

Evaluation of the Effectiveness of E-Budgeting in Increasing Budget Management Transparency in the DKI Jakarta Provincial Government

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Abstract

This study evaluates the effectiveness of the implementation of the e-Budgeting system in increasing the transparency of budget management in the Jakarta Provincial Government. The research background is the need to strengthen public accountability and prevent misuse of funds through the use of information technology. The method used is descriptive qualitative with documentation study techniques and non-participatory observation of the content of the SMARTAPBD portal, the 2021–2024 annual APBD document, as well as official uploads on the DKI Jakarta Provincial Government's social media (Twitter, Facebook, Instagram). Data analysis is carried out through reduction based on indicators of data disclosure, information accessibility, and track record (audit trail); data presentation through feature mapping and publication patterns; and cross-verification with external reports. The results of the study show that e-Budgeting provides real-time access and a structured format for planning, revising, and realizing budgets that facilitate public monitoring, strengthen audit trails, and increase public participation in online musrenbang. The obstacles identified include the digital literacy gap of SKPD employees, uneven network infrastructure, and the complexity of user interfaces. Recommendations include improving digital literacy training, simplifying the portal interface, and optimizing integration with e-Procurement and e-Monev systems. These findings have practical implications as a guideline for other local governments to adopt e-Budgeting to realize more transparent, accountable, and participatory public financial governance.

Keywords: DKI Jakarta, E-Budgeting, Budget Management, Online Observation, Transparency

1. INTRODUCTION

Transparency and accountability in public budget management are the main prerequisites for creating public trust in the administration of government. In the digital era, local governments are required to utilize information technology to increase data disclosure and budget process efficiency. Since 2019, the Jakarta Provincial Government has implemented an e-Budgeting system that allows planning, revision, and monitoring of budget realization to be carried out online through the SMARTAPBD portal.

Although various international studies confirm the benefits of e-Budgeting in reducing the chances of corruption and facilitating audit trails, empirical evaluation in Indonesia, especially at the provincial level, is still limited. Some studies show that

The implementation of e-Budgeting can increase public participation through the online musrenbang feature, while other studies noted technical barriers such as lack of digital literacy and network stability. At the Jakarta Provincial Government level, there has been no comprehensive study that measures the extent to which this system is effective in encouraging budget openness and identifying local-specific constraints.

Based on this context, this study aims to evaluate the effectiveness of e-Budgeting in increasing the transparency of budget management in the DKI Jakarta Provincial Government. The focus of the study includes three main aspects: the openness of budget data, the accessibility of realization information, and the reliability of trail audits. Through the method of documentation studies and non-participatory observations on the SMARTAPBD portal and the official social media of the DKI Jakarta Provincial Government, it is hoped that a comprehensive picture of the achievements and challenges of the implementation of e-Budgeting as well as recommendations for policy improvement will be obtained.

2. RESERACH METHOD

1. E-Budgeting in Governance

E-Budgeting is an important innovation in modern governance that integrates planning, budgeting, and evaluation systems digitally. In practice, e-Budgeting aims to minimize corrupt practices, budget irregularities, and improve the efficiency of resource use. This system provides great benefits especially in terms of transparency, as the public can access budget data openly through official government portals. E-Budgeting also supports the accountability of state apparatus by providing a track record (audit trail) of every change made to budget documents. As explained by Apriliani et al. (2023), e-Budgeting is the main pillar of financial bureaucratic reform by accelerating the process of budget ratification and distribution through an integrated information system. Another advantage of e-Budgeting is that it is able to prevent budget duplication and increase internal oversight because all processes are recorded automatically. In the context of governance, the implementation of e-Budgeting not only contributes to bureaucratic efficiency, but also opens up space for public participation in budget monitoring. This strengthens the legitimacy of local governments in carrying out public service functions and development that is responsive to the needs of the community.

2. Transparency and Accountability of Public Budgets

Transparency and accountability are the two main principles in healthy and integrity public budget management. Transparency includes the disclosure of public information that allows the public to know how the government plans, allocates, and uses the budget. Meanwhile, accountability refers to the government's obligation to account for every use of public funds clearly and appropriately. The implementation of e-Budgeting is closely related to efforts to realize these two principles. This system allows for the rapid and accurate dissemination of budget information to the public through official websites or applications, which can be accessed by anyone. Lestari & Purnamawati (2022) stated that e-Budgeting encourages the creation of effective social control because it makes it easier for the community to supervise the budgeting process. Furthermore, this system supports internal and external audits because the digital footprint of all transactions and budget revisions is recorded systematically. Thus, public trust in the government will increase if the information conveyed is not only available, but also easy to understand. For this reason, the implementation of e-Budgeting must be balanced with efforts to simplify information so that it can be accessed by even the general public.

