

The Research Evaluates DBKL's Preparedness to Implement Electronic Record Applications for Digital Examination Systems Used in Recruitment Processes

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DOI: <https://dx.doi.org/10.47772/IJRISS.2025.92800034>

Received: 10 November 2025; Accepted: 20 November 2025; Published: 19 December 2025

ABSTRACT

This study assesses the readiness of the Kuala Lumpur City Hall (DBKL) Recruitment Unit under the Human Resource Management Department to implement electronic record submissions in its digital examination system. Currently, DBKL relies heavily on manual recruitment procedures such as paper-based assessments and traditional interviews, reflecting the hybrid approach still common in Malaysia's public sector due to limited digital integration and varying staff digital literacy (Noradila Mohd Nasir & Siti Khatizah Safiyuddin, 2007; Jamaludin et al., 2022). Using semi-structured interviews with HR and IT personnel, the study examines digital readiness, identifies operational gaps, and aligns findings with the Malaysia e-Government Transformation Plan (2021–2025) and the MyDIGITAL Blueprint (Access Partnership, 2023). The results indicate that digital transformation within DBKL is at a moderate stage, but it holds strong potential for improvement through structured policy development, investment in ICT infrastructure, and continuous digital upskilling. The study concludes that adopting an online examination system can enhance recruitment efficiency, data accuracy, and transparency, supporting Malaysia's vision for a fully digital public sector (Hashim & Yunus, 2020; Koman, 2024; Ciancarini et al., 2023).

INTRODUCTION

The Malaysian public sector prioritises digital transformation as its main objective to achieve improved operational efficiency and transparency. The Public Sector Digitalisation Strategic Plan (2021–2025) requires the complete integration of information technology across all levels of government administration. The Recruitment Unit of DBKL's Human Resource Management Department handles candidate qualification and interview selection through manual procedures, which require physical documentation, academic credential verification, and face-to-face testing. The traditional system provides transparency, but it consumes time and resources and introduces errors due to human involvement. The research by Mohd Zain and Hassan (2018) demonstrated that Malaysian local authorities experience data duplication and delays in candidate assessment when using manual recruitment methods. The study by Rahman et al. (2021) demonstrated that government recruitment systems lacking a unified digital infrastructure pose operational challenges and additional workload for administrators. Public organisations can achieve better candidate experience, accuracy, and accountability through e-recruitment platforms, according to Norhayati and Jusoff (2023), when they have adequate digital readiness and staff competency among staff members. The research evaluates DBKL's readiness to transition its recruitment system to an electronic record-based digital examination, utilising an online psychometric test as the primary screening tool for job applicants.

LITERATURE REVIEW

Public sector organisations continue to adopt digital transformation to enhance operational performance and increase their accountability levels. The Public Sector Digitalisation Strategic Plan (2021–2025) of Malaysia outlines a strategy to enhance service delivery through the use of automated systems and data-driven governance. The successful implementation of digital transformation requires the integration of digital infrastructure with

dedicated leadership support and coordinated efforts among different agencies, according to Abdullah & Rahman (2024). The implementation of seamless digital service delivery faces significant challenges because of outdated systems and weak data management structures, according to Lee et al. (2025). The research supports the need for government digital transformation to unite technological progress with organisational and human preparedness.

E-Recruitment and Digital Examination Systems

The public sector now utilises e-recruitment as a vital tool for managing human resources through modern recruitment methods. Karim & Aziz (2025) discovered through their research that digital recruitment systems improve both candidate selection transparency and system accessibility and fairness. The implementation of online testing and assessment systems, according to Hassan & Idris (2024), leads to reduced administrative work and better data precision. The researchers determined that system usability, in conjunction with cybersecurity measures and employee willingness to adopt digital systems, significantly influences the success of these systems. The effectiveness of e-recruitment initiatives in Malaysian public service agencies depends on ongoing system development and employee training programs, according to Rahman et al. (2025).

