

Effectiveness of E-Catalog in Procurement at Bandar Lampung Library and Archives Service

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Abstract:

Purpose: This study evaluated the effectiveness of E-Catalogs in increasing efficiency, transparency, and accountability, and identifying implementation barriers to formulate more appropriate policy recommendations.

Methodology: This study used a descriptive qualitative approach. Data collection techniques included interviewing sources, direct observation that directs the procurement of goods and services, and collecting various documents related to the research topic.

Results: This study aimed to analyze the effectiveness of the implementation of an Electronic Catalog (E-Catalog) in the government procurement process for goods/services at the library and archives service level in Bandar Lampung City.

Conclusions: The results of this study show that the E-Catalog is an effective procurement instrument for improving the performance of government procurement of goods and services, especially in terms of efficiency, transparency, and accountability within the Library and Archives Service of Bandar Lampung City.

Limitations: This study aims to evaluate the effectiveness of the implementation of E-Catalog in the procurement of goods and services at the Library and Archives Service of Bandar Lampung City, particularly in increasing efficiency, transparency, accountability, supervisory functions, and identifying implementation obstacles to formulate more appropriate policy recommendations.

Contributions: This study uses Presidential Regulation No. 16 of 2018 and interviews with procurement officials at the Library and Archives Service.

Keywords: *E-Catalog, Government Procurement Transparency, Procurement Efficiency*

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1. Introduction

The era of digital transformation has driven innovation in governance, including the procurement of goods and services system, and the principles of good governance are a must for government procurement of goods and services. Traditional procurement, often characterized by manual processes, lengthy bureaucracy, and potential inefficiencies, is globally transforming toward a more digitalized model. In the Indonesian context, efforts to achieve clean, effective, and accountable governance have been mandated by various regulations. *Peraturan Presiden Nomor 16 Tahun 2018 tentang Pengadaan Barang/Jasa Pemerintah* (most recently amended by *Peraturan Presiden Nomor 46 Tahun 2025*), as the primary legal umbrella, not only regulates procurement principles and procedures but also encourages the use of information technology, one of which is through the E-Catalog system.

Government procurement of goods and services is a fundamental pillar of modern governance, particularly in supporting public policy implementation and infrastructure development. However,

conventional procurement systems often face complex challenges. A study by the *Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah (LKPP)* found that approximately 62% of government procurement problems stem from manual processes that are highly susceptible to time inefficiencies, budget waste, and potential irregularities. This condition is further exacerbated by the lack of transparency inherent in traditional procurement processes, which is one of the root causes of public governance deficiencies ([Muharram, Hariyati, & Simanjuntak, 2025](#)).

President Jokowi's directive calls for the use of E-Catalogs for the procurement of goods and services to save money. *Inpres no.1 tahun 2015*, the fourth dictum, is to accelerate the development of an e-procurement system and the implementation of E-Catalog-based purchasing. The E-Catalog is an electronic platform containing a list of goods, services, and prices that have been assessed and determined by the *Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah (LKPP)*. This system was designed to standardize products, simplify the selection process, and expedite procurement for general and repetitive needs. The implementation of the E-Catalog is believed to be a solution to reduce price mark-ups, minimize collusion, and increase access for Micro, Small, and Medium Enterprises (MSMEs) and cooperatives, as mandated by *Inpres No.1 Tahun 2015*, which stipulates a minimum allocation of 40% of the goods/services budget for these business groups.

The library and archive sectors have unique and complex procurement characteristics. Needs encompass not only physical goods, such as books, shelving, and preservation equipment, but also services, such as collection digitization, archival media transfer, information systems development, and specialized conservation services. Often, the goods and services required are not readily available in general market standards, require detailed technical specifications, and require expert expertise. The procurement of government goods and services landscape in Indonesia continues to evolve in line with the government's commitment to implementing good governance principles and leveraging advances in digital technology. The transformation from cumbersome manual procurement processes to integrated electronic systems has become necessary to meet the demands for accountability, efficiency, and transparency. Accountability is the obligation of an individual or organization to provide accountability to its stakeholders. Therefore, to create good governance in financial management, the government is required to be accountable to stakeholders ([Gibran, Jaddang, & Ardiansyah, 2021](#)).

