

# Challenges in Implementing Digital-Based Employee Recruitment and Selection in the Personnel and Human Resource Development Agency (BKPSDM) of North Nias Regency

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## ABSTRACT

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This study examines the challenges faced in the implementation of digital-based recruitment and selection for the State Civil Apparatus (ASN) at the Human Resources Development and Personnel Agency (BKPSDM) of North Nias Regency. The transition from manual procedures to the SSCASN digital platform aims to improve transparency, efficiency, and accuracy in public-sector recruitment. However, digital transformation in an island-based region presents several obstacles. This qualitative research adopts a descriptive approach, collecting data through in-depth interviews, observation, and documentation involving BKPSDM officials, system operators, and applicants. The findings reveal that digital recruitment has enhanced accountability, reduced administrative errors, and improved information accessibility. Nonetheless, major challenges persist, including unstable internet connectivity, limited technological infrastructure, inadequate digital competencies among staff and applicants, system errors during peak registration periods, and gaps in data validation between online and manual documents. These challenges affect the smoothness of the recruitment cycle and require strategic interventions. The study concludes that although digital recruitment strengthens governance and meritocracy, its success depends on improving infrastructure, enhancing human resource capacities, and strengthening technical support systems. Recommendations include capacity-building programs, system refinement, and multi-stakeholder collaboration to ensure sustainable digital transformation.

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## 1. INTRODUCTION

Human resource management is a fundamental pillar in public administration, and recruitment plays a decisive role in ensuring that organizations acquire competent individuals aligned with institutional needs. Modern public institutions are compelled to adopt more transparent, effective, and accountable recruitment systems to strengthen governance quality and public trust (Pantos, 2023).

Recruitment and selection processes determine the quality of human capital within government institutions. Inaccuracies in candidate selection may lead to performance inefficiencies and weaken organizational effectiveness. Therefore, recruitment systems must be continuously improved, particularly through technological innovation that responds to growing administrative demands (Banna et al., 2021).

Technological advancements have encouraged governments across the world to adapt digital systems in personnel administration. Indonesia has followed this trajectory by implementing the Sistem Seleksi Calon Aparatur Sipil Negara (SSCASN), a centralized digital platform designed to streamline recruitment procedures for both central and regional governments (Marjudi et al., 2023).

Before the digital system was introduced, recruitment in many Indonesian regions including North Nias relied heavily on manual processes. Applicants were required to submit physical documents, and verification was performed manually, leading to delays, inefficiencies, and potential errors during administrative checks. The transition to SSCASN represents a significant shift from conventional practices toward digital governance. Through online registration, automated verification, and Computer Assisted Test (CAT), the recruitment cycle becomes more standardized and potentially fairer for all applicants (Putri et al., 2019).

Despite these advancements, the digital transformation of recruitment presents unique challenges, especially for regions with limited digital infrastructure. North Nias Regency, a geographically dispersed and island-based area, experiences technological gaps that influence the effectiveness of digital public services. BKPSDM North Nias is the regional institution responsible for managing personnel administration, including the recruitment of ASN candidates (Hornuf & Haddad, 2019). Since 2018, BKPSDM has adopted SSCASN, aligning its practices with national regulations under the Ministry of Administrative and Bureaucratic Reform (PANRB).

The shift to digital processes is expected to improve efficiency, reduce administrative burdens, and eliminate the risks associated with manual handling of documents. However, early observations indicate the presence of infrastructural and procedural challenges that hinder seamless implementation. Internet connectivity remains one of the primary obstacles encountered in North Nias. Limited and unstable internet networks restrict both applicants' ability to register and submit documents online, and BKPSDM's capacity to validate data in real time (Rahadjeng et al., 2023).

Another issue involves the discrepancy between online data submitted through SSCASN and physical documents required during manual verification. Such inconsistencies create confusion and may result in the disqualification of otherwise eligible applicants. Technical disruptions on the SSCASN platform, especially during peak periods, further complicate the recruitment process. System overload, slow response times, and unexpected errors challenge both administrators and applicants in completing their tasks efficiently (Pantos, 2023).

In addition to technical issues, the readiness of human resources constitutes another challenge. BKPSDM staff and applicants often have varying levels of digital literacy, which influences their ability to navigate the recruitment system effectively. Resistance to technological changes also emerges as a behavioral challenge. Some officers and applicants remain accustomed to traditional manual procedures and require time, training, and adaptation to become confident users of the digital platform (Arner et al., 2020).

Considering these issues, it becomes important to examine the specific challenges encountered in digital recruitment and selection at BKPSDM North Nias. Understanding these constraints will enable the institution to design strategies that enhance system performance and user satisfaction (Thi et al., 2021). Given the limited scholarly attention on digital recruitment implementation in regional Indonesian contexts particularly in island-based areas this research provides valuable insights for policymakers, practitioners, and future studies. It aims to contribute to the strengthening of digital governance and sustainable public-sector innovation.

