A Sytematic Literature Review : Assessing the Effectiveness of Performance-Based Budgeting in Government Financial Management

Karina Indri Megah Sahara[*a], Roy Valiant Salomo[a]

[a]Magister Kebijakan Publik, Fakultas Ilmu Administrasi, Universitas Indonesia, Jl. Prof. DR. Selo Soemardjan, Pondok Cina, Kecamatan Beji, Kota Depok, Jawa Barat

ABSTRACT

This systematic literature review (SLR) examines the impact of Performance-Based Budgeting (PBB) on public financial management in Indonesia, emphasizing efficiency, accountability, and transparency. The study aims to identify key obstacles and factors affecting the success of PBB implementation while drawing lessons from international experiences, particularly from Ukraine, the United States, Colombia, and Chile. The research synthesizes literature from various academic sources, including Scopus-indexed journal articles, and employs a qualitative approach with Vosviewer to analyze 60 relevant studies. Findings indicate that PBB in Indonesia has yet to significantly enhance financial management due to persistent challenges such as poor data quality, inadequate institutional capacity, and political resistance. Although some progress has been observed, these barriers continue to limit PBB's effectiveness. Comparative case studies suggest that successful implementation requires strong political will, improved data infrastructure, institutional strengthening, and active public participation. The study concludes that while PBB has the potential to enhance financial management, its full realization in Indonesia depends on overcoming these challenges. However, limitations exist, particularly the reliance on secondary data and the absence of empirical research on local governments. Future studies incorporating primary data collection are recommended to gain deeper insights into practical issues and potential solutions for PBB implementation at the local level.

Key word: *efficiency; performance-based budgeting; transparency; government accountability.*

Coresspondence email : karina.indri41@ui.ac.id; roy.v09@ui.ac.id

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1. **INTRODUCTION**

In recent years, governments have been under increasing pressure to optimize the use of public resources and ensure that financial management is both efficient and transparent. This has led to the growing adoption of Performance-Based Budgeting (PBB), a reform tool designed to link public spending to measurable outcomes. PBB is built on the premise that government expenditures should not only be evaluated based on inputs or historical spending but should be directly tied to the performance and results of public policies and programs (Robinson, 2015). In Indonesia, where public financial management remains a critical area for reform, PBB is seen as a potential solution to improve budgetary efficiency and accountability, particularly in the context of fiscal constraints and public demand for improved public services (Setiawan, 2017).

Indonesia has implemented various budgeting reforms, with PBB being an integral part of efforts to streamline government expenditure and improve the delivery of public services. Despite its potential, PBB has faced numerous challenges in Indonesia, including insufficient performance data, resistance from public institutions, and difficulties in adapting to the decentralized governance structure. These issues highlight the need for a deeper understanding of the factors that contribute to PBB's success and the lessons that can be learned from other countries that have undertaken similar reforms (Syarifuddin & Fadli, 2020).

The concept of Performance-Based Budgeting has been widely researched, particularly regarding its implementation in both developed and developing countries. In countries such as the United States, the United Kingdom, and Ukraine, PBB has been associated with improvements in financial management by ensuring that budgets are more closely aligned with government priorities and performance outcomes (Fozzard, 2020). In the U.S., for example, the Government Performance and Results Act (GPRA) of 1993 required federal agencies to report on performance outcomes, driving a greater focus on results-oriented budgeting (Cohen & Reider, 2016). Similarly, Ukraine implementation of PBB has led to greater transparency and accountability in its public sector, particularly in the context of its comprehensive public administration reforms (Meyer, 2020).

However, while the literature from these countries highlights the potential benefits of PBB, studies also underscore the challenges associated with its adoption, especially in developing countries like Indonesia. For instance, in Latin American countries such as Colombia and Chile, while PBB has been recognized for improving budgetary efficiency and aligning public expenditure with strategic goals, difficulties in managing data quality and overcoming political resistance have hindered its success (Ho & Ni, 2019). These comparative studies suggest that the effectiveness of PBB is not merely a function of its design but is heavily influenced by contextual factors such as institutional capacity, political stability, and the quality of performance data available.