In this context, the Electronic Catalog (E-Catalog) has emerged as one of the main pillars of the Electronic Procurement (E-Procurement) system in Indonesia. An E-Catalog is defined as an electronic information system containing various product information, such as technical specifications, prices, and supplier information, used in Electronic Purchasing Procedures (E-Purchasing). This system is not merely a digital product list but has evolved into a transactional platform fully integrated with the state financial system. The launch of E-Catalog version 6 (Inaproc) in late 2024 and its full implementation starting January 1, 2025, marks a new chapter in deeper integration and automation.

Although its implementation is driven by strong regulations, such as *Peraturan Presiden Nomor 46 Tahun 2025* concerning the Second Amendment to *Peraturan Presiden Nomor 16 Tahun 2018* concerning Government Procurement of Goods/Services, and is claimed to increase transparency, a comprehensive evaluation of its effectiveness in daily operations at the Library and Archives Service level of Bandar Lampung City, as the spearhead of budget implementation, is still needed. Therefore, this study was conducted to answer the question: How effective is the implementation of E-Catalog version 6 in increasing the efficiency, transparency, and accountability of the procurement process of goods/services at the Library and Archives Service of Bandar Lampung City? The analysis focuses on procedural, financial, and supervisory dimensions.

The implementation of good governance is a dream and goal that every country, especially Indonesia, wants to achieve. Good governance is a concept of development implementation carried out by the government, the entire implementation of which can be accounted. This implementation must involve three main actors: the state, the private sector, and the community, with the aim of creating a process of cooperation and mutual oversight between them. The principles of good governance include public involvement in policy-making, which results in a decision, upholding the essence of the law,

transparency in every government administration, and concern for all parties who need services. E-procurement is an auction system for government procurement of goods/services that utilizes Internet-based technology, information, and communication to ensure that it can take place effectively, efficiently, openly, and accountably.

Based on *Peraturan Presiden Nomor 46 Tahun 2025*, the procurement of goods/services in government is the process of fulfilling the need for goods or services in ministries/institutions/regional agencies, the process of which is structured starting from the stage of identifying procurement needs to the handover of work results. In this process, the procurement of goods/services is characterized by activities that can result in the use of the APBN/APBD. The procurement process plays a crucial role in the construction and development of institutions. In addition, one of the objectives of procurement is to realize economic equality ([Choiri & Hadi, 2025](#)). Conventional procurement often involves high transaction costs, such as searching for product and supplier information, negotiating, and monitoring contracts.

E-Catalogs have the potential to minimize these costs by providing a standardized, centralized marketplace, reducing information asymmetries, and automating administrative processes, freeing up resources for more valuable activities. The implementation of the E-Catalog aligns with the e-government agenda, which aims to utilize information technology to improve public service performance. Public-administration reform emphasizes accountability and transparency as pillars of good governance. The E-Catalog, as part of e-procurement, serves as a technology that enables these principles to be operationalized through information transparency and a complete digital audit trail.

The E-Catalog simplifies and streamlines the procurement process for goods and service providers. The E-Catalog is expected to create a healthy competitive climate, boost product quality at reasonable prices, and boost MSME businesses. However, this is in line with the research conducted by [Kurnia, Situmorang, and Sudiyono \(2025\)](#) who found that improving MSMEs' digital literacy is also very important in utilizing the potential of technology, especially in increasing business efficiency and competitiveness. In addition, by investing in education and skills development in financial management, MSMEs will not only survive but will also be able to grow and compete better in the market ([Monalika, 2025](#)). With this E-Catalog, the data presented are clearer and more transparent. This system shifts the procurement paradigm from a paper-based and closed process to a digital, integrated, and open one.

