

Influence of human resource information system–based recruitment and selection practices on organizational outcomes among private sugar manufacturing firms in Western region, Kenya

Alice Akhanguha Andayi¹
Robert K.W. Eggesa²
Albert Odhiambo³

¹andayia84@gmail.com

²regessa@mmust.ac.ke

³alodhiambo@mmust.ac.ke

^{1,2,3} Masinde Muliro University of Science and Technology, Kenya

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ABSTRACT

Kenya's sugar industry, once a cornerstone of the economy, faces a crisis of declining operational performance. This has led many of the sugar firms to embrace a Management Information System (MIS) in operations, by extension, a 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 outcomes has not been extensively explored. The objective of the study was to investigate the influence of HRIS-enabled training and development programs on organizational outcomes among private sugar manufacturing firms in the Western region, Kenya. The main theory of the study was the technology acceptance theory, and it was supported by human capital theory. The target population was 97 employees comprising top-level management employees, middle-level management employees, and low-level management employees. The study used a census approach. The study's primary data was obtained using structured questionnaires. The research design adopted in this study was a causal research design, which aims at investigating and determining the relationship between causes and effects. 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 were determined by experts and the 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. SPSS software was used in the analysis. Data presentation was done using tables and models. The study established a significant positive relationship between HRIS-enabled training and organizational outcomes among private sugar firms in Western Kenya. Regression results ($R^2 = 0.239$; $\beta = 0.411$; $p < 0.000$) confirmed that HRIS training substantially predicts improvements in profitability, production efficiency, brand positioning, and market share. The study concludes that effective implementation quality, managerial support, and employee engagement are critical determinants of HRIS success. Firms should enhance the use of HRIS data analytics to accurately identify skill gaps, align training programs with operational needs, and ensure that training investments directly contribute to improved organizational performance.

Keywords: Human Resource Information System, Organizational Outcomes, Private Sugar Manufacturing Firms, Training and Development Programs, Western Kenya

I. INTRODUCTION

Organizations in the modern competitive business environment face a plethora of challenges, which arise because of diverse sources, such as organizational performance shortcomings and the growing competition due to digital transformation and globalization (Yeung & Brockbank, 2015; Kassim et al., 2012). To address these issues, HR managers are forced to develop strategic frameworks based on the changing market conditions (Masyhuri et al., 2024; Shavaran et al., 2025). This is a strategic necessity that is being triggered by the increased use of technology and usage in search of better organizational results. In addition, economic theories admit and nominate the significant impact of technology in propelling the economic success of a country (Hossain et al., 2021). Nonetheless, the role of technology in the human resource management result has been discussed by a considerable amount of scholars across the globe, and the majority of them have emphasized the necessity of the human resource information system in the workplace (Evangelista & Vezzani, 2010).

Information technology innovation has greatly influenced the growth of Human Resource Information Systems (HRIS) because of the evolution of Management Information Systems (MIS) (Noutsa et al., 2017; Noe et al., 2012).

HRIS is central to the management of human capital especially in the knowledge based economies due to the disruptive influence of information communication technology (ICT) (Anitha & Aruna, 2013; Oyagi & Mjomba, 2021). As an HR system, HRIS is placed in the sphere of MIS, including different functions of HR to present complete information about human resource needed to ensure business excellence. HRIS is a complex computer application, which harbours various features, such as database administration, information sharing, and usage, all of which are expected to streamline human resource management operations (Johnson et al., 2020).

In the Sri Lanka, Wickramasinghe (2022) conducted a study investigate the characteristics of human resource information systems (HRIS) that influence the success of the same. Findings led to identify the important characteristics of HRIS that influence its success in medium-sized firms in a developing country, Sri Lanka. According to a report released by German Rectors Conference, 85 percent of the manufacturing companies in Germany exploit HRIS in administrative activities such as payroll and leaves, which allows the HR to focus on other strategic activities. Use of HRIS is on a rise in Africa where economies are realizing the potential of automation of the HR and data-driven decision making despite its low adoption compared to other emerging economies. Olaniran and Williams (2020) demonstrated that the implementation of HRIS in the South African public healthcare institutions resulted in the enhancement of the personnel records, staff scheduling, and payroll processing. In Nigeria, Tertiary Education Trust Fund (TETFund) is also offering grants to universities to implement HRIS. Abdullah and Abubakar (2017) outlined several benefits related to HRIS use at Nigerian institutions, including the decrease in administrative loads, improvement of the record keeping process, and the increased opportunities of staff development.

