1.5 Significance of the Study.....	7
1.6 Scope of the Study	8
1.7 Limitations of the Study.	8
CHAPTER TWO	9
LITERATURE REVIEW	9
2.1 Introduction.....	9
2.2 Theoretical Review	9
2.2.1 Technology Acceptance Theory	9
2.2.2 Resource based view theory.....	11
2.2.3 Contingency Theory.....	13

2.2.4 Human Capital Theory.....	14
2.3 Conceptual Review.....	16
2.3.1 HRIS Recruitment and selection processes.	16
2.3.2 HRIS Employee Records Management.	17
2.3.3 HRIS Training and Development Programs.	19
2.3.4 HRIS Work scheduling.	20
2.3.5 Organizational outcomes.....	21
2.4 Empirical Review	23
2.4.1 Influence of Recruitment and Selection Process on Organizational outcomes	23
2.4.2 Influence of Employee records management on Organizational outcomes.....	24
2.4.3 Influence of Training and development programs on Organizational outcomes	26
.....	
2.4.4 Influence of Work scheduling on Organizational outcomes.....	28
2.5 Summary and Research Gaps	29
2.6 Conceptual framework.....	37
CHAPTER THREE.....	39
RESEARCH METHODOLOGY	39
3.1 Introduction.....	39
3.2 Study Area	39
3.3 Research Design	39
3.4 Target population.....	40
3.5 Sampling Technique and Sample Size	40
3.6 Data collection	41
3.6.1 Data type.....	41
3.6.3 Data Collection procedures.....	42
3.7 Reliability and Validity.....	43
3.8 Data Analysis.....	44
3.8.1 Diagnostic Tests.....	44
3.8.2 Data Analysis Model	45
3.9 Ethical consideration	49

CHAPTER FOUR	50
RESEARCH FINDINGS AND DISCUSSIONS	50
4.1 Introduction.....	50
4.2 Response Rate.....	50
4.3 Reliability Test.....	50
4.4 Descriptive Analysis	51
4.4.1 Demographic Information.....	51
4.4.2 Descriptive Statistics.....	53
4.4.2.1 HRIS Recruitment and Selection Practices.....	54
4.4.2.2 HRIS employee records management practices.....	56
4.4.2.3 HRIS training and development programs.....	59
4.4.4 HRIS work scheduling.....	61
4.4.5 Organizational Outcomes among Private Sugar Manufacturing Firms in Western Region, Kenya.....	63
4.5 Inferential Statistics	65
4.5.1 Normality	65
4.5.2 Linearity	69
4.5.3 Multi-Collinearity Test	70
4.6 Pearson Correlation Results.....	71
4.7 Simple Linear Regression.....	73
4.7.1 Influence of HRIS Recruitment and Selection Practices on Organizational Outcomes	73
4.7.2 Influence of HRIS employee records management practices on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.....	75
4.7.3 Influence of HRIS Training and Development Programs on Organizational Outcomes	77
4.7.4 Influence of HRIS Work Scheduling on Organizational Outcomes	79
4.8 Multiple Regression Analysis.....	81
CHAPTER FIVE	90
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	90

5.1 Introduction.....	90
5.2 Summary of the Findings.....	90
5.3 Conclusion	93
5.4 Recommendation	94
5.5 Suggestion for Further Studies	95
REFERENCES	97
APPENDICES	107
Appendix I. INTRODUCTION LETTER.....	107
Appendix II: QUESTIONNAIRE	108
Appendix III: VALIDITY TEST	113
APPENDIX IV MAP OF WESTERN REGION, KENYA.....	115

LIST OF TABLES

Table 2. 1: Summary of Research Gaps.....	32
Table 4. 1: Reliability.	51
Table 4. 2: Gender of the Respondents.....	51
Table 4. 3: HRIS recruitment and selection practices.....	54
Table 4. 4: HRIS employee records management practices	57
Table 4. 5: HRIS training and development programs	59
Table 4. 6: HRIS work scheduling.....	61
Table 4. 7: Organizational outcomes among private sugar manufacturing firms in Western region, Kenya.....	64
Table 4. 8: Kolmogorov-Smirnova and Shapiro-Wilk	66
Table 4. 9: Multi-Collinearity	70
Table 4. 10: Multiple Correlation Matrix	71
Table 4.11: Regression Results of HRIS recruitment and selection practices and Organizational outcomes	74
Table 4.12: Regression Results of HRIS employee records management practices and Organizational outcomes	76
Table 4.13: Regression Results of HRIS training and development programs and Organizational outcomes	78
Table 4.14: Regression Results of HRIS Work Scheduling and Organizational Outcomes	80
Table 4. 15: Model Summary	82
Table 4. 16: ANOVA Table.....	82
Table 4. 17: Multiple Regression Coefficients	83
Table 4. 18: Hypothesis testing Results.....	88

LIST OF FIGURES

Figure 2. 1: Conceptual Framework	37
Figure 4. 5: Normal Q-Q plot of HRIS recruitment and selection practices	67
Figure 4. 6: Normal Q-Q plot of HRIS employee records management practices	67
Figure 4. 7: Normal Q-Q plot of HRIS training and development programs	68
Figure 4. 8: Normal Q-Q plot of HRIS work scheduling	68
Figure 4. 9: Normal Q-Q plot of Organizational outcomes among private sugar manufacturing firms in Western region, Kenya.....	69

LIST OF ABBREVIATIONS AND ACRONYMS

HR	Human Resource
HRIS	Human Resource Information Systems
ICT	Information Communication Technology
KSB	Kenya Sugar Board
MIS	Management Information Systems
RBV	Resource based view
TAM	Technology Acceptance Model
NACOSTI	National Commission for Science, Technology and Innovation
SPSS	Statistical Package for the Social Sciences

DEFINITION OF TERMS

Human Resource Information Systems: Human Resource Information Systems refers to software solutions and technologies that are specifically designed to automate and streamline various human resource management functions within organizations.

Human Resource Information Systems recruitment and selection processes: This refers to the use of Human Resource Information Systems to automate and streamline the recruitment and selection processes within sugar manufacturing firms.

Human Resource Information Systems employee records management: This involves the use of Human Resource Information Systems technology to organize, store, and maintain comprehensive employee records within sugar manufacturing firms.

Human Resource Information Systems training and development programs: This refers to the integration of Human Resource Information Systems tools and functionalities to design, deliver, and monitor training and development initiatives for employees within sugar manufacturing firms.

Human Resource Information Systems work scheduling: This involves utilizing Human Resource Information Systems software to create, manage, and optimize employee work schedules within manufacturing firms.

Organizational Outcomes: refer to the results or achievements that are influenced by the implementation of Human Resource Information Systems -enabled practices.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In the contemporary competitive business landscape, organizations confront a myriad of challenges stemming from various quarters, including deficiencies in organizational outcomes and the escalating competition fueled by digital transformation and globalization (Mir, Hassan, & Qadri, 2014; Yeung & Brockbank, 2015; Kassim, Ramayah, & Kurna, 2020). In response to these challenges, HR managers are compelled to formulate strategic frameworks tailored to the evolving market conditions (Hamid, 2019; Davarpanah & Mohamed, 2019). This strategic imperative is underscored by the burgeoning adoption of technology and utilization in pursuit of superior organizational outcomes. Moreover, economic theories acknowledge and appreciate the profound effect of technology on driving the economic prosperity of nations (Mandelson, Straw, & Glennie, 2012; Arefin & Hosain, 2019). However, the influence of technology on human resource management outcome has been debated by a significant number of researchers worldwide, and most of them have stressed the need for human resource information system at work (Mandelson, Straw, & Glennie, 2012; Arefin & Hosain, 2019).

The evolution of Management Information Systems (MIS) driven by information technology innovation has significantly propelled the development of Human Resource Information Systems (HRIS) (Noutsu, Kamdjoug & Wamba, 2017; Noe, Hollenbeck, Gerhart and Wright, 2018). HRIS plays a pivotal role in managing human capital, particularly in knowledge-based economies, as a result of the transformative effect of

information communication technology (ICT) (Anitha & Aruna, 2013; Oyagi & Mjomba, 2021). Situated within the realm of MIS, HRIS integrates various HR functions to provide comprehensive human resource information essential for achieving business excellence. Described as a sophisticated computer application, HRIS encompasses a range of functionalities, including database management, information dissemination, and utilization, all aimed at optimizing human resource management processes (Parry & Battista, 2019; Mauro & Borges-Andrade, 2020).

A Human Resource Information System comprises several integrated elements that streamline HR functions and enhance organizational efficiency. Key components include recruitment and selection, which automates job postings and applicant tracking; employee record management for centralized data storage; and training and development modules that monitor employee growth and compliance (Kavanagh, 2017). Additionally, time and attendance tracking, performance management, and payroll systems help manage daily operations and compensation accurately. Work scheduling tools support shift planning, while self-service portals empower employees to access personal records and make requests (Armstrong & Taylor, 2020). Lastly, HR analytics enables data-driven decision-making, supporting strategic planning. Together, these elements improve transparency, reduce administrative burden, and align HR functions with organizational goals (Dessler, 2020).

Globally, in the United States, Davenport and Harris (2023) examined how advanced analytic tools integrated with HRIS platforms to enable companies to make better hiring, promotion, and retention decisions while reducing bias. They analyzed eight case studies involving major U.S. corporations and discovered that integrating analytics tools into

HRIS resulted in increased diversity, lower turnover rates, and higher employee engagement scores.

In the United Kingdom, Manufacturing Technologies Association (2023) found that 65% of British manufacturers leverage HRIS for workforce scheduling and skills gap analysis, leading to a 10% increase in production efficiency and a 18% reduction in training costs. Jackson and Mathis (2023) examined the effects of digital transformation, including HRIS implementation, on employee performance in British manufacturing firms. Findings reveal a positive correlation between HRIS usage and employee performance, indicating that HRIS significantly influences organizational outcomes.

In France, Bouville, Guérin and Langella (2023) through a qualitative study of French multinational enterprises, indicated that HRIS positively impacts communication, coordination, and control, thereby contributing to enhanced organizational outcomes. A report by the German Rectors' Conference revealed that 85% of German manufacturing firms leverage HRIS for administrative tasks like payroll and leave management, freeing up HR staff for strategic initiatives. Reinecke, Gerpott and Goebel (2023) indicated that HRIS plays a vital role in facilitating agility, fostering knowledge transfer, and promoting innovative behaviors in the workplace among German high-technology project teams.

Sharma and Gupta (2020) analyze the challenges facing India's sugar industry, which is the second-largest producer of sugar globally. Key issues include low sugarcane productivity due to outdated techniques, delayed payments to farmers, and overproduction leading to surplus stocks and price crashes. The study also highlights the impact of government policies, such as minimum support prices and export restrictions, which often

distort the market. Additionally, the authors discuss the environmental challenges of water overuse and pollution from sugar mills. The paper calls for policy reforms, technological advancements, and diversification into by-products like ethanol to address these challenges.

Santos and Oliveira (2021) examine the sustainability challenges in Brazil's sugar industry, which is one of the largest in the world. The study highlights issues such as deforestation linked to sugarcane cultivation, water scarcity due to intensive irrigation, and soil degradation from monoculture practices. Additionally, the authors discuss the economic challenges, including price volatility in global sugar markets and competition from ethanol production, which diverts sugarcane away from sugar manufacturing. The study emphasizes the need for sustainable practices, efficient and appropriate technologies, to address these challenges while maintaining Brazil's competitive edge in the global sugar industry.

Just like in France, the use of HRIS in Africa is gaining momentum, with economies recognizing the potential benefits of HR automation and data-driven decision making although its adoption lags other emerging economies. Olaniran and Williams (2016) showed that HRIS implementation in public healthcare institutions in South Africa led to improvements in personnel records management, staff scheduling, and payroll processing.

To add on that in Egypt, Elmorshedy, Mohamed and Mahmoud (2018) demonstrated that electronic HRIS played a key role in enhancing payroll processing efficiency and accuracy at Egyptian higher education institutes. The Tertiary Education Trust Fund (TETfund) in Nigeria is providing grants to universities for HRIS implementation. A survey by the

Academic Staff Union of Universities (2023) revealed that 35% of Nigerian universities have begun using HRIS for various HR functions. Alfa, Abubakar and Ali (2017) identified multiple advantages associated with HRIS usage in Nigerian universities, such as reduced administrative burdens, enhanced recordkeeping, and improved staff development opportunities.

Kenya's manufacturing sector is experiencing a growth spurt, necessitating efficient management of a growing workforce. HRIS are emerging as a game-changer, offering significant benefits to manufacturing firms. A study by the Kenya Association of Manufacturers (2020) found that 42% of large and medium-sized manufacturers in Kenya leverage HRIS for workforce planning and skills gap analysis. Reports from the Kenya Association of Manufacturers suggested a growing trend of HRIS adoption in Kenyan manufacturing, with larger firms likely leading the way. Mumias Sugar Company implemented an Enterprise Resource Planning (ERP) system called MYOB Premier, aiming to enhance operational efficiency and modernize its management practices (Kipkulei, 2014). The ERPs typically offer modules for human resource management, suggesting that they have utilized this feature to assist in HR functions.

Nzoia Sugar Company has implemented employee portals to manage its workforce through HR Information Systems. This allows employees to access various HR-related functions, such as timesheets, leave requests, and benefits information, in a centralized portal. Similarly, other sugar companies in Kenya, including Kibos Sugar Company, Sony Sugar, Kwale Sugar, Busia Sugar Industries, and Olepito Sugar Company, have also adopted HRIS to streamline HR operations and enhance employee management (Thite, Langat & Langat, 2020). These HRIS platforms provide features that improve HR

efficiency, such as employee portals for self-service, worksheet-based tracking for timesheets, and e-recruitment portals to streamline the hiring process. The use of e-recruitment portals by sugar manufacturing firms simplifies the recruitment process by allowing candidates to apply online, and HR teams can manage the hiring process more efficiently. Additionally, worksheet-based tracking systems help track employee work hours, manage payroll, and maintain accurate records (Aura & Ozkan, 2017).

Industry reports indicate that HRIS can lead to productivity improvements of 10-15% in manufacturing sectors due to streamlined workflows, efficient training, and improved communication (Huda, 2023; Okoronkwo, 2021). However, quantifying this effect specifically for Kenyan sugar factories would require further research focused on the industry. Industry reports also indicate that HRIS can lead to cost reductions of 5-10% in manufacturing sectors due to streamlined processes, efficient training, and improved workforce management (Ololade, Morenike & Esitse, 2023; Pandey & Singh, 2023). Again, specific data for Kenyan sugar manufacturing is not readily available.

1.2 Problem Statement

Kenya's sugar industry once a cornerstone of the economy, faces a crisis of declining operational performance according to Kenya Sugar Board, 2020. Domestic sugar production struggles to meet national demand with public sugar firms like Mumias, Nzoia and Sony facing a challenges of being closed down. Private sugar mills are surviving but still cannot meet national sugar requirements leading to sugar being imported to meet Kenya sugar needs. Furthermore, the costs associated with production of sugar are high hence need ICT intervention.

Existing research on the influence of Human Resource Information Systems on organizational outcomes spans various sectors but lacks a specific focus on the sugar manufacturing Industry in Kenya .Studies such as Jones and Smith (2020),Kim and Park(2019), Manyura and Makokha (2023),Koech(2022)explore HRIS in different Industries, yet empirical evidence in private sugar firms in Western Region ,Kenya remains sparse Additionally, conflicting findings on HRIS enabled practices highlight gaps in concept, methodology and contextual relevance (Arifin & Lo,2020;Omar & Mahmound,2020;Raharjo et al.,2018;Owor,2016).A mixed-methods approach is needed to understand how HRIS influence organizational outcome.

Previous studies have highlighted several challenges faced by sugar manufacturing firms and highlighted effective utilization of HRIS as a possible solution to address these challenges. Understanding the influence of HRIS on factors such as market share, productivity and profitability is essential for policy makers ,regulators and practitioner seeking to improve the competitiveness of the sugar Industry in the region. Thus, this study aims to investigate the influence of Human Resource Information System on Organizational Outcomes among private sugar manufacturing firms in Western region, Kenya.

1.3 Objectives of the Study

The study will be guided by the following objectives:

1.3.1 General Objective

The general objective of the study is to investigate the influence of human resource information system on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.

1.3.2 Specific Objectives

The specific objectives of the study include:

1. To examine the influence of HRIS recruitment and selection practices on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.
2. To assess the influence of HRIS employee records management practices on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.
3. To evaluate the influence of HRIS training and development programs on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.
4. To investigate the influence of HRIS work scheduling on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.

1.4 Research Hypothesis

H₀₁: HRIS Recruitment and selection has no statistically significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.

H₀₂: HRIS Employee records management has no statistically significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.

H₀₃: HRIS Training and development program has no statistically significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.

H₀₄: HRIS Work scheduling has no statistically significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.

1.5 Significance of the Study

In today's rapidly evolving educational landscape, the integration of technology has become indispensable for enhancing organizational efficiency and improving outcomes in organizations. Amidst this backdrop, the adoption of HRIS emerges as a promising avenue for optimizing HR processes and maximizing organizational outcomes. Understanding the influence of HRIS on organizational outcomes among sugar manufacturing firms provides valuable insights into how technology can be leveraged to improve efficiency, productivity, and overall performance in the industry. HRIS can help

streamline HR processes, enhance data management, facilitate decision-making, and ultimately contribute to better organizational outcomes.

The study's findings can inform policy makers and regulators about the role of HRIS in enhancing organizational outcomes in the sugar manufacturing industry. Understanding the potential benefits of HRIS adoption can prompt policy makers to develop supportive regulations and incentives to encourage its implementation across sugar firms.

The study is also significant to farmers whereby organizational outcomes, such as improved production efficiency and better business practices, can lead to stable operations in sugar manufacturing firms. This stability is crucial for farmers, as it ensures consistent demand for their sugarcane, providing them with reliable income and reducing market uncertainties. If the study finds that organizational outcomes are positively influenced by HRIS, it can lead to more efficient sugar manufacturing processes. This efficiency could reduce costs, leading to better pricing structures for farmers and enhancing their profitability.

The study would contribute to the existing body of knowledge in HRM by examining the relationship between HRIS and organizational outcomes within the context of the sugar manufacturing industry in Kenya. Scholars and academicians can build upon these findings through further research, exploring factors influencing HRIS adoption, implementation strategies, and the long-term effects on organizational performance.

1.6 Scope of the Study

Conceptually, the independent variable was the human resource information system, and the dependent variable was organizational outcomes. The human resource information system included HRIS recruitment and selection, employee record management, training and development, and work scheduling. Geographically, the study focused on three sugar manufacturing factories in the Western Region that were operational as of the end of the financial year on December 31, 2022. These included Butali Sugar Mills in Kakamega County, Busia Sugar Company Limited in Busia County, and Naitiri Sugar Company in Bungoma County. Naitiri Sugar Company represented West Kenya Sugar Company and Olepito, which operated under the same management and hence shared the same demographic factors. Data collection involved administering structured surveys to top-level management, middle-level management, and low-level management. The study was conducted between June 2024 and September 2024.

1.7 Limitations of the Study.

While this research endeavored to shed light on the influence of HRIS on organizational outcomes among private sugar manufacturing firms in the Western Region of Kenya, several limitations were acknowledged. The study was limited by its geographical scope, focusing on private sugar firms in the Western Region, which may have restricted the generalizability of the findings to other regions in Kenya. However, to mitigate this limitation, the researcher ensured that the findings were contextualized within the unique characteristics and dynamics of the Western Region, providing insights that could be compared to other contexts. There was also a challenge in administering the questionnaire,

as the researcher's intentions may have been doubted. This was overcome by creating rapport with the respondents and clearly communicating the objectives of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the related literature on Human Resource Information System and organizational outcomes. The chapter also presents theoretical review and finally the knowledge gaps.

2.2 Theoretical Review

This section discusses current/relevant theory that supports the variables being studied in the context of the identified research problem. The section focuses on four theories that explain the concept of organizational outcome as influenced by Human Resource Information System. The main theory of the study will be Technology acceptance theory, and it will be supported by Resource based view theory, human capital theory and contingency theory.

2.2.1 Technology Acceptance Theory

The Technology Acceptance Model (TAM) is a seminal theory in the field of information systems research that seeks to understand and predict individuals' acceptance and adoption of new technologies. Proposed by Fred Davis in 1989, TAM has been widely used and extended by researchers to explain user behavior in various contexts. One of the key proponents of TAM is Fred Davis, who initially proposed the model in his seminal paper titled "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information

Technology" published in the MIS Quarterly in 1989 (Sohn & Kwon, 2020). Since then, TAM has been further developed and extended by researchers such as Venkatesh, Morris, and Davis in their 2003 paper "User Acceptance of Information Technology: Toward a Unified View." This extended version introduced the concept of perceived behavioral control as an additional determinant of behavioral intention (Al-Emran & Granić, 2021).

At its core, TAM posits that users' intention to use a technology is determined by their perceived usefulness (PU) and perceived ease of use (PEOU) of the technology. Perceived usefulness refers to the degree to which an individual believes that using a particular technology will enhance their job performance or facilitate achieving their goals. Perceived ease of use, on the other hand, refers to the extent to which an individual believes that using the technology will be free from effort or complexity. According to TAM, users are more likely to adopt a technology if they perceive it as useful in improving their effectiveness or efficiency in performing tasks and if they perceive it as easy to use and learn (Sohn & Kwon, 2020)

TAM operates on several assumptions, including the voluntariness of technology use, the focus on users' perceptions of usefulness and ease of use, and the direct relationship between behavioral intention and actual technology usage. While TAM provides a valuable framework for understanding technology adoption behaviors, it simplifies the model by primarily focusing on internal cognitive processes and may not fully capture the complexities of technology adoption in real-world contexts (Al-Emran & Granić, 2021).

This will be the main theory that will be used to guide the study. The TAM focuses on understanding individuals' adoption and use of technology based on perceived usefulness

and ease of use. In the context of HRIS recruitment and selection processes in sugar manufacturing firms, TAM suggests that the acceptance and utilization of HRIS by management, HR personnel, and hiring committees are critical factors influencing its effect on organizational outcomes. Firms that effectively address user concerns, provide adequate training and support, and promote the benefits of HRIS recruitment and selection processes are more likely to experience positive outcomes such as improved hiring efficiency, staff quality, and organizational performance (Sohn & Kwon, 2020).

In the context of training and development programs administered via HRIS in sugar manufacturing firms, TAM suggests that the acceptance and utilization of HRIS by educators are critical factors influencing its effect on organizational outcomes. Firms that effectively address user concerns, provide user-friendly interfaces, and offer training and support on HRIS usage are more likely to experience positive outcomes such as improved employees' competencies, employee engagement, and overall organizational performance (Alshammari & Rosli, 2020).

In the context of work scheduling facilitated by HRIS in sugar manufacturing firms, TAM suggests that the acceptance and utilization of HRIS by management and employees are critical factors influencing its effect on organizational outcomes. Firms that effectively address user concerns, provide user-friendly interfaces, and offer training and support on HRIS usage are more likely to experience positive outcomes such as improved scheduling accuracy, employee satisfaction, and overall organizational performance (Rafique et al., 2020)

In the context of employee records management through HRIS, TAM suggests that the acceptance and utilization of HRIS by management, HR personnel, and other staff members are critical determinants of its effect on organizational outcomes. If stakeholders perceive HRIS as useful for managing employee records, such as simplifying data entry, automating record-keeping processes, and providing timely access to information, they are more likely to embrace its implementation (Al-Emran & Granić, 2021).

Despite its strengths, TAM has been criticized for being overly simplistic and neglecting social influences on technology adoption (Alshammari & Rosli, 2020). Extensions to the model, such as TAM2 (Rafique *et al.*, 2020), incorporate additional factors like social influence and perceived enjoyment to provide a more nuanced understanding of user behavior. In this regard, this study will use additional theories,

2.2.2 Resource based view theory (RBV)

The foundations of this theory originated from the works of Penrose (1959) and Chandler (1962). These early scholars postulated that organizational resources were the single most important source of organizational performance and competitive advantage. Since the mid-1980s, the RBT has emerged as one of the substantial theories of strategic management (Pearce, Robinson, & Mital, 2012) even though others argue that it does not appear to meet the empirical content criterion for a theoretical system. This theory posits that firms can be conceptualized as bundles of resources (Chahal, Bhan & Cheng, 2020). Sony and Aithal (2020) defined resources as the tangible and intangible assets a firm uses to choose and implement its strategies and generally include organizational, human, financial and physical resources. In outlining a framework to determine what is required

of a resource to be considered a source of sustained competitive advantage, Davis and DeWitt (2021) listed the following as the key elements; resources have to be rare, not substitutable valuable and inimitable. The resource-based view theory argues that technology, natural resources and economies of scale can create value, but that these sources of value are increasingly available to almost anyone anywhere and anytime and they are easy to copy, whereas human resources can provide the firm with a source of competitive advantage with respect to its competitors.