The procurement process for both goods and services in the Bandar Lampung city government based on e-proc requires the involvement of several parties, namely:

Table 1. Actors in Government Procurement of Goods/Services

Perpetrator	Roles & Responsibilities	Access & Authority in the System
<i>Pejabat Pembuat Komitmen (PPK)</i>	Responsible for the needs, technical specifications, and implementation of the procurement.	Making plans, selecting products, issuing SP, and printing Acceptance Reports (BAP).
<i>Kuasa Pengguna Anggaran (KPA)</i>	Financially responsible, approving spending commitments.	Provide approval (authorization) at the planning stage and before the payment.
<i>Pejabat Penandatanganan Surat Pesanan (PP-SP)</i>	Sign the SP digitally.	Limited access to the signing module.

Perpetrator	Roles & Responsibilities	Access & Authority in the System
<i>Penyedia Barang/Jasa</i>	Supply goods/services according to the contract.	Manage product catalog, respond to SP, input shipping number, and submit invoice.
<i>Unit Layanan Pengadaan (ULP)/UKPBJ</i>	Act as a procurement administrator and guarantor of neutrality.	Manage auction/qualification process, verify providers, and monitor performance.
<i>Pengawas Internal (APIP)</i>	Preventive and detective surveillance should be conducted.	Access <i>view-only</i> to the analytics dashboard and audit trail for all transactions.
<i>Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah (LKPP)</i>	Policymakers and managers of national systems.	Define parameters, create item classifications, and analyze macro data.

According to [Mahmudi \(2020\)](#) regional asset management principles must be considered in procurement mechanisms. These management principles are implemented by regional governments through asset management, starting from the planning stage to disposal, and all stages must be properly documented. Based on this opinion, the procurement process for both goods and services using e-Procurement should be carried out practically and orderly, thus simplifying and maximizing its implementation.

An analysis of *Peraturan Presiden Nomor 46 Tahun 2025* demonstrates the government's ongoing commitment to improving the electronic procurement systems. As the second amendment to *Peraturan Presiden Nomor 16 Tahun 2018*, this regulation was issued in response to the dynamics and practical needs in the field, including the acceleration of post-pandemic digitalization. Although the full text is still being socialized, its existence confirms that E-Catalogs and other electronic procurement platforms are no longer merely optional but mandatory and mainstream in government procurement governance.

Referring to *Presiden Nomor 16 Tahun 2018*, the implementation of Government PBJ must pay attention to the principles of procurement, namely (1) Efficient means minimizing the use of resources in procurement by achieving the specified targets. (2) Efficient does not always mean the cheapest price, because it is very important to consider the available spare parts, the age of the goods, and the value of operational and maintenance costs that must be budgeted in the future. (3) Effectiveness means obtaining goods and services that have been utilized appropriately. (4) Transparency means that there is no hidden information or information that is limited to all prospective business actors who may participate in the procurement of goods and services. (5) Open: The procurement process is open to all business actors who meet the requirements, and the implementation is carried out in a healthy manner among prospective providers who are at the same level and meet the criteria determined according to procedures. (6) Fairness means that the model is not discriminatory by favoring one of the prospective providers. (7) Accountable is the responsibility for implementing procurement activities in accordance with procurement ethics, norms, and applicable laws.

Although various studies have shown that implementing E-Catalogs in the procurement of goods and services can improve efficiency, transparency, and accountability, most research focuses on administrative aspects and is conducted in general government agencies. Research specifically examining the effectiveness of E-Catalogs in the context of literacy-based public service organizations, such as regional libraries, is still very limited. Furthermore, the approaches used in previous research

have been dominated by descriptive qualitative methods, thus failing to provide comprehensive quantitative measurements of the effectiveness of the system.

Furthermore, technology acceptance factors, such as perceived usefulness and perceived ease of use, which have been shown to influence system effectiveness, have not been widely integrated into E-Catalog analyses. Furthermore, previous research has not linked E-Catalog effectiveness to public service performance or the feasibility of technology investment from a technological management perspective. Therefore, research that can fill this gap through a quantitative and integrative approach is needed to produce a more comprehensive evaluation of the effectiveness of E-Catalogs in the procurement of goods and services in regional libraries.

