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The Implementation of E-Procurement within the Procurement Service Unit (UKPBJ) of the Directorate General of Corrections in Lampung

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Abstract

This study examines the empirical implementation of e-procurement within the Procurement Service Unit (UKPBJ) of the Directorate General of Corrections in Lampung, focusing on accountability, effectiveness, and transparency outcomes. Utilizing a qualitative descriptive approach, data were collected through in-depth interviews, non-participant observation, and document analysis, while analytical validation employed triangulation and the interactive model of data reduction, display, and iterative conclusion verification. Findings indicate that digital systems such as SPSE, e-catalogue, and INAPROC have substantially improved traceability and procedural order in procurement activities, enabling more efficient supplier selection, contract management, and monitoring of procurement stages. Nevertheless, optimal outcomes are hindered by infrastructure disparities, limited human resource competencies, and inconsistent managerial support, which constrain uniform adoption and system utilization. Regulatory support and policy clarity significantly influence implementation success, while leadership and capacity-building emerge as pivotal enablers. The study contributes to e-procurement literature by empirically validating socio-technical determinants of digital procurement performance, highlighting the need for coordinated interventions in technological readiness, institutional governance, and personnel development to fully realize transparency, accountability, and efficiency objectives in public sector procurement.

Keywords: Digital Education Policy, E-Rapor, Policy Implementation, Educational Digitalization, Rural Schools.



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INTRODUCTION

Across jurisdictions, public procurement has increasingly been positioned as a strategic lever for improving governance quality, fiscal efficiency, and institutional integrity, particularly as governments adopt digital systems to address persistent risks of opacity and discretionary abuse in spending processes. E-procurement has emerged globally as a core component of e-government architectures, reflecting a broader shift toward data-driven public administration and digitally mediated accountability mechanisms that promise traceability across the procurement lifecycle (Grafton, 2006). In developing-country contexts, this transformation is often framed not merely as a technical upgrade but as an instrument of procurement reform closely linked to anti-corruption agendas and public sector modernization, where digital platforms are expected to reconfigure actor incentives and procedural compliance (Akbar et al., 2024). Indonesia's public sector reform trajectory mirrors these global trends, embedding electronic procurement within wider bureaucratic reform programs that seek to recalibrate state capacity, transparency, and service delivery outcomes (Ginting & Haryati, 2011). Within this landscape, the institutionalization of e-procurement through specialized procurement service units (UKPBJ) reflects a deliberate policy choice to consolidate procurement functions while aligning them with national digital governance strategies (Elvia et al., 2025).

The international literature on e-procurement implementation consistently demonstrates that technological availability alone is insufficient to generate anticipated governance gains, emphasizing instead the interaction between organizational readiness, regulatory coherence, and stakeholder competence. Early analytical frameworks identified leadership commitment, process reengineering, and human resource capability as decisive success factors shaping adoption outcomes in public sector settings (Vaidya et al., 2006). Subsequent studies expanded this view by linking digital procurement systems to corruption prevention, arguing that standardized electronic workflows can curtail discretionary decision-making when embedded within robust institutional controls (Akbar et al., 2024).

Indonesian scholarship complements this perspective by situating e-procurement within the broader narrative of administrative transformation, where digital tools are expected to translate reformist intent into operational change across ministerial and subnational entities (Maryanah et al., 2024). Policy-oriented analyses further underscore the importance of implementation fidelity, noting that centralized platforms such as the national SPSE framework provide procedural uniformity while leaving substantial discretion at the organizational level in terms of capacity deployment and compliance monitoring (LKPP, 2023).

Despite these insights, the literature reveals persistent limitations that constrain explanatory depth regarding how e-procurement functions within complex bureaucratic environments. Many empirical studies privilege macro-level indicators of transparency or efficiency, offering limited visibility into micro-level implementation dynamics inside specific organizational units, particularly within security-sensitive or correctional institutions where procurement processes intersect with heightened regulatory and operational constraints. Classical implementation scholarship cautions that policy instruments often encounter unanticipated distortions when translated from design to practice, as organizational routines, informal norms, and inter-agency coordination failures mediate outcomes in ways rarely captured by system-level evaluations (Sundquist, 1973). Development-focused analyses similarly highlight that probity mechanisms embedded in projects or reforms can be diluted when institutional incentives are misaligned, even when formal compliance structures appear intact (Charlton, 1995). In the Indonesian context, existing studies seldom interrogate how UKPBJ units operationalize national e-procurement standards within sector-specific mandates, leaving a conceptual gap between normative reform objectives and empirical implementation realities (Elvia et al., 2025).