## 2. RESEARCH METHOD

This study adopts a qualitative research design with a descriptive approach to explore the challenges encountered in implementing digital recruitment and selection at BKPSDM North Nias. Qualitative methods are appropriate for understanding experiences, perceptions, and contextual problems that cannot be quantified. Data were collected through in-depth interviews, direct observation, and documentation. Informants consisted of the Head of BKPSDM, unit heads, system operators, and applicants of CPNS and PPPK. These sources provided diverse perspectives regarding technical, administrative, and behavioral challenges during recruitment implementation (Alaassar et al., 2020). The data analysis process followed the Miles and Huberman interactive model, involving data reduction, data display, and conclusion drawing (Hadi et al., 2023). Through iterative analysis,

themes and patterns were identified, enabling a comprehensive understanding of the challenges and potential strategies for improvement.

### 3. RESULTS AND DISCUSSIONS

#### Results

The findings show that the digital recruitment system has generally improved transparency and accountability. Applicants can access information more easily through the SSCASN portal, and recruitment stages are publicly traceable. However, unstable internet connectivity in North Nias remains a dominant challenge. Many applicants in remote areas experience difficulties accessing the portal, especially during peak registration periods (Efimov et al., 2021).

BKPSDM staff also frequently encounter system slowdowns and sudden errors within SSCASN during verification. These interruptions delay the validation process and increase administrative workload. Data inconsistencies between online submissions and offline documents were commonly reported. Some applicants were mistakenly categorized as ineligible due to mismatches arising from system reading errors (Putri et al., 2019).

Inadequate technological infrastructure, including limited server capacity and lack of backup systems, further amplified these challenges, particularly during CAT examinations requiring high system stability. Digital literacy levels among both applicants and BKPSDM personnel varied significantly. Individuals unfamiliar with digital tools needed additional assistance, which extended processing times and increased administrative complexity (Pantos, 2023).

Resistance to transitioning from manual processes also emerged. Some personnel still preferred traditional verification methods due to comfort and familiarity, slowing down the adoption of more efficient digital workflows. Coordination with national institutions such as BKN sometimes faced delays, especially when technical problems required higher-level intervention. These bottlenecks extended the overall recruitment timeline (Pantos, 2023).

The study also identified concerns related to data security and privacy, as BKPSDM must handle sensitive personal information requiring secure storage and responsible handling procedures. Despite the challenges, the digital system has shown potential to enhance efficiency and integrity, provided that infrastructural and managerial improvements are implemented consistently.

#### Discussion

The study's findings align with previous research highlighting that digital recruitment enhances transparency and reduces subjectivity through system-based screening. However, its success is heavily dependent on technological readiness. In North Nias, limited infrastructure presents structural barriers that undermine the advantages expected from digital recruitment. This supports literature emphasizing the importance of equitable digital access in public-sector reforms (Ye et al., 2022).

The frequent system errors experienced during recruitment illustrate challenges commonly found in regions transitioning from manual to digital systems. These issues often stem from insufficient server capacity and inadequate system testing prior to implementation. The discrepancies between online and offline documents highlight weaknesses in data integration. This finding supports studies showing that digital recruitment systems require robust data validation mechanisms to prevent misclassification (Okfalisa et al., 2022).

Digital literacy gaps represent a human factor that significantly influences system adoption. This aligns with the argument that digital transformation requires not only infrastructure but also human capacity-building. Resistance to change reinforces theoretical perspectives that organizational transformation faces cultural barriers. Employees accustomed to manual processes often require structured support to adapt to digital systems. The need for continuous technical support reflects the importance of organizational readiness and the availability of skilled ICT personnel. This is consistent with management information system theory emphasizing the role of human expertise (Banna et al., 2022).

Coordination challenges with national agencies indicate a multilayered governance structure where digital reforms depend on timely communication between institutions. The risk of compromised data security underscores the ethical dimension of digital recruitment. Public institutions must balance efficiency gains with strict compliance to data protection standards. The positive outcomes

observed such as improved transparency demonstrate that digital systems support merit-based recruitment, enhancing fairness and equity (Alaassar et al., 2020).

The findings also illustrate that digital transformation is an ongoing process requiring iterative improvements based on user experience and operational feedback. Differences in digital accessibility among applicants reflect broader digital divide issues in regional Indonesia, suggesting the need for more inclusive policies. The requirement for comprehensive training implies that digital recruitment should be supported by structured capacity-building to ensure staff competence and system efficiency (Putri et al., 2019).

These findings collectively highlight that successful digital recruitment depends on technological, organizational, and human readiness (Pantos, 2023). All three components must function harmoniously. Therefore, strengthening infrastructure, enhancing digital skills, and improving system coordination are essential steps toward ensuring sustainable and effective implementation of digital recruitment at BKPSDM North Nias.

#### 4. CONCLUSION

This study concludes that digital recruitment at BKPSDM North Nias offers significant benefits in improving transparency and accountability, yet it continues to face substantial challenges including unstable internet connectivity, limited digital infrastructure, varying levels of digital literacy, system inconsistencies, and operational resistance (Yang et al., 2023). To enhance implementation effectiveness, BKPSDM is recommended to strengthen technological infrastructure, expand training for staff and applicants, improve data validation mechanisms, establish stronger coordination with national agencies, and ensure ongoing system evaluation to support sustainable digital transformation in recruitment.