The resource-based view theory will be relevant to the study since both HRIS and human resources are important resources within which an organization could use to deliver competitive advantage. This theory lends credence to investment in technology that would enhance performance of the firm's most important resource – the human resource. The theory also underscores the need to ensure appropriate use of the resources engaged in an organization. The first and second objective will be anchored on this theory, that is; evaluating the influence of HRIS selection and recruitment as well employee record management on organizational outcomes (Freeman, Dmytriyev & Phillips, 2021).

By applying RBV to evaluate the influence of HRIS selection and recruitment on organizational outcomes, researchers can assess how effectively organizations leverage HRIS as a resource to enhance their competitive position in the market. This includes examining factors such as the integration of HRIS with overall HR strategies, the usability of HRIS interfaces for recruiters and candidates, and the extent to which HRIS contributes to improved hiring outcomes and organizational performance metrics (Dionysus & Arifin, 2020). RBV provides a valuable lens through which to understand the strategic role of HRIS in driving organizational success, particularly in the context of selection and

recruitment processes. By emphasizing the importance of aligning HRIS investments with organizational objectives and ensuring effective utilization of HRIS resources, RBV can inform efforts to optimize the influence of HRIS on organizational outcomes (Karedza & Govender, 2020).

In the context of HRIS employee record management, HRIS represents a valuable resource for organizations. It allows for the efficient and effective management of employee data, including information related to attendance, performance evaluations, training records, and other essential HR functions. By leveraging HRIS, organizations can streamline administrative processes, improve data accuracy, and facilitate better decision-making related to workforce management (Chahal, Bhan & Cheng, 2020). The theory underscores the need for organizations to align their HRIS-enabled employee record management practices with strategic objectives and organizational goals. This involves establishing clear processes for data collection, storage, and analysis, as well as ensuring data security and compliance with relevant regulation.

Critics of resource-based view such as Shafeey and Trott (2014) suggests that the theory is not prescriptive in that it does not provide managers with appropriate advice on which specific resources they should accumulate to gain competitive advantage. Lockett, Thompson and Morgenstern (2009) claimed that RBV is tautological and does not generate testable theories. He notes that majority of the studies applying RBV has failed to test its fundamental concepts, but have utilized the theory to establish the context of empirical research. He argues further that the theory is tautological with inattention to the mechanism by which resources actually contribute to firm performance. What remains

crucial for the RBT proponents is to continuously get empirical backing and definition of the almost latent variable.

2.2.3 Contingency Theory

Contingency Theory is a prominent perspective in organizational management that suggests there is no one-size-fits-all approach to managing organizations, and the most effective management practices depend on the unique characteristics of the situation. Proponents of Contingency Theory include organizational theorists such as Joan Woodward, who conducted pioneering research on the relationship between technology and organizational structure (Cheng & Fisk, 2021). Other influential scholars include Paul Lawrence and Jay Lorsch, whose book "Organization and Environment: Managing Differentiation and Integration" (1967) provided empirical support for Contingency Theory. Proponents of Contingency Theory argue that organizational structures, leadership styles, and management practices should be contingent upon factors such as the organization's size, environment, technology, and strategy (Csaszar & Ostler, 2020).

At the core of Contingency Theory are several key tenets. First, it posits that there is no universally optimal way to organize or manage an organization, and the effectiveness of management practices depends on the fit between the organization and its environment (Mahmud, Soetanto & Jack, 2021). For example, a decentralized organizational structure may be more effective in dynamic and uncertain environments, while a centralized structure may be more suitable in stable environments. Second, Contingency Theory emphasizes the importance of aligning organizational design and management practices with the specific requirements of the situation (Abedin, 2022). This means that managers

must carefully analyze the contingencies facing their organization and tailor their approaches accordingly to achieve optimal performance.

Assumptions underlying Contingency Theory include the belief that organizations operate in dynamic and uncertain environments characterized by varying levels of complexity and uncertainty (Gunarathne & Lee, 2021). Additionally, the theory assumes that effective management practices must be flexible and adaptable to changing circumstances to maintain organizational effectiveness and performance. Contingency Theory provides a valuable framework for understanding how organizations can adapt their structures, processes, and practices to fit the unique demands of their environment and achieve optimal performance.

This theory will be related to HRIS work scheduling variable. Contingency theory suggests that organizational effectiveness is contingent upon the alignment between organizational factors and environmental conditions. In the context of work scheduling facilitated by HRIS in sugar manufacturing firms, this theory posits that the influence of HRIS on organizational outcomes may vary depending on contextual factors such as firm size, staffing requirements, technological infrastructure, and stakeholder expectations (Abedin, 2022). Firms that effectively align HRIS-enabled work scheduling practices with their unique organizational context are more likely to achieve positive outcomes.

2.2.4 Human Capital Theory

Human capital theory is a fundamental concept in economics and organizational theory that emphasizes the role of human resources as a critical determinant of economic productivity and organizational performance (Carlbäck, Nygren & Hägglund, 2023).

Proponents of human capital theory include economists such as Gary S. Becker, who is widely regarded as the pioneer of the theory. Becker's seminal work, "Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education" (1964), laid the foundation for the study of human capital as a driver of economic growth and development. Proponents of human capital theory argue that investments in education, training, and skill development are essential for enhancing individual productivity and driving economic growth (Yusuf & Yulianeu, 2022).

At the core of human capital theory are several key tenets. First, it posits that individuals possess human capital, which refers to their knowledge, skills, abilities, and other attributes that contribute to their productivity and earning potential (MacKenzie & Chiang, 2023). Human capital is seen as an intangible asset that can be developed and enhanced through investments in education, training, and experience. Second, human capital theory highlights the importance of human capital investments by individuals, organizations, and society as a whole (Mengesha & Singh, 2022). Investments in education, vocational training, and on-the-job learning are believed to yield returns in the form of increased productivity, higher wages, and improved economic outcomes.

Assumptions underlying human capital theory include the belief that individuals make rational decisions about investing in education and training based on expected returns (Choudhury & Choudhury, 2022). Additionally, the theory assumes that human capital is transferable and can be utilized across different jobs and industries, contributing to labor market flexibility and adaptability. The theory provides a valuable framework for understanding the role of education, training, and skill development in driving individual

productivity, organizational performance, and economic growth (Yusuf & Yulianeu, 2022).

This theory will also expound training and development variable. This theory emphasizes that investments in human capital (education, training, skills) of employees lead to increased productivity and improved organizational performance (Kang & Mok, 2022). HRIS can be a valuable tool for managing and delivering training and development programs for employees. By identifying skill gaps or areas for improvement through performance data or self-assessments within the HRIS, administrators can target training programs more effectively. This targeted approach can lead to a more skilled and qualified teaching workforce, potentially leading to improved student learning outcomes.

2.3 Conceptual Review

This study seeks to establish the influence of Human Resource Information System on organizational outcomes. Below is a discussion of the key concepts namely HRIS recruitment and selection processes, HRIS employee records management, HRIS training and development programs, HRIS work scheduling and organizational outcomes.

2.3.1 HRIS Recruitment and selection processes.

HRIS recruitment and selection processes refer to the utilization of technology-driven systems and tools to streamline and optimize the various stages of hiring new employees within an organization. These systems integrate HR functions such as job posting, candidate sourcing, applicant tracking, resume screening, interview scheduling, and final selection into a centralized digital platform (Dessler, 2019). HRIS enables organizations

to capture, analyze, and utilize data throughout the recruitment and selection process, providing insights into recruitment metrics, candidate demographics, and hiring outcomes (Noe *et al.*, 2017).

HRIS online job advertisements have transformed the recruitment landscape, offering organizations cost-effective and efficient ways to attract top talent. Research by Almeida, Sousa, & Scavarda (2019) highlights the significance of online job advertisements in reaching a broader pool of candidates while reducing recruitment costs. Additionally, He and Yang (2017) emphasize the importance of targeted job advertisements facilitated by HRIS, as they effectively reach passive candidates who may not actively seek job opportunities. Furthermore, studies by Ruël, Bondarouk, & Looise (2017) and García-Sánchez, López-Cabrales, & Valle-Cabrera (2016) underscore the benefits of HRIS integration in online job advertisements. They suggest that HRIS enhances the effectiveness of job advertisements by enabling organizations to track metrics such as applicant flow, source effectiveness, and candidate quality. This data-driven approach allows organizations to optimize their recruitment strategies and improve the overall recruitment process.

The adoption of HRIS online job applications has streamlined the recruitment process, offering benefits such as convenience, efficiency, and data accuracy. Research by Ruël, Bondarouk, & Looise (2017) highlights the importance of HRIS in standardizing application processes and enhancing data accuracy. Moreover, Almeida, Sousa, & Scavarda (2019) emphasize that online job applications improve the candidate experience by allowing applicants to track the status of their applications and receive automated notifications. Furthermore, studies by García-Sánchez, López-Cabrales, & Valle-Cabrera

(2016) and He and Yang (2017) suggest that HRIS integration with online job applications facilitates resume parsing and candidate screening, reducing manual effort and accelerating the candidate selection process.

HRIS online employee selection and interviews offer flexibility and efficiency in the recruitment process. Studies by Ruël, Bondarouk, & Looise (2017) and García-Sánchez, López-Cabrales, & Valle-Cabrera (2016) highlight the effectiveness of online selection processes in improving recruitment outcomes. They suggest that online interviews and assessments increase hiring efficiency, reduce time-to-fill vacancies, and enhance the overall candidate experience. Moreover, research by De Vos, D'Heer, & Eeckhout (2017) emphasizes the importance of HRIS integration with online selection tools to ensure data security, compliance with privacy regulations, and seamless candidate experience. Additionally, Almeida, Sousa, & Scavarda (2019) emphasize that HRIS-enabled online selection processes significantly increase the number of applicants and improve the quality of candidates attracted to job vacancies.

2.3.2 HRIS Employee Records Management.

HRIS employee records management refers to the digitalized and streamlined processes of collecting, storing, organizing, and managing various types of employee-related data within an organization. These systems leverage technology to centralize employee records, automate administrative tasks, and ensure compliance with data privacy regulations and organizational policies (Dessler, 2019). By digitizing employee records, HRIS eliminates the need for manual paperwork, reduces the risk of data loss or errors, and provides secure access to authorized personnel (Kavanagh *et al.*, 2012). Moreover,

HRIS enables organizations to standardize record-keeping processes, establish data retention policies, and track changes to employee records over time (Noe *et al.*, 2017).

HRIS provides organizations with a centralized and secure repository for storing employee records electronically. This eliminates the need for cumbersome paper-based filing systems and reduces the risk of data loss or misplacement (Noe *et al.*, 2017).

Employee records, including personal information, employment history, performance evaluations, and training records, are stored in a structured database, ensuring data integrity and accessibility. HRIS enables organizations to categorize and organize records systematically, making it easier to locate and manage information (Stone, 2019). Customizable folder structures and metadata tags allow users to classify records based on various criteria, such as department, employee type, or document type. This ensures that records are organized in a logical manner, facilitating efficient retrieval and management.

HRIS facilitates efficient retrieval of employee records through user-friendly interfaces and advanced search functionalities. Employees and HR personnel can access a wide range of records, including personal details, employment history, performance evaluations, and training records, with ease and speed (Wright & McMahan, 2011). By providing intuitive search options and customizable filters, HRIS ensures that users can locate specific information quickly, enhancing productivity and reducing the time spent on administrative tasks. Moreover, HRIS offers robust security features to safeguard sensitive employee data. Access controls and encryption protocols ensure that only authorized personnel can retrieve and view confidential records, protecting privacy and confidentiality (Martocchio, 2017). This ensures compliance with data protection regulations and minimizes the risk of unauthorized access or data breaches.

HRIS streamlines the process of records disposition by automating retention schedules and facilitating the secure disposal of outdated or obsolete records (Martocchio, 2017). Through HRIS, organizations can define retention policies, set disposal dates, and track the lifecycle of employee records. This ensures compliance with legal requirements and reduces the risk of litigation associated with improper record retention practices. HRIS allows organizations to establish standardized procedures for records disposition, ensuring consistency and efficiency in the process (Noe *et al.*, 2017). Automated workflows and notifications alert users to upcoming disposal dates, enabling timely action and minimizing the accumulation of unnecessary records. Moreover, HRIS maintains an audit trail of records disposition activities.

2.3.3 HRIS Training and Development Programs.

HRIS enabled training and development programs refer to the use of technology-driven systems and tools to plan, deliver, track, and evaluate employee learning initiatives within an organization. These systems leverage digital platforms to streamline various aspects of training and development, enhancing efficiency, effectiveness, and employee engagement (Dessler, 2019). HRIS-enabled training and development programs encompass a wide range of activities, including training needs assessment, content delivery, evaluation, and feedback mechanisms (Stone, 2019). By digitizing training processes, HRIS eliminates manual paperwork, reduces administrative overhead, and provides centralized access to learning resources (Kavanagh *et al.*, 2012).

HRIS plays a crucial role in facilitating training need assessments by providing comprehensive data on employee skills, competencies, and performance metrics. Through

HRIS-enabled surveys, performance evaluations, and skills assessments, organizations can identify skill gaps, training needs, and development priorities among employees (Luthans, 2016). For instance, HRIS allows organizations to track employee performance metrics, such as productivity levels, customer satisfaction scores, and quality of work, which can help identify areas requiring training interventions (Noe *et al.*, 2017). Moreover, HRIS enables the integration of employee data from various sources, such as performance appraisals, competency assessments, and training and development programs plans, into a centralized database. This centralized data repository streamlines the training needs analysis process, allowing HR professionals to generate reports and analytics on training gaps and development opportunities across the organization (Wright & McMahan, 2011).

HRIS enables efficient and effective delivery of training content through various digital platforms and learning management systems (LMS). By leveraging HRIS, organizations can create personalized training programs tailored to individual employee needs, preferences, and learning styles (Martocchio, 2017). For example, HRIS-enabled LMS platforms allow employees to access training materials, videos, e-books, and interactive modules anytime, anywhere, using computers, tablets, or smartphones (Noe *et al.*, 2017). Furthermore, HRIS facilitates the tracking and monitoring of employee progress and participation in training programs. Through HRIS-enabled dashboards and analytics, trainers and HR professionals can assess the effectiveness of training content, identify areas for improvement, and measure the effect of training on employee performance and skill development (Stone, 2019).

HRIS enables organizations to evaluate the effectiveness and effect of training programs through various assessment tools and metrics. By integrating training evaluation surveys, quizzes, and assessments into HRIS platforms, organizations can gather feedback from employees regarding the relevance, applicability, and satisfaction with training content (Noe *et al.*, 2017). Moreover, HRIS allows organizations to track key performance indicators (KPIs) and metrics, such as employee performance, productivity, and turnover rates, before and after training interventions (Luthans, 2016). Additionally, HRIS facilitates the generation of comprehensive reports and analytics on training effectiveness, including employee engagement, knowledge retention, and skill acquisition. These reports enable HR professionals and trainers to identify strengths and weaknesses in training programs, make data-driven decisions, and continuously improve training content and delivery methods (Martocchio, 2017).

2.3.4 HRIS Work scheduling.

HRIS work scheduling refers to the use of technology-driven systems and tools to plan, manage, and optimize employee work schedules within an organization. These systems leverage digital platforms to automate scheduling processes, facilitate workforce management, and ensure compliance with labor regulations and organizational policies (Dessler, 2019). HRIS-enabled work scheduling encompasses various aspects, including shift planning, time and attendance management, and leave management (Stone, 2019). By digitizing scheduling tasks, HRIS eliminates manual scheduling errors, reduces administrative burden, and provides real-time visibility into staffing levels and availability (Kavanagh *et al.*, 2012).

HRIS enables organizations to create and manage work shift schedules efficiently. Through HRIS platforms, managers can easily create shift plans, assign employees to specific shifts, and communicate schedules to the workforce (Noe *et al.*, 2017). Advanced scheduling features in HRIS allow managers to consider factors such as employee availability, skill levels, and workload requirements when creating shift schedules, ensuring optimal staffing levels and reducing the risk of over or understaffing. Moreover, HRIS provides real-time visibility into shift schedules, allowing managers to monitor staffing levels and make adjustments as needed (Stone, 2019). Automated notifications and alerts notify managers of scheduling conflicts, ensuring timely resolution and minimizing disruptions to operations. Additionally, HRIS enables employees to view their upcoming shifts, request shift changes, and communicate availability preferences, enhancing transparency and employee engagement (Martocchio, 2017).

HRIS simplifies time and attendance management by automating the tracking of employee work hours, breaks, and overtime. Through integrated timekeeping modules, employees can clock in and out electronically using biometric scanners, time clocks, or mobile devices (Noe *et al.*, 2017). HRIS automatically records employee attendance data, calculates total work hours, and flags exceptions such as late arrivals or early departures, reducing manual errors and ensuring accuracy in payroll processing. Furthermore, HRIS offers robust reporting and analytics capabilities, allowing managers to analyze attendance patterns, identify trends, and monitor compliance with labor regulations (Stone, 2019). By generating reports on employee attendance, HRIS enables managers to identify potential areas for improvement, such as excessive absenteeism or recurring tardiness, and take proactive measures to address issues.

HRIS streamlines leave management processes by providing employees with self-service tools to request and manage leave requests. Employees can submit leave requests online through HRIS platforms, specify leave types, and check their leave balances in real-time (Kavanagh *et al.*, 2012). HRIS automates leave approval workflows, routing requests to designated approvers based on predefined rules and hierarchies, reducing delays and administrative overhead. Moreover, HRIS tracks leave accruals and balances accurately, taking into account factors such as employee tenure, leave entitlements, and accrual rates (Martocchio, 2017). Automated calculations ensure compliance with organizational policies and regulatory requirements, minimizing errors and discrepancies in leave accruals. Additionally, HRIS generates reports on leave usage, accruals, and balances, providing managers with insights into workforce availability and planning.

2.3.5 Organizational outcomes

Organizational outcomes refer to the results or achievements attained by an organization as a result of its activities, processes, and strategies (Castañer & Oliveira, 2020). These outcomes reflect the overall effectiveness and success of the organization in achieving its goals and objectives. Organizational outcomes can encompass various dimensions, including financial performance, operational efficiency, customer satisfaction, employee engagement, and social effect (Bryson, 2018). In this study the organizational outcomes will be measured through Market share, Productivity and profitability.

Market share is a key indicator of competitiveness and success in the sugar manufacturing industry. HRIS can contribute to increasing market share by improving operational efficiency and agility. Other studies reveal that, HRIS streamlines HR processes such as

recruitment, training, and performance management, enabling firms to build a skilled and motivated workforce capable of responding quickly to market demands (Huselid, 2015). Moreover, HRIS provides valuable data and analytics that help firms identify opportunities for innovation and product differentiation, allowing them to gain a competitive edge and expand their market presence (Boxall & Purcell, 2013).

Productivity is a critical outcome which can be measured by operational efficiency and cost-effectiveness. Other studies reveal that productivity can be improved by automating routine HR tasks, reducing administrative burdens, and minimizing errors and delays in processes such as payroll and benefits administration (Becker & Huselid, 2016). Moreover, HRIS facilitates better workforce planning and resource allocation, ensuring that the right employees with the necessary skills are deployed to the right tasks at the right time (Delery & Doty, 2016).

Profitability is the ultimate organizational outcome for sugar manufacturing firms, as it determines long-term viability and sustainability. It can be realized by reducing costs, improving efficiency, and driving revenue growth. Other studies reveal that HRIS automates time-consuming HR processes, reduces the need for manual intervention, and minimizes errors, resulting in cost savings and operational efficiencies (Gerhart & Fang, 2015). Additionally, HRIS enables better talent management, allowing firms to attract, retain, and develop high-performing employees who contribute to organizational success (Wright & McMahan, 2012).

2.4 Empirical Review

In order to focus the study, appropriate literature will empirically be reviewed where constructs of the independent and dependent variables in various studies will be analyzed.

2.4.1 Influence of Recruitment and Selection Process on Organizational outcomes

Manyura and Makokha (2023) aimed to explore the effect of e-recruitment systems on employee performance in National Polytechnics in Kenya. By use of both qualitative and quantitative method of analysis, the results revealed that e-recruitment as a variable had a significant effect on employee performance in National polytechnics in Rift Valley region, Kenya. The study focused on National polytechnics in Rift Valley region, Kenya and not private sugar firms which will be the focus of this study. Further, there was conceptual gaps since the study only focused on employee performance as measure of organizational outcomes while the current study will go beyond to use market share, productivity and profitability as measure of dependent variable.

Koech (2022) sought to assess the relationship between recruitment information system and management of human capital at James Finlay (Kenya) limited in Kenya. Using cross sectional research design, the study found out that recruitment information systems had a positive influence on management of human capital. The study focused on James Finlay (Kenya) limited, a case study and not private sugar firms which will be the focus of this study. Further the study used recruitment information system as a measure of the independent variable while the current study will expand the conceptual scope to use HRIS enabled Recruitment and selection processes.

Chen and Hsu (2019) examined the influence of HRIS on organizational performance in technology firms in Taiwan. Using quantitative research design with a survey questionnaire administered to HR professionals in technology, the study findings indicated a positive relationship between HRIS-enabled online job application and organizational outcomes, such as employee performance and retention. While this study provides insights into the relationship in technology firms, it may lack generalizability to other industries since it focused on technological firms in Taiwan. Therefore, the current study will focus on private sugar firms in Western region of Kenya. Furthermore, the study focused on HR professionals only leaving other cadre in the organization a gap which this study seeks to fill by focusing on top level management, middle level management and low-level management. Lastly, organizational outcome was measured using employee performance and retention unlike current study which will focus on additional variable such as market share, productivity and profitability.

Lee and Lee (2018) assessed the effect of HRIS on employee performance in manufacturing firms in South Korea. Utilized a mixed-methods approach, the findings suggested a positive association between HRIS-enabled recruitment process and employee performance, including productivity and employee satisfaction. The study focused on manufacturing firms in South Korea, private sugar firms in Western Kenya will be the focus of this study. Empirically, the study focused on establishing the association while current study will focus on causal-effect of dependent and independent variable. Furthermore, conceptually, the study focused on employee performance as dependent variable while current study will focus on the organizational outcomes which will encompass additional constructs beyond employee performance.

Wang and Zhan (2017) investigated the influence of HRIS employee procurement on organizational performance in service organizations in China. By employing a mixed-methods approach, the findings demonstrated a positive effect of HRIS-enabled employment procurement practices on organizational outcomes, such as employee turnover and customer satisfaction. The study focused on service firms China, private sugar firms which will be the focus of this study. Furthermore, the study failed to show the constructs of HRIS employee procurement were used unlike current study which will measure this variable using additional measures such as Online job advert, Online job application and Online employee selection/interview.

2.4.2 Influence of Employee records management on Organizational outcomes

Sikira and Mishael (2024) sought to assess the effectiveness of HRIS personnel records management on the performance of higher learning institutions, in the case of the Tengeru Institute of Community Development in Arusha, Tanzania. Using case study research design, the results revealed a significant relationship between HRIS personnel records and TICD performance. The majority of respondents agreed that human information systems (HRIS) can track employee movement and improve information dissemination. The composite means of 3.5 indicates that HRIS personnel records management significantly affects the performance of TICD. This was a case study; however, the current study will go beyond by conducting this study in more than one private sugar manufacturing firms and it will adopt cause and effect research design.

Pushpasiri and Pushpasiri (2021) sought to determine the effect of Human Resource Information System (HRIS) on employee job performance among commercial banks in

Western Province of Sri Lanka especially in Colombo. Using data collected from one of the well reputed manufacturing companies the study found out that employee records management dimensions of HRIS have positively influenced with employee performance. The study focused on commercial banks in Sri Lanka and not private sugar firms which will be the focus of this study. Conceptually, the study focused on employee job performance as a dependent variable while the current study will focus organizational outcomes. Methodologically, the study was conducted in one company while the current study will be conducted in three companies thereby expanding the scope.