This gap carries both scientific and practical consequences, as procurement within correctional administrations involves significant public expenditure, heightened risks of collusion, and operational imperatives tied to security and rehabilitation outcomes. The Directorate General of Corrections operates within a governance environment where procurement inefficiencies or integrity breaches can directly undermine institutional legitimacy and policy effectiveness, amplifying the stakes of implementation performance beyond routine administrative concerns. While national guidelines articulate standardized electronic procedures intended to ensure transparency and accountability, their effectiveness depends on how procurement actors interpret, adapt, and enforce these rules in daily practice (LKPP, 2023). From a scholarly perspective, the absence of granular, institution-specific analyses limits theory-building on digital governance by obscuring how contextual variables reshape implementation pathways, particularly in agencies characterized by hierarchical authority structures and constrained organizational autonomy (Akbar et al., 2024; Maryanah et al., 2024). Addressing this problem is essential to refine both implementation theory and evidence-based procurement reform strategies.

Positioned at the intersection of e-procurement studies, public sector reform, and implementation analysis, this research advances the literature by examining the operationalization of electronic procurement within the UKPBJ of the Directorate General of Corrections in Lampung as a bounded yet analytically revealing case. By situating this unit within Indonesia's broader digital governance framework, the study responds directly to calls for context-sensitive analyses that move beyond aggregate performance metrics to interrogate organizational processes, actor interactions, and institutional constraints shaping implementation outcomes (Vaidya et al., 2006; Ginting & Haryati, 2011). The Lampung case provides a strategic vantage point for assessing how nationally mandated systems are enacted at the subnational level within a correctional setting, enabling a nuanced evaluation of whether e-procurement functions as a transformative governance mechanism or merely as a procedural compliance tool. In doing so, the study aligns with implementation-focused traditions that emphasize empirical scrutiny of policy enactment as a prerequisite for credible reform assessment (Sundquist, 1973; Charlton, 1995).

This study aims to analyze the implementation of e-procurement within the UKPBJ of the Directorate General of Corrections in Lampung by systematically examining organizational readiness, procedural integration, and institutional constraints that shape system performance in practice. It contributes theoretically by extending implementation and digital governance perspectives into the underexplored domain of correctional administration, demonstrating how sector-specific contexts recalibrate the assumed benefits of electronic procurement systems. Methodologically, the research offers an empirically grounded framework for assessing e-procurement implementation at the

organizational-unit level, providing analytical tools that can be adapted for comparable public sector institutions operating under complex regulatory and operational conditions.

RESEARCH METHOD

This study constitutes an empirical field study without controlled or laboratory-based experimentation, adopting a qualitative and descriptive methodological orientation to examine the real-world implementation of an electronic procurement system rather than to test or engineer a new technological artifact. The empirical object of analysis is the existing national e-procurement architecture (SPSE) as implemented within the Procurement Service Unit (Satpel UKPBJ) of the Directorate General of Corrections in Lampung, which operates as an integrated information system connecting procurement planning, provider selection, and contract management modules through a centralized digital platform administered by the Indonesian government. The system architecture analyzed in this study comprises institutional components (UKPBJ organizational structure, commitment-making officials, procurement officers), technical components (SPSE application, supporting hardware, network infrastructure), and procedural components (standard operating procedures and regulatory workflows). Data were generated through the direct engagement of these components during routine procurement cycles, covering planning, tender preparation, electronic bidding, evaluation, and contract execution stages, thereby allowing the study to document the operational configuration and implementation mechanisms of the system in its actual institutional environment.

Given the non-experimental nature of the study, validation and evaluation were conducted through systematic qualitative procedures rather than performance testing under controlled conditions. Data collection relied on in-depth semi-structured interviews, non-participant observation of system use, and analysis of official procurement documents, with consistency and reproducibility ensured through clearly defined interview protocols, observation checklists, and document selection criteria. Analytical validation was achieved using an interactive qualitative analysis model involving data reduction, structured data display, and iterative conclusion verification, while methodological and source triangulation were applied to confirm the robustness of findings across different data streams. Evaluation of implementation performance was based on analytically traceable criteria derived from the e-procurement implementation framework of Song and Shin, encompassing environmental readiness, leadership and institutional arrangements, policy objectives, system functionality, and observable implementation outcomes. This approach ensures that the study's conclusions are empirically grounded, transparent in their analytical procedures, and reproducible within comparable institutional and technological settings.