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Additionally, most of the existing literature focuses on internal factors affecting PBB implementation, such as regulations and budgeting systems, but lacks a comprehensive discussion of external factors such as political dynamics, data quality, and institutional capacity (Fozzard, 2020). Furthermore, comparative studies on PBB effectiveness across different countries remain scarce. Cross-country comparisons can provide valuable insights into the challenges and best practices that may be applicable to Indonesia's context.

This study aims to fill this gap by providing a systematic review of the effectiveness of PBB in enhancing efficiency, accountability, and transparency in Indonesia's public financial management and by exploring lessons from international experiences that could inform improvements in PBB implementation in Indonesia. Based on the gaps identified in the literature and the specific context of Indonesia, this review will address the following research questions: (1) What is the effectiveness of Performance-Based Budgeting in improving financial management within the Indonesian public sector, particularly in terms of efficiency, accountability, and transparency? (2) What factors influence the successful implementation of PBB in Indonesia, and how can lessons from other countries inform its adoption? (3) How can the challenges faced by Indonesia in implementing PBB be mitigated, based on comparative experiences from other countries?

The primary purpose of this article is to conduct a comprehensive systematic literature review assessing the effectiveness of Performance-Based Budgeting in the Indonesian public sector, focusing specifically on studies conducted in Indonesia and relevant comparative studies from other countries. This study will evaluate the impact of PBB on key financial management outcomes in Indonesia, including improved efficiency, accountability, and transparency, and provide insights into the factors that determine its success.

By synthesizing the findings from Indonesia and comparing them with experiences from countries such as the United States, Ukraine, and Latin American nations like Colombia and Chile, this review will offer a nuanced understanding of the challenges and opportunities in implementing PBB in Indonesia. The goal is to identify best practices, inform policymakers, and propose recommendations for improving the design and execution of PBB in Indonesia's complex and decentralized public sector.

2. METHOD

This study adopts a systematic literature review design, which aims to evaluate the effectiveness of Performance-Based Budgeting (PBB) in public financial management in Indonesia, as well as to compare findings from other countries that have implemented similar systems. The systematic literature review approach is chosen as it provides a comprehensive method for identifying, selecting, and analyzing relevant literature to assess the current state of

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research, identify gaps in knowledge, and offer insights that can inform future research and policy-making.

Bibliometric Analysis

This methodology follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) approach, which outlines the extent to which research is evaluated, its sources, the amount of data excluded, the reasons for inclusion and exclusion, and the final count of publications considered (Lame, 2019; Johannes et al., 2023). As an introductory description of the analysis in the form of data and statistical visuals, the VOSviewer software is utilized (Zhavoronok et al., 2022). The selection of articles for review is conducted in three stages: identification and screening, eligibility, and final data collection using the Scopus database (Laloux, 2020).

Data for this study is gathered from various relevant literature sources, including journal articles, books, research reports, policy documents, and published scholarly articles from the past 10 years (2012-2022). The data collection process involves searching academic databases such as Google Scholar and Scopus,. Keywords used in the search include: "Performance-Based Budgeting," AND "Public Financial Management," "Indonesia," AND "Comparative Studies," AND " Effectiveness," AND "Government Accountability". The detailed procedure for article selection is presented in Figure 1. From the initial search, 130 articles were identified. After filtering based on titles, keywords, and abstracts, 60 articles were selected for further analysis. Prior to the main analysis, a bibliometric and profile analysis was conducted as an initial step, as described in this section.

