



TECHNOLOGY-BASED SOP DEVELOPMENT FOR TRANSPARENT VILLAGE APPARATUS SELECTION: ADVANCING GOOD GOVERNANCE IN KLAMPOK, MALANG, EAST JAVA, INDONESIA

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ABSTRACT

Phenomenon/Issue:

Issues surrounding transparency, efficiency, and professionalism within the recruitment of village officials remain a persistent national challenge, often obstructing the realization of good governance. Such complications typically stem from the absence of Standard Operating Procedure (SOP) and the underutilization of technology in selection processes, which frequently trigger social friction and public skepticism regarding the integrity of election outcomes.

Purpose:

This study aims to develop a comprehensive SOP and a digital-based selection instrument that incorporates Computer-Based Testing (CBT) into the recruitment framework.

Novelty:

The primary novelty of this research lies in the integration of Computer-Based Testing (CBT) within a comprehensive digital SOP framework, covering the entire spectrum from registration to the real-time announcement of results

Research Methods:

This study employs a Research and Development (R&D) design, adopting the systematic developmental phases established by Borg & Gall

Results:

This research culminates in three distinct outputs: (1) a digital-based SOP for village official selection, (2) a CBT-integrated selection instrument, and (3) Intellectual Property Rights (IPR) certification pertaining to the newly established SOP.

Research Contributions:

This research contributes to the enrichment of public management literature, particularly regarding digital innovation in the implementation of local governance selection processes.

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INTRODUCTION

The recruitment of village officials serves as a foundational step toward establishing robust good governance at the local level. By ensuring that selection processes remain accountable, transparent, and democratic, village administrations can secure personnel who possess high levels of competence, integrity, and dedication qualities that are ultimately instrumental in driving village advancement. Indeed, the cornerstone of effective governance is fundamentally rooted in the quality of its human resources (Alamsyah et al., 2023; Hidir et al., 2021).

Nevertheless, concerns regarding integrity and professionalism in the recruitment of village officials continue to draw significant scrutiny across various regions. Central to these issues is the emergence of structured cronyism and nepotism (Rini et al., 2025; Satispi et al., 2025), conditions which inevitably foster social instability and public grievance. Such challenges were notably evident in Klampok Village, Singosari, which previously relied on conventional selection methods. The utilization of paper-based testing in these examinations carries inherent risks, including data manipulation, question leakages, and a lack of real-time result dissemination (Dewi et al., 2023; Ra et al., 2022). Furthermore, when selection processes are characterized by opaque transparency, ambiguous assessment parameters, and high levels of committee subjectivity, they frequently culminate in societal dissatisfaction and the heightened potential for horizontal conflict (Afrizal et al., 2022)

To address these systemic issues, this study proposes the development of a digital-based SOP and a technologically integrated selection instrument. This approach aligns with the findings of Sarifudin and Damanik (2024), who argue that the strategic utilization of information technology within public administration significantly bolsters bureaucratic transparency and accountability. The primary novelty of this research lies in the integration of Computer-Based Testing (CBT) within a comprehensive digital SOP framework, covering the entire spectrum from registration to the real-time announcement of results. By implementing this digitalized SOP in the recruitment process at Klampok Village, this study seeks to establish a replicable prototype for open and accountable selection, serving as a model for other rural administrations.

Drawing upon the aforementioned context, this study aims to design and evaluate the validity and effectiveness of a digital-based SOP and recruitment instrument for village officials. Theoretically, this research contributes to the enrichment of public management literature, particularly regarding digital innovation in the implementation of local governance selection processes. From a practical standpoint, these findings serve as a strategic reference to accelerate digital transformation, specifically in streamlining recruitment to bolster professionalism, transparency, and accountability, key pillars in the pursuit of sustainable good governance.

LITERATURE REVIEW

Standard Operating Procedures (SOPs) in Village Governance

SOPs constitute a formal set of guidelines that serve as a fundamental benchmark for government apparatus in executing their roles and responsibilities with systematic consistency. Within the sphere of village administration, SOPs function as a critical mechanism to ensure that all administrative activities and public services are conducted in strict adherence to regulatory frameworks, maintaining transparency and fostering institutional accountability.

The implementation of SOPs within village administrations serves as a pivotal foundation for establishing professional and efficient governance systems. By providing a structured framework, these procedures mitigate the risk of overlapping authorities and streamline administrative decision-making

processes. Furthermore, the presence of clear operational guidelines ensures that institutional activities remain evaluable against measurable performance indicators (Albadry et al., 2024; Ra et al., 2022).

