

E-Human Resource Planning Systems and Employee Performance in Food and Beverage Manufacturing Firms in Nairobi City County, Kenya.

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ABSTRACT
The manufacturing industry remains crucial for growth in numerous emerging states, such as Kenya. However, this sector encounters a myriad of challenges concerning employee performance, including subpar service quality, inefficiency, a lack of innovation, ineffectiveness, and an inability to achieve established objectives. This research aimed to determine the effect of the e-human resource management on employee performance in food and beverage manufacturing companies in Nairobi City County, Kenya. The research was anchored on Resource Based View Theory. The study adopted a descriptive and explanatory research design. The target population was 264 employees, and the sample size was 160 individuals, who were selected by the use of stratified random sampling as well as simple random sampling. The study utilized both the questionnaire and an interview guide to gather information. The study found that e-human resource planning is ne of the strongest human resource information systems component, effectively supporting turnover analysis, skills inventory, and staffing forecasts. This research suggests that organizations should incorporate e-human resource planning throughout the employee lifecycle.
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INTRODUCTION

The 21st century has come with an increasing influence of technology and globalization (Audi, Ali & Ali-Masri, 2022). This has resulted in a massive increase of adoption of innovative technology, as companies improve their use of information systems in different departments and functions (Fenech, Baguant & Ivanov, 2019; Zaman, 2020). HRIS has been incorporated into activities that improve productivity and save time in the administration of HR (Turulja & Bajgoric, 2018). To maximize employee output and, eventually, firms' outcomes, the SHRM theorists have pushed for adopting performance-enhancing human resource management (HRM) methods. Employee knowledge, skills, and talents increase due to high-performance work practices (Otoo, 2019). He further indicated that employees use these practices to raise productivity and improve decision-making, both of which contribute to better organizational performance.

Various studies have conceptualized Human Resources Information System into various practices including; electronic systems for hiring and choosing employees, performance management, succession planning, time and attendance, human resource planning, and e-TD (Kiruja, 2021; Njenje, 2018; Walichio, Amuhaya & Muchelule, 2018; Koech, 2022; Pushpasiri and Pushpasiri, 2021). The current study conceptualized HRIS within the contexts of e-TDS, e-HRPS, and e-PMS.

Koech (2022) conceptualized e-human resource planning as records management, job analysis, the distribution of resources by management, job evaluation systems, and optimum supervision. This study also defined e-human resource planning in terms of workforce forecasting, skills inventory management, turnover assessment, and the identification of human resource gaps.

Statement of the Problem

Manufacturing firms faces many employee performance challenges, including; poor quality of service, lack of creativity, failure to achieve set goals, general inefficiency, and ineffectiveness (Mire, 2019). Organizations also struggle with low employee commitment, limited opportunities for career advancement, inadequate relevant institutional policy, insufficient departmental and directorate-level synergy, and high staff turnover (Makembo & Oluoch, 2018).

Today's businesses must deal with several uncertainties and surprises relating to staffing and management of employees that impact how the businesses run especially relating to poor quality of service, increased cost of production, inefficiency and ineffectiveness in operations. (Hughes & Dundon, 2023). Poor resource management, particularly concerning human resources, serves a crucial part in the failure of SMEs, particularly in Kenya (Koirala, 2019). Worker commitment and performance are frequently affected by organizational factors that support HRIS (Mkongo and Macha, 2022; Koech, 2022).

A number of research has been carried out in Kenya. For instance, Mutua et al. (2022) undertook an investigation that assessed the impact of workforce planning via Human Resource Information Systems (HRIS) on worker productivity at NSSF in Kenya. The context of most of the studies that have been carried out emphasizes the significance of HRIS on the general productivity of firms: Odero (2022): Mwangi & Reuben (2019); Evaline and Alexander (2021): Kiruja (2021): Mutiku & Misango (2019), hence a contextual and conceptual gap. Other research studies evaluated the impact of HRIS on worker performance, yet concentrated on varying variables, methodology, conceptual and empirical literature: Walichio, Amuhaya & Muchelule Koech (2022), Pushpasiri and Pushpasiri (2021), Afifah and Sary (2020).