Kim and Lee (2021) investigated how HRIS records management influences employee performance in manufacturing companies in South Korea. Using descriptive statistics and correlation analysis, the findings revealed a positive relationship between effective employee records management through HRIS and organizational outcomes, such as productivity and employee satisfaction. The study focused solely on manufacturing companies in South Korea, limiting generalizability to other industries and geographical regions such as sugar manufacturing firms in Kenya. Furthermore, empirically, the study utilized correlation analysis while the current study, besides using correlation analysis, it will also use regression analysis.

Zhang and Liu (2020) longitudinally examine the effect of HRIS practices on performance in service organizations in China. By gathering through surveys administered to HR professionals and employees, the analysis indicated a positive effect of HRIS employee records management on organizational performance, including service quality and customer satisfaction. The study focused exclusively on service organizations in China, limiting its applicability to other sectors and countries such as private sugar manufacturing

firms in Western Kenya, a focus of this study. Methodologically, the study failed to indicate which kind of employees were sampled from the said organizations while the current study will focus on top level management, middle level management and low-level management. The study measured performance of organization using service quality and customer satisfaction. However, service quality is subjective measure. The current study will use address this gap by use of objective quantitative measures such as market share, productivity and profitability.

Lopez and Smith (2019) compared the influence of HRIS on organizational performance between public and private universities in the United States. Using comparative statistical techniques and thematic analysis, the findings revealed differences in the effect of HRIS-enabled practices between public and private universities, with private universities showing stronger associations with organizational outcomes. Methodologically, the study was a comparative study, comparing results from both private and public universities while the current study will limit itself to three private sugar manufacturing firms in Western region, Kenya. The study focused on the administrators while the current study will use additional respondents such as top-level management, middle level management and low-level management.

2.4.3 Influence of Training and development programs on Organizational outcomes

Mahamoud (2021) investigated the effect of human capital management information system on organization performance in Tanzania at TRA headquarters Dar es Salaam. By use of a case study research design, the study observed that e-training has effect on increases rate of handling customer complaints and increase number of staff employed

which ensures quality of services delivery and quality works respectively. Furthermore, e-training practices at the office added value of quick response to customer using online services hence effect to customer satisfactions as well as increases number of staff trained as the results increases professionalism in service delivery. The study focused in Tanzania focusing on Tanzania Revenue Authority and not private sugar firms which will be the focus of this study. The study adopted a case study research design the current study will use cause and effect research design meaning it will analyze data using both descriptive and inferential statistics.

Kiruja (2021) sought to investigate the influence of HRIS practices and performance of Oil and gas Companies in Kenya. By use of descriptive research design, the study found out that human resource information systems affect training and development and the firm performance of the oil and gas companies to a high extent. Although the study conducted in Kenya, it focused on oil and gas companies and not private sugar firms which will be the focus of this study. Methodologically, the study failed to show how 60 respondents were sampled from 150 oil and gas marketing companies while the current study will expand the scope to use 97 respondents sampled using census sampling.

Jones and Smith (2020) examined the effect of HRIS practices on organizational performance in manufacturing firms in the United States. By use of regression analysis and structural equation modeling, the findings suggested a positive relationship between effective training and development programs administered via HRIS and organizational performance such as productivity and employee satisfaction. While this study provides insights from the manufacturing sector in the United States, it may lack generalizability to other industries and countries. The current study will focus on private sugar

manufacturing firms in Western region, Kenya. Conceptually, organizational performance was measured using productivity and employee satisfaction while current study will use additional measures such as market share, productivity and profitability.

Chen and Wang (2019) investigated the effects of HRIS on performance in IT companies in China. Using qualitative data were gathered through interviews with HR managers and executives, the findings indicated a positive effect of effective training and development programs through HRIS on organizational performance such as operational efficiency and product quality. The study focused on IT Companies in China and not private sugar firms which will be the focus of this study. Methodologically, the study used qualitative data while the current study will use quantitative data collected using structured questionnaire thereby, subjecting the study to additional method of analysis such as descriptive and inferential statistics.

Martinez and Rodriguez (2018) compared the effect of HRIS on employee performance between public and private schools in Spain. Utilized a comparative research design, the findings revealed differences in the effect of HRIS-enabled employee training programs between public and private schools, with private schools showing stronger associations with employee performance. While this study provides valuable insights into sectoral differences, it may overlook specific contextual factors influencing the relationship since it focused on both public and private schools in Spain while the current study will focus on private sugar manufacturing firms. The study used comparative research design; due to the nature of the current study, explanatory research design will be used to establish cause-effect.

2.4.4 Influence of Work scheduling on Organizational outcomes

Njeje (2018) investigated the effects of HRIS functions on organization performance a survey of selected Saccos in Kenya. By use of 54 respondents who were mainly the employees in the human resource department, the results showed that E-Human resource planning had no significant effect on the organization performance. The study focused on selected Saccos in Kenya and not private sugar firms which will be the focus of this study. Furthermore, the study used a sample of 54 respondents while the current will use a sample of 97 respondents to avoid type II error. The study also sampled respondents from HR Department while the current study will expand the population to include sample top level management, middle level management and low-level management.

Mkongo and Macha (2022) analyzed the effect of e-work scheduling system on timely operational performance of TRA Head Quarter. By use of case study research design, the finding indicates that use of e-communication address operational challenges as the result contribute to operational performance, reduce time taken to respond to work activities that effect of operational performance and lower operational costs in work communication. This was a case study focusing on TRA while the current study will be conducted among more than one private sugar manufacturing firms in Kenya. The study focused on operational performance, while the current study will go beyond operational performance to examine Market Share, Productivity and Profitability. Furthermore, the study used case study research design while current study will use explanatory research design expanding the scope by focusing on three private sugar manufacturing firms in Western region, Kenya.

Chang and Chen (2021) assessed the effect of HRIS functions on organizational performance in the service sector in Taiwan. By analyzing data on HRIS usage, work scheduling effectiveness, and organizational performance, the finding suggested a positive relationship between effective work scheduling facilitated by HRIS and organizational performance, such as customer satisfaction and service quality. The study focused on Service sector in Taiwan and not private sugar firms which will be the focus of this study. Furthermore, the study failed to show how work scheduling effectiveness was measured, a gap the current study will fill by focusing on work shift planning, time and attendance management as well as leave management and accruals.

Afifah and Sary (2020) sought to understand the influence of HRIS effectiveness on employees' performance at Brankas. By use of descriptive and causal with the data analysis, the results of this study showed that HRIS time management has significant influence on employees' performance at Brankas. The study focused on employee performance while the focus of this study will be organizational outcomes including employee productivity. Conceptually, the study focused on HRIS time management while the current study will go beyond to examine Work shift planning time and Attendance Management as well Leave Management and Accruals.

Kim and Park (2019) compared the effect of HRIS on organizational performance between public and private hospitals in South Korea. By analyzing data collected data from both public and private healthcare institutions, The findings revealed differences in the effect of HRIS-enabled work scheduling between public and private hospitals, with private hospitals showing stronger associations with organizational outcomes. This was a comparative study focusing on both private and public hospitals while the current study

will focus on private sugar manufacturing firms in Kenya. Conceptually, the study focused on organizational performance which was measured using service quality which subjective measure while the current study will go beyond to use quantitative measures such as market Share, productivity and Profitability.

2.5 Summary and Research Gaps

While there is a wealth of research examining the effect of HRIS on organizational outcomes across various sectors and countries, there appears to be a gap in literature specifically addressing the sugar manufacturing industry in Kenya. The current study has identified gaps in concept, theoretical, contextual, sectoral, empirical findings and methodological gaps which include design, sample, time scope and data collection. Studies such as Manyura and Makokha (2023), Koech (2022), Kim and Park (2019), and Pushpasiri and Pushpasiri (2021) have investigated HRIS effects in diverse sectors such as technology firms, financial institutions, and manufacturing companies, but none have focused explicitly on the sugar manufacturing sector in Kenya. The absence of research in this area suggests a lack of understanding of how HRIS implementation may influence organizational outcomes within sugar manufacturing firms. Given the unique operational dynamics, workforce characteristics, and challenges faced by the sugar manufacturing industry, it is crucial to investigate how HRIS can be leveraged to enhance productivity, employee performance, and overall operational efficiency within this sector.

Empirical research on the influence of HRIS on Organizational Outcomes in sugar manufacturing firms in Kenya remains notably sparse. Despite several studies investigating HRIS in various industries and countries, there is a conspicuous absence of empirical evidence specific to the private sugar manufacturing firms in Western region,

Kenya. For instance, while Koech (2022) explored the relationship between HRIS and human capital management in general, and Kiruja (2021) investigated the influence of HRIS on performance in oil and gas companies, none of the existing studies directly address the unique context of sugar manufacturing firms in Kenya. This gap in the literature presents an opportunity for empirical inquiry into how HRIS implementation influences organizational outcomes such as productivity, employee satisfaction, and operational efficiency within the private sugar manufacturing firms in Western region, Kenya.

Moreover, the predominant use of quantitative methodologies, as seen in the studies by Chen and Hsu (2019), Wang and Zhan (2017), and Kim and Park (2019), may overlook qualitative insights crucial for understanding the intricate dynamics within sugar manufacturing firms. A comprehensive investigation into HRIS influence in this industry demands a mixed-methods approach, as suggested by Mkongo and Macha (2022), combining surveys with interviews or case studies.

The inconsistency in the relationship between HRIS and organizational outcomes gives a significant knowledge gap as it is difficult to generalize studies from different contexts. Manyura and Makokha (2023) found a significant effect of e-recruitment systems on employee performance in National Polytechnics in Kenya, while Odero (2022) did not find a significant effect of e-human resource planning on organizational performance at selected Saccos in Kenya. Kim and Park (2019) observed differences in the effect of HRIS-enabled work scheduling between public and private hospitals in South Korea, with private hospitals showing stronger associations with organizational outcomes. Conversely, Lee and Lee (2018) found a positive association between HRIS-enabled

practices and organizational outcomes in manufacturing firms in South Korea, without distinguishing between public and private sectors. Juma (2022) found there was no significant influence of HRIS on employee commitment in aluminium and steel manufacturing industries in Nairobi. Similarly, Njeje (2018) showed that E-Human resource planning had no significant effect on the organization performance. These studies contradicted other studies

Studies have been conducted on various constructs of Human Resource Information System (work scheduling, rewards, training and development programs, recruitment and selection processes) and organizational outcomes. Most of these studies have revealed some gaps which can be addressed through further research. For example, there have been conflicting findings on the specific EVP constructs that enhance organizational outcomes. Whereas some emphasize recruitment and selection processes, compensation, career growth opportunity and work scheduling to build organizational outcomes, (Arifin & Lo,2020; Omar & Mahmood,2020; Celestine, 2015; Raharjo et al., 2018; Sudirlan, 2019; Owor, 2016; Kibambila, & Ismail, 2021 others cite that EVP does not significantly influence organizational outcomes.

Table 2. 1: Summary of Research Gaps

Author/year	Variables of Study	Methodology	Findings	Gaps	How My study will address the Gap
Recruitment and Selection and Organizational Outcomes					
Manyura and Makokha (2023)	e-recruitment, Employee Performance	The study employed a cross sectional survey design which was census technique targeting 61 respondents and purposive sampling was used to select the 61 respondents. Semi structured questionnaires were be used.	According to the results, e-recruitment as a variable had a significant effect on employee performance in National polytechnics in Rift Valley region, Kenya.	There was contextual gap since it was conducted among national polytechnics in Rift valley region The study used both census and purposive sampling with clear justification	The study will be conducted among private sugarcane manufacturing firms in Western region, Kenya The study will use census approach since the population was less than 100
Koech (2022)	e-recruitment, Employee Performance	The study used cross sectional research design with a target population of 458 employees. The study adopted primary data collection method where structured questionnaires were administered to the respondents	The study concluded that recruitment information systems had a positive influence on management of human capital	This was a case study focusing on James Finlay (Kenya) limited resulting to methodological gaps The study used management of human capital as dependent variable leaving conceptual gap	The study will be conducted among private sugarcane manufacturing firms in Western region, Kenya Organizational outcomes will be used as dependent variable
Chen and Hsu (2019)	e-recruitment, Organizational Performance	The study employed a quantitative research design with a survey questionnaire administered to HR professionals in technology firms. Population included HR professionals involved in recruitment and selection processes	Findings indicated a positive relationship between HRIS-enabled practices and organizational outcomes, such as employee performance and retention	The study did not indicate how organizational performance was measured The study was conducted in Taiwan resulting to geographical gaps	The study will be conducted among private sugarcane manufacturing firms in Western region, Kenya Organizational outcomes will be measured by Market Share, Productivity and Profitability
Mahamoud (2021)	e-recruitment, organizational Performance	The study employed mixed research based on qualitative and quantitative analysis. The case study research design was used in analysing the study. Data was collected through questionnaire and interview and were analysed using qualitative and	The study observed that e-recruitment has effect on increases rate of handling customer complaints and increase number of staff employed which ensures quality of services delivery	Empirically, the study failed to triangulate qualitative and quantitative data The study was a case study resulting to methodological gap	The study will be conducted among two private sugarcane manufacturing firms in Western region, Kenya The study will use quantitative techniques in data collection and analysis

		quantitative approaches	and quality works respectively		
Training and Development and Organizational Outcomes					
Lee and Lee (2018)	Training and development, organizational Performance	Utilized a mixed-methods approach, combining surveys with semi-structured interviews. Quantitative data were collected through structured questionnaires administered to HR professionals, while qualitative data were gathered through interviews	Findings suggested a positive association between HRIS-enabled practices and employee performance, including productivity and employee satisfaction	The study focused on employee performance while the current study will focus organizational outcomes	Organizational outcomes will be measured by Market Share, Productivity and Profitability. The study will be conducted among private sugar manufacturing firms in Western region, Kenya
Wang and Zhan (2017)	Training and development, organizational Performance	Employed a mixed-methods approach, combining surveys with archival data analysis. Quantitative data were collected through structured questionnaires administered to HR professionals	Findings demonstrated a positive effect of HRIS training and development on organizational outcomes, such as employee turnover and customer satisfaction.	The study used employee turnover as measure of organizational outcomes	Organizational outcomes will be measured by Market Share, Productivity and Profitability. The study will use quantitative techniques in data collection and analysis
Kiruja (2021)	Training and development, organizational Performance	The study used descriptive research design. The target population was 150 oil and gas marketing companies whose headquarters are based within Nairobi County.	The study concluded that human resource information systems affect training and development and the firm performance of the oil and gas companies to a high extent.	The study was conducted among Oil and gas Companies in Kenya resulting to sectoral gaps. Firm performance was used as dependent variable	Organizational outcomes will be measured by Market Share, Productivity and Profitability. The study will be conducted among private sugar manufacturing firms in Western region, Kenya
Mahamoud (2021)	Training and development, organizational Performance	The study employed mixed research based on qualitative and quantitative analysis. The case study research design was used in analysing the study. Data was collected through questionnaire and interview and were analysed using qualitative and quantitative approaches	The study observed that e-training has effect on increases rate of handling customer complaints and increase number of staff employed which ensures quality of services delivery and quality works respectively	The study focused in Tanzania focusing on Tanzania Revenue Authority. The study did not indicate how organizational performance was measured	Organizational outcomes will be measured by Market Share, Productivity and Profitability. The study will be conducted among private sugar manufacturing firms in Western region, Kenya
Employee Records Management and Organizational Outcomes					

Njeje (2018)	HRIS Employee records management, organizational Performance	The study employed a cross sectional survey design which had the census technique which targeted 54 respondents and purposive sampling was used to select the 54 respondents who were mainly the employees in the human resource department. Questionnaires was used as the data collection instruments and data were qualitative and quantitative in nature.	The results showed that E-Human resource planning had no significant effect on the organization performance	There was contextual gap since it was conducted among Saccos The study used both census and purposive sampling with clear justification There was no evidence of triangulation	The study will be conducted among private sugarcane manufacturing firms in Western region, Kenya. The study will use quantitative techniques in data collection and analysis The study will only use census sampling
Mkongo and Macha (2022)	HRIS Employee records management, organizational Performance	The study employed mixed research strategy based on qualitative and quantitative analysis. The case study research design was used in analyzing the study. Data was collected through questionnaire and interview, and they were analyzed using qualitative and quantitative approaches.	The finding indicates that use of e-communication address operational challenges as the result contribute to operational performance, reduce time taken to respond to work activities that effect of operational performance and lower operational costs in work communication.	The study only used e-communication system as employee record management The study was conducted among Tanzania Revenue Authority results to significant sectoral gaps	The study will be conducted among private sugarcane manufacturing firms in Western region, Kenya HRIS employee record management will be measured using Records storage, Records retrieval and Records Disposition
Sikira and Mishael (2024)	HRIS Employee records management, organizational Performance	The researchers employed a descriptive research design in the course of conducting the research. The population of this research consisted of all employees of all departments of TICD. The researchers used simple random sampling to select respondents.	Findings revealed a significant relationship between HRIS personnel records and TICD performance. The majority of respondents agreed that HRIS can track employee movement and improve information dissemination.	The study used both primary data and secondary data were collected for the study without clear justification. The relationship was ascertained using descriptive statistics results to empirical gap	The study will rely on primary data The study will use both descriptive and inferential statistics.
Juma (2022)	HRIS Employee records management, organizational Performance	The researcher used a descriptive research design. The population of this research constituted all employees of all departments of TICD. The researcher used simple	The study findings indicated that there is a significant relationship between HRIS employee	The study was conducted among higher learning institutions leaving a sectoral gap. The study used both primary data and secondary data were	The study will be conducted among private sugarcane manufacturing firms in Western region, Kenya The study will rely on primary

		random sampling to select respondents. Both primary data and secondary data were collected for the study	relocation and TICD performance.	collected for the study without clear justification.	data
Kim and Lee (2021)	HRIS Employee records management, organizational Performance	Utilized a mixed-methods approach involving surveys and interviews with HR professionals and managers in manufacturing firms. Quantitative data were collected through structured questionnaires, while qualitative data were gathered through semi-structured interviews.	Findings revealed a positive relationship between effective employee records management through HRIS and organizational outcomes, such as productivity and employee satisfaction	There was no evidence of triangulation resulting to methodological gaps The study focused solely on manufacturing companies in South Korea, limiting generalizability to other industries and geographical regions.	The study will adopt quantitative techniques The study will be conducted among private sugar manufacturing firms in Western region, Kenya
Work Scheduling and Organizational Outcomes					
Chang and Chen (2021)	Work scheduling, organizational Performance	Employed a quantitative research design, collecting data through surveys administered to HR professionals and employees in service industries	Findings suggested a positive relationship between effective work scheduling facilitated by HRIS and organizational performance	There was a gap in conceptual since organizational performance was measured using customer satisfaction and service quality	Organizational outcomes will be measured by Market Share, Productivity and Profitability The study will be conducted among private sugar manufacturing firms in Western region, Kenya
Kim and Park (2019)	Work scheduling, organizational Performance	Utilized a comparative research design, collecting data from both public and private healthcare institutions. The population included healthcare professionals and administrative staff	Findings revealed differences in the effect of HRIS-enabled work scheduling between public and private hospitals, with private hospitals showing stronger associations with organizational outcomes.	This was a comparative study between public and private hospitals in South Korea	Organizational outcomes will be measured by Market Share, Productivity and Profitability The study will be conducted among private sugar manufacturing firms in Western region, Kenya
Pushpasiri and Pushpasiri (2021)	HRIS work scheduling, organizational Performance	The descriptive research is based on the deductive approach adopted here. A quantitative method was used and questionnaire survey method was employed as the main data collection method.	Time and attendance system, Performance Management system and Self- service system were used as the determinants of HRIS. According to the	The study only focused on one of the well reputed manufacturing companies while the current study will focus on more than one sugar manufacturing firms in Kenya	The study will be conducted among private sugar manufacturing firms in Western region, Kenya

			research findings, 3 dimensions of HRIS have positively influenced with employee performance.		
Njeje (2018)	HRIS human resource scheduling, organizational Performance	A cross sectional survey design which had the census technique which targeted 54 respondents and purposive sampling was used to select the 54 respondents. Questionnaires was used as the data collection instruments.	The results showed that E-Human resource planning had no significant effect on the organization performance with a p value of 0.432 where $p > 0.05$	The study focused on selected Saccos The study did not indicate how organizational performance was measured	Organizational outcomes will be measured by Market Share, Productivity and Profitability The study will be conducted among private sugar manufacturing firms in Western region, Kenya

Source: Compiled by author from secondary data (2024)

2.6 Conceptual framework

Figure 2.1 shows conceptual framework that will be used in this study. The independent variable is human resource information system while dependent variable is organization outcomes.

Independent Variable

Dependent Variable

Human Resource Information System

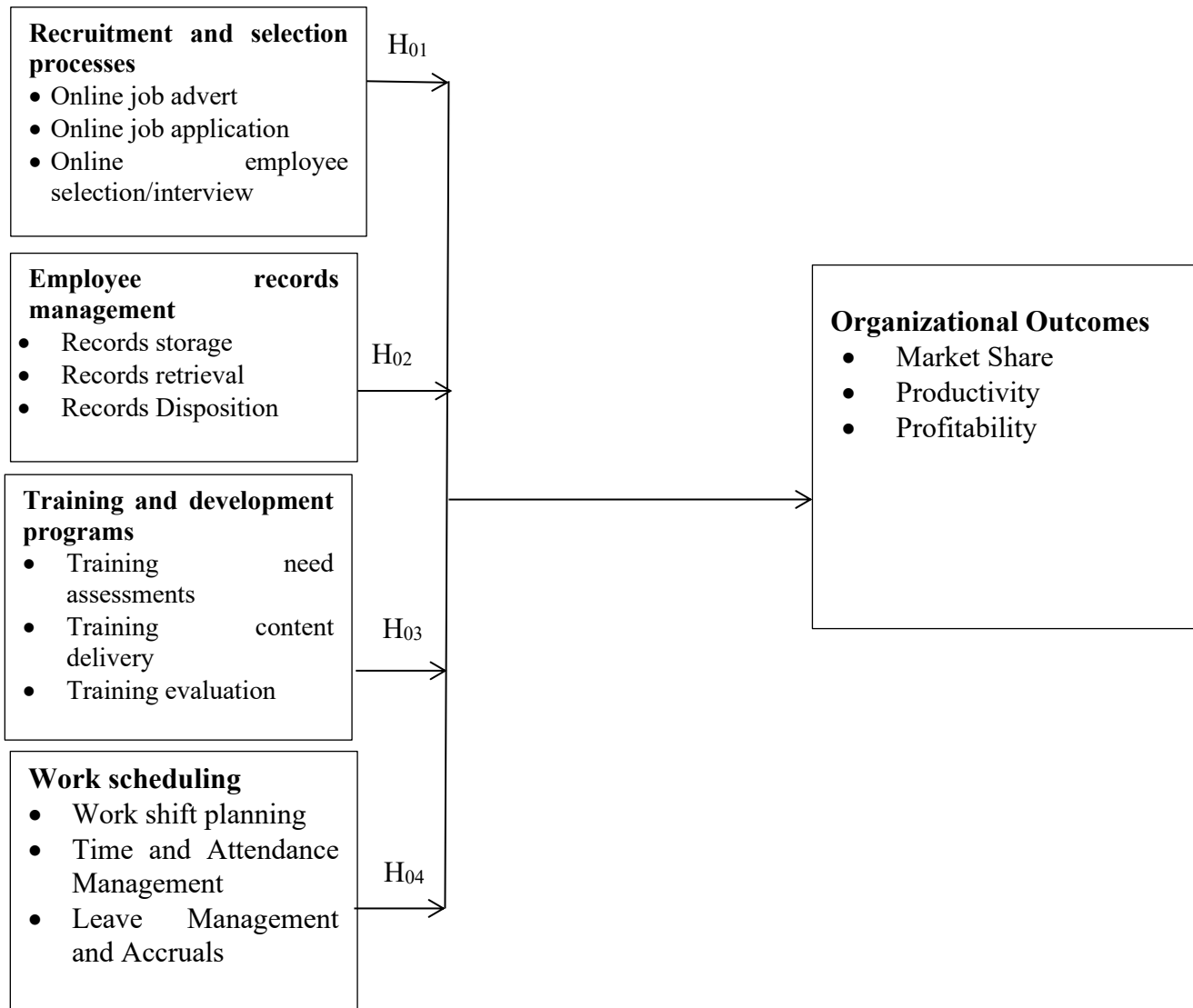


Figure 2. 1: Conceptual Framework

Source: Manyura & Makokha (2023), Mahamoud(2021), Sikira & Mishael (2024)

The first independent variable will be Recruitment and selection processes. The recruitment and selection process has been transformed by technology, with online platforms playing a crucial role in attracting and selecting candidates. Online job advertisements, online job applications and Online employee selection and interviews will be used to measure this variable. Employee records management has also evolved with digital solutions. Records storage, record retrieval and Records disposition will be used to measure this variable. Training and development programs benefit from technology in several ways (Njeje, 2018). Training needs assessments can be conducted through HRIS, allowing companies to identify skill gaps and tailor training programs to meet specific needs. Training content delivery is facilitated through online platforms, offering flexibility in terms of location and timing. Training evaluation tools allow companies to assess the effectiveness of training programs and measure their impact on employee performance (Manyura & Makokha, 2023).