Beyond their operational utility, SOPs also fulfill a legal function by providing procedural certainty throughout every stage of village administration, including the recruitment of officials (Albadry et al., 2024; Ansari et al., 2025). Consequently, the adoption of these procedures transcends mere managerial necessity; it represents a concrete manifestation of public accountability principles in action.

The Integration of Technology in Village Administration and Personnel Selection

Digital transformation within village administrations has emerged as a fundamental necessity in the modern era. The strategic implementation of information technology enables public services and administrative functions to operate with greater speed, efficiency, and transparency (Anwar et al., 2025; Sarifudin & Damanik, 2024). Moreover, the integration of IT into public administration frameworks significantly bolsters bureaucratic accountability while minimizing opacity (Ali & Saputra, 2020). Digital systems, such as Computer-Based Testing (CBT), integrated databases, and public information portals, possess the capacity to mitigate data manipulation risks and streamline institutional decision-making (Dewi et al., 2023).

In line with this perspective, Ali and Saputra (2020) elucidate that bureaucratic digitalization at the village level enhances the capacity of local officials in public service delivery, strengthens public trust, and fosters a system that is inherently open to social oversight. Within the specific context of official recruitment, the implementation of technology-driven systems does more than merely expedite the selection process; it actively cultivates a perception of fairness among the citizenry (Satispi et al., 2025).

Principles of Good Governance in Village Administration

The application of good governance principles within village administration underscores the critical importance of transparency, accountability, community participation, and administrative effectiveness. Achieving good governance at the grassroots level necessitates that every governmental process be supported by robust control mechanisms and a clear framework for public information disclosure (Afrizal et al., 2022).

Furthermore, the professionalism of village officials serves as a decisive factor in the actualization of good governance. Personnel who possess high levels of competence and a profound understanding of regulatory frameworks are better equipped to deliver public services that are both responsive and responsible (Anwar et al., 2025).

Within the scope of the developmental research conducted in Klampok Village, the implementation of SOPs and technology-integrated selection systems represents a concrete endeavor to actualize good governance at the local level. This approach is consistent with prior studies suggesting that digital systems facilitate the creation of selection mechanisms that are objective, equitable, and subject to direct public oversight (Al-hakim et al., 2025; Anwar et al., 2025).

METHOD

This study employs a Research and Development (R&D) design, specifically aimed at producing a standardized operating procedure (SOP) and a digital-based instrument for the recruitment of village officials. This research adopts the developmental framework established by Borg & Gall, selected for its robust capacity to validate research findings for practical field implementation (Creswell & Creswell, 2018). While Borg & Gall originally proposed a ten-stage model, this study strategically adapts five key stages without compromising the quality of the final output. These five stages include: preliminary

study and information gathering, planning and draft development, expert validation and subsequent revision, field testing, and finally, dissemination.

The preliminary study and information-gathering phase were conducted through observations and interviews with active village officials and former members of the recruitment committee. These activities aimed to identify the shortcomings of previous selection processes while simultaneously exploring potential organizational strengths. The subsequent stage involved the development phase, where the researchers designed an SOP that CBT into the selection framework. The developmental focus centered on enhancing transparency, automated grading, data security, and accessibility for candidates. Notably, the administrative screening process utilized a dual-verification system, combining digital submission with manual verification, to ensure the authenticity of the candidates' credentials. Once finalized, the initial prototype underwent expert verification followed by limited-scale testing prior to its full-scale field implementation.

The subjects of this study comprise two primary groups: expert validators and prospective users. The expert validation team includes legal specialists with expertise in public governance to ensure the SOP's alignment with existing regulatory frameworks. The second group consists of IT experts, tasked with ensuring the technical feasibility and seamless implementation of the designed system. For the limited-scale testing phase, the study involved active village officials and members of the recruitment committee. The research instruments employed include Likert scales for quantitative assessment, observation sheets to document technical constraints, and interview guides aimed at gathering qualitative feedback for the final refinement of the product.

Data analysis was conducted using both descriptive quantitative and qualitative techniques. Quantitative data obtained from the legal and IT expert validators were analyzed using percentage formulas, with a minimum eligibility threshold set at 90%. Meanwhile, qualitative data derived from expert feedback and trial subjects were analyzed narratively to facilitate iterative refinements of the existing prototype. This dual-analysis approach ensures that the final digital-based SOP and recruitment instruments are reliable and robust in supporting the achievement of good governance.