Digitalisation Readiness of Organisations

The success of digital transformation depends heavily on how well organisations prepare themselves for change. Kamarudin & Lim (2024) established that three essential readiness factors consist of prepared infrastructure, supportive leadership, and digital competency among employees. The research by Almarabeh & Hassan (2025) shows that public organisations fail to recognise the necessity of policy alignment and change management when implementing new systems. Digital initiatives face the risk of failure because users resist new systems, and integration problems occur when readiness assessments are insufficient. Evaluating readiness before full-scale implementation enables DBKL to identify potential challenges and develop effective transition plans.

Research Findings about Public Service Recruitment Practices

The public sector recruitment process in Malaysia and Indonesia now operates entirely through digital systems, according to current research findings. The implementation of e-recruitment systems, according to Hassan (2025), leads to better fairness and transparency, as well as improved monitoring performance. The research by Nurhayati & Putra (2024) shows that digital recruitment systems improve candidate assessment, yet encounter problems when trying to link with existing HR database systems. The research by Azmi et al. (2025) developed a comprehensive assessment model for digital examination system readiness in government agencies by combining the UTAUT and organisational readiness frameworks. The research indicates that digital transformation success in public service recruitment depends on three essential factors: technical readiness, policy alignment, and user acceptance.

METHODOLOGY

The research employed a qualitative approach through semi-structured interviews with 10 DBKL staff members who worked as record managers, human resource officers, and IT personnel. The research design enabled the team to understand the organisation's readiness for digital examination and e-recruitment system implementation by collecting detailed information. The researchers employed thematic analysis to identify essential readiness factors and vulnerabilities within the recruitment unit, as extracted from the gathered data.

The study addressed central themes within system infrastructure, policy context, competence and readiness of staff to accept online assessment tools. This research was guided by the Unified Theory of Acceptance and Use of Technology (UTAUT), developed by Venkatesh et al. (2003), which describes the drivers of technology adoption in organisations.

Four primary constructs—Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions—were used to measure the DBKL's readiness for digitalisation. Such constructs helped to understand

how the employees perceived usefulness, ease of use, management support, and infrastructural readiness that influence their acceptance of the digital examination system. Overall, this design enabled the study to evaluate DBKL's preparedness for digital transformation through the lens of technology acceptance.

RESULTS AND DISCUSSION

Organisation of the Study. This chapter discusses research conducted in the Recruitment Unit of the Human Resource Management Department at Dewan Bandaraya Kuala Lumpur (DBKL). The primary aim was to evaluate staff and infrastructure readiness for the adoption of an online digital-based examination and assessment platform. Information was obtained using a structured questionnaire administered to 40 respondents from the machinery. Analysis is based on six readiness dimensions: system process, infrastructure, staff competency, policy framework, data management, and management.

Overall, the results indicate that while DBKL demonstrates a willingness to transition towards digital transformation, the current assessment process remains highly manual. Respondents highlighted several constraints, including limited infrastructure capacity, insufficient digital training, and the absence of formal policy guidelines. Nevertheless, the overall perception of readiness remains moderate to high, as reflected in the findings below.

Table 1: Summary of Current Issues and Readiness Gaps

Dimension	Current Situation	Readiness Gap	Level of Perceived Readiness (%)	Interpretation
System Process	Manual candidate screening, examination scheduling, and data entry	Need for an integrated online assessment platform	87.5	The majority agree that the manual process causes inefficiency and delays.
Staff Competency	Basic computer literacy among HR officers	Needs structured digital skills training	65.0	Shows the need for targeted digital training programmes.
Data Management	Decentralised record keeping; manual document storage	Centralised, secure digital repository recommended	82.5	Reflects strong support for database modernisation.
Management Support	Encouragement given, but it lacks strategic ICT planning	Formulate a digital roadmap and allocate funding	70.0	Reflects positive intention but a limited execution plan.