Most of the research results and collected data suggest that many studies concentrated on the impact of HRIS on the general organizational productivity. This highlights a considerable knowledge deficiency concerning how organizations leverage HRIS to enhance employee performance, particularly with organizational support acting as a moderating factor. The current investigation intends to handle these contextual, conceptual, methodological, and empirical research gaps by determining the of e-human resource planning systems on employee performance in food and beverage manufacturing firms in Nairobi City County, Kenya.

Objectives of the study

The study sought to assess the effect of e-human resource planning systems on employee performance in food and beverage manufacturing firms in Nairobi City County.

Theoretical Review

Resource-Based View (RBV) Theory

The Resource-Based View Theory was initially proposed by Penrose in 1959 and later refined and expanded by Birger Wernerfelt and Jay B. (1991) Barney in 1984. In the 1980s, resource-based thinking began to take shape. A precursor to this was the theory of corporate growth. = Barney (1991) holds that for an organization to stay ahead of competitors depends on its ability to access resources that are unique, valuable, and scarce. This theory posits that although economies of scale, technology, and natural resources can create value, these elements are increasingly available to all and easily replicable (Gupta et al., 2018).

The theory posits that a company consists of various productive resources, which can enhance its competitiveness only when utilized in a manner that makes their potentially beneficial services accessible to the organization (Gupta et al., 2018). Based on path dependency and administrative history, RBV is more appropriate for explaining performance. However, it is less helpful in determining the conditions under which a company's unique resources will produce a long-lasting competitive advantage. Another criticism of the inside-out perspective is that it frequently downplays the significance of contextual factors, such as Porter's factors and the institutional setting, which are crucial from an HRM perspective (Mweru & Maina, 2016).

The RBV theory has brought a shift from an outside-in to an inside-out perspective in strategic management thinking (Freeman et al., 2021). According to authors who have applied this theory to human resource management, individuals embody the characteristics of value, rarity, inimitability, and non-substitutability

(Gupta et al., 2018). These conditions are necessary for organizational success. When examining the strategic nature of HRM, the researcher has several advantages when choosing the RBV theory. This theory emphasizes the requirement for proper resource utilization within an organization. The RBV theory is applied to HRIS to support the idea that it must be beneficial, unique, and non-substitutable to enhance firm and employee performance and a firm competitive advantage (Collins, 2021). This theory is pertinent to the research as it connects HRIS with performance.

Empirical Literature Review

E-Human Resource Planning Systems and Employee Performance

Human resource management software, human resource, and information technology are combined in HRMIS. It is worth noting that E-HRP makes it possible to electronically perform tasks and activities related to human resources. Most of the time, data on the company's employees is collected and stored using human resource systems. It includes fundamental procedures like hiring, training, and development, as well as many others (Birungi & Katumba, 2021).

In a cross-sectional study design of the investigation by Ubah and Ibrahim (2021), questionnaires were distributed to 100 employees of the Department of Public Works and Housing in Abuja, especially the employees of the Human Resources Department. Pearson link scrutiny was applied to find out the affiliation amongst the variables utilizing IBM, SPSS, while regression scrutiny was used to test the hypothesis of the investigation. The multivariate coefficient (R = 0.779) shows that there exist a constructive affiliation amongst the variables, signifying that the recruitment and selection procedure and the needs of workers' job demand explain 60.7% of all changes in organizational productivity. Between the two variables considered, recruitment and selection processes have the greatest impact on organizational performance. With effective human resource planning focused on anticipated workforce needs, institutions can attract the right individuals in adequate numbers, enhance employees' skills, talents, and capabilities, and retain them within the organization. The research was conducted within a public sector Ministry, highlighting a methodological gap. Additionally, since the study took place in Nigeria, the results may not be relevant to the Kenyan context.