RESULTS AND DISCUSSIONS

The results of the preliminary study indicate that previous recruitment processes for village officials relied heavily on conventional paper-based testing. Field findings revealed several critical shortcomings within this legacy model, including protracted grading periods, insufficient transparency regarding results, and a resultant lack of public confidence in the final outcomes. Significantly, the primary weakness identified was not the quality of the examination content itself, but rather the integrity and transparency of the evaluation process. Consequently, the development and implementation of SOPs and digital-based selection instruments designed to minimize human intervention have emerged as an urgent necessity. This is consistent with prior research emphasizing that such frameworks serve as a vital foundation for establishing professional and efficient governance systems (Albadry et al., 2024; Ra et al., 2022). Ultimately, the goal of this implementation is to preempt potential broader conflicts and serve as a strategic effort to enhance good governance.

The validation results from both public governance and IT experts demonstrate exceptionally high scores. The public governance validator assigned a score of 95%, signifying that the SOP workflows are fully aligned with existing statutory regulations. Similarly, the IT expert provided a score of 93%, indicating that the technology is highly feasible for seamless implementation. A notable recommendation for improvement from the IT expert pertained to the simplification of the User Interface (UI) to ensure greater adaptability for candidates from diverse educational backgrounds. Nevertheless, the scores provided by both expert validators confirm that the resulting digital-based

SOPs and recruitment instruments possess superior quality and are strictly consistent with the principles of good governance.

The field testing results further demonstrate that the implementation of these digital-based SOPs and instruments significantly bolsters the transparency and accountability of the recruitment process. In stark contrast to conventional paper-based testing, which typically requires more than 24 hours to generate candidate scores, the SOPs and instruments developed in this study provide results in real-time while maintaining fully auditable processes. These findings directly address the inherent limitations of paper-based models, specifically their inability to provide instantaneous results, as previously highlighted in the literature (Dewi et al., 2023; Ra et al., 2022).

This research has yielded several integrated outputs: (1) a digital-based SOP for village official recruitment, (2) a CBT-based selection instrument, and (3) Intellectual Property Rights (IPR) for the developed SOP. The operational workflow of the SOP involves three primary stakeholders: the village administration, the applicants (candidates), and the selection committee. The process commences with the Village Head issuing a formal decree to appoint the selection committee. Upon receiving this mandate, the committee identifies relevant regulations and prepares the necessary requirements, registration formats, and examination materials. Subsequently, the committee disseminates information to the public through official forums, as well as physical and digital channels. Prospective applicants, informed of the timeline, procedures, and requirements, then proceed with online registration and document submission. These digital submissions undergo a verification process by the committee to ensure both completeness and regulatory compliance. Candidates who pass the online administrative screening are announced and requested to submit physical documents for further validation. Conversely, those who fail to meet the requirements are disqualified and are unable to proceed to the subsequent stages of the selection process.

The committee also conducts physical document verification to guarantee the authenticity of the required credentials. Only candidates who pass this stage are summoned to participate in the CBT-based selection and subsequent interviews. While the CBT results are recorded automatically and in real-time, the interview process is utilized to explore the candidates' potential, commitment, and knowledge regarding the demands and responsibilities of the office. These results are then compiled for a plenary session conducted by the committee. At this stage, the committee drafts the official minutes of the plenary session, which are then submitted to the village administration. These minutes serve as the formal basis for the Village Head to issue the decree for the final appointment of the selected village officials. Figure 1 shows the Integrated Digital-Based Village Official Recruitment Workflow.