This study collected data through the compilation of both secondary and primary sources that are relevant and credible within the context of public sector financial management. Primary data were obtained through semi-structured interviews with key stakeholders in government institutions, particularly officials from the Regional Development Planning Agency (Bappeda), the Regional Finance Office, and other Local Government Organizations (OPDs) directly involved in the planning and implementation of performance-based budgeting. In addition, secondary data were gathered from various official documents, such as the Regional Government Work Plan (RKPD), the General Budget Policy and Temporary Budget Ceiling Priorities (KUA-PPAS), the Regional Revenue and Expenditure Budget (APBD), the Strategic Plans (Renstra) and Work Plans (Renja) of OPDs, as well as the Government Agency Performance Accountability Report (LAKIP). Data retrieval was conducted using a systematic search strategy through databases such as Scopus and Google Scholar, as well as by accessing official websites of central and local governments. To ensure data quality, only documents that included performance indicators and outcome measurements were considered in the analysis.
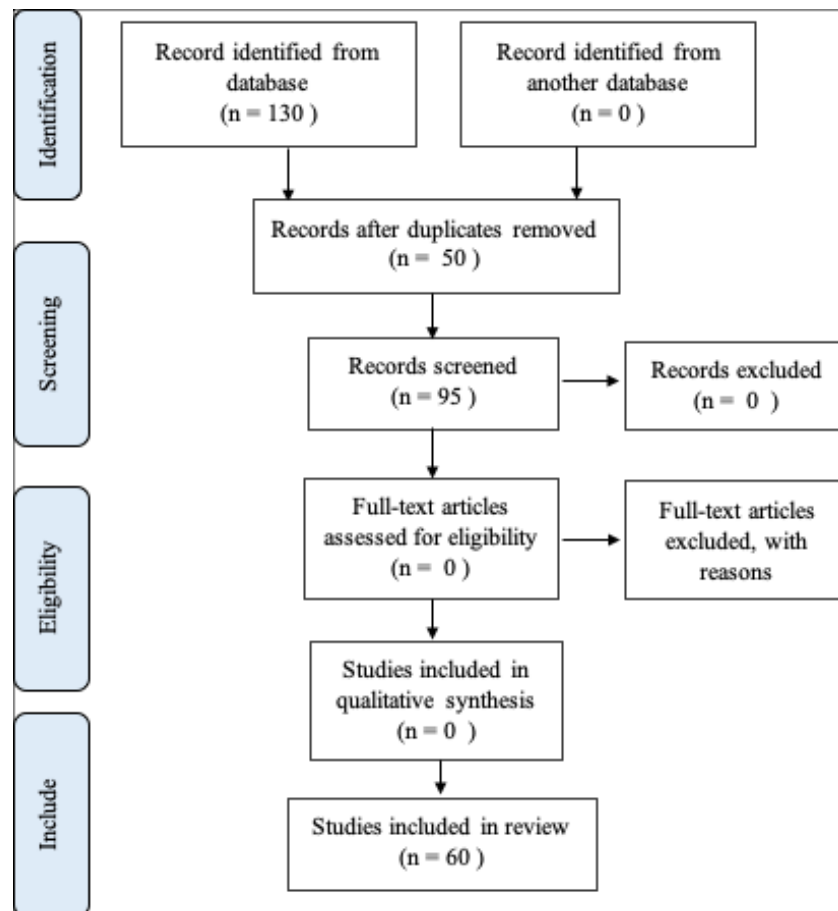
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Figure 1. Article selection procedure using PRISMA

To ensure the validity and reliability of the data, this study employed source and method triangulation techniques. Source triangulation was conducted by comparing data obtained from interviews with information found in official documents and scientific publications. Meanwhile, method triangulation was implemented by combining data from interviews, documentation, and observations of the performance-based budgeting formulation and evaluation processes. The researcher also conducted member checking by confirming preliminary findings with the key informants to ensure perceptual alignment and prevent interpretive distortion. Additionally, all data collection and analysis processes were systematically documented as part of an audit trail, enabling a logical traceability of the research findings.