The manufacturing industry in Kenya is on a growth spurt and thus it requires an effective management of an expanding workforce. HRIS can be considered as game-changer, as it can bring tremendous benefits to manufacturing companies. Njihia and Mwirigi (2014) noted that enterprise Resource Planning (ERP) systems have transformed the way organizations go about the process of providing Information systems. This research discusses the issues of introducing ERPs into small and medium enterprises with the aim of finding the best ways to manage the change process to get a competitive advantage over its rivals. According to the study there was an increasing tendency of HRIS implementation in Kenyan manufacturing, and the major enterprises tend to be on the forefront. Mumias Sugar Company introduced an Enterprise Resource planning (ERP) system, MyOB Premier, in an attempt to streamline its operational processes as well as modernize its management processes (Njihia & Mwirigi, 2014). The ERPs generally come with human resource management modules and as such, they have used this to support HR operations. The Nzoia Sugar Company has adopted employee portals in order to administer its human resource using HR Information Systems. This will enable employees to have different functions of HR, which include timesheets, leave requests, and benefits in one centralized portal. On the same note, other sugar firms in Kenya such as Kibos Sugar Company, Sony Sugar, Kwale Sugar, Busia Sugar Industries and Olepito Sugar Company have been using HRIS to simplify its HR services and improve the management of its employees (Thite, 2020).

According to industry reports, HRIS has the potential to increase the productivity of manufacturing industries (10-15 percent) because of the simplified work process, effective training, and communication (Huda, 2023; Okoronkwo, 2021). Nevertheless, it would be necessary to conduct an additional study on the industry to estimate this effect on Kenyan sugar factories. It is also reported in the industry that this technology can result in a reduction of 5-10% in the manufacturing industry because of streamlined operations, effective training, and workforce management (Ololade et al., 2023; Pandey & Singh, 2023). Again, there is no easy access to certain data on Kenyan sugar manufacturing.

Training and development have a more direct impact on organizational outcomes compared to other HR functions (recruitment, payroll, or performance appraisal) (Maruyama & Braga, 2014). Although staffing and payroll handle the staffing and compensation parts, the HRIS-enabled training plays an active role in increasing the skills, productivity and flexibility of employees, bringing about efficiency, innovativeness and competitiveness. In manufacturing industries, where traditional training methods are normally ineffective, inflexible, and costly, the study of HRIS-enabled training and development is vital. Conventional techniques are very dependent on face-to-face meetings, standardized training material, and manual training and assessment systems, which may lead to skill deficiencies, lack of employee interest, and poor performance results (Yeung & Brockbank, 2015). By contrast, HRIS brings together technology to plan and deliver as well as assess training programs effectively, provide personalized learning, flexible access, and real-time performance monitoring (Johnson et al., 2020). In the case of Kenyan sugar manufacturing companies, HRIS can be used to increase the productivity of the workforce, optimize operational efficiency, lower the cost of training, and increase the competitiveness, curbing the outdated practices, high labor costs, and changing industry needs (Huda, 2023).

1.1 Statement of the Problem

Kenya's sugar industry once a cornerstone of the economy, faces a crisis of declining operational performance according to Kenya Sugar Board. Domestic sugar production struggles to meet national demand with public sugar firms like Mumias, Nzoia and Sony facing a challenge 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 HRIS on organizational outcomes spans various sectors but lacks a specific focus on the sugar manufacturing Industry in Kenya. Studies such as Chatwick (2023), Manyura and Makokha (2023), 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; Raharjo & Fernandes, 2018; Owor, 2016). 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. It is crucial for policy makers, regulators, and practitioners who are interested in improving the competitiveness of the sugar industry in the area to have a solid understanding of the effect that HRIS has on parameters such as market share, productivity, and profitability. In light of this, the purpose of this research is to evaluate the influence that Human Resource Information Systems have on the outcomes of organisations that are private sugar production companies located in the Western area of Kenya.