DISCUSSION OF FINDINGS

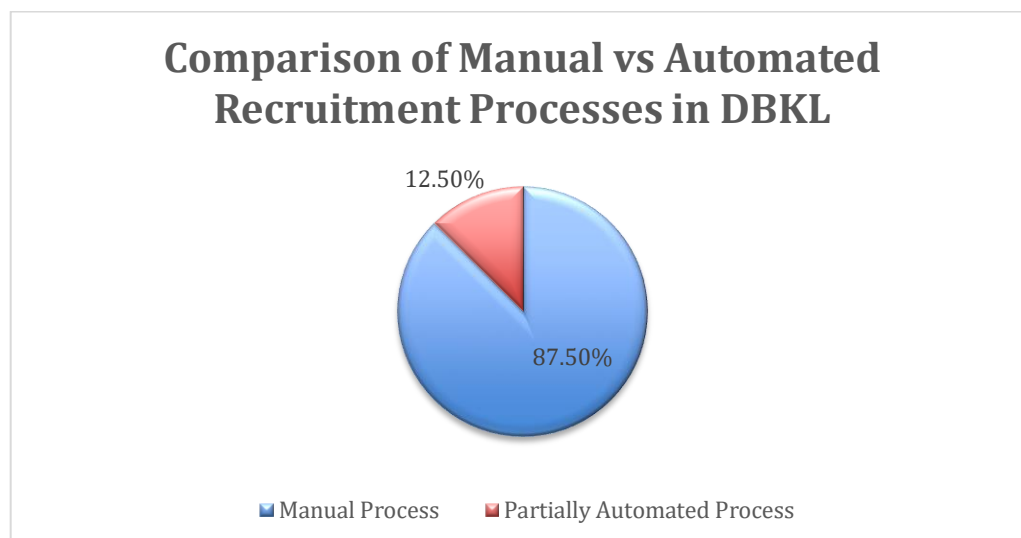
The findings indicate that 87.5% of respondents agreed that DBKL's recruitment and assessment process remains heavily manual, especially in candidate calling, test administration, and evaluation. This manual dependency has resulted in slower data processing and inefficiencies in candidate tracking.

Comparison of Manual vs Automated Recruitment Processes in DBKL

The pie chart indicates that most respondents (87.5%) view the recruitment process at Dewan Bandaraya Kuala Lumpur (DBKL) as primarily manual, with only 12.5% believing that some aspects are automated. This gap highlights that the current recruitment system still relies heavily on traditional methods, such as manual documentation, face-to-face assessments, and paper-based evaluations. The low level of automation indicates that DBKL's efforts to digitise human resource processes are still in their initial stages.

The findings underscore the urgent need for DBKL to expedite its transition to a unified digital recruitment system. Automating routine administrative tasks—such as screening applications, scheduling interviews, and processing results—can enhance operational efficiency, reduce human errors, and make the selection process more transparent. Additionally, digital platforms can offer valuable data analytics for better decision-making and support a more consistent and fair candidate evaluation, in line with Malaysia's Public Sector Digitalisation Strategic Plan (2021–2025).

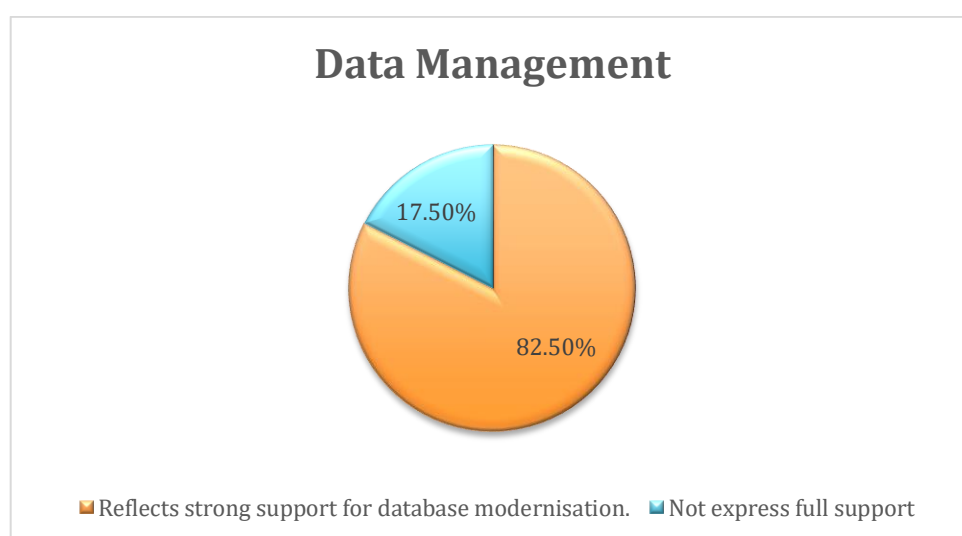
Figure 1: Comparison of Manual Vs Automated Recruitment Processes in DBKL