Work scheduling has become more efficient with HRIS tools. Work shift planning allows companies to organize employee shifts effectively, reducing scheduling conflicts. Time and attendance management ensures accurate tracking of work hours, while leave management and accruals help companies maintain compliance with labor regulations (Mahamoud, 2021). Organizational outcomes such as market share, productivity and profitability can be influenced by effective HR practice. These efficient HR processes play a key role in enhancing organizational performance and competitiveness (Sikira & Mishael, 2024).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research design, target population, the data collection method, data collection instruments and the analysis method that was used in the study.

3.2 Study Area

The study was conducted in Western region (formerly Western Province) in private sugar companies. Sugar production plays a vital role in Western Kenya, specifically in the Counties of Kakamega, Bungoma and Busia. These regions host several sugar factories responsible for substantial economic activity and employment opportunities (Muendo et al., 2021). The private sugar companies operating in these areas include Naitiri Sugar Company in Bungoma County, West Kenya Sugar Company and Butali Sugar Mills in Kakamega County and Busia Sugar Company Limited and Olepito Sugar co. Ltd in Busia County (Odera et al., 2017; Muendo et al., 2021) Three of the five private sugar firms in Western Region of Kenya was studied. Olepito and Naitiri are branches of West Kenya sugar company hence Naitiri was studied to represent the rest of the West kenya sugar firms as they work under the same demographic factors.

3.3 Research Design

A research design is the program that guides the investigation of the research in collection, analysis and interpretation of observations made (Cresswell, 2014). The study adopted causal research design which explores cause effect relationships. This research design

reveals a cause-and-effect relationship between dependent and independent variables. A variable quantity may be a symbol or concept that is predictable and caused by an experimental variable (Baskerville & Pries-Heje, 2014). Consistent with Creswell and Creswell (2017), the causal research design is employed to analyse the extent to which variable changes are reflected in alteration within the other variable. The main aim of causal research design is to identify any causal links between the factors or variables that pertain to the research problem. On the other hand, it tries to verify formulated hypotheses that refer to the present situation in order to elucidate it (Bowen, Rose & Pilkington, 2017). The reason why causal research design was preferred is because the research objective is to find out the cause-and-effect relationship between HRIS and organizational outcomes of private sugar manufacturing firms.

3.4 Target population

Target population is the entire set of individuals (or objects) having the same characteristics as pointed out in the sampling criteria used for the study (Bryman, 2013). The target population makes a part of the universal population (Creswell, 2014). The target population was 97 employees who are the managers of the private sugar manufacturing firms in western region, Kenya as outlined in Table 3.1 comprising of target top level management employees, middle level employees and low-level management employees. Top level management comprised of chief executive officer/managing directors and managers. Middle level management comprised of head of departments while low level management comprised of supervisors including shift supervisors, lead operators and team leaders.

Table 3. 1: Target population Respondents.

Category	Top Level Management	Middle level Management	Low Level Management	Total
Busia Sugar Industry	5	10	18	33
Butali Sugar Company	8	13	25	46
Naitiri Sugar Company	3	4	11	18
Total	17	28	54	97

Source: Kenya Sugar Board (2024)

3.5 Sampling Technique and Sample Size

Sample refers to a part of or fraction of population that is being investigated upon. It can also be defined as a group of individuals who are engaged or participating in a study. A good sample size should be enough to adequately represent the characteristics of the population being studied. Sahu (2013) notes that the best sample should give enough data on the population and this data should be adequate and capable of being analyzed easily. Given the relatively small size of the population, consisting of few individuals (specifically, 97), the census approach was used to include all the respondents. This decision is motivated by the need to mitigate the risk of sampling bias, particularly prevalent when dealing with small study populations. As highlighted by Kothari (2007), employing a census method ensures that every member of the population is included in the study, thus minimizing the potential for sampling errors or inaccuracies in drawing conclusions about the population as a whole.

3.6 Data collection

3.6.1 Data type

The data collected for the study was Primary data. Greenfield and Greener (2016) indicates that primary data is made up of first-hand information that has not been processed or analysed. A questionnaire which is a form of quantitative data collection tool can be used to collect primary data.

3.6.2 Data collection instrument

The study's primary data was obtained using structured questionnaires. The structured questions were useful as they enabled easy analysis of data and reduce the time and resources needed for data collection. The questionnaire had seven sections, with the first part introducing the purpose of the information requested and instructions on how to complete the questionnaire; the second part requesting the respondent's socio-demographic data. Part three composed of four sections and have data on the dependent variable and independent variables of the research namely recruitment and selection, employee records management, training and development and work scheduling. They were structured in 5-likert scale from 1-strongly disagree, 2-disagree, 3-undecided, 4-agree and 5-strongly agree. Attached Appendix 11.

To analyze the data collected from the questionnaire, a variety of descriptive statistics will be used to provide insights into different aspects of HRIS Recruitment and selection, Employee records management, Training and development programs, work scheduling and Organizational Outcomes among the private sugar manufacturing firms in Western

Region, Kenya. Measures of central tendency included mean and percentages which will be applied to understand the average agreement levels for statements related to HRIS Recruitment and selection, Employee records and management, Training and development programs, work scheduling and Organizational Outcomes. Measures of variability, such as standard deviation assessed the variability or consistency of responses across these areas. Frequency distribution was employed to display the distribution of responses across the Likert scale for each statement

3.6.3 Data Collection procedures

Data collection procedure refers to an approach for gathering and measuring data on elements or variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes (Babbie, 2017). Data collection procedure enables the researcher to develop appropriate instruments for data collection and clearly provides instruction for its use to minimize the likelihood of error occurrence. The researcher obtained an introductory letter for data collection from Masinde Muliro University of Science and technology. Thereafter, a permit from the National Commission for Science, Technology and Innovation (NACOSTI) was sought. The researcher had recruit and train two research assistants to help in distribution and collection of completed questionnaires. The entry point to the organizations will be mainly through human resource departments. The collection of data was conducted by use of the drop-off and pick-up-later method and the completed questionnaires were collected a week later. This accorded the respondents enough time to answer the questions. The researcher used this method due to the variances in respondents' time availability and the

geographical spread of the firms. A checklist was maintained to ensure all questionnaires administered are collected on time for data analysis.

3.7 Reliability and Validity

A pilot study, or, pilot test or pre-test is defined as small-scale preliminary research that is conducted so as to evaluate time, cost and feasibility to improve on the design of a particular study prior to conducting the actual one or full-scale research project (Babbie, 2017). The researcher carried out a pilot study to ensure the data collection tool were reliable and valid. The pilot test was used to correct some of the challenges encountered before undertaking the final study. The pretesting sample consisted of 8 respondents taken from Kibos sugar company limited in Kisumu County, representing 10% of the sample size. According to Singpurwalla (2013), a pilot study sample size should ideally be 10% of the study sample. The results from the pilot test were not used in the main study.

3.7.1 Test of validity

Validity of a research tool is the extent to which it measures what it is supposed to measure. Content validity is the extent to which the items used to represent a construct give a representative sample of the construct population (Saunders, Lewis & Thornhill, 2012). Since there is no measure to determine content validity, the experts in the field of study often determine the content validity of the study. Face and content validity for the current research was determined by experts and researcher's supervisors (Fraenkel, 2014). The researcher enhanced the validity of the research tool by coming up with the research questions that are in line with the study objectives.

3.7.2 Test of reliability

Reliability refers to a measurement that supplies consistent results over different situations. It measures consistency, precision, repeatability, and trustworthiness of a research instrument (Egbert, 2015). A high reliability means that a measure is able to give similar results under similar conditions (Kothari, 2012). Cronbach's alpha coefficient was used to test the reliability of data. Cronbach's alpha whose range is between 0 and 1 measures internal consistency and the extent of the relationship between the set of items in a group. It also quantifies scale reliability (Fraenkel, 2014). If the alpha coefficient is high then there is high reliability among the items under study. An acceptable value of Cronbach alpha is 0.7 or more, a value that is lower than 0.7 is questionable (Singpurwalla, 2013).

3.8 Data Analysis

3.8.1 Diagnostic Tests

Before data analysis is done the following diagnostic tests will be undertaken. Testing of assumptions is an important task for the researcher utilizing multiple linear regressions. Serious violations can result in biased estimates of relationships, over or under-confident estimates of the precision of regression coefficients (biased standard errors) and untrustworthy confidence intervals and significance tests (Williams, Grajales & Kurkiewicz, 2017).

3.8.1.1 Normality

To check for normality, that is, whether data is normally distributed, Kolmogorov-Smirnov test of normality will be used to meet this assumption (Thadewald & Büning, 2017). If the p-value is greater than your chosen significance level (commonly 0.05), you fail to reject the null hypothesis. This suggests that there is no significant evidence to conclude that the data does not follow a normal distribution, hence supporting the assumption of normality. If the p-value is less than your chosen significance level, you reject the null hypothesis. This indicates that the data significantly deviates from a normal distribution, suggesting non-normality.

3.8.1.2 Test of linearity

The independent and dependent variables must have a linear relationship because regression tests linear relationships. It is also important to check for outliers since linear regression is sensitive to outlier effects. The linearity assumption can best be tested with scatter plots (Chatterjee & Hadi, 2015). The closer the data points come to forming a straight line when plotted, the higher the correlation between the two variables, or the stronger the relationship. If the data points make a straight line going from near the origin out to high y-values, the variables are said to have a positive correlation. If the data points start at high y-values on the y-axis and progress down to low values, the variables have a negative correlation.

3.8.1.3 multi-collinearity

The existence of strong correlation between independent variables was tested using Variance Inflation Factor and correlation co-efficient among the independent variables. The rule of thumb on variance inflation factor is, if it is greater than 4 it requires investigation and multi-collinearity is a problem (Farrar & Glauber, 2017).

3.8.1.4 Homoscedasticity.

This tests whether the dependent variable exhibits equal variance across the range of the independent variables. In other words, the spread of the residuals should be consistent as you move along the range of the predictor variables. This was confirmed using Breusch-Pagan Test. This is a formal statistical test for homoscedasticity. It tests whether the variance of the residuals is constant. If the p-value of the test is less than a chosen significance level ($P < 0.05$), it indicates that there is evidence to reject the null hypothesis of homoscedasticity, suggesting heteroscedasticity.

3.8.2 Data Analysis Model

To provide information, the data was processed using quantitative techniques in the context of SPSS 26. First, collected primary data was edited, cleaned, and coded; and then SPSS version 26 was used to analyze. Descriptive statistical analysis was employed to summarize and describe the main features of the dataset, providing insights into the central tendencies, variability, and distribution of the variables under study (Kemp, Ng, Hollowood & Hort, 2018). To analyze the data collected from the questionnaire, a variety of descriptive statistics was used to provide insights into different aspects of HRIS

Recruitment and selection, Employee records management, Training and development programs, work scheduling and Organizational Outcomes among the private sugar manufacturing firms in Western Region, Kenya. Measures of central tendency will include mean and percentages which was applied to understand the average agreement levels for statements related to HRIS Recruitment and selection, Employee records and management, Training and development programs, work scheduling and Organizational Outcomes. Measures of variability, such as standard deviation, helped assess the variability or consistency of responses across these areas. Frequency distribution was employed to display the distribution of responses across the Likert scale for each statement. This comprehensive approach offered a detailed understanding of the influence of Human Resource Information System among the private sugar manufacturing firms in Western Region, Kenya.

For variable relationships inferential statistics was computed, that is correlation analysis was conducted to examine the relationships between the independent and dependent variables in the study. Pearson correlation coefficients was computed to determine the strength and direction of the linear relationships between the variables. Correlation analysis measures the strength and direction of linear relationships between two variables, with values ranging from -1 to +1. The decision criteria for interpreting the correlation coefficients will be based on Janse, Hoekstra, Jager (2021) guidelines, where a positive correlation (ranging from 0 to +1) indicates that as one variable increases, the other variable also tends to increase. In the context of this study, a positive correlation between HRIS Recruitment and selection, Employee records management, Training and development programs, work scheduling and Organizational Outcomes would suggest

that the use of these practices would have an influence on Organizational Outcomes among private sugar manufacturing firms in Western Region, Kenya. A negative correlation (ranging from -1 to 0) suggests that as one variable increases, the other variable tends to decrease. For example, a negative correlation between HRIS Recruitment and selection and Organizational Outcome would imply that certain HRIS Recruitment and selection practices may not have an influence on Organizational Outcome. The correlation analysis measured the relationship between HRIS Recruitment and selection, Employee records management, Training and development programs, Work scheduling and Organizational Outcomes among private sugar manufacturing firms, in Western Region, Kenya.

Simple linear regression analysis was used to establish the direct effect of each independent variable on dependent variable of the research objective one to four.

Simple linear regression equations were written as;

Simple linear regression models

Objective 1 -Influence of HRIS recruitment and selection on organizational outcome

Model 1 $Y = \alpha_0 + \beta_1 X_1 + \varepsilon$

Objective 2 -Influence of HRIS employee records management on organizational outcome

Model 2 : $Y = \alpha_0 + \beta_2 X_2 + \varepsilon$

Objective 3-Influence of HRIS training and development programs on organizational outcome

Model 3: $Y = \alpha_0 + \beta_3 X_3 + \varepsilon$

Objective 4 -Influence of HRIS Work scheduling on organizational outcome

Model 4: $Y = \alpha_0 + \beta_4 X_4 + \varepsilon$

Where; Y was Organizational outcomes

α is constant (intercept),

β was coefficient parameter to be determined,

X_1 was Recruitment and selection

X_2 was Employee records management,

X_3 was Training and development programs,

X_4 was work scheduling,

ε was error/disturbance

In the above models, α_0 represents the expected value of organizational outcome when the independent variable (HRIS recruitment and selection, employee record management, training and development program and work scheduling) is zero. The coefficient β indicates the expected change in organizational outcome for a one-unit change in the independent variable. A positive coefficient suggests a positive relationship, while a negative coefficient indicates a negative relationship. The error term ε captures the variability in organizational outcome that cannot be explained by the independent variable

Multiple linear regression

Multiple linear regression is a statistical method used to analyze the relationship between two or more independent variables and a dependent variable. It extends simple linear regression, which involves only one independent variable, to the case where there are multiple independent variables. The goal of multiple linear regression is to estimate the coefficients that best fit the data, minimizing the sum of squared differences between the observed and predicted values of the dependent variable. First hypotheses 1-4 will be tested using Multiple Regression Model equation summarized as;

$$(i) \quad y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where; y = Organizational outcomes;

β_0 = constant (coefficient of intercept);

X_1 = Recruitment and selection

X_2 = Employee records management

X_3 = Training and development programs

X_4 = Work scheduling

ε = Error term

$\beta_1 \dots \beta_4$ = Regression coefficient of the independent variables in the model.

In the model above, β_0 represents the expected value of the dependent variable that is Organizational Outcome when all independent variables are set to zero. The regression coefficients indicate the change in the dependent variable for a one-unit change in the

respective independent variable, holding all other variables constant. Outcome. The error term captures the variability in Organizational Outcome that is not explained by the independent variables in the model.

The use of both multiple and simple linear regression simultaneously can be justified based on their complementary strengths in analyzing data. Simple linear regression is effective for examining the relationship between a single independent variable and a dependent variable, allowing for straightforward interpretation of the effect of that one predictor on the outcome. This method is particularly useful when the relationship is expected to be linear and when the focus is on understanding the direct impact of one variable.

On the other hand, multiple linear regression allows for the inclusion of multiple independent variables, providing a more comprehensive analysis of how various factors collectively influence the dependent variable. This is crucial in complex scenarios where multiple predictors may interact or contribute to the outcome, as it can help identify the relative importance of each variable in the context of others. By employing both methods, researchers can first establish a baseline understanding of individual relationships through simple linear regression and then expand their analysis with multiple linear regression to capture the interactions and combined effects of multiple predictors. This dual approach enhances the robustness of the findings and provides a more nuanced understanding of the data, which is essential in fields such as education where multiple factors influence outcomes.

3.9 Ethical consideration

Mugenda and Mugenda (2014) argue that social research has very ethical concerns such as confidentiality and anonymity. The researcher explained and clarify the aims of the research and assure the respondents that all the information provided was treated with the utmost confidentiality their privacy will be upheld. Identification details were not recorded in order to maintain anonymity of the respondents. The researcher also maintained ethics in academic writing and publishing whereby plagiarism was avoided through plagiarism checker. Information cited about authors was acknowledged and differentiated from personal views. Adherence to the principle of voluntary and informed consent to participate in this study was highly upheld throughout the research.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents results of the analysis, findings and discussions based on the objective of the study which was to examine influence of human resource information system on organizational outcomes among private sugar manufacturing firms in Western region, Kenya. Specifically, the study examined the influence of HRIS recruitment and selection practices, HRIS employee records management practices, HRIS training and development programs and HRIS work scheduling on the organizational outcomes among private sugar manufacturing firms in Western region, Kenya.

4.2 Response Rate

A total of 97 questionnaires were administered to the sampled respondents, out of which 79 were successfully completed and returned resulting in a response rate of 81.4%. This response rate is acceptable, as it exceeds the commonly cited threshold of 60% for survey-based research. Genroe (2024) explains that an acceptable survey response rate is one that ensures statistical validity. While response rates vary depending on the population and research goals, a high response rate (such as above 80%) minimizes non-response bias and strengthens data reliability. Restackio (2024) states that effective survey strategies, including clear communication, incentives, and follow-ups, can improve response rates, with 60-80% being a common benchmark for academic surveys.

4.3 Reliability Test

A pilot was conducted where questionnaires were distributed and results analysed to establish reliability. For reliability tests Cronbach alpha was applied for each variable which had a range 0.717 to 0.811 thus for this, Cronbach alpha statistic with a value of 0.7 or more was considered reliable. The test items were retained and used in this study hence considered reliable as shown in the Table 4.1.

Table 4. 1: Reliability.

Variable	N	Cronbach alpha
HRIS recruitment and selection practices	5	0.957
HRIS employee records management	5	0.879
HRIS training and development programs	5	0.953
HRIS work scheduling	5	0.944
Organizational outcomes	5	0.846

Source: Primary Data (2024)

4.4 Descriptive Analysis

4.4.1 Demographic Information

The demographic information of the respondents is considered very crucial not only for subsequent discussions of the findings but also for the authenticity and generalization of the results. This section, therefore, presents respondents' background information which is considered crucial for discussions in this study such as gender, age, education level and the duration in the current position. The results on demographic information are shown.

Table 4. 2: Gender of the Respondents

Gender	Frequency	Percent
Male	55	69.6
Female	24	30.4
Total	79	100.0
Education		
Master's Degree	16	20.3
Bachelor's Degree	26	32.9
Diploma	29	36.7
College Certificate	8	10.1
	79	100.0
Age		
20-29	9	11.4
30-39	26	32.9
40-49	32	40.5
50 and above	12	15.2
Total	79	100.0
Period of Service		
1-5 years	11	13.9
6-10 years	48	60.8
Over 10 years	20	25.3
Total	79	100.0
Position		
Top Level Management	4	5.1
Middle level management	29	36.7
Low Level Management	46	58.2
Total	79	100.0

The gender distribution of respondents indicates that the majority were male, comprising 69.6% (n=55) of the sample, while females represented 30.4% (n=24). This gender

disparity suggests a workforce that is predominantly male, which may reflect the gender composition typical of the private sugar manufacturing sector in the Western region of Kenya. The representation of both genders provides insights into how the Human Resource Information System (HRIS) influences organizational outcomes across diverse gender perspectives.

Out of the 79 respondents, 10.1% (n=8) held a college certificate, 32.9% (n=26) had a diploma, 36.7% (n=29) possessed a bachelor's degree, and 20.3% (n=16) held a master's degree. The data indicates that the majority of respondents had either a bachelor's degree or a diploma, collectively accounting for nearly 70% of the sample. This educational diversity ensures that the responses reflect a variety of perspectives, from technical and operational roles to strategic and managerial positions, thus enriching the analysis of the Human Resource Information System's (HRIS) influence on organizational outcomes.

Out of the 79 respondents, 11.4% (n=9) were aged 20-29 years, 32.9% (n=26) were aged 30-39 years, 40.5% (n=32) fell within the 40-49 years bracket, and 15.2% (n=12) were aged above 50 years. This indicates that the largest proportion of respondents were in the 40-49 years age group, representing individuals likely to have significant professional experience. The presence of respondents across all age brackets provides a comprehensive perspective on the influence of the HRIS, reflecting varying generational experiences and adoption of HRIS tools within the organization.

Of the 79 respondents, 13.9% (n=11) had worked for 1-5 years, 60.8% (n=48) had served for 6-10 years, and 25.3% (n=20) had been with the organization for over 10 years. This distribution indicates that the majority of the respondents, accounting for nearly two-

thirds, had moderate tenure (6-10 years), which suggests they likely have substantial familiarity with the organization's operations and the use of the HRIS. The inclusion of employees with both shorter and longer tenures provided a balanced view of how HRIS influences organizational outcomes across different levels of experience.

Of the total 79 respondents, 5.1% (n=4) were in top-level management, 36.7% (n=29) in middle-level management, and the majority, 58.2% (n=46), were in low-level management. This distribution highlights that a significant portion of feedback was gathered from individuals in operational roles, providing insights grounded in day-to-day organizational activities. Meanwhile, input from top and middle-level managers ensures that perspectives on strategic and tactical impacts of the HRIS on organizational outcomes are also captured.

4.4.2 Descriptive Statistics

Descriptive analysis was used to interrogate relationship between study variables and establish how they affected each other. Descriptive analysis for this section used percentages, frequencies, means and standard deviation to show the response from the respondents as shown in the tables below for each variable. The respondents were required to state their level of agreement on various statements on each variable. The level of agreement ranged from 1-strongly disagree, 2-disagree, 3-Not Sure, 4-agree and 5-strongly agree. The results are as follows.

4.4.2.1 HRIS Recruitment and Selection Practices

The sampled respondents were provided with 5 statements related to HRIS recruitment and selection practices. The results are as presented in Table 4.3.

Table 4. 3: HRIS recruitment and selection practices

N	HRIS recruitment and selection practices	5	4	3	2	1	Mean	S.D
1	My firm uses various online employee selection methods to choose the right candidates.	42 (53.2%)	9 (11.4%)	20 (25.3%)	4 (5.1%)	4 (5.1%)	4.03	1.209
2	My firm advertises vacancies on our website and other e-platforms.	15 (19%)	28 (35.4%)	20 (25.3%)	12 (15.2%)	4 (5.1%)	3.48	1.119
3	My firm allows applicants to apply for the advertised positions online.	27 (34.2%)	26 (32.9%)	11 (13.9%)	11 (13.9%)	4 (5.1%)	3.77	1.208
4	HRIS has improved the quality of candidates selected in my firm.	31 (39.2%)	25 (31.6%)	14 (17.7%)	7 (8.9%)	2 (2.5%)	3.96	1.079
5	My company's brand has been enhanced by accepting online job application.	32 (40.5%)	16 (20.3%)	15 (19%)	12 (15.2%)	4 (5.1%)	3.76	1.273
	Overall Mean						3.8	

Source: Primary Data (2024)

The study established that private sugar companies utilized varied HRIS recruitment and selection practices. Most respondents strongly agreed (53.2%) and agreed (11.4%) with the statement that their firm used various online employee selection methods to choose the right candidates. However, others were unsure (25.3%) whether their firms used various online employee selection methods to choose the right candidates.