1.2 Research Objective

To examine the influence of HRIS recruitment and selection practices on organizational outcomes among private sugar manufacturing firms in Western region, Kenya.

II. LITERATURE REVIEW

2.1 Theoretical Review

Technology Acceptance Model (TAM) has been considered as one of the most significant theories of information systems study, and it tries to understand and predict the level of acceptance and adoption of new technology by people. Fred Davis proposed TAM in 1989, and it has been developed by other researchers since that time to explain how individuals behave under various circumstances. Essentially, TAM has the premise that the intention to use a technology is dependent on perceived usefulness (PU) and perceived ease of use (PEOU) of a technology. In terms of the training and development programs that have been undertaken using the HRIS in the sugar manufacturing companies, TAM suggests that the adoption and usage of the HRIS by the educators is a crucial factor in assessing its effects on the organizational performance. Moreover, it is probable that companies that have good strategies to address user issues, user-friendly interface, training, and assistance on how to use the HRIS can reap favorable outcomes, such as improved competencies among employees, employee motivation, and overall organisational performance (Alshammari & Rosli, 2020).

One of the most important theories in economics as well as organizational theory is the human capital theory, which explains the significance of human resources as one of the critical elements of economic productivity and performance in an organization (Carlbäck et al., 2024). The proponents of the human capital theory include economists such as Gary S. Becker (1975) who is largely regarded as the father of the human capital theory. Human capital as the cause of economic growth and development are the works of the founder of the study and the ground work was made by Becker in his master piece work, the title of which is Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education (1964). The followers of the human capital approach are sure that the secret of the rise in the individual productivity and the economy growth is investment in education, training, and the development of skills (Yusuf & Yulianeu, 2022). In this theory, the more productive and the better the performance of an organization are, the more the investment in the human capital (education, training, skills) of the employees (Kang & Mok, 2022). HRIS can become a resourceful tool in training and development management of the employees. The administrators can direct the training programs through the performance data or self-assessment within the HRIS by understanding the areas of weaknesses or areas which require improvement of skills.

2.2 Empirical Review

Ali and Rahman (2021) sought to identify the applications of human resource information systems (HRIS) in various businesses, as well as their outcomes. They note that the role of Human resource management (HRM) has shifted overall from traditional (popularly called personnel management) to a strategic one. HRIS outline the amalgamation between HRM and IS. HRIS is one of the best neoteric HR tools in modern organizations. It became popular in developed countries since the beginning of this century. However, only few corporate organizations and MNCs in developing countries like Bangladesh have started to adopt and use HRIS since this decade. But still its adoption and

usages are limited to few mid to large sized organizations. This research is primarily concerned with identifying the applications of human resource information systems (HRIS) in various businesses, as well as their outcomes. 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. Smith et al., 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. Su and Wright (2012) 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. Abuhantash and Brint (2023) compared the effect of HRIS on employee performance between public and private schools in Spain. Utilizing 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.

The reviewed studies consistently show that HRIS-enabled training and development affect organizational outcomes, though with notable contextual and methodological differences. Ali and Rahman (2021) found that e-training improved customer responsiveness and professionalism at the Tanzania Revenue Authority, but its public-sector setting and case study design limit applicability to private sugar firms. Kiruja (2021) also reported strong HRIS effects in Kenya's oil and gas sector, though unclear sampling reduces reliability. Chatwick (2023) used rigorous statistical models in U.S. manufacturing firms, confirming positive HRIS–performance links, while Su and Wright (2012) provided qualitative evidence from Chinese IT firms, lacking causal inference. Abuhantash and Brint (2023) showed sectoral differences in Spain but used a non-explanatory design. These gaps justify testing HRIS training effects in Kenyan sugar firms. Therefore, this research hypothesise:

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

III. METHODOLOGY

3.1 Research Design

The research design adopted in this study was a causal research design, which aims at investigating and determining the relationship between causes and effects. In this method, the research attempted to find out how far independent variables affect the dependent variable thus indicating the cause-and-effect relationship. According to Baskerville and Pries-Heje (2014), an experimental variable may result in the emergence of quantifiable outcomes, which may be in the form of concepts, symbols, or substances. Creswell and Creswell (2017) also stress that causal research is especially effective in investigating to what extent alteration in one variable correlates with the corresponding alteration in another one.

