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# HIGH ADOPTION, LOW OPTIMIZATION: AN ANALYSIS OF E-CATALOG IMPLEMENTATION IN LOCAL GOVERNMENT PROCUREMENT OF GOODS AND SERVICES

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## ABSTRACT

This study examines the implementation of e-catalog in government procurement of goods and services, with a focus on the gap between technology adoption and system utilization optimization. Using a qualitative descriptive approach, data were collected through interviews, observations, and documentation at the Jember Regency Industry and Trade Office. The findings reveal that the adoption rate of the e-catalog is relatively high, reaching approximately 80% of total procurement. However, this high adoption does not necessarily indicate optimal utilization. The implementation remains constrained by several factors, including system disruptions, limited user technical competence, and decision-making practices that prioritize short-term considerations over long-term value. From a good governance perspective, the e-catalog contributes to improving administrative transparency and accountability. Nevertheless, it has not yet achieved substantive transparency or strategic effectiveness in procurement practices. This study highlights a critical gap between compliance-based adoption and strategic utilization of e-procurement systems**.** By integrating regulatory, empirical, and governance perspectives, this research provides a more comprehensive understanding of e-catalog implementation at the local government level and offers practical insights for optimizing digital procurement systems.

**Keywords:** E-Catalogue, E-Procurement, Technology Adoption, System Optimization, Good Governance

## INTRODUCTION

The rapid development of information technology has driven fundamental transformations across various sectors, including the public sector. This transformation is reflected in the implementation of e-government, which refers to the utilization of information and communication technology to enhance the delivery of public services and improve administrative processes. Beyond its role as a tool for modernization, e-government functions as a strategic instrument to promote transparency, accountability, efficiency, and effectiveness in governance (Herawan et al., 2025; Setiawan et al., 2026). In this context, digital transformation is not merely a technological shift, but a comprehensive reform that involves organizational structures, institutional readiness, and human resource capabilities. Therefore, the success of e-government implementation cannot be assessed solely based on the availability of digital systems, but must also consider the extent to which these systems are effectively utilized within organizational practices.

One of the sectors most significantly influenced by this transformation is the procurement of goods and services. Public procurement plays a vital role in ensuring the effective allocation of government budgets and has a direct impact on public service delivery. At the same time, this sector is highly vulnerable to inefficiencies and irregularities, including lack of transparency, bureaucratic complexity, and potential corruption. To address these challenges, governments have increasingly adopted e-procurement systems as part of broader digital governance initiatives. E-procurement is designed to streamline procurement processes, enhance transparency, and reduce opportunities for manipulation by digitizing and standardizing procurement procedures.

Among the various e-procurement instruments, the e-catalog has emerged as a key innovation in government procurement systems. The e-catalog is an electronic platform that provides real-time information on products, specifications, prices, and suppliers, enabling procurement actors to make more informed and efficient decisions. Conceptually, the e-catalog is expected to reduce information asymmetry, increase market competitiveness, and simplify administrative procedures. Previous studies have demonstrated that the implementation of e-catalog systems can improve efficiency and reduce procurement complexity (Paryono et al., 2025; Sihaloho et al., 2024). However, these expected benefits are highly dependent on how the system is integrated into organizational workflows and the extent to which users are able to utilize its features effectively.

From the perspective of good governance, the implementation of e-catalog systems aligns closely with fundamental governance principles. Transparency is reflected through the open access to product and pricing information, accountability is strengthened through digital transaction records, and efficiency is achieved through the simplification of procurement procedures. Empirical evidence suggests that e-procurement systems contribute to reducing irregularities and improving transparency in public procurement processes (Mutangili, 2019; Qomaruddin & Kurniawan, 2021; Rifaid & Zulkarnain, 2021). Nevertheless, the realization of these governance benefits is not always consistent in practice. Several studies indicate that the effectiveness of e-catalog implementation is often constrained by technical issues, such as system errors, as well as by limited user competence and organizational readiness (Fachruddin et al., 2024; Haryadi et al., 2024).

