

Contribution of Information Communication Technology to Human Resource Department Performance: A Case of Selected NGOs In Iringa Region, Iringa Tanzania

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Abstract:

This study assesses the impact of Information Communication Technology (ICT) on the performance of human resource departments in selected NGOs in Iringa. The focus is on recruitment and selection, training and development, and performance appraisal. The study used a descriptive research design and a qualitative approach, with a sample of 80 out of 100 employees selected through purposive and simple random sampling. The findings suggest that integrating ICT in recruitment and selection improves job performance, while performance appraisals facilitated by ICT enhance employee progress and development. Moreover, there is a significant relationship between training and development programs and ICT usage in improving employee skills and overall department performance. The study recommends that employees upgrade their ICT skills to remain relevant and efficient, emphasizing the importance of effective ICT programs in enhancing human resource department performance.

Keywords: Information Communication Technology, human resource performance, recruitment and selection, training and development, performance appraisal.

Introduction

Human Resource Management (HRM) has evolved from a transactional function to a strategic one, focusing on maximizing employee performance to achieve organizational objectives. Key responsibilities of HR departments include recruitment, training, performance appraisal, and rewards management. The field now encompasses strategic initiatives such as talent management, succession planning, and diversity inclusion. Recent research highlights the crucial role of line managers in implementing HR practices, revealing significant variations across units within organizations (Kehoe & Han, 2020).

Since the early 1980s, there has been a global shift towards information technology (IT) in business processes, prompting HRM to automate practices for improved efficiency and cost savings. Recent surveys indicate a growing reliance on strategic applications, such as talent acquisition and performance management, alongside traditional administrative ICT functions (Indradevi et al., 2024). The integration of IT in HRM has transformed it from a manual domain to one defined by efficiency, accuracy, and strategic depth (Indradevi et al., 2024). However, organizations face challenges, such as networking failures and employee incompetence with ICT systems, making it essential for HR departments to invest in appropriate technology and training (Indradevi et al., 2024). Despite these challenges, the extended use

of information systems has significantly improved HR processes, allowing for greater involvement in business strategy (Silva & Lima, 2018).

Organizations must balance flexibility and standardization in HRM, especially in Africa, where the high costs of implementing ICT have hindered development. The rapid growth of the Internet has bolstered the adoption of web-based applications in HRM, but inadequate IT support and interdepartmental collaboration remain barriers (Matimbwa et al., 2020; Matimbwa & Kamala, 2024). Despite these challenges, the demand for effective ICT solutions in recruitment and performance appraisal continues to rise, indicating a competitive edge for organizations that successfully implement these technologies (Matimbwa et al., 2020).

In developing countries, including Tanzania, the slow integration of ICT into HR departments is often attributed to insufficient management focus, cost concerns, and a lack of training. Research indicates an increasing use of ICT in HR processes, though obstacles remain (Marcel & Tefurukwa, 2023). Effective implementation of ICT employment systems can enhance HR functions, but budget constraints often limit their effectiveness. Addressing these challenges is critical for organizations to adapt to globalization and the rapidly changing technological landscape.

Literature review.

The empirical review examines previous studies relevant to the current research on the role of Information Communication Technology (ICT) in enhancing human resource department performance. As noted by (Markovic et al., 2023) such reviews provide essential insights into existing knowledge and data, helping to articulate the research problem. This review specifically highlights the critical areas of recruitment and selection, training and development, and performance appraisal, demonstrating how ICT can facilitate these processes and ultimately improve organizational efficiency.

The Use of ICT on Recruitment and Selection: The integration of Information and Communication Technology (ICT) in Human Resource Management (HRM) operations has shown improvements in efficiency and effectiveness across multiple organizational functions. Research indicates that the application of ICT enhances recruiting and selection processes (Lewaherilla & Huwae, 2023). The integration of ICT in HRM results in enhanced productivity, decreased expenses, and improved data management accuracy (Diawati et al., 2023). Nonetheless, issues including data privacy, the digital divide, and the necessity for proficient HR personnel must be resolved to get ideal outcomes (Diawati et al., 2023). The use of ICT enhances recruitment and selection quality, however its direct effect on public sector performance remains ambiguous, with HR quality serving as a mediating factor in this relationship (Alhassan et al., 2021). The strategic implementation of ICT in Recruitment and selection is essential for organizations to sustain a competitive advantage in the contemporary global business landscape.

