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The Effect of Data-Driven Recruitment on the Employee Performance in the Local Government Authorities: A Case of Mbeya City Council

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ABSTRACT :

This study examined the effect of recruitment efficiency on employee performance at Mbeya City Council, Tanzania. Specifically, it assessed how data-driven recruitment practices influence recruitment timeliness, application processing accuracy, recruitment costs, administrative delays and adherence to planned recruitment schedules. The study adopted a mixed-methods approach using a descriptive-correlational research design. The target population comprised 250 staff members, from whom a sample of 154 respondents was selected, including 144 questionnaire respondents and 10 key informants. Quantitative data were analysed using descriptive statistics, Pearson correlation and multiple linear regression in SPSS version 26, while qualitative data were analysed thematically. The findings indicated that 70.8% of questionnaire respondents agreed that data-driven recruitment reduced time-to-hire, while 70.8% agreed that it improved application processing accuracy. Furthermore, 68.1% agreed that data-driven recruitment optimised recruitment costs, 73.6% agreed that it reduced delays associated with manual procedures, and 68.0% agreed that recruitment was completed within planned timelines. Qualitative findings supported these results, highlighting improved access to recruitment records, faster candidate shortlisting, reduced paperwork and better coordination among recruitment stakeholders. However, occasional system interruptions, limited ICT capacity and delays in external approvals remained challenges. The study concludes that recruitment efficiency supported by digital recruitment data can contribute to improved employee performance by facilitating timely staffing, reducing administrative burdens and promoting continuity in service delivery. The study recommends strengthening recruitment automation, improving ICT capacity and integrating recruitment data with employee performance management and training systems.

Keywords: Data-driven recruitment, recruitment efficiency, employee performance, electronic recruitment, local government authorities

1. Introduction

Globally, organisations are increasingly adopting data-driven recruitment to strengthen human resource management and improve employee performance. Data-driven recruitment involves the use of digital systems, analytics and human resource information to collect, process and interpret recruitment data in order to support evidence-based decision-making (Lewis, 2021). This approach has been associated with improved recruitment efficiency, reduced bias, enhanced workforce planning and better employee performance in both public and private organisations (Rodriguez and Smith, 2021). However, the level of adoption differs across regions because of variations in technological readiness, financial resources, digital infrastructure and institutional capacity.

In Europe, both public and private organisations have made significant progress in applying digital recruitment systems to improve recruitment outcomes and strengthen workforce quality. Many European organisations use recruitment analytics to streamline hiring processes, improve transparency in selection procedures and support fairness in decision-making (Müller and Weber, 2021). Several local government authorities have adopted e-recruitment platforms that reduce recruitment delays, improve applicant screening accuracy and enhance workforce planning, thereby contributing to improved employee performance (Garcia, 2021). Despite these advancements, challenges such as strict data protection regulations, high implementation costs and resistance to technological change continue to influence the pace and depth of data-driven recruitment adoption (Anderson and Holm, 2021).

In Asia, the adoption of digital recruitment platforms and applicant tracking systems has expanded rapidly due to increasing labour market competition and technological advancement. Countries such as Singapore and South Korea have implemented advanced recruitment systems that improve recruitment efficiency by reducing manual workloads, accelerating recruitment processes and enhancing decision accuracy (Sharma, 2021). These systems also promote transparency by enabling structured candidate evaluation and standardized assessment procedures, thereby strengthening fairness in recruitment (Lim and Han, 2021). However, many public institutions in developing Asian countries continue to experience challenges such as budget constraints, inadequate technological infrastructure and limited HR analytical capacity which restricts the effective implementation of data-driven recruitment systems (Chowdhury, 2021).

Across Africa, the adoption of digital human resource management tools, including data-driven recruitment, continues to be a significant challenge. Evidence suggests that fewer than 30% of public institutions in Sub-Saharan Africa have fully integrated digital recruitment platforms into their human resource management systems, limiting the effective use of recruitment data for strategic decision-making (Nkosi, 2021). Studies from countries such as Ghana and Kenya indicate that organisations implementing HR information systems have experienced improvements in recruitment efficiency, transparency and workforce quality, resulting in stronger employee performance (Owusu and Mensah, 2021). Nevertheless, these successes remain limited because many African public institutions continue to face persistent constraints, including weak ICT infrastructure, inadequate financial resources, limited

technical expertise and low digital literacy among HR personnel (Jumba, 2021). These challenges reduce the capacity of local government authorities to utilise recruitment data effectively for fair recruitment and employee competency development, ultimately affecting employee performance.

In East Africa, countries such as Kenya, Uganda and Rwanda have made notable progress in introducing HR information systems within public institutions to support recruitment and workforce planning (Kahinga, 2021). Existing studies indicate that these systems improve recruitment efficiency by reducing manual processing, enhancing record management and promoting transparency through standardized recruitment procedures (Tumusiime, 2021). Despite this progress, many local government authorities continue to encounter challenges such as inadequate funding, limited ICT infrastructure, insufficient technical support and shortages of skilled HR analysts, all of which limit the effective use of recruitment data for employee competency development and improved organisational performance (Nabwire, 2021).

Within Tanzania, the use of HR information systems in public institutions has gradually increased with several organisations adopting electronic systems to manage recruitment processes and employee records (Komba, 2021). Research indicates that electronic recruitment systems improve recruitment efficiency by reducing delays, strengthening record management and enhancing transparency and fairness through standardized recruitment procedures (Mosha and Mgimba, 2021). However, many local government authorities still rely on manual or semi-digital recruitment systems because of inadequate ICT infrastructure, limited financial resources and insufficient capacity to utilise HR analytics effectively (Mushi, 2021). Consequently, many public institutions have not fully realised the potential of data-driven recruitment to support employee competency development and improve employee performance.