Further, these firm advertised vacancies on their websites as affirmed by some of the respondents who strongly agreed (19%) and agreed (34.4%) with the statement on this issue. However, others felt that this method was not frequently used or were unsure of the

same. A substantial proportion (34.2%) strongly agreed and (32.9%) agreed that their firm allows applicants to apply for advertised positions online. Some respondents were unsure about the extent to which online applications are utilized, while a smaller fraction disagreed with the statement, indicating possible reliance on traditional application methods.

A significant share (39.2%) strongly agreed and (31.6%) agreed that HRIS has improved the quality of candidates selected in their firm. A notable number were unsure of its exact impact on candidate quality, and only a few disagreed, suggesting skepticism about its effectiveness. A notable portion (40.5%) strongly agreed and (20.3%) agreed that accepting online job applications has enhanced their company's brand. Some respondents were unsure of the branding impact, while a moderate number disagreed, implying that other factors might influence the company's reputation more significantly.

In general, it was established that private sugar firms utilized HRIS recruitment and selection practices as shown by the overall strong mean of 3.8 particularly in terms of improving efficiency, enhancing the firm's brand, and ensuring higher-quality candidate selection. These findings highlight the critical role of HRIS in modernizing recruitment processes and optimizing talent acquisition strategies. The results of this study build on prior research by expanding the focus of HRIS recruitment practices beyond employee performance to include broader organizational outcomes like market share, productivity, and profitability. Studies such as those by Manyura and Makokha (2023) and Koech (2022) emphasize the positive impact of recruitment systems on performance and human capital management, but they focus on specific sectors or regions. Chen and Hsu (2019), Lee and Lee (2018), and Wang and Zhan (2017) highlight HRIS benefits in various

industries but do not address the full range of organizational outcomes, as this study does for private sugar firms in Kenya.

From open ended question, it was evident that private sugar manufacturing firms in the Western region of Kenya primarily use HRIS for job postings, applicant tracking, and automated screening of resumes. These practices have significantly improved productivity by streamlining the recruitment process and reducing the time to hire. Employee satisfaction has also increased due to a more transparent and fair selection process, which reduces bias and ensures that the best candidates are selected. However, the impact on turnover rates has been mixed. While some firms report lower turnover due to better candidate fit, others note that high expectations set during the recruitment process can lead to dissatisfaction if not met, potentially increasing turnover.

Firms generally perceive their HRIS recruitment and selection practices as effective in identifying and attracting qualified candidates. The use of automated screening and standardized interview processes helps in filtering out unqualified applicants and ensures that only the most suitable candidates are shortlisted. However, some firms report challenges in fully leveraging the advanced features of their HRIS due to a lack of training and technical expertise among HR staff. Despite these challenges, the overall perception is positive, with firms noting a significant improvement in the quality of hires and a reduction in the time and cost associated with the recruitment process.

4.4.2.2 HRIS employee records management practices

The sampled respondents were provided with 5 statements related to HRIS employee records management practices. The pertinent results are as shown in Table 4.4.

Table 4. 4: HRIS employee records management practices

No	HRIS employee records management practices	5	4	3	2	1	Mean	S.D
1	The use of HRIS in my firm makes employee records secure.	22 (27.8%)	30 (38%)	16 (20.3%)	2 (2.5%)	9 (11.4%)	3.68	1.236
2	HRIS in my firm has ensured confidentiality of sensitive employee information.	25 (31.6%)	19 (24.1%)	19 (24.1%)	9 (11.4%)	7 (8.9%)	3.58	1.287
3	My firm can easily retrieve employee record with the use of HRIS.	16 (20.3%)	28 (35.4%)	24 (30.4%)	7 (8.9%)	4 (5.1%)	3.57	1.070
4	The use of HRIS in my firm has led to improvement in efficiency of record storage.	14 (17.7%)	32 (40.5%)	21 (26.6%)	8 (10.1%)	4 (5.1%)	3.56	1.059
5	HRIS in my firm has streamlined the process of record retention and disposal.	28 (35.4%)	29 (36.7%)	11 (13.9%)	7 (8.9%)	4 (5.1%)	3.89	1.143
Overall mean							3.66	

Source: Primary Data (2024)

A considerable proportion (27.8%) strongly agreed and (38%) agreed that the use of HRIS in their firm makes employee records secure. Some respondents were unsure about its effectiveness in ensuring security, while a few disagreed, indicating concerns about potential vulnerabilities. A notable share (31.6%) strongly agreed and (24.1%) agreed that HRIS in their firm has ensured the confidentiality of sensitive employee information. Some respondents were unsure about the level of confidentiality maintained, whereas a few disagreed, possibly questioning data protection measures.

A significant portion (20.3%) strongly agreed and (35.4%) agreed that their firm can easily retrieve employee records with the use of HRIS. Some respondents were uncertain about the system's efficiency, while a smaller fraction disagreed, suggesting retrieval challenges.

A considerable number (17.7%) strongly agreed and (40.5%) agreed that the use of HRIS in their firm has led to an improvement in the efficiency of record storage. Some respondents were unsure about its impact on efficiency, while a few disagreed, implying potential inefficiencies in storage management.

A substantial proportion (35.4%) strongly agreed and (36.7%) agreed that HRIS has streamlined the process of record retention and disposal. Some respondents were uncertain about its impact on record management, whereas a few disagreed, indicating possible challenges in implementation.

In general, it was established that private sugar firms utilized HRIS employment records management practices as shown by the overall strong mean of 3.66. The consistency in mean scores underscores HRIS's effectiveness in managing employee records securely, efficiently, and systematically. Sikira and Mishael (2024) emphasized HRIS's role in improving performance through efficient records management, supporting the findings of this study. However, the variability in standard deviations reflects differences in HRIS implementation, as seen in Pushpasiri and Pushpasiri (2021), where HRIS's impact varied across organizations. Similarly, Zhang and Liu (2020) found that HRIS effectiveness differs by sector, indicating that organizational practices significantly influence the overall success of HRIS systems.

From open ended statement, HRIS employee records management practices significantly enhance the efficiency and effectiveness of HR processes in private sugar manufacturing firms in Western Kenya. These systems automate record-keeping, ensuring accurate, secure, and easily accessible employee information. By reducing manual paperwork,

HRIS minimizes administrative errors, improves compliance with labor regulations, and accelerates decision-making. Additionally, it enhances workforce planning by providing real-time data on employee performance, attendance, and payroll. The integration of HRIS with other HR functions like recruitment and benefits administration further streamlines operations, leading to improved productivity and employee satisfaction.

Private sugar manufacturing firms in Western Kenya benefit from several key HRIS features that enhance employee records management. Automated data entry reduces human errors and ensures accurate employee information, while cloud-based storage allows for secure access and easy retrieval of records. Employee self-service portals empower workers to update personal details, access payslips, and request leave, reducing HR workload and improving efficiency. Payroll integration ensures seamless salary processing, minimizing discrepancies and delays. Compliance tracking features help firms adhere to labor laws by maintaining up-to-date records on contracts, working hours, and benefits. Additionally, performance management tools allow HR teams to track employee progress, set goals, and provide real-time feedback, fostering a culture of continuous improvement.

4.4.2.3 HRIS training and development programs

The sampled respondents were provided with 5 statements related to HRIS training and development programs. The relevant results are as shown in Table 4.5.

Table 4. 5: HRIS training and development programs

No	HRIS training and development programs	5	4	3	2	1	Mean	S.D
----	--	---	---	---	---	---	------	-----

1	My organization uses HRIS software in planning for training and development programs.	10 (12.7%)	34 (43%)	22 (27.8%)	11 (13.9%)	2 (2.5%)	3.49	0.972
2	My firm uses HRIS to identify the employee training needs.	15 (19%)	31 (39.2%)	22 (27.8%)	9 (11.4%)	2 (2.5%)	3.61	1.005
3	HRIS in my firm allows employees to access training at their convenience. .	18 (22.8%)	30 (38%)	20 (25.3%)	9 (11.4%)	2 (2.5%)	3.67	1.034
4	My firm uses HRIS to identify the learning path hence train content based on individual skill gap.	25 (31.6%)	28 (35.4%)	18 (22.8%)	6 (7.6%)	2 (2.5%)	3.86	1.034
5	My firm uses HRIS to evaluate the training offered to staff.	21 (26.6%)	34 (43%)	15 (19%)	7 (8.9%)	2 (2.5%)	3.82	1.010
Overall Mean Score							3.69	

Source: Primary Data (2024)

A notable proportion (12.7%) strongly agreed and (43%) agreed that their organization uses HRIS software in planning for training and development programs. Some respondents were unsure about its role in planning, while a few disagreed, suggesting possible limitations in its application.

A significant share (19%) strongly agreed and (39.2%) agreed that their firm uses HRIS to identify employee training needs. Some respondents were uncertain about its effectiveness in training needs assessment, whereas a smaller fraction disagreed, indicating reliance on alternative methods.

A substantial portion (22.8%) strongly agreed and (38%) agreed that HRIS in their firm allows employees to access training at their convenience. Some respondents were unsure about the level of accessibility provided, while a few disagreed, implying possible challenges in remote access.

A considerable number (31.6%) strongly agreed and (35.4%) agreed that their firm uses HRIS to identify the learning path and train content based on individual skill gaps. Some respondents were uncertain about how well HRIS aligns training with skills gaps, while a small number disagreed, suggesting potential inefficiencies in training personalization.

A notable share (26.6%) strongly agreed and (43%) agreed that their firm uses HRIS to evaluate the training offered to staff. Some respondents were unsure about its effectiveness in training evaluation, whereas a few disagreed, indicating skepticism about its assessment capabilities.

In general, it was established that private sugar firms utilized HRIS training and development practices as shown by the overall strong mean of 3.69. The system is seen as valuable in identifying training needs,

personalizing learning paths, offering flexible access, and evaluating training effectiveness. Jones and Smith (2020) found a positive relationship between HRIS-enabled training programs and organizational performance, including productivity and employee satisfaction. Similarly, Kiruja (2021) demonstrated that HRIS practices positively impact training and development in the oil and gas sector. However, as seen in the study's standard deviations (0.972 to 1.034), individual experiences with HRIS vary, highlighting the importance of tailored implementation, as emphasized by Chen and Wang (2019) and Martinez and Rodriguez (2018).

From open ended statement, private sugar manufacturing firms in Western Kenya implement various HRIS-enabled training and development programs, including e-learning platforms, virtual training modules, performance tracking systems, and

competency-based learning plans. These programs help employees acquire new skills, enhance job performance, and stay updated with industry advancements. Online training modules offer flexibility, reducing disruptions to operations while ensuring continuous learning. HRIS-based learning management systems track employee progress and identify skill gaps, allowing HR to tailor training programs effectively. These initiatives improve overall productivity, employee engagement, and job satisfaction, leading to lower turnover rates. Additionally, well-trained employees contribute to operational efficiency and innovation, positively impacting the firm's competitiveness.

Private sugar manufacturing firms in Western Kenya utilize various metrics to assess the effectiveness of HRIS training and development programs. Employee performance evaluations are a primary measure, tracking improvements in skills, productivity, and job efficiency after training sessions. Training completion rates and knowledge retention scores help determine how well employees absorb and apply the material. Employee feedback surveys provide insights into the relevance and quality of training, helping HR refine programs for better engagement. Additionally, firms analyze operational outcomes such as reduced error rates, faster task completion, and improved problem-solving capabilities. Career progression trends, including promotions and internal mobility, indicate long-term training success.

4.4.4 HRIS work scheduling

The sampled respondents were provided with 5 statements related to HRIS work scheduling. The relevant results are as shown in Table 4.6.

Table 4. 6: HRIS work scheduling

No	HRIS work scheduling	5	4	3	2	1	Mean	S.D
1	My firm always uses HRIS in work scheduling in its all operations	15 (19%)	31 (39.2%)	14 (17.7%)	4 (5.1%)	15 (19%)	3.34	1.367
2	HRIS in my firm allows for the updates regarding shift changes and schedule adjustments.	32 (40.5%)	24 (30.4%)	9 (11.4%)	2 (2.5%)	12 (15.2%)	3.78	1.402
3	Tracking of employees work hours, overtime and attendance pattern is easily done through HRIS in my firm.	13 (16.5%)	36 (45.6%)	13 (16.5%)	2 (2.5%)	15 (19%)	3.38	1.333
4	My firm is able to get reports on employee performance using HRIS.	16 (20.3%)	30 (38%)	18 (22.8%)	0 (0%)	15 (19%)	3.41	1.345
5	HRIS in my firm allows for the updates on staff leave request and usage.	8 (10.1%)	51 (64.6%)	8 (10.1%)	0 (0%)	12 (15.2%)	3.54	1.174
Overall Mean Score							3.49	

Source: Primary Data (2024)

A notable proportion (19%) strongly agreed and (39.2%) agreed that their firm always uses HRIS in work scheduling across all operations. Some respondents were uncertain about its consistent use, while a few disagreed, indicating that HRIS may not be uniformly applied. A significant share (40.5%) strongly agreed and (30.4%) agreed that HRIS in their firm allows for updates regarding shift changes and schedule adjustments. Some respondents were unsure about its efficiency in shift management, whereas a smaller fraction disagreed, implying possible challenges in real-time updates. A considerable portion (16.5%) strongly agreed and (45.6%) agreed that tracking employees' work hours, overtime, and attendance patterns is easily done through HRIS. Some respondents were uncertain about its effectiveness in tracking work hours, while a few disagreed, suggesting reliance on alternative tracking methods.

A notable number (20.3%) strongly agreed and (38%) agreed that their firm is able to get reports on employee performance using HRIS. Some respondents were unsure about the system's effectiveness in performance reporting, while a small group disagreed, indicating concerns over HRIS-generated reports. A substantial share (10.1%) strongly agreed and (64.6%) agreed that HRIS in their firm allows for updates on staff leave requests and usage. Some respondents were uncertain about how well HRIS manages leave records, whereas a few disagreed, suggesting challenges in leave management.

In general, it was established that private sugar firms utilized HRIS work scheduling practices as shown by the overall strong mean of 3.49 particularly in terms of in managing work schedules, tracking attendance, monitoring performance, and handling shift and leave updates. The variability in responses. This aligns with studies such as those by Chang and Chen (2021), who found that HRIS work scheduling impacts performance, but the effectiveness varied across sectors. Similarly, Mkongo and Macha (2022) observed differing levels of operational performance improvements based on HRIS implementation. This highlights the need for standardization and consistent implementation across organizations

For open ended statement, it was evident that private sugar manufacturing firms in Western Kenya utilize various HRIS work scheduling functionalities, including automated shift planning, real-time attendance tracking, workload forecasting, and employee self-service scheduling. These systems optimize workforce allocation, ensuring adequate staffing while minimizing labor costs. Automated scheduling reduces conflicts, enhances fairness, and improves employee satisfaction by accommodating preferences and availability. Real-time tracking ensures compliance with labor laws and helps monitor

absenteeism trends, reducing productivity losses. Additionally, workload forecasting tools enable HR to anticipate peak production periods, ensuring workforce readiness. Improved scheduling efficiency leads to increased operational productivity, reduced overtime expenses, and enhanced employee well-being, ultimately contributing to better organizational outcomes.

Private sugar manufacturing firms in Western Kenya ensure accuracy and efficiency in HRIS work scheduling by integrating attendance data and allowing employees to manage their shifts through self-service portals. These measures help minimize human errors, prevent scheduling conflicts, and optimize workforce allocation. Regular system updates, data validation processes, and compliance checks ensure that scheduling aligns with labor laws and company policies. Additionally, automated alerts notify managers of inconsistencies, enabling quick corrections. Key success factors include system reliability, accurate data input, and user-friendly interfaces that facilitate smooth adoption by employees and HR personnel. Challenges such as software malfunctions, resistance to automation, and inaccurate employee availability data can undermine scheduling effectiveness. To mitigate these risks, firms provide ongoing HRIS training, conduct periodic audits, and actively seek employee feedback to refine scheduling practices.

4.4.5 Organizational Outcomes among Private Sugar Manufacturing Firms in Western Region, Kenya

The sampled respondents were provided with 5 statements related to organizational outcomes among private sugar manufacturing firms in Western region, Kenya of county government. The relevant results are as shown in Table 4.7.

Table 4. 7: Organizational outcomes among private sugar manufacturing firms in Western region, Kenya

No	Organizational outcomes	5	4	3	2	1	Mean	S.D
1	My organization market share has expanded over the last one year.	9 (11.4%)	29 (36.7%)	27 (34.2%)	12 (15.2%)	2 (2.5%)	3.39	0.966
2	My firm's sugar production has increased over the last one year.	9 (11.4%)	38 (48.1%)	20 (25.3%)	10 (12.7%)	2 (2.5%)	3.53	0.945
3	My firm's profitability has increased over the last one year.	28 (35.4%)	41 (51.9%)	8 (10.1%)	0 (0%)	2 (2.5%)	4.18	0.813
4	My brand image has been enhanced over the last one year.	36 (45.6%)	28 (35.4%)	11 (13.9%)	2 (2.5%)	2 (2.5%)	4.19	0.948
5	The use of HRIS in my firm has increased efficiency in the production process through cost cutting and better pricing.	34 (43%)	28 (35.4%)	6 (7.6%)	4 (5.1%)	7 (8.9%)	3.99	1.235
Overall Score							3.86	

Source: Primary Data (2024)

A notable proportion (11.4%) strongly agreed and (36.7%) agreed that their organization's market share has expanded over the last year. Some respondents were uncertain about market growth, while a few disagreed, indicating possible stagnation or decline in market expansion.

A considerable share (11.4%) strongly agreed and (48.1%) agreed that their firm's sugar production has increased over the last year. Some respondents were unsure about the production trends, whereas a few disagreed, suggesting fluctuations in production levels.

A significant portion (35.4%) strongly agreed and (51.9%) agreed that their firm's profitability has increased over the last year. Only a small fraction was uncertain or disagreed, indicating that most respondents acknowledged positive financial performance.

A large majority (45.6%) strongly agreed and (35.4%) agreed that their brand image has been enhanced over the last year. Some respondents were uncertain about improvements in brand perception, while a few disagreed, suggesting minimal or no change in brand positioning. A substantial proportion (43%) strongly agreed and (35.4%) agreed that the use of HRIS has increased efficiency in the production process through cost-cutting and better pricing. Some respondents were unsure of its impact on efficiency, whereas a few disagreed, indicating challenges in realizing HRIS benefits in cost management.

Finally, the statement "The use of HRIS in my firm has increased efficiency in the production process through cost cutting and better pricing," received a mean score of 3.99 (SD = 1.235), with 43% strongly agreeing and 35.4% agreeing. This reflects the positive impact of HRIS on improving operational efficiency, cost reduction, and pricing strategies, though the higher standard deviation indicates variability in how HRIS implementation has been perceived and its impact on efficiency.

In general, it was established that private sugar firms utilized HRIS which resulted to strong organizational outcomes as shown by the overall strong mean of 3.86 particularly in terms of profitability, brand image, and production efficiency. The variability in standard deviations (ranging from 0.813 to 1.235) suggests that while many firms have seen improvements, the extent of these outcomes may differ based on factors such as firm size, HRIS implementation, and market conditions.

4.5 Inferential Statistics

To establish relationship and the effect HRIS had on the organizational outcomes, the study used inferential analysis where correlation, simple linear regression and multiple

linear regression were used. Before embarking on the inferential analysis, diagnostics tests were done; normality using Shapiro-Wilk, Linearity using Scatter plots and multi-Collinearity test using VIF. The results are as follows.

4.5.1 Normality

Ghasemi and Zahedias (2012) recommend that normality be assessed visually. From Figure 4.5, normal Q-Q plot of HRIS recruitment and selection practices the deviation from normality was not much as from the approximation to the line of fit. Therefore, the data was near normal distribution and hence could be used in a regression analysis.



Figure 4. 1: Normal Q-Q plot of HRIS recruitment and selection practices

Source: Primary Data (2024)

From Figure 4.6, normal Q-Q plot of HRIS employee records management practices the deviation from normality was not significant as from the approximation to the line of fit. Hence, the data had almost normal distribution and hence could be used for parametric test such as linear regression.

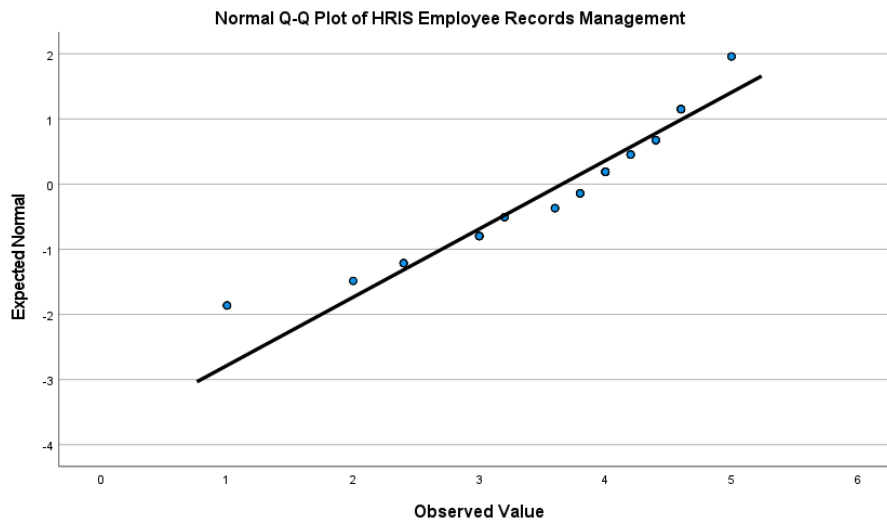


Figure 4. 2: Normal Q-Q plot of HRIS employee records management practices

From Figure 4.7, normal Q-Q plot of HRIS training and development programs departure from normality was not great as from the approximation to the line of fit. Hence, the data had near normal distribution and hence could be used for parametric test such as linear regression.

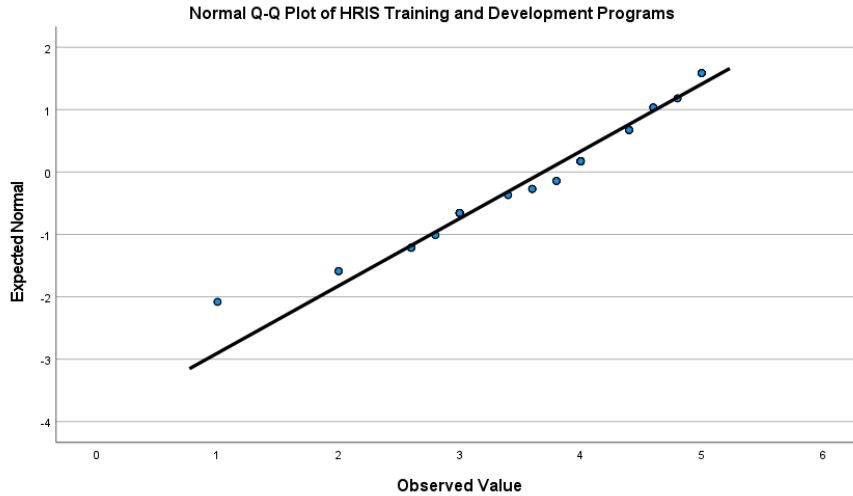


Figure 4. 3: Normal Q-Q plot of HRIS training and development programs

From Figure 4.8 Normal Q-Q plot of HRIS work scheduling the departure from normality was not much as from the approximation to the line of fit. Thus, the data was near normal distribution and hence could be used for parametric tests.

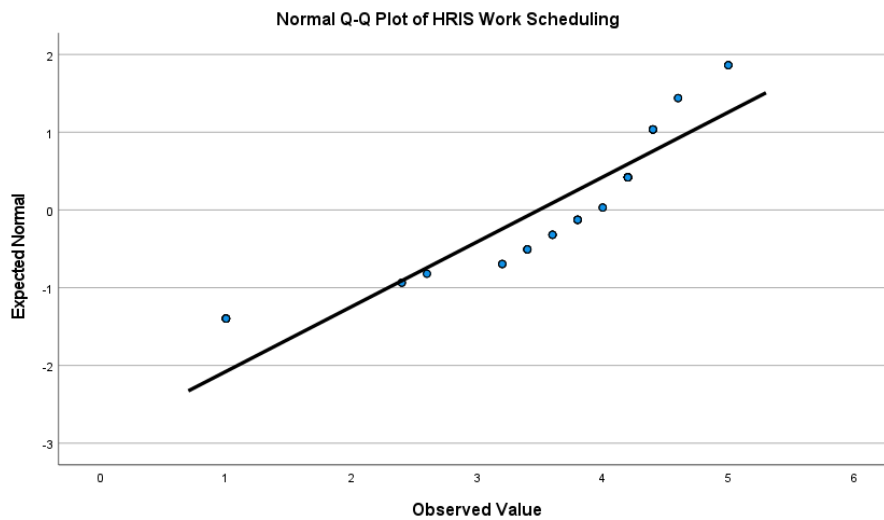


Figure 4. 4: Normal Q-Q plot of HRIS work scheduling

From Figure 4.9 Normal Q-Q plot of organizational outcomes among private sugar manufacturing firms in Western region, Kenya the departure from normality was not much as from the approximation to the line of fit. Thus, the data was near normal distribution and hence could be used in a regression analysis.