The Use of ICT on Training and Development: (Bell et al., 2006) investigate the impact of ICT on professional competence within human resource management, recognizing that while ICT systems provide significant benefits, they also introduce costs and risks associated with implementation and employee training. The study advocates for comprehensive training programs to improve employee proficiency with ICT. Furthermore, (Barfi & Coast, 2015; Chohan & Hu, 2022; Wang et al., 2020) highlight various challenges, such as budget constraints and bureaucratic hurdles, that hinder effective ICT integration in training programs. These findings underscore the necessity for organizations to address such challenges to fully harness the potential of ICT in enhancing employee development initiatives.

The Use of ICT on Performance Appraisal: (Matimbwa et al., 2020) discusses the adoption of ICT in

Tanzania's public sector, revealing challenges that impede its full integration, particularly in performance appraisal systems. The study points to inadequate technological infrastructure and insufficient funding as major obstacles. Similarly, (Omar & Kiwango, 2021; Shah et al., 2020) note that the underutilization of Electronic Human Resource Management limits its potential benefits in measuring employee performance. These studies suggest that while ICT can enhance the performance appraisal process, addressing infrastructural and funding challenges is crucial for successful implementation and to realize its full benefits in human resource management.

Hence, the empirical studies reviewed highlight the transformative role of ICT in various facets of human resource management, particularly recruitment, training, and performance appraisal. However, they also point out significant challenges that organizations must navigate to effectively integrate these technologies, ensuring that the advantages of ICT are fully realized within human resource departments.

Research Methodology.

Research Design: This study employed a descriptive research design to assess the contribution of Information Communication Technology (ICT) to the performance of human resources departments in selected NGOs in Iringa. Descriptive research aims to obtain information about the current status of the phenomena under investigation, capturing relevant variables and conditions (Doyle et al., 2020). This design provides valuable insights that guide further quantitative analysis and helps identify patterns worth exploring in depth.

Population and Sample Size: The target population for this study consists of 100 administrative workers from five (5) selected NGOs based in agriculture Iringa. From this population, a sample size of 80 employees was drawn using purposive and simple random sampling techniques. Purposive sampling was utilized to specifically include administrative staff, while simple random sampling ensured that every employee had an equal chance of being selected, thus enhancing the representativeness of the sample (Hossan et al., 2023).

Instrumentation: Primary data were collected using structured questionnaires. This method involved administering a set of pre-determined questions designed to gather specific information from respondents. The questionnaire format was chosen for its familiarity to respondents, facilitating easy completion while minimizing bias. Each participant had the opportunity to respond independently, ensuring a uniform collection of data (Hossan et al., 2023).

Data Analysis Procedures: Quantitative data were analyzed using descriptive statistics, facilitated by the Statistical Package for the Social Sciences (SPSS). This approach enabled the systematic interpretation of data patterns and trends, allowing for meaningful insights into the contribution of ICT to HR department performance (Rudrara, 2023; Rahman & Muktadir, 2021). Descriptive statistics, including frequencies and percentages, were employed to summarize the findings effectively and enhance understanding of the research outcomes.

Results and Discussion.

1. Respondents' Profile

Gender of Respondents: The gender distribution of respondents revealed that (47 respondents) 58.75% were male, while (33 respondents) 41.25% were female. This suggests a higher engagement of males in the study compared to females. Both genders had equal opportunities to express their views on the contribution of Information Communication Technology (ICT) to human resource department

performance at selected NGOs. The sample's gender distribution, characterized by a predominance of male respondents, illustrates a significant gender imbalance observed across several industries.