At Mbeya City Council (MCC), recruitment decisions are supported through the use of HR records, candidate databases and electronically stored personnel information. The Council uses basic digital HR systems primarily for candidate tracking, document storage, personnel record management and recruitment administration which contributes to improved recruitment efficiency and transparency. However, it does not yet employ advanced data-driven recruitment technologies such as predictive analytics, automated candidate ranking, machine learning algorithms or workforce forecasting tools that enable more sophisticated evidence-based recruitment decisions. In this study, data-driven recruitment refers to the systematic use of candidate qualifications, employment history, competency records and workforce information to support recruitment decisions rather than relying solely on subjective judgment. These practices are expected to improve recruitment efficiency, enhance transparency and fairness in recruitment processes and support employee competency development which ultimately contributes to improved employee performance measured through productivity, service quality and organisational effectiveness (Sanga, 2021).

Despite the availability of basic digital HR systems and recruitment records at Mbeya City Council, there is limited empirical evidence explaining how the use of recruitment data contributes to recruitment efficiency, transparency and fairness and employee competency development and how these factors subsequently influence employee performance. Furthermore, little is known about whether the current level of data utilisation is sufficient to support evidence-based recruitment decisions within local government authorities. Therefore, this study sought to examine the effect of data-driven recruitment on employee performance at Mbeya City Council by focusing on recruitment efficiency, transparency and fairness and employee competency development. The findings are expected to provide evidence-based recommendations for strengthening HR policies, improving recruitment practices and enhancing employee performance within local government authorities in Tanzania.

1.1 Specific Objective of the Study

The Specific Objective of the Study was:

1. To assess the effect of recruitment efficiency on employee performance at Mbeya City Council.

2. Literature Review

2.1 Theoretical Review

The Human Capital Theory, developed by Becker (1993), explains that employees' knowledge, skills, education, training and experience are valuable assets that contribute to organisational productivity and performance. In the context of this study, the theory explains how data-driven recruitment can help Mbeya City Council identify candidates whose qualifications and competencies match job requirements, thereby improving employee competency, productivity and service delivery. However, employee competencies alone do not guarantee improved performance because organisational culture, leadership, motivation and the availability of resources also influence how employees apply their skills. Therefore, the theory provides a foundation for understanding how employee competency development influences employee performance.

The Resource-Based View Theory, introduced by Barney (1991), argues that organisations can achieve sustained performance by acquiring and effectively utilising valuable resources, particularly skilled and competent employees. In this study, the theory explains how recruitment efficiency and transparency can help Mbeya City Council select suitable candidates, strengthen workforce quality and improve employee performance. Nevertheless, the effective utilisation of human resources may be affected by employee turnover, government regulations, technological changes and budget constraints. The two theories complement each other by explaining how recruitment efficiency, recruitment transparency and employee competency development contribute to employee performance, providing a theoretical foundation for the study.

2.2 Empirical Review

2.2.1 The Effect of Recruitment Efficiency in Improving Employee Performance

Pessach et al. (2020) examined employee recruitment using machine learning and mathematical programming to support evidence-based candidate selection. The study presented a prescriptive analytics approach that uses recruitment data to improve decision-making and identify suitable candidates.

Its contribution demonstrates the potential of analytical methods to strengthen recruitment decisions and improve candidate-job matching. However, the study focused on recruitment decision-making rather than directly establishing the effect of recruitment efficiency on employee performance.

Marler and Boudreau (2017) conducted an evidence-based review of human resource analytics by examining published research on its applications, outcomes and implementation requirements. Their review identified 60 articles, of which only 14 appeared in quality peer-reviewed journals. The authors observed that, although HR analytics has potential to contribute to organisational performance, empirical evidence supporting its outcomes remained limited. The review highlights the importance of examining how recruitment data is used to improve recruitment decisions and organisational effectiveness.

Deogratias and Tefurukwa (2024) examined the effectiveness of regulatory frameworks governing electronic recruitment and selection at Tanzania's Public Service Recruitment Secretariat. The study employed a qualitative case study design involving 17 participants, including five interviewees and three focus groups with four participants each. The findings indicated that electronic recruitment had facilitated recruitment effectiveness to some extent, although weaknesses in integrating ICT systems with existing recruitment regulations remained. The study recommended improving the alignment between recruitment regulations and ICT systems to strengthen recruitment and selection processes. However, it did not directly measure employee performance, leaving room for further investigation into the relationship between recruitment efficiency and employee performance in local government authorities.

Kawina (2024) investigated the effect of human resource technology on the implementation of human resource practices in Tanzania's public sector. The study collected questionnaire data from 184 employees working in the human resource and administration departments of three councils in Songea District. Data were analysed using descriptive statistics and multiple regression. The findings showed that recruitment management systems, performance management systems and human resource information systems had positive and statistically significant effects on the implementation of human resource practices. The study concluded that human resource technology supports process efficiency, data accuracy, decision-making and service delivery. Nevertheless, the study focused on the implementation of human resource practices rather than specifically examining the effect of recruitment efficiency on employee performance at Mbeya City Council.