3.2 Study Area

The study was conducted in Western region focusing on private sugar companies. Sugar production plays a vital role in Western Kenya, specifically in the Counties of Kakamega, Bungoma and Busia. 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. 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 Target Population

The target population consisted of 97 individuals who were managers of private sugar production enterprises in the western area of Kenya. This population was comprised of target top level management employees, target middle level employees, and target low-level management employees. The highest level of management, which includes the chief executive officer, managing directors, and managing directors. Middle level management comprised of head of departments while low level management comprised of supervisors including shift supervisors, lead operators and team leaders.

3.4 Sampling Technique and Sample Size

Given the relatively small size of the population, consisting of few individuals (specifically, 97), the census approach was used to include all the respondents. 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.

3.5 Data Collection

The data that was obtained for the research was considered primary data. The main data necessary for the investigation was collected via the use of structured questionnaires. A five-point Likert scale was used to organise them, with the following options: 1-strongly disagree, 2-disagree, 3-undecided, 4-agree, and 5-strongly agree. Prior to beginning the main study project, a number of issues were addressed via the pilot test. The pre-testing sample was comprised of eight individuals who were selected from the Kibos Sugar Company Limited in Kisumu County. This number represents ten percent of the total sample amount. It is recommended by Singpurwalla (2013) that the sample size for a pilot study be equal to ten percent of the total sample size for the research. Neither the findings of the pilot test nor the results of the major investigation were used. Experts and the supervisors of the researcher were responsible for determining the face and content validity of the present study conducted (Fraenkel & Wallen, 1990). For the purpose of determining the reliability of the data, the Cronbach's alpha coefficient was used. HRIS training and development programs ($\alpha=0.953$) and Organizational outcomes ($\alpha=0.846$). According to Singpurwalla (2013), a Cronbach alpha value of 0.7 or more is considered to be acceptable.

3.6 Data Analysis

The data was examined to provide information using quantitative techniques inside the context of SPSS 26. Editing, cleaning, and coding the original data was done before the analysis started. Version 26 of SPSS was subsequently used. According to Kemp et al. (2018), the variables under study were characterised by a descriptive statistical analysis that revealed their distribution, core trends, and variability. The study used inferential statistics to determine the nature of the linkages between the variables, and correlation analysis to probe the interrelationships between the independent and dependent variables. In order to determine the direct influence, the independent variable has on the dependent variable, a simple linear regression analysis was used. Simple linear regression equation was written as;

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where; Y was Organizational outcomes

B_0 is constant (intercept),

B_1 was coefficient parameter to be determined,

X_1 was Training and development programs,

ε was error/disturbance

3.7 Ethical Considerations

In line with Kothari (2007), the research put significant ethical considerations first such as anonymity and confidentiality. The participants were given an assurance that their confidentiality would be maintained and that the information that they provided would be in no way disclosed. No individual details were obtained and the purpose of study was well presented to the respondents to make them participate in the research. Moreover, the researcher complied with the principles of ethical writing in academic literature, plagiarism checkers helped her not to misrepresent the information, and cited material was differentiated with personal interpretation. In general, ethical research practices were highly adhered to through the voluntary and informed consent to participate.

IV. FINDINGS & DISCUSSION

4.1 Findings

4.1.1 HRIS recruitment and selection practices

The study sought to establish information regarding 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 1.



Table 1
HRIS Training and Development Programs

No	HRIS training and development programs	5	4	3	2	1	Mean	SD
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	

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. Chatwick (2023) 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 Su and Wright (2012) and Abuhantash and Brint (2023).

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.

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

The purpose of this section was to identify the organizational results of privately owned sugar-producing companies. The respondents were subjected to five statements about the organizational outcomes of the privately owned sugar producing business in the Western part of Kenya. The findings are summarised in Table 2.