Age of Respondents: The respondents were categorized into three age groups: 18-30, 31-49, and 50 and above. The findings showed that 55% were aged 31-49, 38.75% were aged 18-30, and 6.25% were 50 and above. Therefore, the findings are valid since, respondents of different age groups were involved so as to capture different responses basing on the age differences which eventually enhanced validity of this study. The age group distribution shows that the workforce of NGOs in Iringa is intergenerational, with a significant representation of employees aged 31 to 49. This shows that in NGOs most of the Employees are young and energetic.

Academic Qualification of Respondents: Regarding academic qualifications, 45% of respondents held a bachelor's degree, 30% had a diploma, 17.5% had secondary education, and 7.5% had qualifications above a bachelor's degree. This indicates that the majority of employees in the selected NGOs had at least a bachelor's degree. Basing on these statistics it indicates that, there was an approximate representation of different groups in terms of education level in this study which increases validity of the study.

2. Data analysis according to research aims

The Contribution of ICT to Recruitment and Selection in HR Department Performance: The researcher aimed to evaluate whether the use of Information Communication Technology (ICT) in recruitment and selection contributes to the performance of the human resource department. To achieve this objective, five statements were presented to respondents, who rated them using a Likert scale of agreement.

The study showed that; 50% of respondents agreed that ICT helps identify vacancies for new employment, while 25% disagreed and 25% were neutral, 75% agreed that the organization analyzes job vacancies using ICT, while 25% disagreed, 66.2% agreed that ICT is used to provide job descriptions for applicants, with 17.5% neutral and 16.3% disagreeing, 58.7% agreed that personal specifications are practiced in recruitment using ICT, while 25% were neutral and 16.3% disagreed and 50% agreed that the recruitment process enhances performance when using ICT, whereas 32.5% disagreed, and 17.5% were neutral.

These findings indicate that the application of ICT in recruiting and selection processes is successful and positively impacts the functioning of the human resource department at selected NGOs in Iringa. The accessibility of ICT systems improves employee performance, especially in recruiting and selection, making it essential for overall organization effectiveness. This indicates that the application of Information Communication Technology (ICT) in the recruitment and selection process is effective and improves the performance of the human resources department. The integration of Information Communication Technology (ICT) systems within the organization improves employee performance, particularly in the recruitment and selection processes, hence enhancing the effectiveness of the human resources department. Consequently, the implementation of Information Communication Technology (ICT) within the organization is essential for improving the performance of the human resource department in the recruiting and selection process, thereby promoting overall organizational performance.

The Contribution of ICT to Training and Development in HR Department Performance: The researcher wanted to determine whether the use of Information Communication Technology (ICT) in training and development contributes to the performance of the human resource department. To address this objective, five statements were provided to respondents, who rated them using a Likert scale of agreement.

The study revealed that; 50% of respondents agreed that the management provides opportunities for trai-

ning to enhance employees' competence using ICT, while 33.7% disagreed, and 16.3% were neutral, A significant 66.4% disagreed that a training needs assessment is conducted before training to improve specialization using ICT, with only 25% agreeing and 16.3% neutral, 42.5% agreed that there is a well-designed ICT training program, while 32.5% disagreed, and 25% were neutral, 42.5% disagreed that promotions develop career capabilities using ICT, with 31.3% neutral and 26.3% agreeing and 51.3% disagreed that staff training is well-planned and adequately prioritized to enhance competence with ICT, while 23.8% agreed and 25% were neutral.

These findings suggest that in the organization there is training opportunities. Employees may effectively increase their competencies through training programs. Additionally, the absence of training needs assessments prior to training could hinder the enhancement of employee experience with ICT. A well-designed and widely shared training program is essential for employees to acquire new skills and perform their duties effectively using ICT. This will increase their competence from their training programme provided by the organization. Moreover, training need assessment is not conducted before embarking employees on training to increase employees' experience with the use of ICT. Training need assessment is used to increase employees experience before embarking employees. Moreover, there is lack of shared training programme on the use of ICT in the organization. A well-designed and widely shared training program helps employees to gain new skills in performing their duties with the use of ICT.