Redson and Tefurukwa (2026) assessed the effectiveness of electronic recruitment and selection at Tanzania's Public Service Recruitment Secretariat. Using a qualitative approach, the researchers collected data through semi-structured interviews with human resource personnel and applicants who had used the online recruitment platform. The findings indicated that electronic recruitment reduced administrative workloads and paperwork while accelerating candidate shortlisting. The study concluded that electronic recruitment can improve recruitment effectiveness, candidate quality and transparency, although technological limitations and inadequate training remain challenges. These findings demonstrate the potential of digital recruitment to improve recruitment efficiency in Tanzania's public sector. However, the study did not directly establish how recruitment efficiency affects employee performance within local government authorities.

2.3 Knowledge Gap

Existing studies by Pessach et al. (2020), Marler and Boudreau (2017), Deogratias and Tefurukwa (2024), Kawina (2024), and Redson and Tefurukwa (2026) have examined recruitment analytics, human resource technology, and electronic recruitment in relation to recruitment decision-making, recruitment efficiency, and human resource management practices. However, these studies have not sufficiently established the specific effect of recruitment efficiency on employee performance within local government authorities, particularly at Mbeya City Council. Furthermore, limited empirical evidence explains whether improvements in recruitment speed, reduced administrative delays, and the alignment of candidates' qualifications with job requirements translate into higher employee productivity, service quality, and organisational effectiveness. Therefore, this study addressed the identified knowledge gap by examining the effect of recruitment efficiency on employee performance at Mbeya City Council, Tanzania.

2.4 Conceptual Framework

A conceptual framework is a visual and narrative representation of how the researcher believes the variables in a study are related. It helps to clarify the research focus, guide data collection and explain the expected relationships between independent and dependent variables (Patrick, 2015). In this study, the conceptual framework illustrates how data-driven recruitment practices influence employee performance at Mbeya City Council.

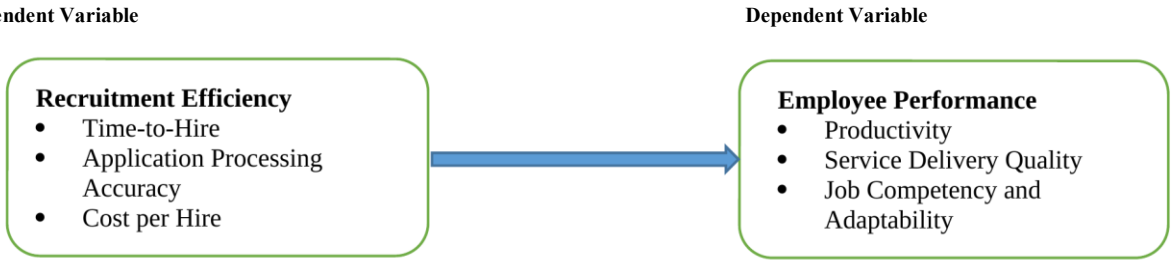


Figure 1: The Conceptual Framework on Employee Performance

Source: Researcher (2026)

3. Research Methodology

The study was conducted at Mbeya City Council (MCC), Tanzania, to examine the effect of data-driven recruitment on employee performance. A mixed-methods research approach was adopted, combining quantitative and qualitative data to obtain a comprehensive understanding of recruitment efficiency, recruitment transparency, employee competency development and employee performance. The study employed a descriptive-correlational research design to describe existing recruitment practices and examine their relationships with employee performance without manipulating the study variables.

The target population comprised 250 staff members, including 10 Human Resource Managers, 20 departmental supervisors and 220 employees. A total sample of 154 respondents was selected, comprising 144 employees and 10 key informants. Employees were selected using stratified random sampling, while five Human Resource Managers and five supervisors were purposively selected because of their involvement in recruitment and employee supervision. The employee sample size was calculated using Yamane's formula at a 5% margin of error.

Both primary and secondary data were collected. Primary data were obtained through structured questionnaires administered to 144 employees and semi-structured interviews conducted with 10 key informants. Secondary data were obtained through reviewing Human Resource records, recruitment reports, employee performance appraisal documents and relevant policy manuals. The questionnaire was pilot-tested with 10 employees from a neighbouring local government authority, and three items were reworded to improve clarity before the main data collection.

Quantitative data were coded, cleaned and analysed using the Statistical Package for Social Sciences (SPSS) version 26. Descriptive statistics, including frequencies, percentages, means and standard deviations, were used to summarise respondents' characteristics and perceptions. Pearson correlation analysis and multiple linear regression were employed to examine the relationships between recruitment efficiency, recruitment transparency, employee competency development and employee performance at a significance level of 5% ($p < 0.05$). Qualitative data from interviews were analysed thematically, while document review findings were used to complement and validate the quantitative and qualitative results.

Reliability was assessed using Cronbach's Alpha, which produced an overall coefficient of 0.82 for the 22 questionnaire items, indicating satisfactory internal consistency. Validity was enhanced through expert review, alignment of research instruments with the study variables and pilot testing. The Kaiser-Meyer-Olkin value of 0.816 and Bartlett's Test of Sphericity ($\chi^2 = 1284.372$, $df = 231$, $p < 0.001$) indicated that the data were suitable for factor analysis. Ethical standards were observed by obtaining informed consent and relevant research permissions, ensuring voluntary participation, freedom of withdrawal, anonymity and confidentiality, and using the collected information strictly for academic purposes.

4. Results and Discussion

4.1 Demographic Data of the Respondents

This section presents the demographic characteristics of the 144 respondents who completed questionnaires at Mbeya City Council. The characteristics examined include gender, age, marital status, education level, department, years of service and position. These characteristics provide an overview of the respondents' backgrounds and organisational experience, which helps contextualise their views on data-driven recruitment and employee performance.