Regarding staff competency, 65% of respondents feel confident in using online testing platforms, electronic record systems, and applicant tracking tools. Meanwhile, 35% remain uncertain or uncomfortable with digital recruitment technologies, indicating a clear digital readiness gap among HR staff. This could impede smooth system adoption. To address this, DBKL should focus on ongoing, structured training programs that enhance digital literacy, system navigation, and data management skills. Implementing regular workshops, certification courses, and peer learning initiatives can help improve officers' technical skills and promote a culture of innovation within the organisation.

Ultimately, improving automation in recruitment and building staff digital skills will streamline operations, boost candidate experience, enhance institutional reputation, and improve human resource governance.

Figure 2: Data Management in DBKL



Data Management

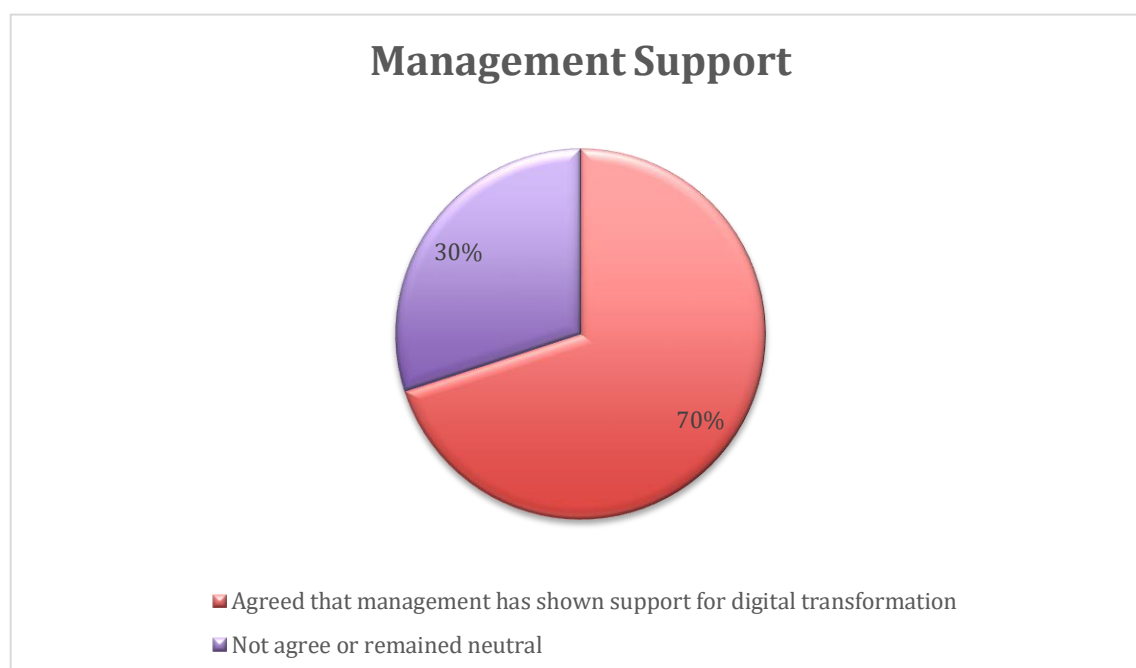
Survey results show that 82.5% of participants strongly support creating a centralised, secure database for managing recruitment data within DBKL. This significant majority indicates a positive attitude towards

technological improvements and a proactive outlook among staff who value data-driven management. Their support highlights awareness that centralising data can streamline processes, maintain consistency across departments, and improve accountability in handling candidate information. It also shows that many officers recognise how technology can aid decision-making and promote transparency, especially when processing large numbers of applicants.