3. Implementation of E-Budgeting in DKI Jakarta

The implementation of e-Budgeting in the DKI Jakarta Provincial Government is one example of the implementation of a digital-based budget management system that is quite advanced in Indonesia. The system used, namely SMARTAPBD, allows the public to access various information related to planning, allocation, and realization of the regional budget. This portal also presents interactive infographics and visualization data to facilitate user understanding, both from internal government circles and the general public. According to Rahma & Rani (2023), this system has succeeded in increasing public participation in budget supervision, especially through the online Musrenbang feature and public complaint channels. In practice, the implementation of e-Budgeting in DKI Jakarta is also supported by the integration between budget documents and real-time realization reports. This strengthens public information disclosure and assists supervisory institutions such as the BPK and KPK in tracking potential budget irregularities. However, challenges remain, especially in terms of digital literacy of civil servants and equal distribution of internet access throughout the Jakarta administrative area. Overall, DKI Jakarta can be used as a model for effective and transparent e-Budgeting implementation by continuing to make continuous improvements to the existing system.

4. Obstacles in the Implementation of Digital Systems

Although e-Budgeting has many benefits, its implementation in the field is inseparable from various obstacles. One of the main obstacles is the low digital literacy among state civil servants (ASN), especially at the regional apparatus work unit level (SKPD). This leads to inconsistencies in the uploaded data as well as delays in reporting. In addition, some regions, especially suburban areas, still experience limited internet network infrastructure, which has an impact on slow access to the e-Budgeting system. According to Rohma (2023), technical issues such as complex system interfaces are also obstacles for ordinary users to access and understand budget data. The complexity of the system requires intensive training and an effective use manual. In addition, the lack of optimal integration between e-Budgeting and other systems such as e-Procurement and e-Monev is also an obstacle to the

audit trail as a whole. When data from the planning to evaluation stages are not interconnected, the effectiveness of supervision is reduced. Therefore, an integrated strategy is needed that includes strengthening human resource capacity, simplifying technology, and infrastructure investment to ensure the maximum success of e-Budgeting implementation in all regions.

5. Good Governance and Society 5.0 Theory

Good governance is a governance concept that emphasizes the principles of transparency, participation, accountability, effectiveness, and justice. In the digital era, the implementation of these principles is further strengthened by the presence of information technology such as e-Government and e-Budgeting. The presence of e-Budgeting is considered a manifestation of good governance practices because it provides access to broad and measurable budget information. The digitization of financial processes allows for a more open and collaborative decision-making process, thereby narrowing the opportunities for corruption. In the context of Society 5.0—a concept of society that is oriented towards the use of technology to improve the quality of life—e-Budgeting supports the transformation of government to be more adaptive, intelligent, and efficient. According to the book "Digitalization of Regional Government" (2024), the integration of technology in budget management

3. RESEARCH METHOD

This study uses a descriptive qualitative approach with documentation study techniques and non-participatory observation of digital content of the Jakarta Provincial Government

Jakarta. Primary data was collected from the DKI Jakarta SMARTAPBD portal, the annual APBD document (2021–2024), and the official social media accounts of the DKI Jakarta Provincial Government (Instagram). The data collection process includes downloading budget documents, screenshots of the e-Budgeting dashboard, and archives of budget-related publications.

Data analysis is carried out in three stages:

1. Data Reduction – Selecting information based on transparency indicators, namely data openness, accessibility, and track record of budget changes.
2. Data Presentation – Classify and map the features of the e-Budgeting system and the publication pattern of budget information to facilitate interpretation.
3. Cross-Verification – Triangulates between sources (official documents, social media, and external oversight reports) to ensure consistency and reliability of findings.

The validity of the research is maintained through complete documentation of the data source and the recording of access dates, while the reliability of the analysis is supported by the openness of the evaluation procedure that can be replicated.

4. RESULT AND DISCUSSION

The results of the observation of the DKI Jakarta SMARTAPBD portal show that e-Budgeting provides real-time access to budget planning, revision, and realization documents in a structured format presented in Figure 1.0 and Figure 1.1.

The keyword-based search feature makes it easy for users to drill down into shopping details by program, activity, and account. The visual dashboard displays a comparative graph between budget allocation and realization, so the public can immediately understand the proportions and trends in the use of funds.



Figure 1.0



Figure 1.1

In addition to the main portal, social media content analysis (Instagram) reveals a pattern of routine publications that contain a summary of budget realization achievements per semester presented in Figure 2. The Jakarta Provincial Government also utilizes interactive infographics to simplify budget information for the general public, expanding the reach of transparency to the non-technical community.



Figure 2

However, several significant obstacles were found. First, the digital literacy of SKPD employees is not evenly distributed: some work unit units still have difficulty uploading data correctly, causing delayed or incomplete data. Second, the network infrastructure in some suburban areas is unstable, resulting in users being hampered when accessing portals or downloading documents. large size presented in Figure 3. Third, despite the portal's feature-rich interface, the complexity of navigation makes it difficult for some general users to find certain menus without a guide.



Figure 3

Comparisons with previous studies show that these findings are consistent with international literature that emphasizes the need for continuous training and adjustments to the UI to be more user-friendly. The integration of e-Budgeting with e-Procurement and e-Money systems is also not optimal; Data from the two platforms has not been fully connected, so the audit trail is cut off at the procurement stage.