The findings in Table 4.1 indicate that males constituted 59.7% of the respondents, while females accounted for 40.3%. Regarding age, the largest group was aged 26–35 years (36.1%), followed by those aged 36–45 years (26.4%), indicating that most respondents were between 26 and 45 years old. Married respondents represented 55.6%, while single respondents accounted for 31.9%. In terms of education, Bachelor's degree holders formed the largest group (37.5%), followed by Diploma holders (31.9%). These findings indicate that the study included respondents with diverse demographic and educational backgrounds, providing varied perspectives on recruitment practices and employee performance.

Regarding departmental representation, Technical/Operations contributed the largest proportion of respondents (38.9%), followed by Administration (25.0%), Finance (20.8%) and Human Resources (15.3%). In terms of work experience, respondents with 1–3 years of service constituted the largest group (29.2%), followed by those with 4–6 years (23.6%). Staff/employees represented 66.7% of the respondents, while supervisors accounted for 20.8% and managers 12.5%. The inclusion of respondents from different departments, service periods and organisational positions provided a range of operational and managerial perspectives. Overall, these characteristics offered useful context for interpreting the findings on recruitment efficiency, recruitment transparency, employee competency development and employee performance at Mbeya City Council.

Table 1: Demographic Characteristics of Respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	86	59.7
	Female	58	40.3
	Total	**144**	**100.0**
Age	18–25 years	24	16.7
	26–35 years	52	36.1
	36–45 years	38	26.4
	46–55 years	20	13.9
	56 years and above	10	6.9
	Total	**144**	**100.0**
Marital Status	Single	46	31.9
	Married	80	55.6
	Divorced	10	6.9
	Widowed	8	5.6
	Total	**144**	**100.0**
Education Level	Certificate	18	12.5
	Diploma	46	31.9
	Bachelor's degree	54	37.5
	Master's degree	20	13.9
	PhD	6	4.2
	Total	**144**	**100.0**
Department	Administration	36	25.0
	Finance	30	20.8
	Human Resources	22	15.3
	Technical/Operations	56	38.9
	Total	**144**	**100.0**
Years of Service	Less than 1 year	16	11.1
	1–3 years	42	29.2
	4–6 years	34	23.6
	7–10 years	28	19.4
	11 years and above	24	16.7
	Total	**144**	**100.0**
Position	Manager	18	12.5
	Supervisor	30	20.8
	Staff/Employee	96	66.7
	Total	**144**	**100.0**

Source: Researchers' Data (2026).

4.2 The Effect of Recruitment Efficiency in Improving Employee Performance at Mbeya City Council

This section presents and discusses the findings on the effects of recruitment efficiency in improving employee performance at Mbeya City Council. The analysis is based on data collected from a total of 154 respondents, comprising 144 questionnaire respondents and 10 Key Informants (KIs) drawn from relevant departments within the Council, including Human Resources and administrative units. The combination of these two sources provided both quantitative and qualitative insights, enabling a more comprehensive understanding of recruitment efficiency in the Council. Recruitment efficiency was assessed through five key indicators, namely reduction of time-to-hire, accuracy in processing applications, optimization of cost per hire, reduction of delays caused by manual recruitment procedures and completion of recruitment within planned time due to the use of recruitment data. The findings are presented in Table 2 using a Likert scale and they are supported by qualitative views from key informants. The discussion focuses on how data-driven recruitment practices improve efficiency and ultimately enhance employee performance at Mbeya City Council by ensuring timely, accurate and cost-effective recruitment processes.

Table 2: The Effects of Recruitment Efficiency in Improving Employee Performance at Mbeya City Council

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Recruitment Efficiency	**F (%)**	**F (%)**	**F (%)**	**F (%)**	**F (%)**	**F (%)**
The use of data-driven recruitment reduces the time-to-hire for new employees.	54 (37.5%)	48 (33.3%)	20 (13.9%)	14 (9.7%)	8 (5.6%)	144 (100%)
Data-driven recruitment ensures accurate processing of applications.	50 (34.7%)	52 (36.1%)	22 (15.3%)	12 (8.3%)	8 (5.6%)	144 (100%)
The cost per hire is optimized when using data-driven recruitment systems.	42 (29.2%)	56 (38.9%)	24 (16.7%)	14 (9.7%)	8 (5.6%)	144 (100%)
Data-driven recruitment reduces delays caused by manual recruitment procedures.	60 (41.7%)	46 (31.9%)	18 (12.5%)	12 (8.3%)	8 (5.6%)	144 (100%)
The recruitment process at MCC is completed within the planned time due to the use of recruitment data.	48 (33.3%)	50 (34.7%)	22 (15.3%)	16 (11.1%)	8 (5.6%)	144 (100%)

Source: Researchers' Data (2026)