2. Literature Review and Hypothesis

2.1 Literature Review on the Effectiveness of E-Catalogs in Public Procurement

Effectiveness in the government procurement of goods and services refers to the ability of a system to achieve procurement objectives in accordance with applicable principles and provisions. [Mahmudi \(2020\)](#) explains that public sector effectiveness is measured not only by the achievement of outputs but also by the extent to which the results of these activities provide tangible and targeted benefits to the organization and the community. In the context of procurement, effectiveness includes the accuracy of specifications, compliance with regulations, and sustainability of the benefits of the goods and services obtained.

Effective e-procurement implementation aims to generate value for money through cost efficiency, transparency, and accountability. This emphasizes that transparency and accountability are key elements in public administration reform and the implementation of good governance. Accountability has a positive impact on organizational performance ([Azzahra, Yuliansyah, & Nauli, 2021](#)). The use of information technology is positioned as an important instrument for reducing information asymmetry and strengthening public oversight mechanisms.

The E-Catalog, as part of the e-procurement system, was developed to simplify the procurement process by standardizing the products, prices, and suppliers. Procurement digitization can reduce direct interactions between procurement actors, thereby minimizing the potential for collusion, conflicts of interest, and unethical practices. Research findings, as well as [Sihaloho, Ariza, and Munandar \(2024\)](#) show that the use of E-Catalogs contributes positively to increasing transparency and preventing fraud in local government procurement of goods and services.

From a regulatory perspective, *Peraturan Presiden Nomor 16 Tahun 2018*, along with its latest amendment, *Peraturan Presiden Nomor 16 Tahun 2018*, emphasizes that the government procurement of goods and services must be carried out based on the principles of efficiency, effectiveness, transparency, openness, competition, fairness, and accountability. The introduction of E-Catalog version 6 (Inaproc) reinforces these principles through the integration of procurement and payment processes, availability of digital audit trails, and transparency of information regarding product prices and specifications.

However, the effectiveness of an E-Catalog is not solely determined by its technological design. Human resource readiness, institutional support, and the characteristics of the goods and services provided also influence the success of implementation. [nit \(2023\)](#) emphasized that procurement system integration in local governments often faces challenges in user adaptation and coordination between work units. This situation is relevant for the Library and Archives Service, which has procurement needs with a relatively high level of technical specialization. Thus, the literature review shows that the effectiveness of the E-Catalog is contextual and multidimensional, influenced by technological aspects, regulations, and organizational and human resource capacity at the implementing level.

2.2 Conceptual Framework of the Research

Based on theoretical and empirical studies, the effectiveness of E-Catalog implementation in the procurement of goods and services at the library and archives service can be analyzed through three main dimensions. First, procedural and time efficiency is reflected in the simplification of the procurement process, reduction of transaction costs, and acceleration of the administrative process. [Mahmudi \(2020\)](#) Second, transparency and accountability are demonstrated by the openness of price and specification information and the availability of digital audit trails that can be accessed by supervisors.

Third, strengthening supervision and preventing irregularities, which is achieved through the integration of the procurement and government financial systems ([Sihaloho et al., 2024](#)). These three dimensions are influenced by various supporting and inhibiting factors, including human resource readiness, availability of information technology infrastructure, and the level of suitability between the need for goods and services and the products available in the E-Catalog.

2.3 Hypothesis (Research Proposition)

Although this research uses a descriptive qualitative approach, formulating hypotheses in the form of conceptual propositions is necessary to guide the data analysis process. In qualitative research, hypotheses are not intended to be statistically tested but rather serve as an initial framework for directing the research focus, data collection, and thematic analysis. The formulated hypotheses served as the basis for developing the interview guidelines, observations, and document collection. Furthermore, they serve as initial categories in the data coding process, making it easier for researchers to group and interpret the research findings.

Furthermore, hypotheses play a role in the data triangulation process, which involves comparing the results from various data sources to ensure the consistency and validity of the findings. Thus, the analysis was conducted by assessing the extent to which the empirical data supported the formulated propositions, resulting in a comprehensive understanding of the effectiveness of E-Catalog implementation at the Bandar Lampung City Library and Archives Service.