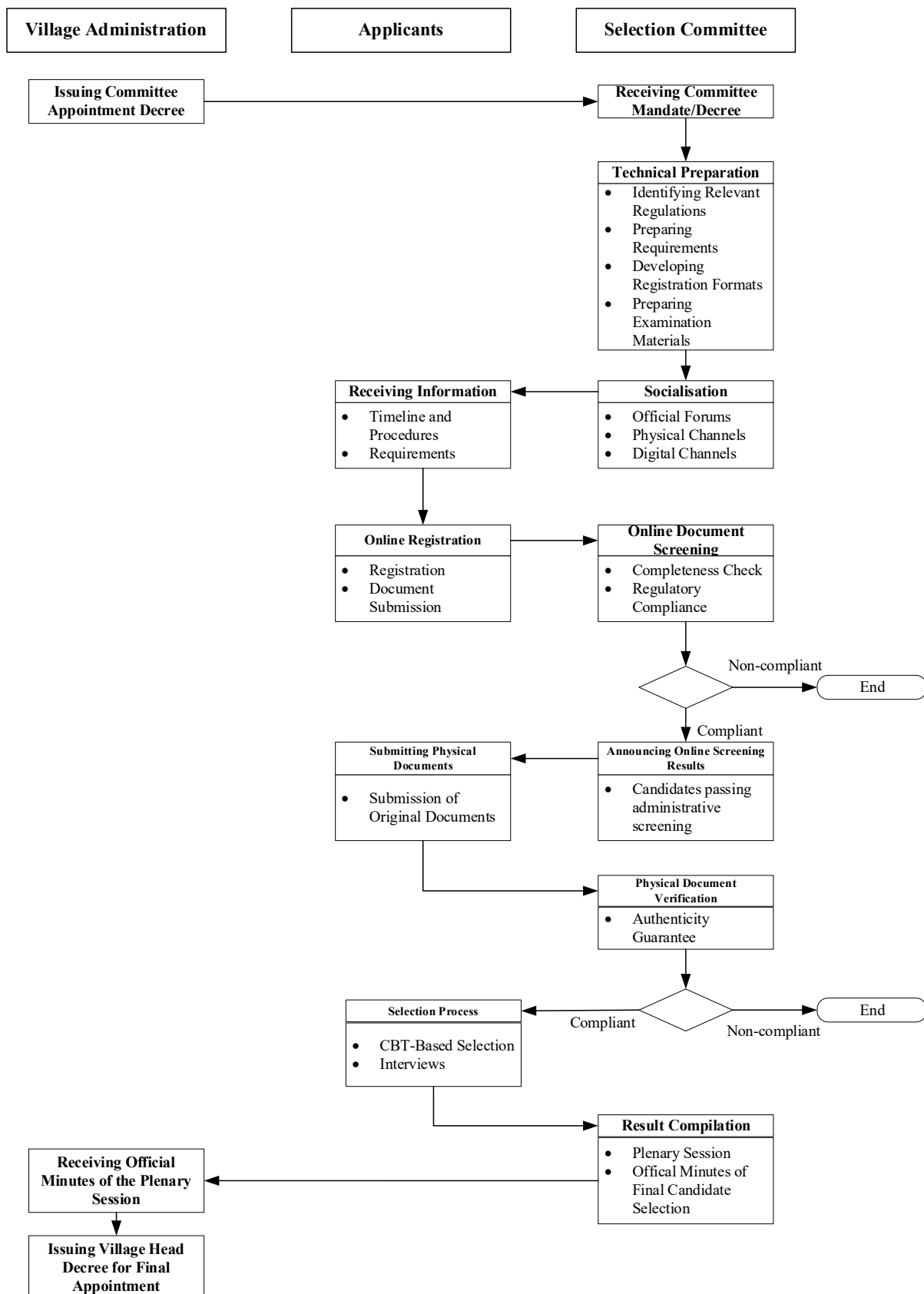


Figure 1. THE INTEGRATED DIGITAL-BASED VILLAGE OFFICIAL RECRUITMENT WORKFLOW.

Theoretically, this research contributes a novel model specifically for digital-based village official recruitment. To date, digital selection processes have largely been implemented at the central government level, seldom reaching the village administration. However, achieving national good governance must begin at the most fundamental level (the village). The successful implementation of digital-based recruitment in Klampok Village, Singosari, demonstrates that technological constraints can be overcome through structured guidance and mentoring. Nonetheless, this study acknowledges limitations regarding the current state of computer infrastructure and internet connectivity. Consequently, the practical implication for village administrations is the necessity to provide adequate digital infrastructure to support the implementation of digital recruitment models, thereby fostering an accountable and professional bureaucracy.

CONCLUSION

This developmental research has successfully formulated the pivotal role of digital transformation within village administration, specifically through a technology-based recruitment system for village officials. The SOP, which integrates CBT, has effectively enhanced procedural accountability and the transparency of results in real-time. This process has succeeded in reducing human intervention and minimizing personal subjectivity in candidate selection addressing a long-standing negative national issue. The high validation scores from both public governance and IT experts confirm that the outputs of this study are highly feasible for supporting good governance. Ultimately, the successful implementation of this model demonstrates that digitalization in village administration is not merely a technical upgrade, but a fundamental systemic shift that adopts digital technology to achieve good governance and restore public trust in village leadership.

Based on the research findings, several strategic recommendations are proposed: First, the village administration should formalize the digital-based SOP and recruitment instruments into a Village Regulation to provide a robust legal foundation for all future recruitment cycles. Second, subsequent research should consider integrating population data systems into the digital recruitment platform and expand field testing to villages with diverse levels of digital infrastructure. Third, to ensure the long-term sustainability of digital-based SOPs, it is imperative to provide structured digital literacy mentoring and technical training for both current village officials and future recruitment committees.

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