4.2.1 The use of Data-Driven Recruitment Reduces the Time-to-Hire for New Employees

The findings in Table 2 indicate that the majority of the respondents acknowledged that data-driven recruitment reduces the time-to-hire for new employees. Specifically, 54 respondents (37.5%) strongly agreed and 48 (33.3%) agreed with the statement, making a combined total of 102 respondents (70.8%) who held a positive view. On the other hand, 20 respondents (13.9%) were neutral while only a small proportion disagreed 14 respondents, (9.7%) and strongly disagreed 8 respondents, (5.6%). This distribution shows a strong concentration of responses towards agreement, indicating that most employees perceive recruitment efficiency as being significantly improved through data-driven approaches at Mbeya City Council. The pattern suggests that traditional recruitment bottlenecks such as manual sorting of applications, lengthy approval processes and delays in candidate selection have been reduced through the use of data-based recruitment systems. These systems likely include digital applicant tracking, automated screening tools and structured databases that allow Human Resource officers to quickly identify qualified candidates. As a result, recruitment processes become more streamlined, reducing administrative workload and accelerating decision-making. This improvement is particularly important in local government authorities where delays in filling vacancies can negatively affect service delivery and overall employee performance due to increased workload on existing staff. The implication of these findings is that improved time-to-hire enhances organizational responsiveness and productivity. When recruitment is completed within a shorter time frame, departments are able to operate at full capacity without prolonged staffing gaps. This contributes to better employee performance because employees are not overburdened and new staff are integrated into the system promptly. Additionally, faster recruitment improves employee morale and reduces burnout among existing staff, which indirectly enhances productivity and service quality within the Council. The quantitative findings indicated that the use of digital HR records and recruitment data at Mbeya City Council has significantly reduced the time taken to recruit and fill vacant positions. The results showed that recruitment activities are now completed more efficiently compared to the previous manual system where delays were common due to paperwork handling, file circulation and slow approval processes.

The qualitative findings further supported these results. One of the Human Resource Officers at Mbeya City Council explained:

The introduction of digital HR records and recruitment data has greatly improved the speed of filling vacant positions. Previously, the recruitment process took a long time because we relied on manual files, physical verification of documents and repeated paper-based approvals. This caused unnecessary delays, especially during shortlisting and interview coordination. However, with the current system, applicant information is easily accessed and shortlisting is done faster because data is already organized in the system. Communication among recruitment panel members has also improved since decisions and records can be shared quickly. Although we still face occasional challenges such as system interruptions or delays in external approvals, overall the time taken to complete recruitment has reduced significantly compared to the past. (Key Informant No. 1, 18 June 2026)

Further support was provided by a Head of Department from the Finance Department at Mbeya City Council who noted:

From an administrative and budgetary perspective, the use of digital recruitment data has made it easier to plan and approve recruitment activities within the required timelines. In the past, delays in receiving recruitment documentation often affected budget approvals and staffing plans. Now with digital records, we can quickly verify staffing needs and support timely approval processes. This has reduced delays in filling critical positions, especially in finance-related roles where vacancies directly affect service delivery and reporting deadlines. However, occasional delays still arise when awaiting external approvals from higher authorities, but overall efficiency has improved compared to the manual system. (Key Informant No. 2, 22 June 2026)

The interpretation of these qualitative responses indicates that improved recruitment timeliness is not only due to faster HR processing but also enhanced coordination between departments involved in recruitment decisions. The HR officer highlights operational efficiency in handling applications while the Head of Department emphasizes improved budget alignment and faster approval processes. Together, these perspectives show that digital HR records have improved both technical and administrative aspects of recruitment. Although some external approval delays still exist, the overall system has significantly reduced the time taken to fill vacant positions, confirming the quantitative findings.

Empirical studies on recruitment efficiency consistently show that the use of data-driven and digital recruitment systems improves hiring speed and organizational performance. Kumar and Singh (2021) examined public sector organizations in India and found that the adoption of automated recruitment systems significantly reduced time-to-hire by eliminating manual screening processes and improving candidate shortlisting accuracy. Their study emphasized that faster recruitment cycles allowed institutions to fill vacancies promptly which improved service delivery and reduced workload pressure on existing employees. This evidence supports the current study's finding that data-driven recruitment reduces delays in hiring processes at Mbeya City Council. Similarly, Mwita and Mvungi (2023) investigated the impact of digital human resource systems in Tanzanian local government authorities and reported that organizations using electronic recruitment platforms experienced improved efficiency in processing applications and faster decision-making

in recruitment. The study highlighted that digital systems enhance coordination among recruitment panels and reduce administrative delays, thereby shortening the recruitment cycle. This aligns with the current study's results which show that the majority of the respondents agreed that data-driven recruitment reduces time-to-hire at Mbeya City Council.

In addition, Adeleye and Eboh (2022) studied recruitment automation in African public institutions and found that organizations using data analytics and applicant tracking systems were able to improve recruitment speed and reduce dependency on manual documentation. Their findings further revealed that reduced hiring time contributes to better workforce planning and improved employee productivity because positions are filled more quickly. This supports the implication of the current study that efficient recruitment processes enhance employee performance by ensuring timely staffing. The empirical evidence from different studies confirms that data-driven recruitment systems play a significant role in improving recruitment efficiency by reducing time-to-hire. This strengthens the findings of the current study at Mbeya City Council which also indicates that most respondents perceive data-driven recruitment as an effective tool for enhancing recruitment efficiency and supporting better employee performance outcomes.