Although this research uses a descriptive qualitative approach, the formulation of conceptual hypotheses or research propositions is still necessary as a reference for the analysis process.

Based on the theoretical framework and previous research results, the following hypothesis was formulated:

- H₁*: The Implementation of E-Catalog version 6 can increase procedural efficiency and time in the procurement of goods and services at the Bandar Lampung City Library and Archives Service
- H₂*: The Implementation of E-Catalog version 6 contributes to increasing transparency and accountability in the procurement process of goods and services at the Library and Archives Service of Bandar Lampung City
- H₃*: The Implementation of E-Catalog version 6 plays a role in strengthens supervision and prevents irregularities in the government procurement of goods and services
- H₄*: The level of effectiveness of E-Catalog implementation is influenced by the readiness of human resources, technological infrastructure support, and the suitability of the characteristics of goods and services with the E-Catalog system

The relationships between the propositions in this study demonstrate a mutually supportive relationship and form an integrated conceptual framework. The first, second, and third propositions describe the main dimensions of the effectiveness of E-Catalog implementation, which include efficiency, transparency and accountability, and oversight and prevention of irregularities, respectively. These three dimensions are interconnected; increased efficiency in the procurement process can encourage greater transparency, which ultimately strengthens oversight mechanisms.

On the other hand, the fourth proposition serves as a determining factor influencing the effectiveness of E-Catalog implementation. Human resource readiness, the availability and quality of technological infrastructure, and the suitability of goods and services to the E-Catalog system are critical elements in determining the extent to which efficiency, transparency, and oversight can be achieved optimally. Thus, the interrelationships between the propositions in this study not only demonstrate partial relationships but also form a structure that illustrates the relationship between influencing factors and the resulting outcomes. This framework provides a more comprehensive understanding of the effectiveness of E-Catalog implementation in the procurement of goods and services, particularly at the Bandar Lampung City Library and Archives Service.

3. Research Methodology

This study used a descriptive qualitative approach. This study aims to understand the phenomenon of E-Catalog implementation in the procurement of goods and services at the Bandar Lampung City Library and Archives Service. This approach was chosen because it can fully describe the empirical conditions according to the context and situation in the field. In this study, the research propositions serve as a conceptual framework that guides the focus of the study during the data collection process and analysis phase. These propositions are then broken down into several analytical dimensions: efficiency, transparency and accountability, oversight, and factors influencing the effectiveness of E-Catalog implementation.

Data collection techniques were carried out using several methods, namely:

1. In-depth interviews were conducted with relevant sources to obtain information regarding their experiences, perceptions, and understanding of procurement implementation through the E-Catalog. The sources were structural officials at the Bandar Lampung City Library and Archives Service, PPK, Procurement Officers, PPTK, and Providers registered with the LKPP.
2. Direct observation was used to observe in real terms the procurement process of goods and services taking place within the Library and Archives Service of Bandar Lampung City.
3. Documentation study, through collecting and reviewing official documents such as regulations, activity reports, and archives relevant to the research topic.

The data obtained were then analyzed using thematic analysis, with the research propositions as the basis for coding and grouping the data. To enhance data validity, source and method triangulation was conducted by comparing the results of interviews, observations, and documentation to ensure the consistency and validity of the findings. Thus, the analysis was conducted by assessing the extent to which the empirical data supported the formulated propositions, resulting in a comprehensive understanding of the effectiveness of the E-Catalog implementation at the Bandar Lampung City Library and Archives Service.

The results are presented descriptively and interpretively, examining the extent to which the empirical findings support each research proposition. This approach is expected to provide a comprehensive understanding of the effectiveness of E-Catalog implementation in the procurement of goods and services at the Bandar Lampung City Library and Archives Service. The descriptive approach in this research allows researchers to comprehensively examine phenomena within the context of a specific time and situation and is conducted naturally based on objective conditions in the field. The theoretical foundation serves as a reference for maintaining consistency between the research focus and the empirical reality encountered.