The results of the analysis are presented in Figure 2. According to the findings of the bibliometric analysis, the selected articles cover three cluster groups: improving performance (marked in purple), government financial (marked in yellow), budgeting (marked in light green). Then, figure 1 shows the time dimension for each article. At the beginning of the discussion related to several keywords, namely "budget perform" and "government". Furthermore, around 2018, discussions on various policy issues with keywords such as "efficiency " , "pbb" and "practice". The keyword "survey", "program budgeting" only developed after 2012 and the latest discussion is with the keywords "institutional work" and "budgeting policy"
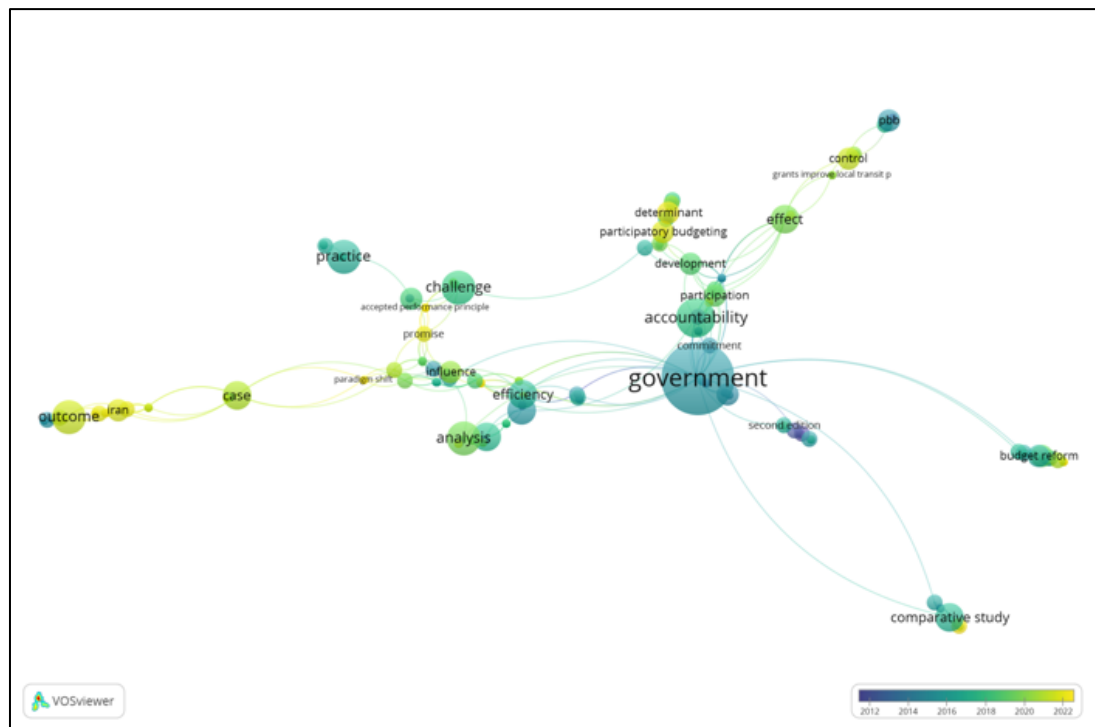
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Figure 2. Overlay Visualization Related to Effectiveness of Performance-Based Budgeting *Source: VOSviewer, Author Processed Data, 2025*

Profile Analysis

A profile analysis was performed to examine the institutional country of origin of the first author. The findings from this analysis are presented in Figure 3. As shown in the figure, the countries with the highest representation of the first author's institutional affiliation are United States, Indonesia and Italy.
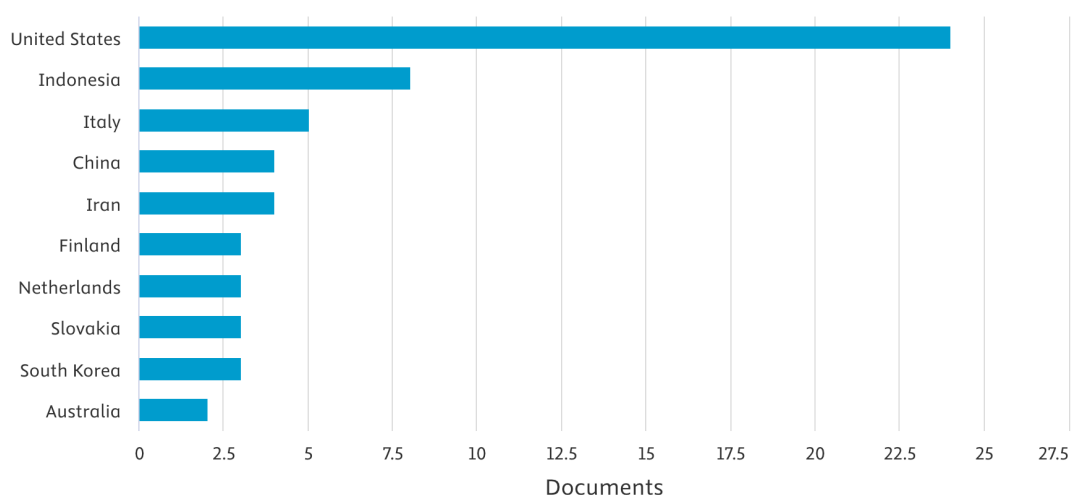