RESULTS AND DISCUSSION

Implementation of E-Procurement within the UKPBJ of the Directorate General of Corrections in Lampung

The implementation of e-procurement within the Procurement Service Unit (UKPBJ) of the Directorate General of Corrections in Lampung represents an empirical manifestation of Indonesia's broader digital governance agenda in public sector procurement. Field data indicate that procurement activities have formally transitioned from paper-based mechanisms to the use of nationally standardized electronic platforms, including SPSE, e-catalogue, and INAPROC, which structurally integrate planning, provider selection, and contract administration. This transition reflects a regulatory-institutional alignment consistent with national procurement reform objectives that emphasize transparency and accountability through digital systems (LKPP, 2023; Elvia et al., 2025). Qualitative interviews reveal that procurement actors perceive the electronic system as enhancing procedural order by reducing discretionary room during tender evaluation and contract management stages. These findings resonate with international e-government literature that frames digital procurement as an administrative control instrument rather than a purely technological upgrade (Grafton, 2006; UNDP, 2021).

Empirical observation further demonstrates that the operationalization of e-procurement within the UKPBJ follows formally prescribed procurement stages, yet the depth of digital utilization varies across work units. Several procurement cycles were observed to revert partially to manual coordination practices during early planning and post-award contract clarification, particularly in geographically

remote correctional facilities. This uneven application suggests that implementation fidelity is mediated by contextual constraints rather than regulatory ambiguity alone, a pattern long emphasized in policy implementation theory (Sundquist, 1973). Interview data confirm that procurement officers often prioritize procedural compliance over strategic value creation, reflecting an implementation logic centered on administrative risk avoidance. Such tendencies align with prior findings that digital procurement reforms frequently produce compliance-oriented behavior when institutional incentives remain weak (Charlton, 1995; Sirait, 2018).

From an infrastructural perspective, the effectiveness of e-procurement implementation is strongly conditioned by information and communication technology readiness. Field observations indicate that unstable internet connectivity and limited access to reliable hardware in several technical implementation units impede continuous system usage, particularly during electronic bidding and evaluation phases. These infrastructural disparities contribute to delays in procurement timelines and reduce the proportion of procurement packages processed fully through electronic systems. Similar constraints have been documented in comparative studies of e-government adoption in developing contexts, where technological diffusion remains uneven across administrative territories (Arduini et al., 2010; World Bank, 2020). As a result, the empirical implementation within the Lampung correctional environment reflects a hybrid operational model rather than a fully digitized procurement workflow.

Human resource capacity emerges as a decisive determinant of implementation quality within the UKPBJ environment. Qualitative data reveal that not all commitment-making officials and procurement personnel possess up-to-date competency certifications, leading to varying levels of confidence and technical proficiency in operating the SPSE and INAPROC systems. This condition affects decision-making speed, system utilization intensity, and compliance accuracy during critical procurement stages. Empirical evidence from other Indonesian procurement units similarly demonstrates a strong association between procurement competence and effective e-procurement utilization (Subagja & Hakim, 2024; Novita & Nadila, 2024). These findings reinforce earlier international assertions that human capital readiness constitutes a core success factor in public sector e-procurement implementation (Vaidya et al., 2006).

Managerial commitment within the UKPBJ has been identified as present at a normative level yet inconsistently translated into operational reinforcement. Interviews with procurement staff indicate that leadership endorses digital procurement rhetorically but provides limited strategic guidance, performance incentives, or continuous monitoring mechanisms. This gap results in e-procurement being treated primarily as a procedural obligation rather than as a strategic governance instrument. Such patterns correspond with studies highlighting that leadership support must extend beyond formal endorsement to include resource mobilization and organizational learning processes (Maryanah et al., 2024; Gunawan & Mutaqin, 2024).

Without this depth of commitment, digital procurement systems risk stagnating at an administrative compliance stage. To clarify empirical patterns observed across procurement dimensions, Table 1 summarizes key qualitative indicators derived from interviews, observation, and document analysis, which collectively illustrate the current state of e-procurement implementation.