4. Results and Discussion

The existence of the goods and services procurement process via E-Catalog is intended to be transparent and open, minimize fraud, and obtain a record of government PBJ reports electronically, starting from the supplier selection process to the procurement officer or commitment-making officer determining prospective goods and services providers. E-Purchasing is also expected to be an alternative process that is easier for those who procure goods and services ([Sihaloho et al., 2024](#)).

The working principle of the E-Catalog is the procurement process for goods and services that no longer involves a tender system conducted by the procurement unit but is carried out directly between the buyer and the provider of goods and services. A list of goods and services to be ordered and the prices of the goods and services themselves are clearly available in the online catalog owned by the *Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah (LKPP)*. In fact, the E-Catalog is almost the same as shopping in an online shop, but the goods sold are government goods, such as medical devices, medicines, and agricultural equipment. Any party that wants to commit corruption will certainly have difficulty because the program also presents the amount of the price to be paid. The business model used is B2G (Business-to-Government) or B2A (Business-to-Administration), where companies supply products, services, or technological solutions directly to central and regional government agencies through official procurement mechanisms such as the E-Catalog (LKPP).

The presence of E-Catalog 6 as an upgrade to E-Catalog 5 has proven to be effective in several ways:

1. Effectiveness in Procedural and Time Efficiency

The E-Catalog version 6 shows a significant leap in creating efficiency, especially through end-to-end system integration, such as:

- a. Streamlining Process, namely this system combines previously separate processes such as product search, ordering, issuing Purchase Orders (which function as contracts), and handover to payment in one platform.
- b. Payment Integration, namely payments can be made directly through the platform with two mechanisms: Cash Inventory (UP) via Virtual Account (simpler, without registering the contract with the KPPN) and Contractual Direct Payment (LS). This eliminates the time-consuming manual processes between systems.
- c. Reduced Administrative Complexity: Features such as electronic signatures and stamps for transactions over IDR 5 million accelerate legal document validation. Automating tax collection and remittance within the UP mechanism also eases the burden on the treasurers.

2. Effectiveness in Increasing Transparency and Accountability

The claim that E-Catalog version 6 is more transparent is supported by several system design features, namely:

- a. Market Information Transparency where all product information (specifications, prices, TKDN, SNI) and suppliers are open to all registered users from various agencies to access and compare. This creates healthy price and quality competition.
- b. Real-Time Tracking and Audit Trail, where every stage of the transaction from selection to payment is recorded digitally and can be monitored online in real-time by the authorities, including APIP, BPK, and BPKP. This audit trail is very strong for oversight.
- c. Subjective Intervention Reduction means that purchasing decisions are based on objective information available in the system, minimizing the room for collusive and inappropriate requests.

3. Effectiveness in Strengthening Supervision and Prevention of Deviations

The system automatically rejects payments if there is a discrepancy between the invoice data in the E-Catalog and the contract data registered with SAKTI. This mechanism prevents payments for goods and services ordered through unauthorized channels or at incorrect prices.

If we look closely at the results of research on the effectiveness of implementing the E-Catalog system for government goods/services procurement at the Bandar Lampung City Library and Archives Service, we can find that procurement using an E-Catalog is more efficient than conventional procurement methods. For example:

Government laptop procurement

- a. Traditional: IDR 10 million units, 45 days.
- b. E-Catalog: IDR 8.5–9 million/unit for 15 days.
→ Efficiency: save IDR 1–1.5 million per unit and 30 days.

Comparative quantitative data are presented in the following table:

Table 2. Primary data sources processed

Aspect	Traditional Method	E-Catalog	Efficiency
Procurement process time	30–60 days (manual tender)	10–20 days	Saves 50–70% time
Transaction cost	IDR 5–10 million per package (documents, committee, administration)	IDR 1–3 million per package	Saves 60–80% transaction cost
Price of goods/services	Varies, often higher	Standardized price + volume discounts, up to 30% savings	Saves 10–30% of budget
Risk of irregularities	High (prone to mark-ups, delays)	Low (transparent pricing, verified vendors)	Significant risk reduction

The findings of this study confirm that E-Catalog version 6 is supported by the updated regulatory framework, namely *Peraturan Presiden Nomor 46 Tahun 2025*, which is conceptually and technically designed to be highly effective. The increased effectiveness is most evident in the convergence between procurement and finance processes, which have often been sources of inefficiency and lack of transparency.