The strong shift towards digital data management shows that DBKL's staff recognise the importance of a well-structured database in enhancing efficiency, transparency, and data security. A centralised recruitment database enables quicker access to applicant profiles, automatic monitoring of application statuses, and simplified generation of analytical reports for management review. Moreover, digital storage reduces record duplication, minimises paperwork, and enhances compliance with data protection regulations. When paired with proper access controls and audit trails, such a system can also help prevent unauthorised data changes and build trust among applicants and employees.

The 17.5% of respondents who did not fully endorse the concept reveal an underlying concern worth addressing. Their hesitation might be due to worries about cybersecurity threats, data breaches, or the dependability of digital systems. Some may fear that a central database could compromise sensitive applicant information if not properly secured. Additionally, certain employees may feel unprepared due to limited technical skills or unfamiliarity with database technology. Their feedback highlights the importance of comprehensive training, effective data governance, and clear communication regarding how security issues will be addressed.

Figure 4: Management Support in DBKL



Management Support

The survey shows that 70% of respondents believe that DBKL's management supports digital transformation efforts. This indicates that leadership understands the importance of modernising administrative procedures and supports the national goal for digital governance. Their recognition of technology as a crucial tool for efficiency and transparency demonstrates a readiness to adopt innovative human resource practices, such as online recruitment and exams. This high-level support is vital for leading organisational change, as it establishes a tone of commitment and resource allocation across all departments.

However, 30% of respondents either disagreed or were neutral, indicating that not all employees see this support translating into real results. Although management shows clear intent and verbal backing, some staff might feel these efforts haven't yet led to tangible strategies or specific actions. This could involve a lack of a definitive digital transformation plan, inadequate funding for ICT infrastructure, or the absence of structured monitoring

systems to ensure accountability. Without concrete initiatives like focused training, timeline-based implementation, or dedicated task forces, employees may remain uncertain about the organisation's overall progress toward sustainable digitalisation.

The results emphasise the need to align management's strategic goals with actual operations. For DBKL to effectively adopt a fully digital exam and recruitment system, leaders must go beyond policy statements and implement concrete, measurable actions. This includes creating a specialised digital transformation team, assigning dedicated budgets for ICT improvements, and engaging staff at all levels via ongoing communication and feedback. Additionally, management should adopt a participatory leadership style, involving HR and IT personnel in decision-making, to foster shared responsibility and confidence in the transformation efforts.

Overall, DBKL shows a moderate to high level of preparedness for transitioning to an online digital examination system. The organisation has built a solid foundation in awareness, policy alignment, and partial infrastructure readiness. Through systematic planning, ongoing technological investments, policy improvements, and continuous digital upskilling, DBKL is well-positioned to achieve full digital integration. Ensuring strong managerial commitment via clear strategic plans and consistent execution will be crucial for a successful and sustainable digital transformation.

CONCLUSION

This study finds that while Dewan Bandaraya Kuala Lumpur (DBKL) demonstrates a clear commitment to modernising its recruitment process, its readiness for a fully digital system remains moderate due to limited automation and inadequate infrastructure support. However, the positive attitude of staff and management indicates strong potential for organisational innovation. To ensure sustainable digital transformation, DBKL should focus on investing in ICT infrastructure, developing comprehensive e-recruitment policies, and enhancing staff digital skills through ongoing training. Pilot projects, such as online psychometric testing, can serve as initial steps to test and improve implementation. With steady leadership and strategic planning, DBKL can move toward complete digital integration, boosting efficiency, transparency, and public trust in line with Malaysia's vision for a modern digital government.

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