Despite the growing body of literature on e-procurement, a critical gap remains insufficiently explored. Most existing studies tend to focus on the level of system adoption or general effectiveness, often using indicators such as usage rates or compliance with regulations. While these indicators are important, they do not fully capture the extent to which e-procurement systems are utilized in a strategic and optimal manner. In many cases, high levels of system adoption are interpreted as indicators of success, without critically examining whether such adoption leads to meaningful improvements in procurement quality and governance outcomes.

This study argues that there is a significant discrepancy between technology adoption and utilization optimization in e-catalog implementation, particularly at the local government level. High adoption rates may reflect compliance-driven behavior rather than genuine integration of the system into decision-making processes. As a result, the use of e-catalog systems may remain at an operational level, focusing primarily on administrative procedures, rather than evolving into a strategic tool for enhancing procurement effectiveness and value for money. This gap highlights the need for a more nuanced evaluation framework that goes beyond adoption metrics and considers how digital systems are actually used in practice.

This phenomenon is evident in the Jember Regency Industry and Trade Office, which serves as the empirical context of this study. The institution has widely adopted the e-catalog in its procurement activities, with a significant proportion of procurement transactions conducted through the system. This indicates a strong commitment to digital procurement and

regulatory compliance. However, preliminary observations reveal that the high adoption rate has not been accompanied by optimal system utilization. Persistent challenges, such as system disruptions, limited technical competence among users, and decision-making practices that prioritize short-term considerations, suggest that the potential benefits of the e-catalog have not been fully realized. This condition reflects a clear gap between the intended objectives of e-procurement systems and their actual implementation in practice.

Based on this context, this study aims to address the identified gap by analyzing the implementation of the e-catalog not only in terms of adoption, but also in terms of the level of utilization optimization. Specifically, this research integrates regulatory perspectives, empirical practices, and good governance principles to provide a more comprehensive understanding of e-catalog implementation at the local government level. By doing so, this study seeks to move beyond conventional evaluation approaches that focus solely on adoption metrics and instead emphasize the importance of effective and strategic system utilization.

The novelty of this research lies in its integrated analytical approach, which simultaneously examines regulatory frameworks, real-world implementation, and governance outcomes. This approach enables a more critical assessment of e-catalog systems as not merely administrative tools, but as strategic instruments in improving procurement governance. Therefore, this study is expected to contribute both theoretically, by enriching the discourse on digital procurement and governance, and practically, by providing insights for policymakers and practitioners in optimizing the use of e-catalog systems in the public sector.

## METHODS

This study employs a qualitative research method with a descriptive case study approach to gain an in-depth understanding of the implementation of the e-catalog system in government procurement. A qualitative approach was chosen because it allows for a comprehensive exploration of processes, experiences, and constraints encountered in real-world practices, particularly in understanding the gap between system adoption and utilization optimization. The research was conducted at the Jember Regency Industry and Trade Office, a local government institution that has implemented the e-catalog system in its procurement activities. This location was selected purposively based on its relatively high level of e-catalog adoption, making it relevant for examining the discrepancy between adoption and optimization in practice.

The data used in this study consist of primary and secondary data. Primary data were obtained through semi-structured interviews with key informants who are directly involved in the procurement process. These informants include the Commitment Making Officer (PPK) and Procurement Officers responsible for e-purchasing activities. Informants were selected using purposive sampling based on their roles, experience, and level of involvement in the e-catalog system. Meanwhile, secondary data were collected from procurement-related documents, including procurement reports, transaction records, and regulatory documents that support the analysis.

Data collection techniques included in-depth interviews and documentation. Interviews were conducted to explore informants' perspectives regarding system implementation, challenges, and utilization practices, while documentation was used to validate and complement the interview data. To ensure data validity and reliability, this study applied data triangulation by comparing information obtained from different sources and methods. The data analysis process followed the interactive model of Miles and Huberman, which consists of three main stages: data reduction, data display, and conclusion drawing. In the data reduction stage, relevant information related to e-catalog implementation and utilization was selected and categorized. In the data display stage, the data were organized systematically to facilitate

interpretation and pattern identification. Finally, conclusions were drawn based on the identified patterns and relationships, particularly in relation to the gap between system adoption and optimization.