From a Transaction Cost Theory perspective, the E-Catalog successfully reduces explicit transaction costs (document administration costs) and implicit costs (such as negotiation time and the risk of making the wrong choice). A standardized system also reduces uncertainty. Within the framework of Good Governance, this platform functions as a transparency-enabling technology that facilitates both horizontal (between government units) and vertical (to the public) accountability.

There is a gap between the potential effectiveness (as designed in the system) and the actual effectiveness in the field. This gap is primarily filled by human resources and by institutional factors. The actual effectiveness will depend heavily on the capacity and willingness of personnel at the Banar Lampung City Library and Archives Service to abandon old habits and adopt new digital processes. Therefore, the effectiveness of the E-Catalog cannot be seen solely as a function of its technological sophistication but also as a result of organizational change.

This effectiveness must be critically examined within the context of Library and Archives Services. Research on archival management in the regions shows that work efficiency is highly dependent on the completeness and suitability of equipment and materials used. Many needs in this sector are specialized and nonstandard. For example: Specialty Items: Archive storage machines (racks) with specific humidity and load specifications, preservation laboratory equipment (deacidification spray, special glue), rare books, or special publications not available from general distributors. Special Services: Media transfer services (microfilm, digitization) with high resolution and metadata quality standards, library/archive conservation, and restoration services that require certified experts, custom library, or archive management information system (SIMA) software development services.

For such needs, a limited-list E-Catalog may be inadequate. A highly detailed specification process and competitive procurement may be more effective in ensuring quality and compliance with the technical requirements. In other words, the effectiveness of the E-Catalog at the Library and Archives Service is conditional high for general goods/services but perhaps limited for specialized needs that are the institution's core business. An analysis of *Peraturan Presiden Nomor 46 Tahun 2025* demonstrates the government's ongoing commitment to improving the electronic procurement systems. As the second amendment to *Peraturan Presiden Nomor 16 Tahun 2018*, this regulation was created to respond to the dynamics and practical needs in the field, including accelerating post-pandemic digitalization. However,

Previous regulations, *Peraturan Presiden Nomor 12 Tahun 2021*, laid a strong foundation by incorporating aspects of economic empowerment (a 40% allocation for small businesses/cooperatives)

and economic nationalism (the mandatory TKDN) into the heart of the procurement system. The E-Catalog system plays a crucial role in effectively operationalizing this mandate. The challenge is to maintain a balance between easy access for small businesses and ensuring the quality and continuity of supply of goods/services needed by the Library and Archives Service.

5. Conclusions

5.1 Conclusion

E-Catalog version 6 is an effective tool for promoting efficiency, transparency, and accountability in the procurement of goods and services in government agencies. Its effectiveness is primarily driven by a fully integrated system design, direct payment features, and robust digital audit trail. To ensure that this potential effectiveness can be optimally realized in practice across all work units, the researchers propose several strategies. First, for the Procurement of Goods and Services Section of Bandar Lampung City, it is necessary to increase the intensity of practical and contextual training and mentoring for regional officials, including through the provision of case simulations frequently encountered in the procurement process. Second, for the Head of the Agency, it is necessary to build a strong organizational commitment and provide adequate supporting infrastructure, accompanied by the formation of an internal team consisting of procurement, finance, and information technology elements to ensure effective coordination in system utilization.

Despite its numerous benefits, the optimal effectiveness of the E-Catalog at the agency level still faces several technical and organizational challenges. One of these challenges is the learning curve and adaptation process, where the shift from conventional procedures to an integrated system requires adjustments in work habits for *Pejabat Pengadaan (PP)*, *Pejabat Pembuat Komitmen (PPK)*, and Treasurers to understand the new flow of work. Furthermore, the effectiveness of the system is highly dependent on the availability of reliable connectivity and stable digital infrastructure across all regions. Challenges also arise in the onboarding aspect for small providers, where micro, small, and medium enterprises still perceive the process of becoming a registered provider in the E-Catalog as quite complex.