Table 2*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	

The research determined that the adoption of HRIS by private sugar manufacturing companies in Western Kenya has produced positive organizational results as indicated by a robust overall mean score of 3.86. In particular, the profitability, brand image, production efficiency, and market share were improved. These results can be compared to Ali and Rahman (2021), who noted that HRIS is a transition to a strategic HRM with the help of which organizations are able to enhance professionalism and responsiveness with the use of e-training. In a similar fashion, the good results reported in this study indicate that use of HRIS improves operational and strategic capabilities, even when on a developing country setting.

The results are also supported by Kiruja (2021), who discovered that HRIS practices have a significant impact on training and development and, subsequently, firm performance in the Kenyan oil and gas industry. The fact that in the current research the majority of the respondents (87.3, 81, and 78.4) say that profitability, brand image, and production efficiency have improved leads to the conclusion that HRIS-enables training is a factor in the increased employee capabilities and the overall performance of the firm. This evidences the fact that HRIS is not an administrative tool only but also a moving force.

Moreover, the findings are consistent with Smith et al. (2020) the quantitative analysis of whose research revealed a positive correlation between the training programs supported by HRIS and such performance measures of the organization as the productivity and employee satisfaction. These findings reflect the observed rise in the sugar production and efficiency in the current study, which suggests that the structured training based on HRIS improves the workforce productivity and operational performance.

Similarly, the researchers achieved the same results as Su and Wright (2012) who stated that training with HRIS increases operational efficiency and product quality within IT companies. Within the sugar manufacturing process, the efficiency of production and cost control (mean = 3.99) implies that HRIS has input in the optimality of resource utilization and efficiency of the processes, as was the case with the efficiency of the Chinese IT industry.

The standard deviation of the responses (0.813 to 1.235) however, suggests that HRIS is not equally applicable in all companies. This confirms the results of Abuhantash and Brint (2023), who reported the variation in the effectiveness of HRIS depending on the sphere, with a higher score in the case of private institutions. At the same time, in this research, a few respondents indicated that they were unsure or disagreed with the market share and production increase, indicating that firm size, degree of the HRIS application and managerial capacity could moderate the effectiveness of the HRIS.

In addition, although the findings are mostly consistent with the prior research, they also fill some of the gaps that have been identified in the literature. As an example, unlike other research works like Su and Wright (2012) that applied a qualitative approach and Abuhantash and Brint (2023) that applied non-explanatory designs, the current research offers empirical context-specific evidence in the Kenyan sugar industry. This enhances the external validity of HRIS performance associations in the emerging economies and industry-related settings.

The results in general are a solid empirical evidence that null hypothesis (H01) that HRIS training and development programs do not statistically significantly affect organizational outcomes is rejected. Rather, the evidence shows that HRIS-facilitated training and development are highly effective in improving the organizational performance, especially in profitability, efficiency, and brand image. This not only proves that HRIS serves as a critical strategic tool in enhancing performance in the private manufacturing firms, but also points to the fact that the implementation of the tool has to be subjected to contextual differences.



4.2 Inferential Statistics

Regression analysis was conducted to find the proportion in the organizational outcomes which can be predicted from the HRIS training and development programs. Table 3 shows the analysis results.

Table 3

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.
1	Regression	11.351	1	11.351	24.222	.000 ^b
	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		
1	(Constant)	2.338	.318		7.353	.000
	HRIS training and development programs	.411	.084	.489	4.922	.000
a. Dependent Variable: Organizational outcomes						

The HRIS Training and development Programs had a moderate positive relationship ($r = 0.489$, $p = 0.000$) with organizational outcomes. This shows that companies that focus on developing their employees using HRIS record improved performance in the company. Personalized learning plans, skill development tracking and identification of training gaps facilitated by HRIS training programs enhance the capabilities and job satisfaction of employees. In sugar manufacturing, where technical skills are paramount, specific training that involves HRIS guarantees that the employees are able to retain their competence in the dynamic operations and technologies. This does not only increase productivity but also enhances employee retention since the workers feel much appreciated and supported in their work. The investigation of Chatwick (2023) revealed that training programs driven by HRIS positively affect organizational performance, and employees showed productivity and improved satisfaction in manufacturing organizations in the U.S, which enhanced efficiency of operations and employee skills. Kim and Lee (2022) also discovered the same effect on employee performance, where HRIS positively impacted employee performance, especially through training in manufacturing companies in South Korea, which led to increased efficiency of operations and employee skills.