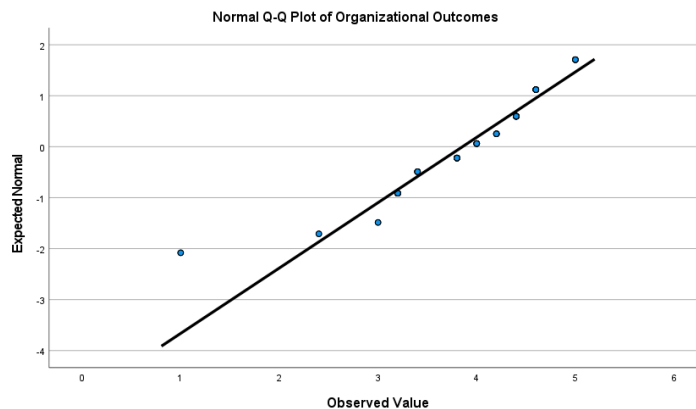
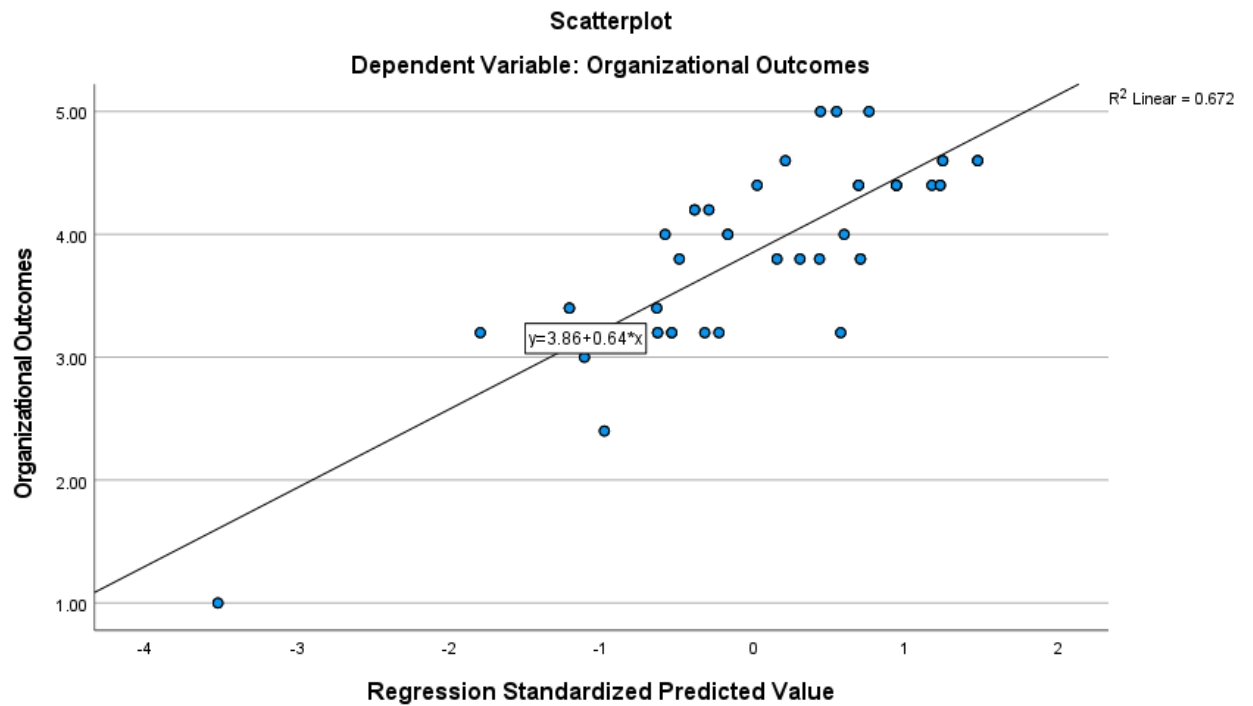


Figure 4. 5: Normal Q-Q plot of Organizational outcomes among private sugar manufacturing firms in Western region, Kenya

4.5.2 Linearity

Linearity in statistical analysis refers to the assumption that the relationship between two variables can be represented by a straight line. When testing for linearity, scatter plots are often used as they visually show the relationships between the independent variables (e.g., HRIS recruitment and selection, employee records management, training and development, and work scheduling) and the dependent variable (organizational outcome). A pattern of points clustering around a straight line in the scatter plot confirmed linearity. This step is crucial because many statistical methods, such as regression analysis, assume a linear relationship between variables for accurate results.



4.5.3 Multi-Collinearity Test

Multicollinearity problem cause ability to define any variable to diminish owing to their interrelationship. According to Besley 1980 as sighted in (Jingyu li, 2003) researchers have used VIF= 10 as critical value rule of thumb to determine whether there is too much correlation. The VIF value in the table 4.9, are less than 10 so there is no multi-Collinearity problem in study variables.

Table 4. 9: Multi-Collinearity

Independent variable	Tolerance	VIF
HRIS recruitment and selection practices	.789	1.267

HRIS employee records management practices	.782	1.278
HRIS training and development programs	.770	1.299
HRIS work scheduling	.764	1.309

4.6 Pearson Correlation Results

Pearson product moment correlation test was to establish relationship between variable.

The results are as shown in Table 4.10.

Table 4. 10: Multiple Correlation Matrix

		R&SP	ERM	T&DP	WS	OO
Recruitment and Selection Practices	Pearson Correlation	1				
	N	79				
Employee Records Management	Pearson Correlation	.450**	1			
	Sig. (2-tailed)	.000				
	N	79	79			
Training and Development Programs	Pearson Correlation	-.065	.043	1		
	Sig. (2-tailed)	.567	.704			
	N	79	79	79		
Work Scheduling	Pearson Correlation	-.018	.112	.476**	1	
	Sig. (2-tailed)	.875	.324	.000		
	N	79	79	79	79	
Organizational Outcomes	Pearson Correlation	.460**	.509**	.489**	.546**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	79	79	79	79	79

HRIS Recruitment and Selection Practices demonstrated a moderate positive correlation ($r = 0.460$, $p = 0.000$) with organizational outcomes. This implies that as firms enhance their recruitment and selection processes through HRIS, they experience better alignment between job roles and employee capabilities, leading to improved performance. The adoption of HRIS in recruitment enables data-driven decision-making, which minimizes bias, shortens hiring timelines, and ensures the selection of the most suitable candidates. For private sugar manufacturing firms, these improvements are crucial for maintaining

productivity in a competitive industry. Therefore, integrating robust recruitment systems within HRIS can enhance operational efficiency and overall organizational success. Manyura and Makokha (2023) demonstrated that e-recruitment systems positively influenced employee performance in Kenyan institutions, underscoring the efficiency of HRIS recruitment processes in improving organizational outcomes. Koech (2022) found that recruitment information systems had a significant positive effect on human capital management in Kenyan firms, enhancing decision-making and the alignment between job roles and employee capabilities.

HRIS Employee Records Management Practices showed a moderate positive correlation ($r = 0.509$, $p = 0.000$) with organizational outcomes. This finding suggests that effective management of employee data through HRIS contributes to better organizational performance. HRIS platforms provide secure, centralized systems for maintaining accurate and accessible employee records, which support decision-making in workforce planning and compliance. For example, timely access to records on attendance, performance, or leave balances enables managers to make informed decisions that impact productivity. In the context of private sugar manufacturing firms, efficient records management ensures compliance with labor laws and minimizes disruptions caused by administrative inefficiencies. Sikira and Mishael (2024) emphasized that HRIS for employee records management positively impacted institutional performance in Tanzania, supporting the view that centralized, accessible systems improve workforce planning and compliance. Pushpasiri and Pushpasiri (2021) highlighted how HRIS-enabled employee records management improved employee performance in Sri Lankan commercial banks, reinforcing its role in enhancing organizational efficiency.

HRIS Training and Development Programs also exhibited a moderate positive correlation ($r = 0.489$, $p = 0.000$) with organizational outcomes. This indicates that firms prioritizing employee development through HRIS experience enhanced organizational performance. Training programs facilitated by HRIS allow for personalized learning plans, tracking of skill development, and identification of training gaps, which improve employee capabilities and job satisfaction. In sugar manufacturing, where technical skills are essential, targeted training using HRIS ensures that employees remain competent in evolving processes and technologies. This not only boosts productivity but also strengthens employee retention, as workers feel more valued and supported in their roles. Jones and Smith (2020) found a positive correlation between HRIS-driven training programs and organizational performance, noting improvements in productivity and employee satisfaction in manufacturing firms in the U.S. Kim and Lee (2021) also confirmed the positive effect of HRIS on employee performance, particularly through training, in South Korean manufacturing companies, improving operational efficiency and employee skills.

Finally, HRIS Work Scheduling Practices demonstrated the strongest positive correlation with organizational outcomes ($r = 0.546$, $p = 0.000$). This suggests that effective work scheduling via HRIS significantly enhances organizational performance. By automating scheduling, firms can optimize workforce allocation, reduce scheduling conflicts, and improve adherence to production timelines. For private sugar manufacturing firms, this translates to fewer operational disruptions and higher efficiency in meeting production targets. Moreover, fair and transparent scheduling practices can contribute to improved employee morale and job satisfaction, further driving organizational success. Chang and

Chen (2021) observed that HRIS-enabled work scheduling significantly improved organizational outcomes, such as customer satisfaction and service quality, in Taiwanese service organizations. Mkongo and Macha (2022) found that HRIS work scheduling improved operational performance and reduced response time at the Tanzania Revenue Authority, illustrating the broader application of HRIS in enhancing efficiency.

4.7 Simple Linear Regression

The study used simple linear regression test to establish the effect of various HRIS variables on the organizational outcome. The results are present below.

4.7.1 Influence of HRIS Recruitment and Selection Practices on Organizational Outcomes

The first objective of the study was to examine the influence of HRIS recruitment and selection practices on organizational outcomes among private sugar manufacturing firms in Western region, Kenya. This objective sought to test first null hypothesis which posits

H_{01} : HRIS Recruitment and selection has no statistically significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.

Regression analysis was used to tell the amount of variance accounted for by one variable in predicting another variable. Regression analysis was conducted to find the proportion organizational outcomes which can be predicted from HRIS recruitment and selection practices. Table 4.11 shows the analysis results.

Table 4.11: Regression Results of HRIS recruitment and selection practices and Organizational outcomes

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.460 ^a	.211	.201	.69699		
a. Predictors: (Constant), HRIS recruitment and selection practices						
ANOVA^a						
Model	Sum of Squares		Df	Mean Square	F	Sig.
Regression	10.028		1	10.028	20.643	.000 ^b
Residual	37.407		77	.486		
Total	47.435		78			
a. Dependent Variable: Organizational outcomes						
b. Predictors: (Constant), HRIS recruitment and selection practices						
Coefficients^a						
Model	Unstandardized Coefficients			Standardized	t	Sig.
	B	Std. Error	Beta			
(Constant)	2.605	.286			9.106	.000
1 Recruitment and Selection	.329	.072	.460		4.543	.000
a. Dependent Variable: Organizational outcomes						

From the Table 4.11 above the value of R square was 0.211 this shows that HRIS recruitment and selection practices explains 21.1% of variance in organizational outcomes among private sugar manufacturing firms in Western region, Kenya. From the ANOVA table significance of the model has a value $F(1,78) = 20.643$, $P < 0.05$ this shows that it's significant at 95% confidence level hence the model is significant. This implies that HRIS recruitment and selection practices is a useful predictor of organizational outcomes among private sugar manufacturing firms in Western region, Kenya. The simple linear regression equation is as shown below

$$Y = 2.605 + 0.329 \text{ HRIS recruitment and selection practices}$$

The unstandardized regression coefficient value of HRIS recruitment and selection practices was 0.329 and significance level of $P < 0.05$. This indicated that a unit change in HRIS recruitment and selection practices would result to significant change in organizational outcomes among private sugar manufacturing firms in Western region, Kenya by 0.329 in same direction. The results of this study, indicating that HRIS recruitment and selection practices explain 21.1% of the variance in organizational outcomes, are consistent with prior research. For instance, Manyura and Makokha (2023) demonstrated the significant impact of e-recruitment on performance in National Polytechnics in Kenya, highlighting the potential of HRIS systems to drive organizational success. Similarly, Koech (2022) found that recruitment information systems positively influenced human capital management at James Finlay (Kenya), supporting the view that HRIS plays a vital role in optimizing recruitment processes. Chen and Hsu (2019) also established that HRIS enhances organizational outcomes, such as employee retention, in technology firms, aligning with the present study's findings that HRIS recruitment practices contribute to broader organizational success, including profitability and market share. This study builds on these findings by specifically focusing on private sugar manufacturing firms in Western Kenya, adding new insights into how HRIS can influence diverse organizational outcomes.

Recent studies have raised concerns about the full potential of HRIS recruitment and selection systems in enhancing organizational outcomes, particularly in specific contexts. For instance, Njeje (2018) found that e-Human Resource Planning, including work scheduling, did not significantly impact organizational performance in the Kenyan Sacco sector. This highlights that, despite the growing use of HRIS, its effectiveness can be

undermined by poor implementation or contextual factors such as infrastructure and support. Furthermore, research by Hameed et al. (2020) suggests that HRIS may not always lead to significant improvements in organizational outcomes, as its impact is often contingent on the quality of system implementation, top management support, and the readiness of employees to engage with the system. These studies suggest that while HRIS systems have the potential to enhance recruitment and selection, their success is not guaranteed and requires proper integration and management to achieve meaningful results .

4.7.2 Influence of HRIS employee records management practices on organizational outcomes among private sugar manufacturing firms in Western region, Kenya

The second objective of the study was to assess the influence of HRIS employee records management practices on organizational outcomes among private sugar manufacturing firms in Western region, Kenya. This objective sought to test second null hypothesis which posits

H₀₂: HRIS Employee records management has no statistically significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.

Regression analysis was conducted to find the proportion in the organizational outcomes which can be predicted from the HRIS employee records management practices. Table 4.12 shows the analysis results.

Table 4.12: Regression Results of HRIS employee records management practices and Organizational outcomes

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.509 ^a	.259	.250	.67553		
a. Predictors: (Constant), HRIS employee records management practices						
ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	12.297	1	12.297	26.946	.000 ^b
1	Residual	35.138	77	.456		
	Total	47.435	78			
a. Dependent Variable: Organizational outcomes						
b. Predictors: (Constant), HRIS employee records management practices						
Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	2.335	.303		7.713	.000
1	Employee Records Management	.416	.080	.509	5.191	.000
a. Dependent Variable: Organizational outcomes.						

From the table 4.12 above the value of R square was 0.259 which implies that up to 25.9% change in organizational outcomes among private sugar manufacturing firms in Western region, Kenya is significantly accounted for by their HRIS employee records management practices. From the ANOVA result, the significance of the model has a value $F(1,78) = 26.946$, $P < 0.05$ which shows that the model is significant 95.0% confidence level. This postulates that HRIS employee records management practices is a useful predictor of organizational outcomes among private sugar manufacturing firms in Western region, Kenya. The simple linear regression equation is as shown below

$$Y = 2.335 + 0.416 \text{ HRIS employee records management practices}$$

The unstandardized regression coefficient value of HRIS employee records management practices was 0.416 and significance level of $P < 0.05$. This implies that a unit change in HRIS employee records management practices would result to significant change in organizational outcomes among private sugar manufacturing firms in Western region, Kenya by 0.416 in the same direction. This suggests that effective HRIS management of employee records directly contribute to improved organizational performance. The interpretation of this finding aligns with previous studies, such as Sikira and Mishael (2024), who found a positive effect of HRIS personnel records management on institutional performance, highlighting the importance of well-maintained and efficiently managed records in enhancing business outcomes. The implications are clear: organizations that invest in robust HRIS systems for employee records management are likely to see improvements in organizational efficiency, productivity, and overall performance. This aligns with Pushpasiri and Pushpasiri (2021), who found that HRIS positively influenced job performance in commercial banks, and Kim and Lee (2021), who noted the role of HRIS in improving productivity and employee satisfaction. Thus, adopting effective HRIS systems can be a strategic tool for improving operational effectiveness and achieving better organizational outcomes. However, Haider et al. (2021) observed that while HRIS could streamline administrative functions, its overall effect on organizational outcomes was limited in cases where infrastructure was poor or support from top management was lacking, suggesting that HRIS's effectiveness is conditional.

4.7.3 Influence of HRIS Training and Development Programs on Organizational Outcomes

The third objective of the study was to evaluate the influence of HRIS training and development programs on organizational outcomes among private sugar manufacturing firms in Western region, Kenya. This objective sought to test third null hypothesis which posits

H₀₃: HRIS Training and development program has no statistically significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.

Regression analysis was conducted to find the proportion in the organizational outcomes which can be predicted from the HRIS training and development programs. Table 4.13 shows the analysis results.

Table 4.13: Regression Results of HRIS training and development programs and Organizational outcomes

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.489 ^a	.239	.229	.68456		
a. Predictors: (Constant), HRIS training and development programs						
ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	11.351	1	11.351	24.222	.000 ^b
1	Residual	36.084	77	.469		
	Total	47.435	78			
a. Dependent Variable: Organizational outcomes						
b. Predictors: (Constant), HRIS training and development programs						
Coefficients^a						

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.338	.318		7.353	.000
1 HRIS training and development programs	.411	.084	.489	4.922	.000

a. Dependent Variable: Organizational outcomes

From the table 4.13 above the value of R square was 0.239 this shows that HRIS training and development programs explains 23.9% of variance in organizational outcomes among private sugar manufacturing firms in Western region, Kenya. From the ANOVA table significance of the model has a value $F(1,78) = 24.222$, $P < 0.05$ this shows that it's significant at 95% confidence level hence the model is feasible. This implies that HRIS training and development programs is a useful predictor of organizational outcomes among private sugar manufacturing firms in Western region, Kenya. The simple linear regression equation is as shown below

$$Y = 2.338 + 0.411 \text{ HRIS training and development programs}$$

The unstandardized regression coefficient value of 0.411 for HRIS training and development programs indicates a significant positive effect on organizational outcomes in private sugar manufacturing firms in Western Kenya. This means that a unit change in HRIS training practices results in a 0.411-unit change in organizational outcomes, suggesting that enhanced training programs through HRIS significantly contribute to better organizational performance. The implication of this finding is that organizations can leverage HRIS to improve their training and development initiatives, which, in turn, can lead to significant improvements in key business outcomes such as productivity, employee satisfaction, and profitability. This is consistent with the work of Jones and

Smith (2020), who found that HRIS-enabled training positively influenced productivity and employee satisfaction in manufacturing firms in the U.S. Similarly, Kiruja (2021) found that HRIS positively impacted training and development, contributing to better performance in oil and gas companies in Kenya. Chen and Wang (2019) also highlighted the role of HRIS in improving operational efficiency and product quality in IT companies in China, further reinforcing the idea that HRIS-driven training programs can have far-reaching effects on organizational outcomes.

However, while these studies provide strong evidence for the effectiveness of HRIS in enhancing organizational outcomes through training, the present study emphasizes the importance of effective implementation. Martinez and Rodriguez (2018) noted that the effect of HRIS training programs may vary between sectors, with private schools showing stronger associations with employee performance. This suggests that sector-specific factors may influence the extent to which HRIS training impacts organizational success, emphasizing the need for tailored HRIS strategies in different industries.

4.7.4 Influence of HRIS Work Scheduling on Organizational Outcomes

The fourth objective of the study was to investigate the influence of HRIS work scheduling on organizational outcomes among private sugar manufacturing firms in Western region, Kenya. This objective sought to test fourth null hypothesis which posits

H₀₄: HRIS Work scheduling has no statistically significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.

Regression analysis was conducted to find the proportion in the organizational outcomes which can be predicted from the HRIS work scheduling. Table 4.14 shows the analysis results.

Table 4.14: Regression Results of HRIS Work Scheduling and Organizational Outcomes

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.546 ^a	.299	.289	.65737		
a. Predictors: (Constant), HRIS work scheduling						
ANOVA^a						
Model	Sum of Squares		Df	Mean Square	F	Sig.
Regression	14.161		1	14.161	32.770	.000 ^b
Residual	33.274		77	.432		
Total	47.435		78			
a. Dependent Variable: Organizational outcomes						
b. Predictors: (Constant), HRIS work scheduling						
Coefficients^a						
Model	Unstandardized Coefficients		t	Standardized Coefficients Beta	Sig.	
	B	Std. Error				
1	(Constant)	2.616	.229	11.432	.000	
	HRIS work scheduling	.355	.062	.546	5.725	.000
a. Dependent Variable: Organizational outcomes						

From the Table 4.14 above the value of R square was 0.299 which suggests that up to 29.9% variation in organizational outcomes among private sugar manufacturing firms in Western region, Kenya is significantly accounted for by HRIS work scheduling. From the ANOVA result, the significance of the model has a value $F(1,78) = 32.770$, $P < 0.05$ which shows that the model is significant 95% confidence level. This postulates that HRIS work scheduling is a useful predictor of organizational outcomes among private sugar manufacturing firms in Western region, Kenya. The simple linear regression equation is as shown below

$$Y=2.616+0.355 \text{ HRIS work scheduling}$$

The unstandardized regression coefficient value of HRIS work scheduling was 0.355 at 0.05 significance level. This implies that a unit change in HRIS work scheduling would result to significant change in organizational outcomes among private sugar manufacturing firms in Western region, Kenya by 0.355 in the same direction. This suggests a significant positive impact of HRIS in managing work schedules, which enhances organizational performance. These findings are in line with earlier research by Mkongo and Macha (2022), who found that HRIS work scheduling contributed to reduced operational costs and improved response times. Similarly, Chang and Chen (2021) observed that HRIS work scheduling positively impacted organizational outcomes like service quality and customer satisfaction in the service sector. The present study extends these findings by demonstrating the relevance of HRIS work scheduling in the manufacturing sector, where optimized work schedules, attendance tracking, and shift management directly influence productivity and profitability. Thus, implementing efficient HRIS work scheduling systems can significantly improve organizational outcomes, confirming its role in operational efficiency and effectiveness.

Some studies have failed to support the positive impact of HRIS work scheduling on organizational outcomes. For instance, Njeje (2018) found that e-Human Resource planning, including work scheduling, had no significant effect on organizational performance in Saccos in Kenya. Additionally, Hameed et al. (2020) highlighted that while HRIS can streamline functions like work scheduling, its impact on overall performance can be undermined by poor system implementation, lack of support, and

insufficient infrastructure. These studies suggest that HRIS work scheduling may not always lead to significant organizational improvements.

4.8 Multiple Regression Analysis

Objective of this study sought objective of the study was to investigate the influence of human resource information system on organizational outcomes among private sugar manufacturing firms in Western region, Kenya. This was achieved by carrying out standard multiple regression. The study was interested in knowing the effect of each of the human resource information system on organizational outcomes among private sugar manufacturing firms in Western region, Kenya when all these constructs were entered as a block on the model. The results of multiple linear regression analysis were presented in Table 4.15.

Table 4. 15: Model Summary

Model	R	R Square	Adj R Square	Std. Error of the Estimate	Change Statistics			
					R Sq Change	F Change	df	Sig. F Change
1	.820 ^a	.672	.654	.45871	.672	37.858	4,74	.000

a. Predictors: (Constant), HRIS work scheduling, HRIS recruitment and selection practices, HRIS employee records management practices, HRIS training and development programs

The results from the model summary in Table 4.15 give us information on the overall summary of the model. Looking at the R square column, the study deduced that human resource information system accounted for 67.2% significant variance in organizational outcomes among private sugar manufacturing firms in Western region, Kenya (R square =.672, P=0.000) implying that 32.8% of the variance in organizational outcomes among private sugar manufacturing firms in Western region, Kenya is accounted for by other variables not captured in this model.