4.2.2 Data-driven Recruitment Ensures Accurate Processing of Applications

The findings in Table 2 indicate that the majority of the respondents agreed that data-driven recruitment ensures accurate processing of applications. Specifically, 50 respondents (34.7%) strongly agreed and 52 respondents (36.1%) agreed, making a total of 102 respondents (70.8%) who expressed a positive view. Meanwhile, 22 respondents (15.3%) were neutral, 12 respondents (8.3%) disagreed and 8 respondents (5.6%) strongly disagreed. The pattern of responses shows a clear concentration towards agreement, indicating that most employees at Mbeya City Council perceive data-driven recruitment systems as effective in improving the accuracy of application processing. The results suggest that the use of digital recruitment systems minimizes human errors commonly associated with manual recruitment processes, such as misfiling of applications, duplication of records and biased shortlisting. Through structured databases and automated screening tools, applications are processed in a more systematic and standardized manner. This improves fairness and consistency in candidate evaluation, ensuring that only qualified applicants progress to the next stage of recruitment. The implication of these findings is that improved accuracy in application processing enhances the overall quality of recruitment decisions. When applications are accurately reviewed and filtered, the Council is more likely to recruit competent employees who match job requirements. This contributes to improved employee performance because well-matched employees tend to perform their duties more effectively, require less supervision and adapt quickly to job responsibilities. Additionally, accurate recruitment processes strengthen organizational trust and reduce complaints related to unfair selection procedures.

Empirical studies conducted in different organizational and public sector contexts consistently show that data-driven recruitment improves the accuracy of application processing by reducing human bias, minimizing errors and standardizing selection procedures. Otoo and Mishra (2021) examined recruitment practices in Ghanaian public institutions and found that the use of digital recruitment platforms significantly improved the accuracy of candidate screening. The study revealed that automated systems reduced inconsistencies in application review and ensured that only candidates meeting minimum qualifications proceeded to the next stage. This supports the current study's finding that data-driven recruitment enhances accurate processing of applications at Mbeya City Council. Similarly, Bello and Adebayo (2022) investigated the impact of electronic recruitment systems in Nigerian government agencies and reported that organizations using applicant tracking systems experienced fewer errors in handling applications compared to those relying on manual methods. The study emphasized that digital systems improved transparency and reduced cases of misplaced or duplicated applications, thereby strengthening the integrity of the recruitment process. These findings align with the current study, which shows that most respondents agreed that data-driven recruitment ensures accurate application processing.

In another study, Nyamongo and Otieno (2023) analyzed recruitment digitization in East African county governments and found that the adoption of data-driven recruitment tools improved standardization in candidate evaluation. The researchers noted that structured digital platforms helped HR departments apply consistent selection criteria, reducing subjective judgment in screening processes. This resulted in more reliable recruitment outcomes and improved employee-job matching, which ultimately enhanced employee performance. The empirical evidence demonstrates that data-driven recruitment systems play a critical role in improving the accuracy of application processing by enhancing consistency, reducing administrative errors and promoting merit-based selection. These findings strongly support the results of the present study at Mbeya City Council where respondents indicated that digital recruitment systems improve the precision and reliability of application handling, thereby contributing to better employee performance outcomes.

4.2.3 The Cost per Hire is Optimized when Using Data-Driven Recruitment Systems

The findings presented in Table 2 show that 42 respondents (29.2%) strongly agreed and 56 respondents (38.9%) agreed that the cost per hire is optimized when using data-driven recruitment systems. This gives a combined total of 98 respondents (68.1%) who expressed agreement. Meanwhile, 24 respondents (16.7%) were neutral, 14 respondents (9.7%) disagreed and 8 respondents (5.6%) strongly disagreed. The overall pattern of responses indicates that the majority of respondents perceive data-driven recruitment as a cost-saving approach in the recruitment process at Mbeya City Council. The pattern suggests that digital recruitment systems reduce various costs associated with traditional recruitment methods, such as printing of job advertisements, physical handling of applications, travel costs for applicants and recruiters and administrative expenses related to manual screening. By using online platforms and automated systems, the Council is likely to streamline recruitment activities, reduce resource wastage and improve financial efficiency. This indicates that recruitment processes become more economical while maintaining or even improving their effectiveness. The implication of these findings is that cost efficiency in recruitment contributes positively to overall organizational performance. When recruitment costs are reduced, financial resources can be redirected to other essential operational areas such as training, employee welfare and service delivery improvement. This enhances employee performance indirectly because better allocation of resources improves working conditions and supports capacity building programs. Furthermore, cost-effective recruitment ensures sustainability in human resource management practices within the Council.

Empirical evidence from various studies indicates that data-driven recruitment systems significantly reduce the cost per hire by streamlining recruitment activities and eliminating unnecessary administrative and operational expenses. Okafor and Nwankwo (2021) conducted a study on recruitment practices in public service organizations in West Africa and found that organizations using digital recruitment platforms recorded lower recruitment expenditures

compared to those relying on traditional methods. The study highlighted that online application systems reduced costs related to printing, physical advertising and manual handling of applications, thereby improving cost efficiency in recruitment processes. This supports the current study's finding that data-driven recruitment optimizes recruitment costs at Mbeya City Council. In a similar study, Hassan and Ali (2022) examined the financial impact of electronic recruitment systems in Middle Eastern public institutions and reported that automation of recruitment processes led to a significant reduction in cost per hire. The researchers noted that digital systems minimized the need for external recruitment agencies and reduced time spent by HR personnel on manual screening, which in turn lowered overall recruitment expenses. These findings align with the present study where respondents indicated that data-driven recruitment helps optimize recruitment costs.

Furthermore, Kibet and Mutiso (2023) investigated the adoption of human resource information systems (HRIS) in Kenyan county governments and found that institutions using data-driven recruitment tools achieved substantial cost savings due to reduced paperwork, faster processing and improved resource allocation. The study emphasized that cost efficiency was one of the key benefits of recruitment digitalization, allowing organizations to redirect savings to other operational priorities such as training and employee development. The empirical literature consistently shows that data-driven recruitment systems reduce recruitment costs by improving efficiency, eliminating redundant processes and minimizing reliance on manual procedures. These findings strongly support the results of the current study at Mbeya City Council where respondents confirmed that data-driven recruitment optimizes cost per hire and contributes to more efficient human resource management practices.