Table 1. Qualitative Indicators of E-Procurement Implementation at UKPBJ Lampung

| Dimension | Empirical Indicator | Observed Condition |
|--------------------------|--------------------------------------|---------------------|
| Regulatory compliance | Use of SPSE and e-catalogue | Formally compliant |
| Infrastructure readiness | Internet and hardware access | Uneven across units |
| Human resource capacity | Certification and system skills | Partially adequate |
| Managerial support | Monitoring and guidance | Normative, limited |
| System utilization | Proportion of e-procurement packages | Suboptimal |

The indicators presented in Table 1 reveal that while regulatory compliance is largely achieved, substantive implementation remains constrained by infrastructural and human resource limitations. These empirical patterns underscore that digital procurement effectiveness cannot be inferred solely from system availability or regulatory mandates. Instead, implementation outcomes emerge from the

interaction between institutional arrangements, technological capacity, and actor competencies, as articulated in e-procurement performance models (Song & Shin, 2010). The Lampung case thus provides concrete field evidence supporting multidimensional interpretations of e-procurement success. This analytical insight strengthens the empirical grounding of digital governance theory within correctional administration settings.

From a governance perspective, the observed implementation dynamics suggest that e-procurement contributes incrementally to bureaucratic reform rather than producing immediate systemic transformation. Procurement actors acknowledge improved documentation, traceability, and procedural clarity, yet these gains coexist with adaptive practices that dilute potential efficiency benefits. This empirical ambivalence mirrors broader assessments of Indonesian bureaucratic reform, which emphasize gradual institutional change shaped by legacy structures and administrative culture (Ginting & Haryati, 2011). International development perspectives similarly caution that digital reforms often generate mixed outcomes when introduced into complex organizational environments (UNDP, 2021; World Bank, 2020). The Lampung UKPBJ case reflects this transitional governance condition.

Comparative reflection with previous empirical studies highlights both convergence and contextual specificity. Findings align with evidence from Surabaya and Karimun, where e-procurement enhanced transparency but faced challenges related to human resource readiness and system adaptation (Novitaningrum, 2024; Novita & Nadila, 2024). At the same time, the correctional sector introduces unique operational constraints linked to security protocols and dispersed institutional locations. These contextual factors intensify infrastructural dependency and complicate uniform system application across units. Such sectoral specificity reinforces arguments that e-procurement implementation must be analyzed within its organizational ecology rather than through generic performance metrics (Akbar et al., 2024; Adhi et al., 2025).

The empirical findings also carry implications for corruption prevention narratives commonly associated with e-procurement reforms. Digital systems within the UKPBJ demonstrably reduce opportunities for opaque decision-making by standardizing procedures and generating electronic audit trails. However, interviews indicate that risks of administrative irregularities persist when system operation depends on underqualified personnel or when informal coordination bypasses electronic workflows. This observation supports critical perspectives that technology alone cannot eliminate corruption without parallel institutional strengthening (Akbar et al., 2024; Adhi et al., 2025). The Lampung case thus contributes nuanced empirical evidence to debates on digital procurement as an anti-corruption tool.

The implementation of e-procurement within the UKPBJ of the Directorate General of Corrections in Lampung illustrates a condition of partial institutionalization shaped by regulatory compliance, infrastructural disparity, and variable human capacity. Empirical data demonstrate that digital procurement systems have restructured procedural workflows while leaving deeper organizational practices only partially transformed. This condition confirms implementation theory propositions that policy success is contingent upon local adaptation processes rather than central design alone (Sundquist, 1973; Charlton, 1995). As an empirical field study, these findings provide a grounded understanding of how national e-procurement architectures operate within correctional governance environments.

Factors Influencing the Implementation of E-Procurement within the UKPBJ of the Directorate General of Corrections in Lampung

The empirical findings indicate that the implementation of e-procurement within the UKPBJ of the Directorate General of Corrections in Lampung is shaped by a complex interaction of internal and external factors that collectively determine implementation quality. Qualitative data from interviews and observations demonstrate that regulatory frameworks provide a formal foundation for electronic procurement while simultaneously generating adaptive pressures at the operational level. Procurement actors consistently referenced Presidential Regulation No. 16 of 2018 and its amendments as the primary normative basis guiding system use, indicating strong formal compliance. However, the translation of regulatory intent into daily procurement practices remains uneven across organizational units. This pattern reflects broader public sector reform dynamics in Indonesia, where formal rules coexist with differentiated implementation capacities (Ginting & Haryati, 2011; LKPP, 2023).