Njenje (2018)) undertook an investigation to investigate the impact of e-HRMS on the productivity of Saccos in Kenya. Purposive sampling was used to select 54 participants (from human service center only) for a cross-sectional research design. The Questionnaire method was utilized in information gathering that was securitized by both descriptive and inferential approaches. The findings indicate that e-HR planning has no noteworthy impact on organizational performance. This study focuses on Saccos in Kenya, highlighting the differences in context. The research focused on Saccos in Kenya, highlighting a contextual gap.

RESEARCH METHODOLOGY

This research employed the quantitative and qualitative approach designs (Kaushik & Walsh, 2019). According to the principle of pragmatic research methodology, methodological and/or philosophical approach should be used as they best addresses the particular research question they are attempting to answer (Park et al., 2020). The study sought to generate practical and context-relevant insights on how e-human resource planning systems affects employee performance in food and beverage manufacturing firms in Nairobi City County. Descriptive research was utilized in this study. The descriptive design enabled systematic collection and presentation of data on e-human resource planning systems and employee performance, providing transparency of food and beverage manufacturing firms' states. The senior managers, Human Resource managers, IT managers and staff of the organization were the observational unit. Top management, are the individuals responsible for implementing the information systems in an organization.

To guarantee accuracy and completeness, the gathered data was carefully edited. To make systematic organization and retrieval easier during analysis, it was coded. Subsequently, it was displayed in a user-friendly and informal manner, incorporating pie charts, tables, and graphs to facilitate easier analysis and interpretation. Quantitative data was examined through descriptive statistics in SPSS (Version 26) and was displayed as percentages, means, standard deviations, and frequencies. Qualitative data, derived from open-ended questions, underwent analysis. The diagnostic tests were done to test regression assumptions

DATA ANALYSIS AND INTERPRETATION

4.5 Effect of e-human resource planning systems on Employee Performance

Respondents evaluated different statements that touch on impacts of e-human resource planning on employee performance in food and beverage manufacturing firms in Nairobi City. Statements had relatively high mean scores with low standard deviations which indicates a strong consensus among the respondents.

Table 1 Effect of e-human resource planning systems on Employee Performance

Descriptive Statistics

	N	Mean	Std. Deviation
Our organization utilizes HRIS to assist in forecasting staffing requirements	160	3.55	.743
E-human resource planning has empowered the HR Department to maintain a skills inventory	160	3.49	.501
E-human resource planning has facilitated the HR Department in analyzing employee turnover	160	3.58	.495
Our HRIS has contributed to a more effective assessment of human resource deficiencies	160	3.56	.498
Valid N (listwise)	160		

Source: Research Data (2026)

The statement "E-human resource planning has facilitated the HR Department in analyzing employee turnover" had high mean score of 3.58 and a standard deviation of 0.495. Suggests that there was a strong agreement that e-HR planning systems are effective in providing insights on employee turnover patterns which is very crucial when it comes to workforce planning in the manufacturing sector. The results align with a study by Cascio and Boudreau (2016) who highlight that HRIS has a significant ability to enhance the ability of an organization to conduct predictive analysis of the turnover of employees. This enables proactive retention strategies as well as better planning for workforce stability.

The statement of "Our organization utilizes HRIS to assist in forecasting staffing requirements" had a mean score of 3.55 and standard deviation of 0.743. It was close to that of the statement "Our HRIS has contributed to a more effective assessment of human resource deficiencies" which had a mean score of 3.56 and a standard deviation of 0.498. They show that there is a strong agreement that e-HR planning systems are successful in identifying staffing or skill games and providing a predictive analysis of staff needs within organizations. Agreed to a research by Armstrong and Taylor (2023) who came up with modern HRIS systems that are effective in demand forecasting and workforce analytics, especially in manufacturing environments where staffing needs are more predictable and approaches that are data-driven are more effective.