The Contribution of ICT to Performance Appraisal in HR Department Performance: The researcher aimed to assess whether the use of Information Communication Technology (ICT) in performance appraisal contributes to the performance of the human resource department. To achieve this, respondents rated five statements using a Likert scale of agreement.

The findings were; 81.3% of respondents agreed that openness in their duties enhances job performance using ICT, while 15.1% disagreed, and 3.7% were neutral, 83.8% agreed that evaluation and feedback encourage job performance using ICT, with 12.6% disagreeing and 3.7% neutral, 63.8% agreed that equal participation with other employees improves job performance with ICT, while 21.3% were neutral and 15% disagreed, 82.5% agreed that timely reviews of duties encourage job performance using ICT, with 13.8% disagreeing and 3.7% neutral and 82.4% agreed that employee performance appraisals enhance job performance using ICT, with 16.3% disagreeing and 1.3% neutral.

These findings indicate a strong consensus among employees that openness and effective communication significantly enhance job performance through the use of ICT. The implementation of performance appraisals, particularly through systems like GHR, HCMIS is essential for fostering an environment of transparency and support, ultimately leading to improved performance within the organization. This implies that, large numbers of employees were agreed that openness help to increase their job performance with the use of ICT, thus openness within the organization especially between employees is important as it creates a wide range of communication and job implementation which results to higher performance with the use of ICT though implementation of OPRAS.

Performance of Information Communication Technology (ICT) in HR Department Performance: The researcher aimed to assess the significance of Information Communication Technology (ICT) performance on human resource department performance in selected NGOs in Iringa. To gather insights, five statements were presented to respondents for evaluation using a Likert scale of agreement.

The study found out that; 85% of respondents agreed that their work productivity results from their commitment and the ICT network coverage in the organization, while 13.7% disagreed and 1.3% were neutral, 71.3% agreed that job efficiency is enhanced by the ICT performance of organizational goals,

with 17.5% neutral and 11.3% disagreeing, 86.3% agreed that they are competent and satisfied performing their duties efficiently using ICT packages, while 8.8% disagreed and 5% were neutral, 60.1% of respondents agreed that they perceive ease of use in ICT programs, enhancing their performance toward organizational goals, while 21.3% agreed and 18.8% were neutral and 87.5% of respondents agreed that ICT is useful and influences organizational performance, while 12.5% were neutral.

These findings indicate a strong positive correlation between the performance of ICT and various aspects of human resource department performance, including productivity, job efficiency, and overall job satisfaction. The results suggest that a dynamic ICT framework is crucial for enhancing organizational effectiveness and employee performance within selected NGOs in Iringa.

3. Test of hypothesis

The first hypothesis tested the significance of the relationship between the recruitment process and the use of Information Communication Technology (ICT) in enhancing human resource department performance. The results presented in Table 4.10 revealed a positive correlation between recruitment and ICT performance, with a Pearson correlation coefficient of 0.084 and a p-value of 0.001, which is below the alpha level of 0.05. This indicates that an increase in recruitment and selection processes is associated with an increase in ICT performance. Consequently, the null hypothesis (H₀), which posited no significant relationship, was rejected in favor of the alternative hypothesis (H_A), confirming a significant relationship between the recruitment process and ICT performance.

The second hypothesis examined the impact of training programs on ICT performance within the human resource department. As illustrated in Table 4.11, the correlation coefficient was 0.061, with a significance level of 0.001. This suggests a positive and statistically significant relationship between training programs and ICT performance, as the p-value is also less than 0.05. Therefore, the null hypothesis (H₀), stating no significant relationship between training programs and ICT performance, was rejected, and the alternative hypothesis (H_A) was supported, reinforcing the importance of training programs in enhancing ICT performance.