Based on the table 3 above, the value of R square or coefficient of determination was 0.239 indicating that HRIS training and development programs explain 23.9 percent of variance on the outcome of the organization in the case of the private sugar manufacturing firms in the Western region, Kenya. Based on ANOVA table significance of the model $F(1,78) = 24.222$, $P < 0.05$ indicates that it is significant at 95% confidence level hence the model is viable. This means that the HRIS training and development programs is a predictable indicator of organizational performances in the private sugar manufacturing companies in the Western region, Kenya. The simple linear regression equation is as indicated below.

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

The regression coefficient value of 0.411 of HRIS training and development programs is not standardized, which means that it has a strong positive influence on the organizational outcomes in the case of the privately owned sugar manufacturing companies in Western Kenya. It implies that the unit change in the HRIS training practices leads to 0.411-unit change in the organizational outcomes, indicating that the improved training programs based on HRIS can significantly help improve the organizational performance. The implication of this finding is that an organization can utilize HRIS in enhancing its training and development programs and in the process this can result in major changes in the main business results like productivity, employee satisfaction and profitability.

The result refutes the null hypothesis (H01) that states that there is no significant impact of HRIS training on organizational outcomes. The findings indicate that training and development programs based on HRIS are important in improving the organizational performance, which is adequate with the research by Kiruja (2021). The two studies concluded that HRIS has a positive effect on training and the organizational performance in terms of productivity and employee satisfaction. Also, Saks et al. (2010) noted that training based on the HRIS within IT companies positively

influences the efficiency of operations and the quality of products, which is why the use of HRIS in improving the organizational performance in other industries can be seen as more general.

Recent research has not substantiated the hypothesis that the HRIS training and development programs always result in drastic organizational improvements. According to Abuhantash and Brint (2023), the impact of HRIS training programs might depend on sectors, and in the case of private schools, the programs are more strongly associated with the performance of the employees. This implies that sector specific issues might affect the degree of HRIS training to organisational success, with the result that specific HRIS strategies are required within specific industries. According to Fischer (2011), such issues as absence of managerial support and unsustainable departmental climate can hinder the effectiveness of training, and this could affect the effectiveness of HRIS-implemented training programs in a negative way. On the same note, Peiró and Tetrick (2011) proposes that the nature of training, the content and experience of the trainees also count a lot hence it is not necessarily the case that the HRIS systems are the sole guarantee of training success without the presence of the right conditions. Also, Saks et al., (2010) maintain that employee motivation is vital in determining the effectiveness of the training programs. The HRIS systems may not produce the intended effect on the organizational results or result unless there is motivation of employees or a feeling that the training is of value to them. This implies the necessity of having HRIS programs that are highly aligned to the needs of the employees and organizational objectives so that they are not only available but also active and useful.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

The research concludes that the impact of training and development programs on the organizational outcomes of the private sugar manufacturing companies in Western Kenya are significant and positive with the influence of HRIS. Companies that efficiently apply HRIS in finding training requirements, customizing learning, giving flexible access, and measuring training accomplishments are better in performance in terms of profitability, production effectiveness, increase of market share, and brand name. The great regression findings prove that HRIS-based training is a powerful predictor of the success of organizations. Nevertheless, the discrepancy in HRIS effectiveness between the firms appears to indicate that the quality of implementation, involvement of employees and support of managers is still the key to the maximum benefit of HRIS training systems.

5.2 Recommendations

The study hence, recommends that manufacturing companies should not stop investing in HRIS training and development programs in order to get the most out of it in terms of organizational output. In particular, companies must have a focus on skill gap identification, tailoring training material and training effectiveness with the use of HRIS. The HR staffs are also expected to get regular training on how to use HRIS to its maximum benefit, which will eventually result in a more competent and efficient work force.

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