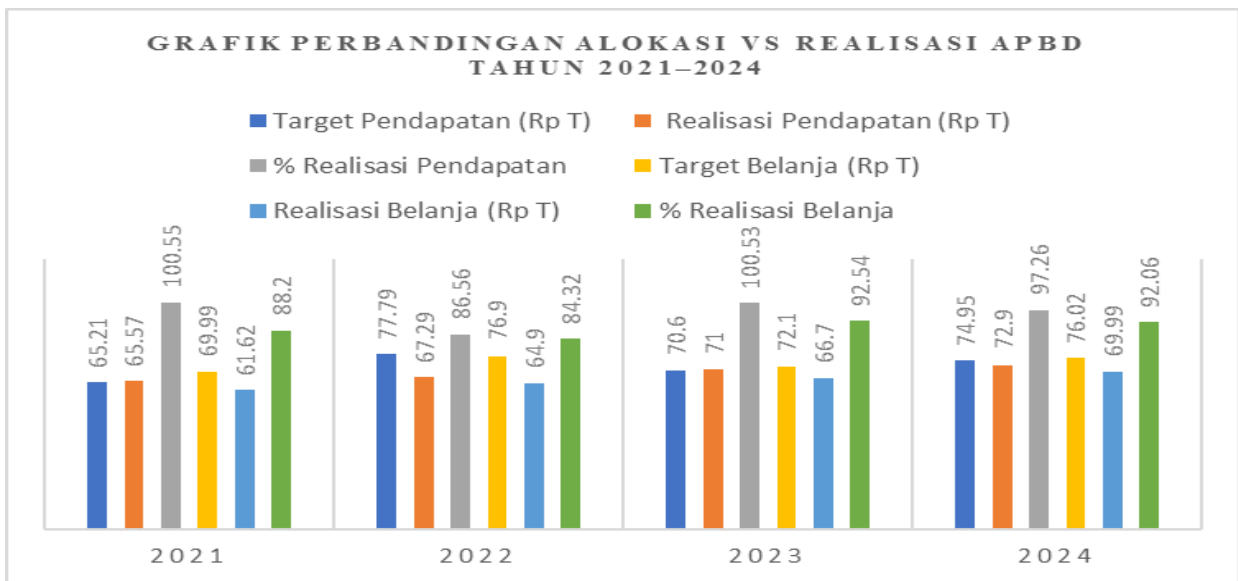


Figure 4. The Difference and Realization in year of 2021-2025

POSTUR APBD



POSTUR APBD



POSTUR APBD



POSTUR APBD PROVINSI DKI JAKARTA TAHUN 2024



POSTUR APBD PROVINSI DKI JAKARTA (Dalam Triliun Rupiah)

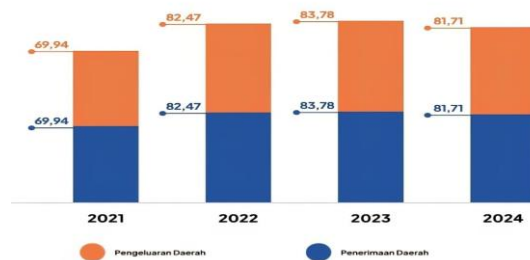


Figure 5. Infografis Finance

Based on these findings, strengthening digital literacy training, improving IT infrastructure, and simplifying interfaces are priorities to maximize the potential of e-Budgeting in realizing more transparent, accountable, and participatory budget governance.

5. CONCLUSION

Based on the results of the evaluation, the implementation of the e-Budgeting system in the Jakarta Provincial Government has made a significant positive contribution to increasing the transparency of budget management. The system successfully provides real-time access to structured planning, revision, and budget realization documents, as well as displays a full trail audit of any changes in value and spending volume.

The visual dashboard and interactive infographic features make it easier for users, both government and the public, to understand the allocation and realization of the budget per program and SKPD. However, the main obstacles were found in the form of digital literacy gaps among SKPD employees and the user community, the instability of network infrastructure in remote areas, and the complexity of interface navigation, which makes it difficult for the general public. In addition, the data integration between e-Budgeting, e-Procurement, and e-Monev has not been optimal, so the audit trail flow is interrupted at the procurement stage of goods and services.

Recommendations:

1. Strengthening Digital Literacy

Organizing ongoing training for SKPD employees and workshops for the public on how to access and interpret information on the SMARTAPBD portal.

2. Improvement of Technology Infrastructure

Increase server capacity and expand broadband networks in suburban areas for stable and fast portal access.

3. Interface Simplification

Redesign the portal's UI/UX with more intuitive menus, interactive guides, and smart search features.

4. System Integration Optimization

Connecting e-Budgeting data with e-Procurement and e-Monev platforms end-to-end, so that the audit trail covers the entire budget cycle from planning to accountability.

5. Periodic Monitoring and Evaluation

Establish a dedicated team to conduct regular reviews of system performance and user satisfaction, and follow up on feedback through periodic updates.

By implementing these recommendations, the Jakarta Provincial Government can optimize the potential of e-Budgeting in realizing more transparent, accountable, and participatory public financial governance.

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