4.2.4 Data-Driven Recruitment Reduces Delays Caused by Manual Recruitment Procedures

The findings in Table 2 reveal that a majority of the respondents agreed that data-driven recruitment reduces delays caused by manual recruitment procedures. Specifically, 60 respondents (41.7%) strongly agreed and 46 respondents (31.9%) agreed, giving a total of 106 respondents (73.6%) who expressed agreement. Meanwhile, 18 respondents (12.5%) were neutral, 12 respondents (8.3%) disagreed and 8 respondents (5.6%) strongly disagreed. The distribution of responses shows a strong tendency towards agreement, indicating that most employees at Mbeya City Council perceive data-driven recruitment as an effective way of minimizing delays associated with traditional recruitment processes. The pattern of responses suggests that manual recruitment procedures such as physical document handling, multiple approval stages and paper-based screening contribute significantly to delays in hiring processes. In contrast, data-driven recruitment systems streamline these processes through automation, digital records and faster communication between recruitment stakeholders. This reduces bottlenecks in candidate selection and approval processes, ensuring that recruitment activities are completed within shorter timeframes. As a result, organizations are able to fill vacant positions more efficiently and maintain continuity in service delivery. The implication of these findings is that reducing delays in recruitment enhances organizational efficiency and employee performance. When recruitment processes are faster, vacant positions are filled promptly, reducing workload pressure on existing employees and preventing service interruptions. This improves morale, reduces burnout and enhances overall productivity within the organization. Additionally, efficient recruitment processes strengthen institutional responsiveness, enabling the Council to meet staffing needs in a timely manner. The quantitative findings indicated that data-driven recruitment at Mbeya City Council has improved both the accuracy and cost-effectiveness of processing and selecting job applicants. The results show that recruitment decisions are now more reliable, consistent and less costly compared to the previous manual system where errors, delays and high operational expenses were more common due to paper-based procedures. The qualitative findings further supported these results. One of the Human Resource Officers at Mbeya City Council explained:

Data-driven recruitment has greatly improved the accuracy of selecting job applicants because the system allows us to screen candidates based on clear and standardized criteria such as qualifications, experience and competency requirements. Previously, manual screening sometimes led to human errors, missing documents, or even overlooking qualified candidates due to large volumes of paper files. However, with the current system, information is well organized and easy to verify, which reduces mistakes and improves fairness in shortlisting and selection. In terms of cost, the Council has reduced expenses related to printing, physical file handling and repeated meetings since most processes are now done electronically. Although we still face occasional challenges such as system delays or connectivity issues, overall, both accuracy and cost-effectiveness have improved significantly. (Key Informant No. 3, 20 June 2026)

Further support was provided by the Head of Administration and Records Management Department at Mbeya City Council who noted:

From an administrative records management perspective, the introduction of data-driven recruitment has greatly improved both accuracy and efficiency in handling recruitment information. In the past, we relied heavily on physical files, which made it easy to lose documents or experience delays in verification and retrieval of applicant records. Now with digital HR records, all applicant information is stored systematically, making it easier to verify details and ensure accuracy during selection. This has also reduced administrative workload and costs related to filing, storage and document movement. Although we still face occasional challenges such as system downtime and limited ICT capacity among some staff, the overall improvement in accuracy and cost savings is very clear compared to the manual system. (Key Informant No. 4, 25 June 2026)

The interpretation of these qualitative responses indicates that data-driven recruitment improves accuracy by reducing document handling errors and ensuring standardized screening procedures. It also enhances cost-effectiveness by minimizing reliance on physical records, reducing administrative workload and lowering operational expenses. The HR officer highlights improved fairness and precision in selection while the Head of Administration and Records Management emphasizes stronger data organization and reduced inefficiencies in records handling. Together, these perspectives confirm that digital recruitment systems have significantly strengthened both accuracy and cost-effectiveness in recruitment processes at Mbeya City Council, in line with the quantitative findings.

Empirical studies from different regions consistently confirm that data-driven recruitment systems significantly reduce delays caused by manual recruitment procedures. This is mainly because digital recruitment platforms streamline workflows, automate candidate screening and improve coordination among recruitment stakeholders. Chukwu and Eze (2022) conducted a study on recruitment processes in public universities in Nigeria and found that manual recruitment procedures often caused significant delays due to paperwork, slow communication between departments and lengthy approval chains. The study further revealed that institutions that adopted electronic recruitment systems experienced faster processing of applications and quicker completion of recruitment cycles. This supports the current study's finding that data-driven recruitment reduces delays at Mbeya City Council.

Similarly, Abdullah and Rahman (2021) examined recruitment efficiency in Malaysian public sector organizations and reported that traditional recruitment methods were associated with prolonged hiring timelines due to physical document handling and multiple verification stages. Their findings showed that the adoption of digital recruitment systems reduced these delays by enabling real-time application tracking and faster decision-making. The study concluded that automation improves recruitment speed and eliminates unnecessary administrative bottlenecks, which aligns with the findings of the current study.