The third hypothesis focused on the relationship between employee performance appraisal and ICT performance. The data in Table 4.12 indicated a Pearson correlation of 0.084 and a p-value of 0.001, confirming a positive correlation between employee performance appraisal and ICT performance. This means that as the employee performance appraisal increases, there is a corresponding increase in ICT performance. Similar to the previous hypotheses, the null hypothesis (H₀) was rejected, supporting the alternative hypothesis (H_A) that there is a significant relationship between employee performance appraisal and the use of ICT in improving human resource department performance.

Overall, these findings highlight the critical role of recruitment, training, and performance appraisal in leveraging ICT for enhanced organizational effectiveness.

Summary

This study investigates the role of Information Communication Technology (ICT) in enhancing the performance of human resource departments at selected NGOs in Iringa. The focus was on understanding how ICT influences key HR functions such as recruitment and selection, training and development, and performance appraisal. Utilizing a descriptive research design with a qualitative approach, the study gathered comprehensive data to address the research problem. A targeted population of 100 employees from the selected NGOs was identified, from which a sample of 80 respondents was selected using purposive and simple random sampling techniques.

The findings reveal the significant impact of ICT on various aspects of HR performance. Specifically, the use of ICT in the recruitment and selection processes is highlighted as essential for improving job performance within the HR department. Additionally, employee performance appraisals are noted to benefit from ICT, as these systems allow for efficient data collection and assessment, ultimately facilitating employee development and progress tracking. The study underscores the importance of training and development programs that leverage ICT, enhancing employee skills and thus contributing to overall HR performance. The results suggest that organizations need to adopt effective ICT solutions to ensure specialized skills and operational efficiency in their HR functions.

The implications of these findings extend beyond the NGOs involved in the study. For the selected NGOs, the recommendations emphasize the need to align their human resource management practices with ICT advancements to promote organizational growth. Furthermore, the government can benefit from understanding how ICT contributes to improved services, particularly in sectors like electricity supply, and the insights gained may aid policymakers in appreciating the role of ICT in enhancing HR functions within governmental organizations.

Academics and researchers stand to gain valuable insights from this study, fostering further research into the contributions of ICT. The skills acquired through this research can help guide NGOs in the Iringa region toward delivering quality services through effective ICT utilization. Lastly, the findings raise societal awareness of the significance of ICT in enhancing HR department performance, potentially leading to greater community support for the integration of technology in organizational practices.

Conclusion

The researcher presented the findings using descriptive statistics, particularly through tables and percentages, to summarize the results and draw conclusions. Employing quantitative analysis techniques, the study primarily focused on frequencies and percentages to convey the findings effectively. This approach allowed for a clear understanding of the data, highlighting key trends and relationships among the variables studied.

The results revealed that the use of Information Communication Technology (ICT) significantly enhances employees' job efficiency within the human resource departments of selected NGOs. The data indicated that ICT contributes positively to employee performance, enabling them to achieve organizational goals more effectively. Additionally, a majority of employees reported high levels of ICT service quality, which further supports the notion that effective ICT utilization is crucial for improving HR department performance within organizations.

Recommendations

Based on the study findings, the researcher recommends that the management of selected NGOs in Iringa should enhance their Information Communication Technology (ICT) systems to improve the performance of their human resource departments. Specifically, it is essential to implement a robust ICT network across all departments, ensuring that employee performance appraisals are effectively integrated with ICT tools. This includes promoting a culture of openness, evaluation, and feedback, which will enable employees to complete performance appraisals accurately, allowing management to assess employee performance more effectively. Additionally, the management should invest in training and development opportunities for employees, ensuring they can adapt to and utilize updated ICT systems efficiently.

For further studies, the researcher suggests conducting qualitative research to explore the factors contribut-

ing to the impact of ICT on human resource department performance more deeply. Furthermore, additional research should focus on examining employee performance appraisals and training and development programs in conjunction with the use of ICT, utilizing various research methodologies for a comprehensive analysis of these areas.

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