Table 4. 16: ANOVA Table

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	31.864	4	7.966	37.858	.000 ^b
Residual	15.571	74	.210		
Total	47.435	78			

a. Dependent Variable: Organizational outcomes
b. Predictors: (Constant), HRIS work scheduling, HRIS recruitment and selection practices, HRIS employee records management practices, HRIS training and development programs

In order to assess the significance of the model, simply whether the study model is a better significant predictor of the organizational outcomes among private sugar manufacturing firms in Western region, Kenya rather than using mean score which is considered as a guess, the study resorted to F Ratio. From the findings, the F value is more than one, as indicated by a value of 37.858, which means that enhancement as a result of model fitting

is much larger than the model errors/inaccuracies that were not used in the model ($F(4,78) = 37.858, P=0.000$). This implies that the final study model has significant improvement in its prediction ability of organizational outcomes among private sugar manufacturing firms in Western region, Kenya.

The presented in Table 4.17 shows unstandardized coefficients, standardized coefficients, t statistic and significant values.

Table 4. 17: Multiple Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.172	.314		.549	.585
HRIS Recruitment and Selection	.254	.054	.355	4.739	.000
Employee Records Management	.240	.062	.294	3.905	.000
Training & Development Programs	.274	.064	.326	4.295	.000
HRIS Work Scheduling	.237	.050	.364	4.782	.000

a. Dependent Variable: Organizational outcomes

A regression of the four predictor variables against organizational outcomes among private sugar manufacturing firms in Western region, Kenya established the multiple linear regression model as below as indicated in Table 4.17:

$$Y = 0.172 + 0.254 X_1 + 0.240 X_2 + 0.274 X_3 + 0.237 X_4$$

Where Y is the dependent variable (Organizational outcomes),

X_1 is HRIS recruitment and selection practices

X_2 is HRIS employee records management practices

X_3 is HRIS training and development programs

X₄ is HRIS work scheduling

From the findings presented in Table 4.17, we look at the model results and scan down through the unstandardized coefficients B column. All human resource information system had significant effect on the organizational outcomes among private sugar manufacturing firms in Western region, Kenya. If the human resource information system are held at zero or it is absent, the organizational outcomes among private sugar manufacturing firms in Western region, Kenya would be 0.172, $p=0.585$.

H₀₁: HRIS Recruitment and selection has no statistically significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.

The results revealed that HRIS recruitment and selection practices had unique significant contribution to the model with $B=.254$, $p=.000$ suggesting that controlling of other variables (HRIS employee records management practices, HRIS training and development programs and HRIS work scheduling) in the model, a unit change in HRIS recruitment and selection practices would result to significant change in organizational outcomes among private sugar manufacturing firms in Western region, Kenya by 0.254 in the same direction. Specifically, this finding highlights the predictive power of HRIS recruitment processes, even when controlling for other variables such as HRIS employee records management, training and development programs, and work scheduling.

This aligns with prior research indicating that efficient recruitment practices are pivotal in driving organizational outcomes. Manyura and Makokha (2023) found that e-recruitment

systems significantly impacted employee performance, emphasizing the importance of optimizing recruitment practices in achieving desired organizational results. Koech (2022) further supports this, showing that recruitment information systems contribute to improved human capital management, ensuring that organizations attract and retain the right talent, which is crucial for overall success. Moreover, this study's results are consistent with Chen and Hsu (2019), who observed a positive relationship between HRIS-enabled online job applications and organizational outcomes, including employee retention and performance. The current study, however, expands this understanding by focusing on broader organizational outcomes like market share, productivity, and profitability. By demonstrating that HRIS recruitment and selection practices can lead to significant improvements in these areas, this research adds to the growing body of literature that views HRIS not just as a tool for streamlining recruitment, but as a strategic asset that directly influences key business metrics.

While the current study demonstrates the significant impact of HRIS recruitment and selection practices on organizational outcomes, several studies have highlighted challenges or failed to show similar results. For instance, research by Beadles et al. (2005) suggests that while HRIS can reduce costs and automate administrative functions, its effectiveness in driving significant organizational improvements can be inconsistent, especially when organizations fail to fully leverage the system's capabilities. Furthermore, studies like those by Chauhan, Sharma, & Tyagi (2011) have shown that while HRIS can streamline workflow processes, small firms may struggle to afford the initial costs or adequately train staff, limiting the potential benefits. Moreover, despite the potential advantages of HRIS, a study by Ngai & Wat (2006) indicates that smaller firms, which

may lack the resources for full implementation, often see limited gains from these systems. Their research highlights that HRIS adoption, while beneficial for large organizations with extensive HR needs, does not always translate into significant improvements in performance or efficiency for smaller businesses. This suggests that while HRIS systems can improve recruitment and selection, their impact on organizational outcomes might be less pronounced without proper investment, support, and adaptation.

H₀₂: HRIS Employee records management has no statistically significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya

The coefficient of HRIS employee records management practices was 0.240, which was significant ($p=.000$) and also positive. When the variance explained by all other variables (HRIS recruitment and selection practices, HRIS training and development programs and HRIS work scheduling) in the model is controlled, a unit change in HRIS employee records management practices would result to change in organizational outcomes among private sugar manufacturing firms in Western region, Kenya by 0.240 in the same direction. This suggests that improving the management of employee records has a direct, positive impact on key business metrics, including productivity and profitability, particularly in private sugar manufacturing firms in Western Kenya.

The implication of this finding is that efficient and effective HRIS systems for managing employee records can substantially enhance organizational performance. This supports findings from Kim and Lee (2021), who emphasized the positive relationship between HRIS records management and organizational outcomes like productivity and employee

satisfaction in South Korea. Furthermore, Sikira and Mishael (2024) found that efficient records management through HRIS improves overall institutional performance, highlighting the importance of this function across industries. The current study extends these findings by showing that HRIS records management in the context of private sugar manufacturing firms in Kenya has significant predictive power on broader organizational outcomes, such as market share and profitability.

While many studies have shown the positive impact of HRIS on organizational outcomes, some have not found similar results, particularly regarding employee records management. For example, a study by Onweh et al. (2012) on record-keeping in secondary schools in Akwa Ibom State found a relationship between academic record-keeping and administrative effectiveness, but it highlighted significant gaps in implementation, such as poor infrastructure and lack of competent personnel, which hindered the effectiveness of record management. Similarly, Akor and Udensi (2014) observed ineffective record management in Nigerian universities, where inadequate facilities and unreliable systems hampered performance, despite the potential of HRIS systems. These findings suggest that the positive relationship between HRIS records management and organizational outcomes may depend heavily on the quality of implementation and organizational context, and poor infrastructure or inadequate training can limit the effectiveness of these systems. Therefore, while HRIS has potential, its benefits may not be fully realized in environments where proper infrastructure and training are lacking.

H₀₃: HRIS Training and development program has no statistically significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya

Another variable that also had a unique significant contribution to the model was the value for HRIS training and development programs ($B=.274, p=.000$). When other variables in the model are controlled (HRIS employee records management practices, HRIS recruitment and selection practices and HRIS work scheduling), a unit change in HRIS training and development programs would result to significant change in organizational outcomes among private sugar manufacturing firms in Western region, Kenya by 0.274 in the same direction. The implication of this result is that private sugar manufacturing firms can achieve substantial improvements in business outcomes by investing in HRIS training programs. This investment will lead to better-trained employees, which can translate to higher productivity, better service quality, and enhanced overall performance. It also indicates that HRIS training programs should be seen as a strategic tool, integral to long-term organizational success. Therefore, private sugar firms in Western Kenya should prioritize and optimize their HRIS training systems to fully capitalize on the potential benefits for their operations

This finding rejects the null hypothesis (H_0), which posited that HRIS training has no significant influence on organizational outcomes. The results suggest that HRIS-driven training and development programs play a crucial role in enhancing organizational performance, which is consistent with studies by Kiruja (2021) and Jones and Smith (2020). Both studies found that HRIS positively impacts training and organizational performance, including productivity and employee satisfaction. Furthermore, Chen and Wang (2019) highlighted that HRIS-based training in IT companies improves operational efficiency and product quality, emphasizing the broader applicability of HRIS in enhancing organizational outcomes across different sectors.

Some recent studies have failed to support the idea that HRIS training and development programs consistently lead to significant organizational improvements. For instance, research by Fischer and Ronald (2011) indicates that the effectiveness of training can be limited by factors such as lack of managerial support and an unfavorable departmental climate, which could undermine the impact of HRIS-driven training programs. Similarly, Driskell (2011) suggests that the type of training, content, and the expertise of trainees also significantly affect training outcomes, meaning that HRIS systems alone may not guarantee success without the right conditions. Further, Saks & Haccoun (2007) argue that the motivation of employees plays a crucial role in the success of training programs. If employees are not motivated or do not perceive the training as valuable, HRIS systems may not have the desired effect on organizational outcomes. This points to the need for HRIS programs to be well-aligned with employee needs and organizational goals, ensuring that they are not only accessible but also engaging and relevant.

H₀₄: HRIS Work scheduling has no statistically significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya

Lastly, HRIS work scheduling had also unique significant contribution to the model with $B=0.237$, $p=.000$ implying that when other variables in the model are controlled (HRIS employee records management practices, HRIS training and development programs and HRIS recruitment and selection practices), a unit change in HRIS work scheduling would result to significant change in organizational outcomes among private sugar manufacturing firms in Western region, Kenya by 0.237 in the same direction. This positive and significant impact highlights the essential role that HRIS work scheduling plays in enhancing various operational aspects, including shift planning, attendance

management, and performance monitoring. The findings emphasize that HRIS systems, by optimizing workforce allocation and reducing scheduling conflicts, significantly contribute to organizational efficiency and productivity. The implications of these findings are considerable. Effective HRIS work scheduling can lead to improved resource utilization, reduced operational costs, and better adherence to production timelines.

Previous studies, such as Chang and Chen (2021), highlight that HRIS work scheduling enhances service quality and customer satisfaction in various sectors, supporting the idea that optimizing schedules improves overall operational performance. Similarly, Mkongo and Macha (2022) found that HRIS systems at TRA improved response times and reduced costs. These findings underline the broader applicability of HRIS in driving performance, not just in service or administrative sectors but also in manufacturing firms. Additionally, studies by Kim and Park (2019) and Afifah and Sary (2020) emphasize that effective work scheduling through HRIS can increase employee productivity and satisfaction, contributing to better organizational outcomes.

While many studies highlight the positive impact of HRIS on work scheduling and organizational outcomes, some recent research has failed to find similar results. For instance, Haider et al. (2021) noted that while HRIS can streamline certain HR functions, its effectiveness in improving overall organizational performance can vary significantly based on the industry and the quality of HRIS implementation. Additionally, studies like Hameed et al. (2020) have pointed out that poor infrastructure, lack of support from top management, and inadequate system customization can hinder the benefits of HRIS work scheduling on organizational performance. These findings suggest that the positive

relationship between HRIS work scheduling and organizational outcomes may not be universally applicable and could depend on several contextual factors.

Table 4. 18: Hypothesis testing Results

Hypothesis	P Value (P<0.05)	$\beta \neq 0$	Verdict
H ₀₁ : HRIS recruitment and selection practices has no significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.	.000	.254	Reject
H ₀₂ : HRIS employee records management practices has no significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya	.000	.240	Reject
H ₀₃ : HRIS training and development programs has no significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya	.000	.274	Reject
H ₀₃ : HRIS work scheduling has no significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya	.000	.237	Reject

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The general objective of this study was to examine human resource information system of organizational outcomes among private sugar manufacturing firms in Western region, Kenya. From this overall objective, this study aimed at finding out the influence of HRIS recruitment and selection practices, HRIS employee records management practices, HRIS training and development programs and HRIS work scheduling on the organizational outcomes among private sugar manufacturing firms in Western region, Kenya. This chapter presents the summary of major findings of the study, the conclusions, and recommendations and finally, the chapter highlights important recommendations for further research.

5.2 Summary of the Findings

The data for the findings of this study was collected using questionnaires from 79 sampled respondents from private sugar manufacturing firms in Western region, Kenya. The specific objectives of the study were achieved through conducting Pearson correlation analysis and linear regression analysis. These analyses were conducted at 95.0% confidence level ($P < 0.05$). The major findings are as follows

5.2.1 Influence of HRIS Recruitment and Selection Practices on Organizational Outcomes

The first objective of the study was to determine the influence of HRIS recruitment and selection practices on organizational outcomes among private sugar manufacturing firms in Western region, Kenya. The study found that HRIS recruitment and selection practices in private sugar manufacturing firms in Western Kenya are positively perceived by respondents, with an overall mean score of 3.8. Key aspects include the widespread use of online selection methods such as interviews (mean = 4.03), the ability for applicants to apply online (mean = 3.77), and the enhancement of the firm's brand through online job applications (mean = 3.76). Additionally, respondents acknowledged that HRIS has significantly improved the quality of candidates selected (mean = 3.96), emphasizing the role of digital systems in streamlining recruitment processes, improving efficiency, and optimizing talent acquisition strategies.

Pearson Correlation results showed a significant relationship between HRIS recruitment and selection practices and organizational outcomes among private sugar manufacturing firms in Western region, Kenya ($r=0.460$, $P<0.05$). Linear regression analysis indicated that HRIS recruitment and selection practices significantly accounts for 21.1% variance in organizational outcomes among private sugar manufacturing firms in Western region, Kenya. Multiple regression analysis revealed that when other variables are controlled in the model, a unit change in HRIS recruitment and selection practices would results to a significant change in organizational outcomes among private sugar manufacturing firms in Western region, Kenya by 0.254 units in the same direction ($\beta_3=0.254$, $P=0.000$). Hence, HRIS recruitment and selection practices is useful predictor of organizational

outcomes among private sugar manufacturing firms in Western region, Kenya. Therefore, the first null hypothesis was rejected.

5.2.2 Influence of HRIS employee records management practices on organizational outcomes among private sugar manufacturing firms in Western region, Kenya

The second objective of the study was to investigate the influence of HRIS employee records management practices on organizational outcomes among private sugar manufacturing firms in Western region, Kenya. The key findings of the study indicate that HRIS practices significantly enhance employee records management. The system is particularly effective in streamlining record retention and disposal, with the highest-rated statement (mean = 3.89). It also improves the security of employee records (mean = 3.68) and ensures the confidentiality of sensitive information (mean = 3.58). Additionally, HRIS facilitates easier retrieval of employee records (mean = 3.57) and enhances the efficiency of record storage (mean = 3.56). These results underscore the positive impact of HRIS on the secure, efficient, and systematic management of employee records.

Pearson Correlation results a significant relationship between HRIS employee records management practices and organizational outcomes among private sugar manufacturing firms in Western region, Kenya ($r=0.509$, $P<0.05$). Linear regression analysis indicated that HRIS employee records management practices significantly account for 25.9% variance in organizational outcomes among private sugar manufacturing firms in Western region, Kenya. Multiple regression analysis revealed that when other variables are controlled in the model, a unit change in HRIS employee records management practices would results to a significant change in organizational outcomes among private

sugar manufacturing firms in Western region, Kenya by 0.240 units in the same direction ($\beta_2=0.240$, $P=0.001$). Thus, HRIS employee records management practices are useful predictor of organizational outcomes among private sugar manufacturing firms in Western region, Kenya Therefore, the second null hypothesis was rejected.

5.2.3 Influence of HRIS training and development programs on organizational outcomes among private sugar manufacturing firms in Western region, Kenya

The third objective of the study was to establish the influence of HRIS training and development programs on organizational outcomes among private sugar manufacturing firms in Western region, Kenya. Key findings from the study reveal that HRIS is effectively used in several aspects of training and development. The system is particularly valued for identifying individual skill gaps and tailoring training content accordingly (mean = 3.86). HRIS also plays a crucial role in evaluating the effectiveness of training programs (mean = 3.82) and provides flexibility by allowing employees to access training at their convenience (mean = 3.67). Additionally, HRIS helps in identifying training needs (mean = 3.61). However, its role in planning training programs was perceived as somewhat less significant (mean = 3.49). These findings emphasize HRIS's effectiveness in customizing, evaluating, and offering flexible training solutions.

Pearson Correlation results revealed a significant relationship between HRIS training and development programs and organizational outcomes among private sugar manufacturing firms in Western region, Kenya ($r=0.489$, $P<0.05$). Linear regression analysis revealed that HRIS training and development programs significantly accounts for 23.9% variance in organizational outcomes among private sugar manufacturing firms in Western region,

Kenya. Multiple regression analysis revealed that when other variables are controlled in the model, a unit change in HRIS training and development programs would result to a significant change in organizational outcomes among private sugar manufacturing firms in Western region, Kenya by 0.274 units in the same direction ($\beta_3=0.274$, $P=0.000$). Hence, HRIS training and development programs is a significant predictor of organizational outcomes among private sugar manufacturing firms in Western region, Kenya. Therefore, the third null hypothesis was rejected.

5.2.4 Influence of HRIS work scheduling on organizational outcomes among private sugar manufacturing firms in Western region, Kenya

The fourth objective of the study was to establish the influence of HRIS work scheduling on organizational outcomes among private sugar manufacturing firms in Western region, Kenya. Key findings from the study on HRIS work scheduling show that HRIS is particularly effective in managing shift changes and schedule adjustments (mean = 3.78), tracking work hours, overtime, and attendance (mean = 3.38), and generating employee performance reports (mean = 3.41). It is also widely used to manage staff leave requests and usage (mean = 3.54). However, the lowest-rated statement (mean = 3.34) indicates that HRIS is not always used for work scheduling in all operations across the firms. The variability in responses suggests that the implementation and effectiveness of HRIS work scheduling features differ between organizations.

Pearson Correlation results revealed a significant relationship between HRIS work scheduling and organizational outcomes among private sugar manufacturing firms in Western region, Kenya ($r=0.546$, $P<0.05$). Linear regression analysis indicated that

HRIS work scheduling significantly accounts 29.9% for variance in organizational outcomes among private sugar manufacturing firms in Western region, Kenya. Multiple regression analysis revealed that when other variables are controlled in the model, a unit change in HRIS work scheduling would results to a significant change in organizational outcomes among private sugar manufacturing firms in Western region, Kenya by 0.365 units in the same direction ($\beta_4=0.237$, $P=0.000$). Thus, HRIS work scheduling is a significant predictor of organizational outcomes among private sugar manufacturing firms in Western region, Kenya. Therefore, the fourth null hypothesis was rejected.

5.3 Conclusion

From the general objective, the study concluded that human resource information system accounted for 67.2% significant variance in organizational outcomes among private sugar manufacturing firms in Western region. HRIS Work Scheduling had the highest contribution to organizational outcomes (29.9%), followed by HRIS employee records management practices (25.9%), HRIS training and development programs (23.9%) and lastly, HRIS recruitment and selection practices (21.1%).

The study concluded that HRIS recruitment and selection practices play a crucial role in enhancing organizational outcomes in private sugar manufacturing firms in Western Kenya. These practices improve the efficiency of recruitment processes, streamline candidate selection, and positively impact the firm's overall performance.

The study also concluded that HRIS employee records management practices have significant influence on organizational outcomes among private sugar manufacturing firms in Western region, Kenya. The findings demonstrate that HRIS is effective in

improving the efficiency, security, and accessibility of employee records, which in turn contributes to better organizational performance.

The study concluded that HRIS training and development programs has significant effect on organizational outcomes among private sugar manufacturing firms in Western region, Kenya. The findings highlight HRIS's effectiveness in customizing training, evaluating its impact, providing flexible learning options, and identifying employee training needs.

The study concluded that HRIS work scheduling has significant effect on organizational outcomes among private sugar manufacturing firms in Western region, Kenya. The system significantly enhances the management of shift changes, attendance tracking, performance reporting, and leave requests, all contributing to better organizational performance.

5.4 Recommendation

The following recommendations have been made based on the study conclusions as shown below.

Firms should adopt and utilize HRIS recruitment and selection practices, given their significant impact on organizational outcomes. Specifically, they should further optimize online selection methods and candidate tracking systems to enhance efficiency in the recruitment process. Firms that have not yet fully implemented HRIS should consider doing so to improve candidate quality, enhance organizational performance, and strengthen their overall brand image.

The study recommends that firms should continue to adopt and refine HRIS employee records management practices to further enhance organizational outcomes. Specifically,

firms should focus on optimizing record retention, storage, and retrieval processes to ensure data security and operational efficiency. Firms should consider its adoption to improve records management, safeguard sensitive information, and enhance overall organizational performance.

Firms should continue to invest in HRIS training and development programs to maximize their impact on organizational outcomes. Specifically, firms should prioritize the use of HRIS for identifying skill gaps, customizing training content, and evaluating training effectiveness. HR personnel should also receive continuous training on leveraging HRIS to its full potential, ultimately fostering a more skilled and productive workforce.

The study recommends that firms should enhance the use of HRIS for work scheduling to further improve organizational outcomes. Specifically, they should focus on fully integrating HRIS across all operations, ensuring its widespread application in work scheduling, attendance management, and performance tracking. Firms that have not fully implemented HRIS in work scheduling should consider doing so to boost operational efficiency, improve workforce management, and enhance overall performance.

5.5 Suggestion for Further Studies

The current study focused on how HRIS recruitment and selection practices, HRIS employee records management practices, HRIS training and development programs and HRIS work scheduling influences organizational outcomes among private sugar manufacturing firms in Western region, Kenya which presented conceptual limitations to the study. Further studies should consider other human resource information system variables.

The study did not include moderating and mediating variable, and since the R square did not amount to 100%, further studies should also consider moderating and/or mediating variables.

The study used quantitative data collected using structured questionnaire, implying similar study can be done using mixed methodology so that triangulation can be done with qualitative data.

The study focused on private sugar manufacturing firms confined in western Region, implying public sugar manufacturing firms were not considered. In this regard, further studies should be conducted among public sugar manufacturing firms for the purposes of comparison.

REFERENCES

- Abedin, B. (2022). Managing the tension between opposing effects of explainability of artificial intelligence: a contingency theory perspective. *Internet Research*, 32(2), 425-453.
- Afifah, N., & Sary, M. (2020). Understanding the Influence of HRIS Effectiveness on Employees' Performance: A Case Study at Brankas. *Indonesian Journal of Applied Business and Economics*, 8(2), 193-203.
- Al-Emran, M., & Granić, A. (2021). Is it still valid or outdated? A bibliometric analysis of the technology acceptance model and its applications from 2010 to 2020. *Recent advances in technology acceptance models and theories*, 9(07), 1-12.
- Alfa, Y., Abubakar, A., & Ali, A. (2017). Assessing the Benefits and Problems Associated with Electronic Human Resources Information System (e-HRIS) in Nigerian Universities. *European Journal of Interdisciplinary Studies*, 5(2), 36-46.
- Almeida, Y., Sousa, O. & Scavarda, T. (2019). The use of technologies in the recruiting, screening, and selection processes for job candidates. *International journal of selection and assessment*, 11(2-3), 113-120.
- Alshammari, S. H., & Rosli, M. S. (2020). A review of technology acceptance models and theories. *Innovative Teaching and Learning Journal (ITLJ)*, 4(2), 12-22.
- Anitha, J., & Aruna, M. (2013). Human resource information systems: A review and model development. *International Journal of Information Management*, 33(6), 1037-1052.
- Arefin, A. S., & Hosain, M. S. (2019). Technological innovation and economic growth in Bangladesh: An empirical analysis. *Global Business Review*, 20(1), 96-113.
- Arifin, M., & Lo, G. (2020). *The Usage of Human Resources Management Information System (HRMIS) in the Malaysian Armed Forces: Empirical Evidence in a Military Setting* (Doctoral dissertation, University of Malaya (Malaysia)).
- Aura, N., & Ozkan, S. (2017). The Impact of Human Resource Information Systems (HRIS) on Firm Performance: A Literature Review. *Business and Management Studies Review*, 2(1), 1-10.