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#### REFERENCES

- Alaassar, A., Mention, A. L., & Aas, T. H. (2020). Exploring how social interactions influence regulators and innovators: The case of regulatory sandboxes. *Technological Forecasting and Social Change*, 160(November 2019). <https://doi.org/10.1016/j.techfore.2020.120257>
- Arner, D. W., Buckley, R. P., Zetsche, D. A., & Veidt, R. (2020). Sustainability, FinTech and Financial Inclusion. *European Business Organization Law Review*, 21(1), 7–35. <https://doi.org/10.1007/s40804-020-00183-y>
- Banna, H., Kabir Hassan, M., & Rashid, M. (2021). Fintech-based financial inclusion and bank risk-taking: Evidence from OIC countries. *Journal of International Financial Markets, Institutions and Money*, 75(February), 101447. <https://doi.org/10.1016/j.intfin.2021.101447>
- Banna, H., Mia, M. A., Nourani, M., & Yarovaya, L. (2022). Fintech-based Financial Inclusion and Risk-taking of Microfinance Institutions (MFIs): Evidence from Sub-Saharan Africa. *Finance Research Letters*, 45(May 2021), 102149. <https://doi.org/10.1016/j.frl.2021.102149>
- Efimov, E., Koroleva, E., & Sukhinina, A. (2021). Competitiveness in the FinTech Sector: Case of Russia. *International Journal of Technology*, 12(7), 1488–1497. <https://doi.org/10.14716/IJTECH.V12I7.5342>
- Hadi, D. P., Adi, P. H., Arintoko, & Ahmad, A. A. (2023). The Impact of the Omnibus Law Cipta Kerja on the Sustainability of MSMEs and Economic Growth by Applying the Canvas Model Business Method and the Use of Financial Technology, Especially Crowdfunding and Microfinance. *International Journal of Sustainable Development and Planning*, 18(2), 505–513. <https://doi.org/10.18280/ijstdp.180219>
- Hornuf, L., & Haddad, C. (2019). The Emergence of the Global Fintech Market: Economic and Technological Determinants Christian Haddad The Emergence of the Global Fintech Market :

- Economic and Technological Determinants Abstract. *Small Business Economics*, 53, 81–105.
- Marjudi, S., Setik, R., Ahmad, R. M. T. R. L., Hassan, W. A. W., & Kassim, A. A. M. (2023). Utilization of Business Analytics by SMEs in Halal Supply Chain Management Transactions. *International Journal on Informatics Visualization*, 7(2), 407–415. <https://doi.org/10.30630/joiv.7.2.1308>
- Okfalisa, Mahyarni, Anggraini, W., Saeed, F., Moshood, T. D., & Saktioto. (2022). Quadruple Helix Engagement: Reviews on Syariah Fintech Based SMEs Digitalization Readiness. *Indonesian Journal of Electrical Engineering and Informatics*, 10(1), 112–122. <https://doi.org/10.52549/ijeei.v10i1.3455>
- Pantos, S. (2023). Designing Stress Tests for UK Fast-Growing Firms and Fintech. *Risks*, 11(2). <https://doi.org/10.3390/risks11020031>
- Putri, W. H., Nurwiyanta, N., Sungkono, S., & Wahyuningsih, T. (2019). The emerging fintech and financial slack on corporate financial performance. *Investment Management and Financial Innovations*, 16(2), 348–354. [https://doi.org/10.21511/imfi.16\(2\).2019.29](https://doi.org/10.21511/imfi.16(2).2019.29)
- Rahadjeng, E. R., Pratikto, H., Mukhlis, I., Restuningdiah, N., & Mala, I. K. (2023). The impact of financial literacy, financial technology, and financial inclusion on SME business performance in Malang Raya, Indonesia. *Journal of Social Economics Research*, 10(4), 146–160. <https://doi.org/10.18488/35.v10i4.3509>
- Thi, L., Nguyen, P., Kalabeke, W., Muthaiyah, S., Cheng, M. Y., Hui, K. J., Mohamed, H., Kim, D., Suryono, R. R., & Nam, R. J. (2021). *P2P lending platforms in Malaysia: What do we know? [version 3; peer review: 1 approved, 2 approved with reservations]*. 1–26. <https://doi.org/10.12688/f1000research.73410.1>
- Yang, X., Yang, J., Hou, Y., Li, S., & Sun, S. (2023). Gamification of mobile wallet as an unconventional innovation for promoting Fintech: An fsQCA approach. *Journal of Business Research*, 155(PA), 113406. <https://doi.org/10.1016/j.jbusres.2022.113406>
- Ye, Y., Chen, S., & Li, C. (2022). Financial technology as a driver of poverty alleviation in China: Evidence from an innovative regression approach. *Journal of Innovation and Knowledge*, 7(1), 100164. <https://doi.org/10.1016/j.jik.2022.100164>