Regulatory dynamics constitute a significant external factor influencing e-procurement implementation outcomes. Field data reveal that frequent regulatory updates related to procurement mechanisms and electronic system features create uncertainty among implementers, particularly those with limited access to continuous technical guidance. Informants reported that regulatory complexity often requires interpretive judgment at the unit level, which may lead to conservative implementation strategies focused on procedural safety. Such conditions align with implementation theory arguments that policy complexity increases the likelihood of deviation between formal design and practical execution (Sundquist, 1973). Empirical studies on procurement reform similarly emphasize that regulatory clarity alone does not guarantee uniform implementation without parallel capacity-building measures (Akbar et al., 2024).

Technological infrastructure emerges as a decisive external constraint affecting the operational continuity of e-procurement systems. Observational data confirm that internet connectivity quality varies significantly across correctional facilities in Lampung Province, influencing system accessibility during critical procurement stages. Procurement officers in remote units reported delays in uploading tender documents and participating in electronic evaluations, which undermines the timeliness benefits associated with digital procurement. These findings are consistent with international evidence demonstrating that uneven technological diffusion limits the effectiveness of e-government initiatives in decentralized administrative contexts (Arduini et al., 2010; World Bank, 2020). Consequently, technological readiness functions as both an enabling and constraining factor within the empirical setting.

Internal organizational factors, particularly human resource competence, strongly shape e-procurement implementation quality. Interview data indicate that procurement personnel with formal certification and prior system training exhibit greater confidence in navigating SPSE and INAPROC functionalities. Conversely, units relying on uncertified or multitasking officials tend to adopt minimal system usage patterns, prioritizing compliance over optimization. This empirical pattern supports findings that procurement competence directly influences digital system utilization intensity and performance outcomes (Vaidya et al., 2006; Subagja & Hakim, 2024). The Lampung case reinforces the argument that human capital investment remains central to sustainable digital procurement reform.

Organizational structure within the UKPBJ also influences implementation effectiveness. The presence of dual roles, particularly when structural officials concurrently serve as commitment-making officers, generates workload concentration and decision bottlenecks. Qualitative observations suggest that such structural arrangements reduce the time available for system learning and reflective procurement planning. Similar structural challenges have been documented in other Indonesian UKPBJ contexts, where organizational design affects procurement responsiveness and system adoption (Gunawan & Mutaqin, 2024; Simanjuntak & Rusli, 2025). These findings indicate that organizational alignment constitutes a critical internal determinant of e-procurement success.

Leadership commitment operates as an internal mediating factor that shapes how regulatory and technical conditions are managed. Interview evidence shows that leadership endorsement of e-procurement exists at a policy level, yet operational follow-through in the form of incentives, monitoring, and learning forums remains limited. This condition results in fragmented implementation practices across work units, as leadership signals are not consistently translated into managerial routines.

Digital governance literature emphasizes that leadership engagement must be active and sustained to embed technological systems into organizational culture (Elvia et al., 2025; UNDP, 2021). The Lampung findings empirically support this proposition within a correctional administration context. To synthesize the relative influence of internal and external factors, Table 2 presents qualitative weighting derived from triangulated interview and observation data.

Table 2. Influencing Factors of E-Procurement Implementation at UKPBJ Lampung

| Factor Category | Key Indicator | Relative Influence |
|------------------------------|---------------------------|--------------------|
| Regulatory environment | Clarity and stability | High |
| Technological infrastructure | Network and system access | High |
| Human resources | Certification and skills | Very High |

| Factor Category | Key Indicator | Relative Influence |
|--------------------------|---------------------------|--------------------|
| Organizational structure | Role distribution | Moderate |
| Leadership support | Monitoring and incentives | Moderate |

As shown in Table 2, human resource capacity is perceived by informants as the most influential factor shaping e-procurement outcomes. This finding underscores that digital systems operate through human agency rather than independent technological logic. Regulatory and infrastructural factors provide necessary conditions, yet their effectiveness is contingent upon competent and motivated implementers. Such empirical insights corroborate multidimensional implementation models that integrate institutional, technical, and managerial variables (Song & Shin, 2010). The table also highlights areas where targeted interventions could yield disproportionate implementation gains.