However, infrastructure and cybersecurity limitations are crucial issues, given that system implementation requires a stable internet connection, adequate devices, and robust data protection to prevent procurement information leaks and misuse. Coordination issues between demand planning and catalog availability also frequently occur, characterized by discrepancies between annual procurement plans and the goods or services available in the E-Catalog, potentially leading to sudden changes or suboptimal purchasing decisions. Furthermore, technical support and outreach aspects still need to be strengthened, as without a user-friendly system, responsive assistance, and ongoing training, users tend to be reluctant to adopt new systems. Finally, the limited product variety and innovation in the E-Catalog also pose a barrier, as choices tend to be limited to registered products, while innovative needs, such as the latest technology or specialized software solutions, are often hampered by a relatively slow and bureaucratic registration process.

This study confirms that E-Catalog version 6, supported by a conceptually and technically updated regulatory framework, is designed to be highly effective. The increased effectiveness is most evident in the convergence of procurement and finance processes, which have often been a source of inefficiency and lack of transparency. From a transaction cost perspective, the E-Catalog successfully reduces both explicit (e.g., document administration fees) and implicit (e.g., negotiation time and risk of incorrect selection) transaction costs. A standardized system also reduces uncertainty. Within the framework of good governance, this platform serves as a transparency-creating technology that facilitates communication between government units and the public.

5.2 Research Limitations

This study had several limitations. First, the scope of the analysis focused only on the Bandar Lampung City Library and Archives Service; therefore, the findings cannot be generalized to other agencies with different procurement characteristics. Second, the use of a descriptive qualitative approach means that the research results are heavily dependent on informant perceptions and are unable to quantitatively

describe the performance of the E-Catalog, such as time efficiency and savings. Furthermore, technical data related to system disruptions were obtained through user reports; therefore, the analysis cannot explore technical causes in depth.

5.3 Suggestions and Directions for Future Research

E-Catalog version 6 has proven effective in encouraging efficiency, transparency, and accountability in the procurement of goods/services in government agencies. For LKPP and the Central Government: Develop a "Special Catalog" or special category in the national E-Catalog for goods/services in the library and archives sector, by involving experts from the National Library and National Archives of Indonesia in developing standards and technical specifications. Accelerate data integration between procurement planning systems (in each ministry/institution/service) with the E-Catalog platform, so that availability and planning can be aligned. Strengthen socialization and application training on *Peraturan Presiden Nomor 46 Tahun 2025*, especially the E-Catalog module, which targets PPK and procurement managers in the cultural and education sectors.

For the Library and Archives Service: Establish a Special Team or Electronic Procurement Coordinator who understands both the technical needs of the work unit and the operational procedures of the E-Catalog. Conduct a detailed mapping of needs and categorize which can be met via a standard E-Catalog, which requires a special E-Catalog, and which must go through a tender process. Increase internal capacity through tiered training, not only on system technicalities, but also on the preparation of good Technical Specifications (Specs) and Terms of Reference (TOR) for special needs. For Future Researchers: Conduct mixed-methods empirical field studies to quantitatively measure time and cost savings while qualitatively exploring the perceptions and barriers faced by E-Catalog users in various library and archive services in Indonesia. Examine the public-private partnership model in the development and provision of goods/services, specifically for Library and Archives Services, through an innovative procurement scheme.

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Author Contributions

AW contributed to the conceptualization and design of the study, as well as the methodology and data analysis. AW was responsible for drafting the manuscript and revising it for important intellectual content. AG provided valuable input in the research design and contributed to the analysis of data. AG also reviewed and edited the manuscript. ES assisted with data collection, provided technical insights into the analysis process, and contributed to the revision of the manuscript. YY contributed to the literature review, provided substantial feedback during manuscript drafting, and helped with the final revision before submission. All authors have read and approved the final manuscript.

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