- Becker, B. E., & Huselid, M. A. (2016). Strategic human resources management: Where do we go from here? *Journal of Management*, 32(6), 898-925.
- Bouville, V., Guérin, P., & Langella, P. (2023). Leveraging IT Tools for Managing Virtual Teams: Insights From French Multinationals. *Journal of World Business*, 58(1), 100838.
- Boxall, P., & Purcell, J. (2013). *Strategy and Human Resource Management*. Palgrave Macmillan.
- Bryman, A. (2013). *Social Research Methods* (4th ed.). Oxford University Press.
- Bryson, J. M. (2018). *Strategic planning for public and nonprofit organizations: A guide to strengthening and sustaining organizational achievement*. John Wiley & Sons.
- Carlbäck, M., Nygren, T., & Hägglund, P. (2023). Human Resource Development in Restaurants in Western Sweden—A Human Capital Theory Perspective. *Journal of Human Resources in Hospitality & Tourism*, 1-26.
- Castañer, X., & Oliveira, N. (2020). Collaboration, coordination, and cooperation among organizations: Establishing the distinctive meanings of these terms through a systematic literature review. *Journal of management*, 46(6), 965-1001.
- Celestine, N. (2015). Enhancing workplace motivation through gamification: Transferrable lessons from pedagogy. *The International Journal of Management Education*, 14(3), 327-335.
- Chahal, H., Gupta, M., Bhan, N., & Cheng, T. (2020). Operations management research grounded in the resource-based view: A meta-analysis. *International Journal of Production Economics*, 230, 107805.
- Chang, Y., & Chen, C.-L. (2021). The assessment of the impact of HRIS functions on organizational performance in Taiwan's service sector. *Computers in Human Behavior*, 125, 107041.
- Chen, H. M., & Hsu, W. (2019). The Influence of Human Resource Information Systems on Organizational Performance: A Study of Technology Firms in Taiwan. *Journal of Organizational Computing and Electronic Commerce*, 29(3), 167-185.
- Chen, Y., & Wang, S. (2023). Human Resource Information Systems (HRIS): Direct and Moderated Effects on Performance in Chinese IT Industry. *International Journal of Contemporary Hospitality Management*, 35(8), 2868-2889.

- Cheng, Y., & Fisk, A. (2021). Toward a contingency theory of relating management: exploring organization-public relationships (OPRs) in conflicts. *Negotiation and Conflict Management Research*, 15(1), 32-51.
- Choudhury, M. A., & Choudhury, M. A. (2022). A Critique of Human Capital Theory. *Knowledge and the University: Islam and Development in the Southeast Asia Cooperation Region*, 135-146.
- Creswell, J. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Csaszar, F. A., & Ostler, J. (2020). A contingency theory of representational complexity in organizations. *Organization Science*, 31(5), 1254-1219.
- Davarpanah, M., & Mohamed, R. (2019). Human resource management practices and organizational learning capability: Towards a more innovative workforce. *Journal of Organizational Change Management*, 32(6), 1189-1212.
- Davenport, H., & Harris, J. G. (2023). Analytics Come to HR. *Harvard Business Review*, 91(3), 110-118.
- Davis, G. F., & DeWitt, T. (2021). Organization theory and the resource-based view of the firm: The great divide. *Journal of Management*, 47(7), 1684-1697.
- De Vos, M., D'Heer, K., & Eeckhout, M (2017)). Integration of Artificial Intelligence In Human Resource Information System. *International Journal of Innovative Research in Technology and Science*, 12(2), 177-183.
- Delery, J. E., & Doty, D. H. (2016). Modes of theorizing in strategic human resource management: Tests of universalistic, contingency, and configurational performance predictions. *Academy of Management Journal*, 39(4), 802-835.
- Dessler, G. (2019). *Human Resource Management*, 10.edution. USA: Prentice Hall.
- Dionysus, R., & Arifin, A. Z. (2020). Strategic orientation on performance: The resource based view theory approach. *Jurnal Akuntansi*, 24(1), 136-153.
- Elmorshedy, A. H., Mohamed, K. A., & Mahmoud, A. A. (2018). Improving Efficiency and Accuracy of Payroll Processing in Egyptian Higher Education Institutes: The Role of Electronic Human Resources Information System. *Journal of Applied Finance & Banking*, 8(1), 1-14.

- Freeman, R. E., Dmytriiev, S. D., & Phillips, R. A. (2021). Stakeholder theory and the resource-based view of the firm. *Journal of management*, 47(7), 1757-1770.
- Gardner, M., Lepak, D. P., & Bartol, K. M. (2003). Virtual HR: The impact of information technology on the human resource professional. *Journal of Vocational Behavior*, 63(2), 159-179.
- Gardner, M., Lepak, D. P., & Bartol, K. M. (2022). Virtual HR: The impact of information technology on the human resource professional. *Journal of Vocational Behavior*, 63(2), 159-179.
- Gerhart, B., & Fang, M. (2015). Pay, intrinsic motivation, extrinsic motivation, performance, and creativity in the workplace: Revisiting long-held beliefs. *Annual Review of Organizational Psychology and Organizational Behavior*, 2, 489-521.
- Guest, D. (2017). Human resource management and performance: still searching for some answers. *Human Resource Management Journal*, 27(1), 3-22.
- Gunarathne, N., & Lee, K. H. (2021). Corporate cleaner production strategy development and environmental management accounting: A contingency theory perspective. *Journal of Cleaner Production*, 308, 127402.
- Hamid, M. (2019). The effect of human capital management on organizational performance: Evidence from Malaysia. *International Journal of Innovation, Creativity and Change*, 5(9), 277-289.
- Hosain, S., Manzurul Arefin, A. H. M., & Hossin, M. A. (2020). The role of human resource information system on operational efficiency: evidence from MNCs operating in Bangladesh. *Asian Journal of Economics, Business and Accounting*, 18(2), 29-47.
- Huda, M. (2023). An analysis on effectiveness and improvement of HRM practices through HRIS of IPDC Finance Limited.
- Huselid, M. A. (2015). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38(3), 635-672.
- Jackson, E., & Mathis, R.L. (2023). Exploring the Impact of Digital Transformation on Employee Performance: Evidence From British Manufacturing Companies.

- International *Journal of Contemporary Hospitality Management*, 35(3), 2549-2004.
- Jones, A., & Smith, B. (2020). Examining the Effect of HRIS Practices on Organizational Performance: A Study of Manufacturing Firms in the United States. *Journal of Industrial Management*, 12(4), 45-59.
- Juma, A. O. (2022). Evaluation of the Effect of e-HRM on Organizational Performance in Savings And Credit Cooperatives Societies (SACCOs) in Kenya. *International Journal of Academic Research in Progressive Education and Development*, 10(1), 1-17.
- Kang, Y., & Mok, K. H. (2022). The broken promise of human capital theory: Social embeddedness, graduate entrepreneurs and youth employment in China. *Critical Sociology*, 48(7-8), 1205-1219.
- Karedza, G., & Govender, K. K. (2020). The impact of Organizational Capabilities on SMEs' Export Performance: Application of the Resource Based View Theory. *International Journal of Entrepreneurial Research*, 3(3), 68-75.
- Kassim, N. A., Ramayah, T., & Kurnia, S. (2012). Entrepreneurial orientation, firm performance and the moderating role of strategic support. *Asian Academy of Management Journal of Accounting and Finance*, 8(2), 19-39.
- Kavanagh, M. J., Thite, M., & Johnson, R. D. (2012). Evolution of human resource management and human resource information systems. *Introduction To Human Resource Management*, 2-34.
- Kenya Association of Manufacturers. (2020). Report on the Utilization of Human Resource Information Systems (HRIS) in Large and Medium-Sized Manufacturers in Kenya, Nairobi
- Kenya Sugar Board. (2024). *Year Book of Sugar Statistics*. Nairobi: Kenya Sugar Board.
- Kibambila, O., & Ismail, P. (2021). The influence of HRIS usage on employee performance and mediating effects of employee engagement in five stars hotels in Jordan. *International Journal of Information Systems in the Service Sector*, 12(3), 1-18.

- Kim, H., & Lee, J. (2021). The impact of Human Resource Information Systems (HRIS) records management on employee performance in South Korean manufacturing companies. *Sustainability*, 13(9), 5158.
- Kim, J. Y., & Park, Y. J. (2019). The impact of hospital human resource information systems (HHRIS) on organizational performance: A comparison between public and private hospitals in South Korea. *International Journal of Medical Informatics*, 127, 22-29.
- Kipkulei, D. (2014). Effect of Enterprise Resource Planning systems on financial performance of sugar companies in Kenya. *Unpublished MSc thesis, Kakamega: Masinde Muliro University of Science and Technology.*
- Kiruja, E. K. (2021). Influence of Human Resource Information System on the Performance of Oil and Gas Companies in Kenya. *International Journal of Management Studies and Social Research*, 3(6), 11-25.
- Koech, R. K., Kirui, J., & Langat, L. (2022). Relationship between recruitment information system and management of human capital: a case of James Finlay limited, Kenya.
- Lee, J., & Lee, H. (2018). The Effect of Human Resource Information Systems on Employee Performance: A Study of Manufacturing Firms in South Korea. *International Journal of Human Resource Management*, 29(12), 2096-2117.
- Lopez, J., & Smith, R. (2019). A Comparative Analysis of the Influence of HRIS on Organizational Performance: Public vs. Private Universities in the United States. *Journal of Higher Education Management*, 01(01), 451-453.
- Luthans, B. (2016). An exploratory study of the role of the human resource information system professional.
- MacKenzie, A., & Chiang, t. H. (2023). The human development and capability approach: A counter theory to human capital discourse in promoting low SES students' agency in education. *International Journal of Educational Research*, 117, 102121.
- Mahmud, M., Soetanto, D., & Jack, S. (2021). A contingency theory perspective of environmental management: Empirical evidence from entrepreneurial firms. *Journal of general management*, 47(1), 3-17.

- Mandelson, P., Straw, J., & Glennie, A. (2012). The economic impact of technology. Demos.
- Manufacturing Technologies Association. (2023). Report on the Utilization of Human Resource Information Systems (HRIS) in British Manufacturers. London
- Manyura, D. M., & Makokha, E. N.(2023). Human Resource Information Systems And Employee Performance In National Polytechnics In Kenya. *International Journal of Recent Research in Social Sciences and Humanities* 10(4), 1-12,
- Martinez, M. J., & Rodriguez, J. A. (2018). The impact of Human Resource Information Systems (HRIS) on employee performance: A comparative study between public and private schools in Spain. *International Journal of Educational Management*, 32(5), 817-830.
- Martocchio, L. (2017). Designing the HRIS digital dashboard model using a CBHRM approach. In *Journal of Physics: Conference Series* (Vol. 1402, No. 2, p. 022081). IOP Publishing.
- Mauro, M. V. B., & Borges-Andrade, J. E. (2020). Performance of HRIS in Brazilian organizations. *Brazilian Journal of Business Management*, 1(2), 156-174.
- Mengesha, Z. D., & Singh, L. (2022). Determinants of human capital development in Ethiopian economy: Theory and empirical evidence. *International Journal of technology management & sustainable development*, 21(2), 181-240.
- Mir, F. A., Hassan, S. U., & Qadri, M. A. (2014). Impact of human resource management practices on organizational performance. *Quality & Quantity*, 48(2), 623-645.
- Mkongo, X., & Macha, Y. (2022). Analyzing the Effect of E-Work Scheduling System on Timely Operational Performance of TRA Head Quarter. *Journal of Operations Management*, 6(8), 1-5.
- Njeje, D. A. (2018). *Effects Of Human Resource Information Systems On The Performance Of Saccos In Kenya A Survey Of Selected Saccos* (Doctoral dissertation, Kabarak University).
- Noe, R. A., Hollenbeck, J. R., Gerhart, B., & Wright, P. M. (2017). *Human Resource Management: Gaining a Competitive Advantage*. McGraw-Hill Education.

- Noutsu, E., Kamdjoug, J. R. K., & Wamba, S. F. (2017). An empirical assessment of factors influencing human resource information system success: A public sector perspective. *International Journal of Information Management*, 37(5), 159-165.
- Odero, C. (2022). *Human Resource Information System and Performance of Staff: a Case of the Teachers Service Commission, Samburu County, Kenya* (Doctoral dissertation, University of Nairobi).
- Okoronkwo, G. I. (2021). Digitization of human resource practices: The Realities in the New Normal. *International Journal of Business Systems and Economics*, 13(4), 243-26.
- Olaniran, B. A., & Williams, C. (2016). Towards Developing Frameworks for Implementing Successful eHRM Systems in Public Healthcare Institutions in Emerging Economies: Case Studies of Ghana and South Africa. *Government Information Quarterly*, 33(3), 455-464.
- Ololade, A. J., Paul, S. O., Morenike, A. & Esitse, D. A. (2023). Bolstering the role of human resource information system on employees' behavioural outcomes of selected manufacturing firms in Nigeria. *Heliyon*, 9(1).
- Omar, M., & Mahmood, N. (2020). Mediating the effect of organizational culture on the relationship between training and development and organizational performance. *Management Science Letters*, 10(16), 3793-3800.
- Owor, K. (2016). The impact of HRIS usage on organizational efficiency and employee performance. In *The impact of HRIS usage on organizational efficiency and employee performance: Kaygusuz, İlhami*.
- Oyagi, M., & Mjomba, L. (2021). Human resource information systems and organizational performance of commercial banks in Kenya. *International Journal of Information Management*, 58, 102216.
- Pandey, P., & Singh, P. (2023). The Impact Of Human Resources Information Systems On Efficiency And Effectiveness In The Pharmaceutical Industry. *EPR International Journal of Environmental Economics, Commerce and Educational Management (ECEM)*, 10(7), 74-81.
- Parry, E., & Battista, M. E. (2019). *Human resource information systems: Basics, applications, and future directions*. Thousand Oaks, CA: SAGE Publications.

- Pushpasiri, A., & Pushpasiri, D. (2021). The Effect of HRIS on Employee Job Performance: A Study of Commercial Banks in Western Province of Sri Lanka, Especially in Colombo. *Journal of Human Resource Management Research*, 5(6), 56-65.
- Rafique, H., Almagrabi, A. O., Shamim, A., Anwar, F., & Bashir, A. K. (2020). Investigating the acceptance of mobile library applications with an extended technology acceptance model (TAM). *Computers & Education*, 145, 103732.
- Raharjo, K., Pasaman, A. B., Nimran, U., & Utami, H. N. (2018). The effect of transformational leadership and information technology on organizational learning and organizational change, and its impact on employee job satisfaction (Study on pt pupuk kaltim employees). *The International Journal of Accounting and Business Society*, 26(2), 24-42.
- Reinecke, K., Gerpott, J., & Goebel, R. (2023). Impacts of Agile Work Design on Knowledge Sharing and Innovation: A Longitudinal Study Among German High-Technology Project Teams. *Academy of Management Journal*, 66(2), 586-612
- Ruël, H., Bondarouk, T., & Looise, J. K. (2017). E-HRM: Innovation or irritation. An explorative empirical study in five large companies on web-based HRM. *Management revue*, 364-380.
- Santos, M. A., & Oliveira, C. A. (2021). *Sustainability Challenges in the Brazilian Sugar Industry: Environmental and Economic Perspectives*. *Journal of Sustainable Agriculture*, 35(4), 78-92.
- Sharma, R., & Gupta, S. (2020). Challenges and Opportunities in the Indian Sugar Industry: A Policy Perspective. *Indian Journal of Agricultural Economics*, 75(2), 201-215
- Sikira, R., & Mishael, A. (2024). Effectiveness of HRIS Personnel Records Management on Performance of Higher Learning Institutions: A Case of Tengeru Institute of Community Development. *Valley International Journal Digital Library*, 6045-6058.
- Sohn, K., & Kwon, O. (2020). Technology acceptance theories and factors influencing artificial Intelligence-based intelligent products. *Telematics and Informatics*, 47(9), 101-104.

- Sony, M., & Aithal, P. S. (2020). A resource-based view and institutional theory-based analysis of industry 4.0 implementation in the Indian engineering industry. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 5(2), 154-166.
- Stokes, P., & Wall, T. (2017). *Research methods*. Bloomsbury Publishing.
- Stone, F. (2019). *Managing human capital in today's globalization: A management information system perspective*. Apple Academic Press.
- Sudirlan, U. (2019). Acceptance and use of HRIS and influence on organizational performance of SMEs in a developing economy: the case of Cameroon. In *Recent Advances in Information Systems and Technologies: Volume 1 5* (pp. 563-580). Springer International Publishing.
- Thite, L. K., Langat, D., & Langat, P. (2020). The Role of Human Resource Information Systems (HRIS) in Performance Management in Manufacturing Firms in Kenya. *International Journal of Scientific & Engineering Research*, 4(7), 2741-2748.
- Wang, L., & Zhan, S. (2017). The Influence of Human Resource Information Systems on Employee Procurement and Organizational Performance: A Study of Service Organizations in China. *International Journal of Information Management*, 37(5), 397-408.
- Woodrow, C., & Guest, D. E. (2017). Corporate Recruiters' Experiences of Shortlisting Applicants During Campus Graduate Recruitment Campaigns. *Personnel Review*, 46(5), 1015-1031.
- Wright, P. M., & McMahan, G. C. (2019). Theoretical perspectives for strategic human resource management. *Journal of Management*, 18(2), 295-320.
- Yeung, A. K., & Brockbank, W. (2015). *Reinventing human resources management: Challenges and new directions*. Routledge.
- Yusuf, M. N., & Yulianeu, A. (2022). *Energizing Organizational Learning and Organizational Performance: Human Capital Theory Perspective*.
- Zhang, X., & Liu, Q. (2020). Human Resource Information Systems Practices and Performance: A Two-Wave Panel Study of Chinese Service Firms. *Sustainability*, 12(14), 5558.

APPENDICES

Appendix I. Appendix I. INTRODUCTION LETTER.

Alice Akhanguha Andayi.

**Masinde Muliro University of Science and Technology,
School of Business and Economics,
Department of Human Resource Management.**

Dear Sir/Madam,

RE: INTRODUCTION LETTER FOR DATA COLLECTION ON INFLUENCE OF HUMAN RESOURCE INFORMATION SYSTEMS ON ORGANIZATIONAL OUTCOMES AMONG PRIVATE SUGAR MANUFACTURING FIRMS IN WESTERN REGION, KENYA.

My name is Alice A. Andayi a Master of Science student in Human Resource Management at Masinde Muliro University of Science and Technology. I am currently conducting research as part of my thesis titled "Influence of Human Resource Information Systems on Organizational Outcomes Among Private Sugar Manufacturing Firms in Western Region, Kenya." This research aims to establish the influence of Human Resource Information Systems on Organizational Outcome within the Counties of Kakamega, Bungoma and Busia.

I am writing to request your permission to conduct this study within your organization. Your participation and the insights provided by your team will be of value in understanding the influence of HRIS on organizational outcomes among the private sugar firms in Western Region, Kenya. The data collected will be used solely for academic purposes and will be treated with utmost confidentiality.

Your support and cooperation in facilitating this research will be greatly appreciated. Should you have any questions or require further information, please do contact me at 0726622739.

Thank you for your time and consideration.

Appendix II: QUESTIONNAIRE

Dear Respondent,

My name is ALICE AKHANGUHA ANDAYI, a student at Masinde Muliro University of Science and Technology conducting research on a topic entitled '**INFLUENCE OF HUMAN RESOURCE INFORMATION SYSTEM ON ORGANIZATIONAL OUTCOMES AMONG PRIVATE SUGAR MANUFACTURING FIRMS IN WESTERN REGION, KENYA.**' This is in partial fulfilment of the requirements for the awards of a postgraduate degree of master of science in Human Resource Management. Kindly spare your time to respond to these questions. The information you will provide shall be treated with utmost confidentiality and it is purely for academic purposes **ONLY**.

Guidelines

1. Use a tick (✓) for appropriate response
2. Do not indicate your name on the questionnaire

SECTION A: DEMOGRAPHIC INFORMATION

1. Please state your gender

Male

Female

2. Please indicate your age bracket

20-29 years

30-39 years

40-49 years

Above 50 years

3. State the number of years you have worked in the organization

Less than one year []

1-2 years []

3-5 years []

Above 5 years []

4. Please indicate the level of your education

PhD []

Masters []

Bachelor's degree []

Diploma []

Certificate []

5. What is your current occupation within the organization.

Top level management []

Middle level management []

Low level management []

SECTION B PART I: EMPLOYEE SELECTION AND RECRUITMENT

In this section please tick (√) the most appropriate response for each of the statements in the table below with the following scores in mind. **Strongly Disagree (SD=1), Disagree (D=2), Not Sure (NS=3), Agree (A=4), and Strongly Agreed (SA=5).**

	STATEMENTS	5	4	3	2	1
1	My firm uses various online employee selection methods to choose the right candidates like online interview.					
2	My firm advertises vacancies on our website and other e-platforms.					
3	My firm allows applicants to apply for the advertised positions online.					
4	HRIS has improved the quality of candidates selected in my firm.					
5	My company’s brand has been enhanced by accepting online job application.					

What specific HRIS recruitment and selection practices are currently being used by your organization and how do these practices impact organizational outcomes?

How does your firm perceive the effectiveness of their HRIS recruitment and selection practices in terms of identifying and attracting qualified candidates?

SECTION B PART III: EMPLOYEE RECORDS MANAGEMENT

In this section please tick (√) the most appropriate response for each of the statements in the table below with the following scores in mind. **Strongly Disagree (SD=1), Disagree (D=2), Not Sure (NS=3), Agree (A=4), and Strongly Agreed (SA=5).**

	STATEMENTS	5	4	3	2	1
1	My firm uses HRIS software to maintain employee records.					
2	The use of HRIS in my firm makes employee records secure.					
3	HRIS in my firm has ensured confidentiality of sensitive employee information.					
4	My firm can easily retrieve employee record with the use of HRIS.					
5	The use of HRIS in my firm has led to improvement in efficiency of record storage.					
6	HRIS in my firm has streamlined the process of record retention and disposal.					

How do HRIS employee records management practices contribute to the overall efficiency and effectiveness of HR processes

What specific features and functionalities of HRIS systems for employee records management are most beneficial to your organization

SECTION B PART II: TRAINING AND DEVELOPMENT PROGRAMS

In this section please tick (√) the most appropriate response for each of the statements in the table below with the following scores in mind. **Strongly Disagree (SD=1), Disagree (D=2), Not Sure (NS=3), Agree (A=4), and Strongly Agreed (SA=5).**

	STATEMENTS	5	4	3	2	1
1	My organization uses HRIS software in planning for training and development programs.					

2	My firm uses HRIS to identify the employee training needs.					
3	HRIS in my firm allows employees to access training at their convenience. .					
4	My firm uses HRIS to identify the learning path hence train content based on individual skill gap.					
5	My firm uses HRIS to evaluate the training offered to staff.					

What types of HRIS training and development programs are currently being implemented by your firm and how do these programs impact organizational outcomes?

How does your firm measure the effectiveness of their HRIS training and development programs, and what metrics are used to assess their impact on organizational outcomes?

SECTION B PART IV: WORK SCHEDULING

	STATEMENTS	5	4	3	2	1
1	My firm uses HRIS in work scheduling.					
2	HRIS in my firm allows for the updates regarding shift changes and schedule adjustments.					
3	Tracking of employees work hours, overtime and attendance pattern is easily done through HRIS in my firm.					
4	My firm is able to get reports on employee performance using HRIS.					
5	HRIS in my firm allows for the updates on staff leave request and usage.					

What specific HRIS work scheduling functionalities are being utilized by your firm, and how do these functionalities impact organizational outcomes

How does your firm ensure the accuracy and efficiency of their HRIS work scheduling practices, and what are the key factors that contribute to their success or Failure?

SECTION B PART V: ORGANIZATIONAL OUTCOMES

	STATEMENTS	5	4	3	2	1
1	My organization market share has expanded over the last one year.					
2	My firm's sugar production has increased over the last one year.					
3	My firm's profitability has increased over the last one year.					
4	My brand image has been enhanced over the last one year.					
5	The use of HRIS in my firm has increased efficiency in the production process through cost cutting and better pricing.					

Thank you for your response.

Appendix III: VALIDITY TEST

Rotated Component Matrix^a					
	Component				
	1	2	3	4	5
ESR1		.892			
ESR2		.837			
ESR3		.875			
ESR4		.924			
ESR5		.911			
ERM1				.688	
ERM2				.750	
ERM3				.841	
ERM4				.726	
ERM5				.922	
TDR1	.905				
TDR2	.926				
TDR3	.916				
TDR4	.851				
TDR5	.818				
WS1			.828		
WS2			.783		
WS3			.867		
WS4			.905		
WS5			.921		
OO1					.771
OO2					.559
OO3					.695
OO4					.549
OO5					.707
Extraction Method: Principal Component Analysis.					
Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 6 iterations.					

APPENDIX IV MAP OF WESTERN REGION, KENYA