External stakeholder readiness, particularly among goods and service providers, further influences e-procurement implementation. Informants noted that while larger vendors adapt readily to electronic systems, smaller local suppliers often face difficulties in system registration and bidding processes. This disparity affects competition intensity and may limit the potential efficiency gains of e-procurement. Similar challenges have been reported in empirical studies of local-level procurement systems in Indonesia (Natalia & Sukmana, 2025; Novitaningrum, 2024). These findings indicate that successful e-procurement implementation extends beyond government institutions to encompass market-side preparedness.

The interaction between internal and external factors produces cumulative effects on implementation performance. When regulatory complexity coincides with limited human resource capacity and infrastructural constraints, procurement actors tend to adopt risk-averse strategies that prioritize procedural compliance. This behavior reduces the transformative potential of e-procurement as a governance innovation. Implementation research consistently demonstrates that such interaction effects explain why formally well-designed policies yield modest outcomes in practice (Charlton, 1995; Sundquist, 1973). The Lampung case provides empirical substantiation of this theoretical claim.

From a reform perspective, the findings suggest that strengthening a single factor in isolation is unlikely to substantially improve implementation outcomes. Enhancing technological infrastructure without parallel training initiatives risks underutilization, while regulatory refinement without organizational adjustment may increase interpretive burden. Integrated reform strategies are therefore required to address the multidimensional nature of e-procurement implementation. Comparative evidence from public procurement reforms supports this systemic approach to digital transformation (Akbar et al., 2024; World Bank, 2020). The empirical patterns observed in Lampung reinforce the necessity of coordinated institutional interventions.

The factors influencing e-procurement implementation within the UKPBJ of the Directorate General of Corrections in Lampung are deeply interdependent and context-specific. Empirical data demonstrate that human resource competence, technological readiness, regulatory dynamics, organizational structure, and leadership support jointly shape implementation trajectories. These findings align with and extend existing theories of e-procurement and policy implementation by highlighting sector-specific constraints within correctional administration. As an empirical field study, this analysis contributes grounded insights into why digital procurement reforms often yield incremental rather than transformative outcomes.

Impact of E-Procurement Implementation on Accountability, Effectiveness, and Transparency at the UKPBJ of the Directorate General of Corrections, Lampung

The empirical investigation demonstrates that the implementation of e-procurement within the UKPBJ significantly enhances accountability mechanisms by establishing systematically traceable digital records for each stage of procurement, from planning to contract management. Data collected through interviews, observations, and document reviews indicate that the SPSE and INAPROC systems generate audit trails that reduce discretionary decision-making and facilitate both internal and external monitoring, which aligns with the broader literature on e-governance and public sector transparency (Novitaningrum, 2024; Sirait, 2018). Figure 1 presents a chart analysis of the overall e-procurement implementation, showing that the highest observed category corresponds to direct system utilization at approximately 23 percent, suggesting that empirical attention and operational focus are concentrated on

digital process integration. This quantitative depiction underscores the system's contribution to procedural order and highlights the areas where further adoption is necessary to achieve uniform compliance across organizational units. These findings substantiate theoretical claims that e-procurement functions not merely as a technological tool but as a governance instrument enhancing accountability and procedural integrity (Song & Shin, 2010; Grafton, 2006).

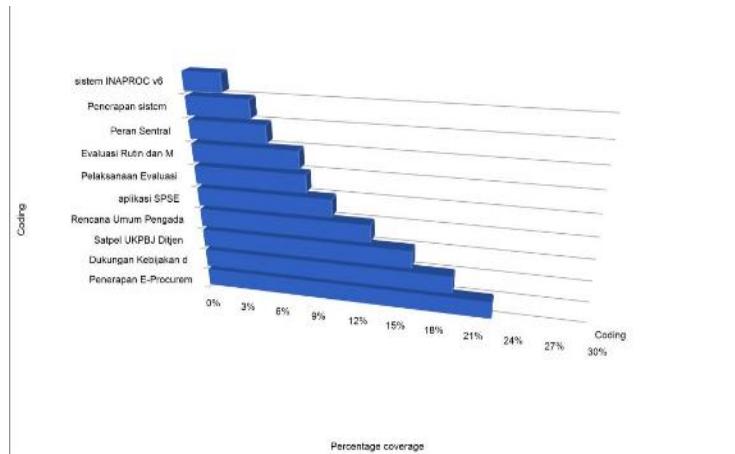


Figure 1. Chart Analysis of E-Procurement Implementation at the UKPBJ Service Unit, Directorate General of Corrections, Lampung