## RESULTS AND DISCUSSION

The implementation of the e-catalog system at the Jember Regency Industry and Trade Office demonstrates a relatively high level of adoption, with approximately 80% of total procurement conducted through e-purchasing. This finding indicates that the e-catalog has been institutionally accepted as the primary procurement mechanism and reflects a strong commitment to digital transformation within the local government (Herawan et al., 2025; Setiawan et al., 2026). However, a deeper analysis reveals that this high adoption rate does not necessarily correspond to optimal system utilization. From an implementation perspective, this condition can be categorized as compliance-based adoption, where system usage is primarily driven by regulatory requirements rather than by its functional effectiveness in improving procurement quality. This finding supports the argument that adoption metrics alone are insufficient to measure the success of digital procurement systems. Presents The Distribution of Procurement Methods Used in This Study.

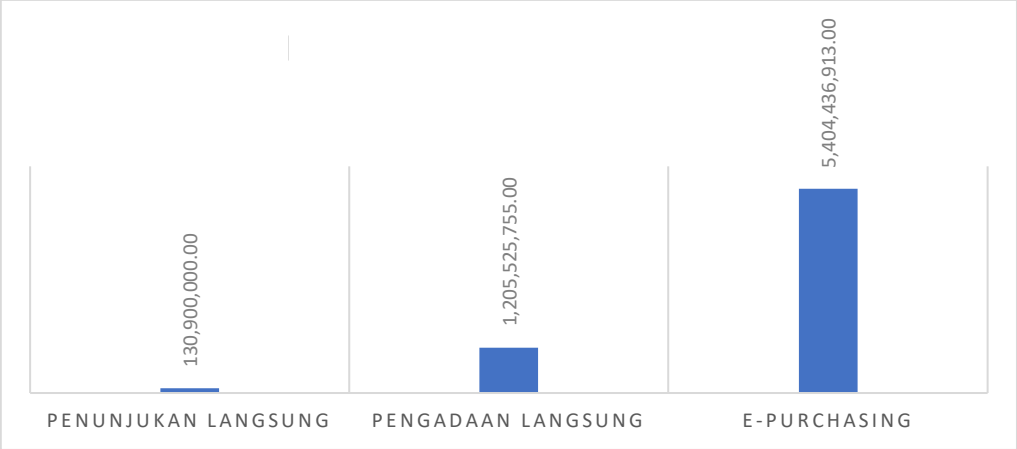


**Figure 1.** Recapitulation of Procurement Methods
Source: Processed data by the authors (2026)

Based on Figure 1, e-purchasing dominates, accounting for Rp5,404,436,913, or 80.17% of total procurement. Meanwhile, direct procurement accounts for 17.88%, and direct appointment only 1.94%. The dominance of e-purchasing, as shown in the procurement data, reflects a significant shift from conventional procurement methods toward digital systems. While this shift indicates progress in administrative modernization, it also raises critical questions regarding the substantive impact of such transformation. In particular, it remains unclear whether the increased use of e-catalog has led to better procurement outcomes, such as improved efficiency, quality, and value for money, or whether it merely represents procedural compliance (Paryono et al., 2025; Sihaloho et al., 2024).

From a procedural standpoint, the implementation of e-purchasing follows formal stages, including preparation and execution phases. These stages involve the preparation of technical specifications, price estimation, product selection, and contract execution. Normatively, these procedures are aligned with procurement principles, particularly the concept of value for money. However, empirical findings indicate that decision-making practices are still predominantly oriented toward selecting the lowest price, rather than considering long-term

benefits such as product quality and sustainability (Muharram et al., 2025; Prabowo, 2025). This suggests that the utilization of the e-catalog remains at an operational level and has not yet evolved into a strategic decision-making tool. In other words, while the system has successfully digitized procurement processes, it has not fully transformed procurement practices in a substantive manner. This finding reinforces the identified research gap between system adoption and utilization optimization.