In another study, Moyo and Dlamini (2023) investigated the impact of HR digital transformation in the Southern African government institutions and found that organizations using data-driven recruitment platforms experienced improved efficiency in recruitment scheduling and candidate evaluation. The study emphasized that delays in recruitment were significantly reduced because digital systems improved communication among HR officers and recruitment panels, allowing quicker feedback and approvals. The empirical literature demonstrates that manual recruitment procedures often create delays due to paperwork, slow coordination and inefficient approval processes. In contrast, data-driven recruitment systems improve efficiency by automating key recruitment activities and enhancing communication flow. These findings strongly support the results of the current study at Mbeya City Council where respondents agreed that data-driven recruitment reduces delays caused by manual recruitment procedures and contributes to improved employee performance.

4.2.5 The Recruitment Process at MCC is completed within the Planned Time due to the Use of Recruitment Data

The findings in Table 2 indicate that 48 respondents (33.3%) strongly agreed and 50 respondents (34.7%) agreed that the recruitment process at Mbeya City Council is completed within the planned time due to the use of recruitment data. This represents a total of 98 respondents (68.0%) who expressed agreement with the statement. On the other hand, 22 respondents (15.3%) were neutral, 16 respondents (11.1%) disagreed and 8 respondents (5.6%) strongly disagreed. The pattern of responses shows that the majority of the respondents perceived the use of recruitment data as a key factor in ensuring timely completion of recruitment activities at MCC. The distribution of responses suggests that data-driven recruitment systems help the Council plan and monitor recruitment timelines more effectively. The use of recruitment data likely supports forecasting of staffing needs, tracking of application progress and coordination of recruitment stages such as shortlisting, interviewing and final selection. This structured approach reduces uncertainty and improves adherence to recruitment schedules. As a result, recruitment activities are more organized and less likely to exceed planned timelines. The implication of these findings is that timely completion of recruitment processes enhances organizational efficiency and employee performance. When recruitment is completed within planned timeframes, vacant positions are filled promptly, ensuring continuity in service delivery and reducing workload pressure on existing staff. This contributes to improved productivity, better employee morale and reduced operational disruptions within the Council. Furthermore, adherence to recruitment timelines strengthens organizational credibility and supports effective human resource planning.

Empirical studies have consistently shown that the use of recruitment data and digital recruitment systems improves time management and ensures that recruitment processes are completed within planned schedules. This improvement is largely attributed to better coordination, real-time tracking of applicants and structured decision-making supported by data systems. Karanja and Mutua (2021) examined recruitment practices in Kenyan public service institutions and found that organizations that relied on recruitment data systems were more likely to complete hiring processes within the planned time compared to those using manual systems. The study explained that recruitment data improves planning accuracy and reduces delays caused by poor communication and uncoordinated recruitment stages. Similarly, Aminu and Bello (2022) investigated human resource digitalization in West African government agencies and reported that the use of electronic recruitment databases significantly improved adherence to recruitment timelines. Their findings showed that recruitment data enabled HR departments to monitor application progress, schedule interviews efficiently and track approval processes, which collectively reduced delays and ensured timely completion of recruitment cycles. This supports the current study's finding that recruitment at Mbeya City Council is completed within planned time due to the use of recruitment data.

In another study, Nkosi and Mthembu (2023) analyzed the role of HR analytics in South the African municipalities and found that data-driven recruitment systems enhanced time efficiency by improving workforce planning and reducing administrative bottlenecks. The study highlighted that recruitment data allows organizations to predict staffing needs more accurately and allocate resources effectively, ensuring that recruitment processes remain within set deadlines. The empirical literature confirms that recruitment data plays a critical role in improving recruitment timeliness by enhancing planning, coordination and monitoring of recruitment activities. These findings strongly align with the results of the present study at Mbeya City Council where respondents agreed that recruitment processes are completed within planned time due to the use of recruitment data.

5 Conclusions and Recommendations

5.1 Conclusion of the Study

The study found that recruitment efficiency plays a significant role in improving employee performance at Mbeya City Council. The findings revealed that data-driven recruitment systems have greatly reduced the time taken to process applications, shortlist candidates, conduct interviews and fill vacant positions. Most respondents agreed that the use of digital HR records has eliminated delays associated with manual file handling, repetitive documentation and slow approval procedures. The results also indicated that recruitment efficiency has improved accuracy in handling applicant information by reducing errors such as missing documents and duplication of records. Furthermore, respondents confirmed that the cost of recruitment has been reduced due to decreased use of paper-based systems, reduced administrative workload and fewer logistical expenses during recruitment exercises. Key informants supported these findings by explaining that digital recruitment systems have improved coordination among recruitment panels and allowed faster decision-making through centralized data access. As a result, the Council is now able to fill vacant positions within planned timelines, which ensures continuity of services and reduces workload pressure on existing employees. Overall, recruitment efficiency was found to enhance employee performance by ensuring timely placement of qualified staff, improving productivity and strengthening organizational effectiveness.

5.2 Recommendations

The study recommends that Mbeya City Council should strengthen the automation of recruitment procedures through centralized digital systems, improve transparency and accountability by maintaining electronic recruitment records, and integrate recruitment data with employee performance management and training systems to identify competency gaps and support targeted employee development. The Council should also provide regular ICT training, technical support and system updates to ensure effective and sustainable use of data-driven recruitment technologies. Further studies should employ longitudinal, correlational or quasi-experimental designs, include multiple local government authorities, and investigate additional factors such as organizational culture, ICT literacy, employee engagement, leadership support and financial resources that may influence the relationship between data-driven recruitment and employee performance. Future research should also examine the application of artificial intelligence, predictive analytics and automated decision-support systems in public sector recruitment while considering fairness, transparency and accountability.

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