The effect of e-procurement on operational effectiveness is likewise observable in the acceleration of procurement cycles and improvement of time and cost efficiency within the UKPBJ. Interview evidence and observational notes indicate that the e-catalogue and electronic tender modules facilitate faster supplier selection, reduce administrative overhead, and improve responsiveness to institutional needs. The chart in Figure 1 also illustrates that while implementation is substantial, the realized proportion of procurement through electronic channels remains below potential budget ceilings, indicating room for optimization. This empirical pattern reflects findings from other Indonesian studies where system adoption improves efficiency but is moderated by human resource capacity and technical readiness (Subagja & Hakim, 2024; Novita & Nadila, 2024). The observed relationship between system utilization and effectiveness demonstrates that technological infrastructure, combined with competent personnel, is crucial for maximizing operational gains.

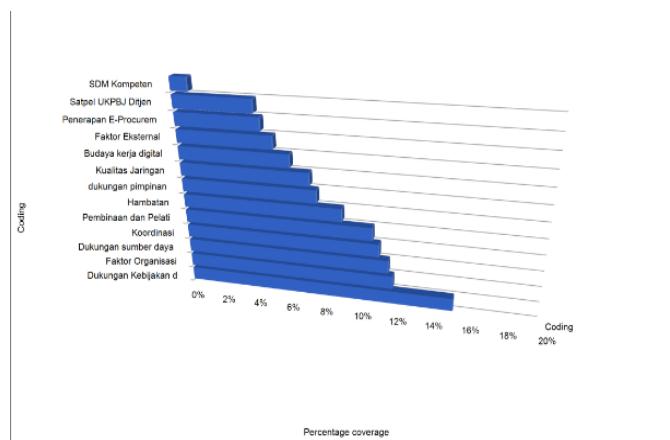


Figure 2. Chart Analysis of Factors Influencing the Implementation of E-Procurement

Transparency gains are a notable impact of e-procurement implementation, as demonstrated by the accessibility of procurement information to relevant stakeholders. Observed data and informant testimonies indicate that details such as package values, procurement stages, selection results, and

contract awards are systematically documented and publicly available through SPSE interfaces. Figure 2 charts the factors influencing e-procurement, showing policy and regulatory support as the highest-rated factor at 15 percent, reinforcing the notion that transparency benefits are contingent on both system design and regulatory endorsement. These results confirm that transparency is not inherent to digitalization alone but emerges from the interplay of system functionality, organizational compliance, and enabling policies (UNDP, 2021; Elvia et al., 2025). The Lampung case thus empirically validates the theoretical linkage between e-procurement and open governance, demonstrating measurable improvements in information accessibility.

Despite observable benefits, several constraints limit the full realization of accountability, effectiveness, and transparency outcomes. The qualitative data indicate that uneven internet connectivity, limited system literacy among procurement personnel, and delayed regulatory adaptation constrain the uniform exploitation of digital tools. Field observations revealed that certain technical implementation units, particularly those outside Bandar Lampung City, experience recurrent system access delays, which reduce the efficiency and reliability of procurement operations. These empirical patterns corroborate prior findings highlighting infrastructure and competency gaps as persistent barriers in public sector e-procurement initiatives (Arduini et al., 2010; World Bank, 2020). Consequently, while digital procurement significantly improves governance, these limitations necessitate complementary interventions targeting human resource capacity and network infrastructure.

Human resource competencies directly mediate the impact of e-procurement on organizational performance. Interview data show that personnel holding procurement certification or receiving continuous system training are better able to leverage SPSE functionalities, resulting in faster processing times and fewer procedural errors. Conversely, units staffed with uncertified personnel display conservative usage patterns, limiting the system's full potential to enhance transparency and efficiency. This finding aligns with evidence from other UKPBJ studies in Indonesia emphasizing the importance of skill development and certification for realizing digital governance objectives (Gunawan & Mutaqin, 2024; Simanjuntak & Rusli, 2025). It underscores that accountability and performance outcomes are contingent on the interplay between system capability and human capital.