From a good governance perspective, the implementation of the e-catalog contributes positively to administrative transparency and accountability. The availability of open product and pricing information enhances transparency, while digital transaction records improve accountability and auditability. Additionally, the system contributes to operational efficiency by reducing processing time and simplifying administrative procedures (Mutangili, 2019; Qomaruddin & Kurniawan, 2021; Rifaid & Zulkarnain, 2021). However, these improvements are largely limited to administrative transparency, and have not yet reached the level of substantive transparency, which involves broader stakeholder participation and public oversight. This indicates that the role of the e-catalog in promoting good governance is still partial and has not been fully realized. Thus, there remains a gap between the theoretical expectations of e-procurement systems and their empirical implementation in practice.

These findings are consistent with previous studies that highlight the role of e-procurement in enhancing transparency and reducing irregularities (Muharram et al., 2025; Sihaloho et al., 2024). However, this study extends the existing literature by demonstrating that such improvements are not absolute, but are highly dependent on organizational readiness and user capability. In this context, the effectiveness of e-catalog implementation is influenced not only by system design, but also by human and institutional factors (Herawan et al., 2025; Setiawan et al., 2026).

Furthermore, this study identifies several key obstacles that hinder the optimization of e-catalog utilization. Technical issues, particularly system disruptions (errors), remain a significant barrier to smooth procurement processes. In addition, limited user competence indicates that the digital transformation process has not been accompanied by adequate capacity building. From an information systems perspective, this reflects an imbalance between technology, users, and organizational processes. This imbalance explains why high adoption does not automatically lead to optimal utilization. This is in line with Ariesta (2021), which states that the effectiveness of e-catalog is greatly influenced by technical readiness and user capabilities, and is reinforced by Yulian & Isbandono (2024), which emphasizes the importance of organizational readiness in implementing electronic procurement systems.

Overall, the implementation of the e-catalog in the Jember Regency Industry and Trade Office can be considered successful in terms of adoption and regulatory compliance, but remains limited in terms of strategic utilization. This indicates that digital procurement is still in a transitional phase, shifting from system adoption toward utilization optimization. Therefore, improving the effectiveness of e-catalog implementation requires not only technical system enhancements, but also strengthening human resource capacity and fostering an organizational culture that supports data-driven and strategic decision-making. By addressing these factors, the e-catalog can move beyond its role as an administrative tool and become a strategic instrument for improving procurement governance.

## CONCLUSION

This study concludes that the implementation of the e-catalog system in the procurement of goods and services at the Jember Regency Industry and Trade Office has achieved a high level of adoption, as reflected in the dominant use of e-purchasing in procurement activities. However, this high adoption has not been accompanied by optimal system utilization. The

findings reveal a clear discrepancy between compliance-based adoption and strategic utilization. In practice, the use of the e-catalog tends to be driven more by regulatory obligations than by its potential to improve procurement quality and decision-making effectiveness. As a result, the system is primarily used at an operational level and has not yet functioned as a strategic instrument in achieving value for money and improving procurement governance.

From a good governance perspective, the implementation of the e-catalog has contributed to enhancing administrative transparency and accountability. Nevertheless, these improvements remain limited and have not yet reached the level of substantive transparency and strategic effectiveness. This indicates that the transformation of procurement systems through digitalization is still in a transitional phase, moving from system adoption toward utilization optimization.

This study contributes to the literature by demonstrating that the success of e-procurement systems should not be measured solely by adoption rates, but also by the extent to which these systems are utilized effectively and strategically. By highlighting the gap between adoption and optimization, this research provides a more critical perspective on evaluating digital procurement systems, particularly at the local government level.

In terms of practical implications, improving the effectiveness of e-catalog implementation requires a more holistic approach. This includes enhancing system reliability to minimize technical disruptions, strengthening user competence through continuous capacity building, and fostering an organizational culture that supports strategic and data-driven decision-making. Without addressing these factors, digital procurement systems risk being limited to administrative tools rather than serving as instruments for improving governance quality.

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