The statement "E-human resource planning has empowered the HR Department to maintain a skills inventory" had mean of 3.49 and a standard deviation of 0.51. It suggess that organization can effectively manage and track human capital assets using HRIS. They align with research by Bondarouk and Brewster (2016) who found out that skills inventory management is one of the most successful HRIS applications since it provides measurable and tangible benefits that can easily be recognized by both employees and HR professionals.

The consistently high scores from the statements and low standard deviations in this section suggests that e-human resource planning systems are the most appreciated and successfully implemented component in Nairobi City's food and beverage sector. This consensus suggests that these systems are playing a crucial role of delivering tangible value in workforce planning and management. These findings are consistent with a meta-

analytical review done by Marler and Fisher (2019) who found out that workforce planning has the highest user satisfaction and measurable impact across different HRIS implementation systems.

On qualitative analysis, the respondents had highly positive views effects of e-HRPS on employee performance. Example of one said "*e-HR planning systems have been able to transform our workforce in terms of management. We can predict busy seasons and be able to ensure adequate staffing which improves overall team performance."* Another respondent stated that "*The skills inventory feature is excellent especially when we need someone who possesses specific certification for quality control; we can easily identify available personnel."* From these responses, it is evident that e-HRPS is effective in the management of employees and ensuring that their performance is optimal.

4.9 Regression Analysis

Table 2 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.986[a]	.972	.971	.154

a. Predictors: (Constant), e-Human Resource Planning Systems
b. Dependent Variable: Employee Performance

Source: Research Data (2026)

The model summary provides insights on the relationship between the predictors (e-Human Resource Planning Systems) and dependent variable (Employee Performance). Also, this model, **R^2 = 0.972**. The coefficient of determination R^2 is used to measure of how well the predictors have explained the variation in the dependent variable. The coefficient of determination indicates that about 97.2% of variance in employee performance can be shown using e-Human Resource Planning Systems. It implies that there is an extremely strong relationship between e-Human Resource Planning Systems and employee performance outcomes. The correlation coefficient R= 0.986 suggests a very strong and positive correlation between e-Human Resource Planning Systems and employee performance outcomes

Table 3 ANOVA Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	127.545	4	31.886	1336.011	<.001[b]
	Residual	3.699	155	.024		
	Total	131.244	159			

a. Dependent Variable: Employee Performance

b. Predictors: (Constant), e-Human Resource Planning Systems

Source: Research Data (2026)

The ANOVA results showed statistical significance of overall model. F being 1336.011 and $p<0.001$ hence the regression model is highly significant. Further, it confirms that the predictors had a collective substantial impact on employee performance. Explained variance is larger than the unexplained one which supports the validity of the model.

The standard error estimate of 0.154 is small and indicates predictions of the model are quite precise and that there is a small unexplained variation in employee performance. Overall, the regression analysis indicates that the combination of e-Human Resource Planning Systems has a significant effect to employee performance in food and beverage manufacturing factories in Nairobi City County. This underscores how important the

implementation of robust e-Human Resource Planning Systems can help in achieving optimal employee performance.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

e-human resource planning systems are the optimal Human Resource Information Systems implementation in Nairobi's food and beverage sector. These systems consistently deliver concrete benefits in manpower analysis, staffing projections, and handling skill inventories. The degree of agreement among users and effectiveness ratings indicate that e-Human Resource Planning Systems provide measurable value that directly benefits employees by improved employee performance through improved workforce management and strategic planning functions.

Recommendations

Manufacturing firms should develop an extensive model for the implementation, also management of e-Human Resource Planning Systems to simplify workforce management. Human Resource departments should utilize predictive analytics and forecasting capability actively in order to leverage multiple sources of data and intelligence in strategic planning. Management can introduce rewards for effective use of e-Human Resource Planning Systems in those departments with high turnover or skills gaps. Supervisors are to establish clear communication channels and responsibility structures in Human Resource planning tasks to deliver goal alignment of the workforce and resource allocation efficiency.

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