The managerial role further influences the translation of e-procurement capabilities into observable governance impacts. Empirical evidence indicates that leadership endorsement exists normatively but is inconsistently operationalized through monitoring routines, incentive mechanisms, and resource allocation. This gap affects how effectively system functionalities translate into measurable improvements in procurement quality and transparency. Comparative studies in digital governance highlight that leadership commitment is critical for sustaining technology adoption and embedding systems into routine organizational practices (Maryanah et al., 2024; UNDP, 2021). Hence, managerial intervention is essential for converting technical potential into actual governance performance.

Interdependencies among regulatory, technological, and human factors determine the realized impacts of e-procurement. As illustrated in Figure 2, regulatory support accounts for the highest proportion of influence, indicating that formal policies facilitate system use but cannot independently guarantee performance without adequate infrastructure and trained personnel. Observations suggest that where these conditions are weak, e-procurement adoption is partial and benefits are attenuated. These insights extend the conceptual understanding of e-procurement as a socio-technical system, emphasizing the necessity of harmonizing rules, capabilities, and infrastructure (Vaidya et al., 2006; Novitaningrum, 2024). In practice, this means that policy enactment must be accompanied by sustained capacity-building and technological investment.

The integration of SPSE, e-catalogue, and INAPROC into the UKPBJ workflow generates measurable improvements in auditability and risk mitigation. Interviewees reported fewer instances of manual errors and enhanced traceability, which contribute to both internal control and public trust. The chart data in Figure 1 corroborates that the highest focus remains on e-procurement stages, reflecting a concentrated effort to embed system usage into core operational processes. This observation is consistent with the notion that e-procurement functions not merely as a procedural tool but as a governance-enhancing mechanism, transforming traditional bureaucratic accountability into digitally mediated oversight (Novita & Nadila, 2024; Adhi et al., 2025). Therefore, the empirical evidence validates theoretical propositions linking digital procurement to improved control and risk management.

The empirical assessment demonstrates that e-procurement positively impacts accountability, effectiveness, and transparency within the UKPBJ, albeit in a non-uniform manner. Variability in system utilization, competency, and infrastructure leads to partial realization of intended outcomes, indicating that digital tools alone are insufficient to guarantee optimal performance. These findings align with broader literature emphasizing that e-procurement success depends on the confluence of institutional readiness, technology availability, and human capital (World Bank, 2020; Arduini et al., 2010). The Lampung case thus offers concrete empirical evidence for the multi-dimensional determinants of e-procurement effectiveness.

The observed impacts of e-procurement at the UKPBJ of the Directorate General of Corrections in Lampung reinforce theoretical and empirical claims regarding the socio-technical nature of digital governance interventions. Accountability is strengthened through traceable electronic records, effectiveness is enhanced via accelerated procurement cycles, and transparency is increased through accessible procurement data, as visualized in Figures 1 and 2. Yet, these benefits are moderated by limitations in infrastructure, human resource capacity, and managerial follow-through, highlighting areas for targeted reform. The analysis demonstrates that optimal e-procurement outcomes require a coordinated strategy addressing regulatory clarity, technical readiness, and personnel competencies simultaneously (Song & Shin, 2010; Novitaningrum, 2024). Ultimately, the study contributes to understanding how e-procurement systems function in practice within correctional administrative contexts, providing actionable insights for policy and organizational improvements.

CONCLUSION

The implementation of e-procurement within the Procurement Service Unit (UKPBJ) of the Directorate General of Corrections in Lampung demonstrates significant improvements in accountability, effectiveness, and transparency of government goods and services procurement, yet remains constrained by infrastructure limitations, uneven human resource competencies, and inconsistent managerial support. Empirical evidence from interviews, observations, and document analysis indicates that while digital systems such as SPSE, e-catalogue, and INAPROC facilitate traceable procurement workflows, reduce discretionary errors, and enhance procedural efficiency, the full realization of intended outcomes is moderated by gaps in technical readiness and policy dissemination. Regulatory compliance and institutional commitment emerge as critical enablers, whereas challenges in network connectivity, system literacy, and adaptive capacity continue to impede uniform adoption across units. The study underscores the necessity of integrating technological, managerial, and regulatory interventions to optimize e-procurement performance, providing actionable insights for policy refinement, capacity-building, and infrastructure investment, thereby reinforcing the socio-technical and governance-enhancing potential of digital procurement systems within Indonesian correctional institutions..

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