Figure 3. Country of institutional origin of the first author, *Source: Scopus database*

The data analysis process was conducted using the qualitative approach developed by Miles and Huberman, which consists of three main stages: data reduction, data display, and conclusion

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drawing. Data reduction was carried out by selecting information relevant to the indicators of efficiency, accountability, and transparency. The data were then presented in the form of a matrix illustrating the relationships between budget allocations, program performance indicators, and the levels of output and outcome achievement. Conclusions were drawn by analyzing the correlation between the size of the budget and the performance outcomes achieved by each of the local government's priority programs. For instance, the budget allocation for poverty alleviation programs was compared with the reduction in the poverty rate during the same period. This analysis was also complemented by comparative studies between government agencies and across regions as a form of external verification. By applying this approach, the impact of the implementation of Performance-Based Budgeting (PBB) can be more accurately measured through the actual performance of the funded programs.

3. **FINDINGS AND DISCUSSION**

The chart visualization presented in Figure 4 demonstrates that each color represents a distinct cluster generated using a modularity algorithm, illustrating the relationships between various points within the network. The size of each point corresponds to the number of citations an article has within the network. The network itself is composed of six major communities, each depicted in different colors: green, purple, red, blue, light blue, and yellow. Among the 286 related keywords, the largest cluster, in red, contains 21 keywords, with "participatory budgeting" being the most cited. The green cluster, containing 17 keywords, is centered around "accountability." The blue cluster, containing 16 keywords, prominently features the terms "accepted performance principle," "promise," and "perspective." Additionally, the yellow and purple clusters, each with 15 keywords (representing 14% of the total), focus on terms like "budgeting policy," "comparative study," and "institutional work." Finally, the light blue cluster, with 14 keywords, highlights "outcome."
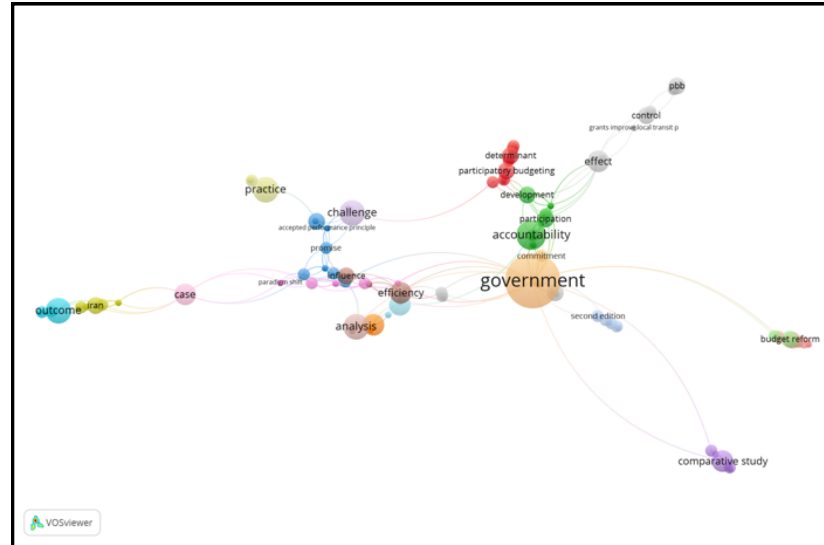
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Figure 4. Network Visualization Related to Effectiveness of Performance-Based Budgeting
Source: VOSviewer, Author Processed Data, 2025

Furthermore, figure 5 shows the dimensions of keyword density discussed in the published article. The results can be seen from several keyword elements such as countries and policies that are often discussed in publications. First, the country that is often discussed is "Ukraine". The policy that is most often discussed is the "", while the keyword "determinant", "accountability" is also one of the most frequently discussed keys when viewed from its depth.
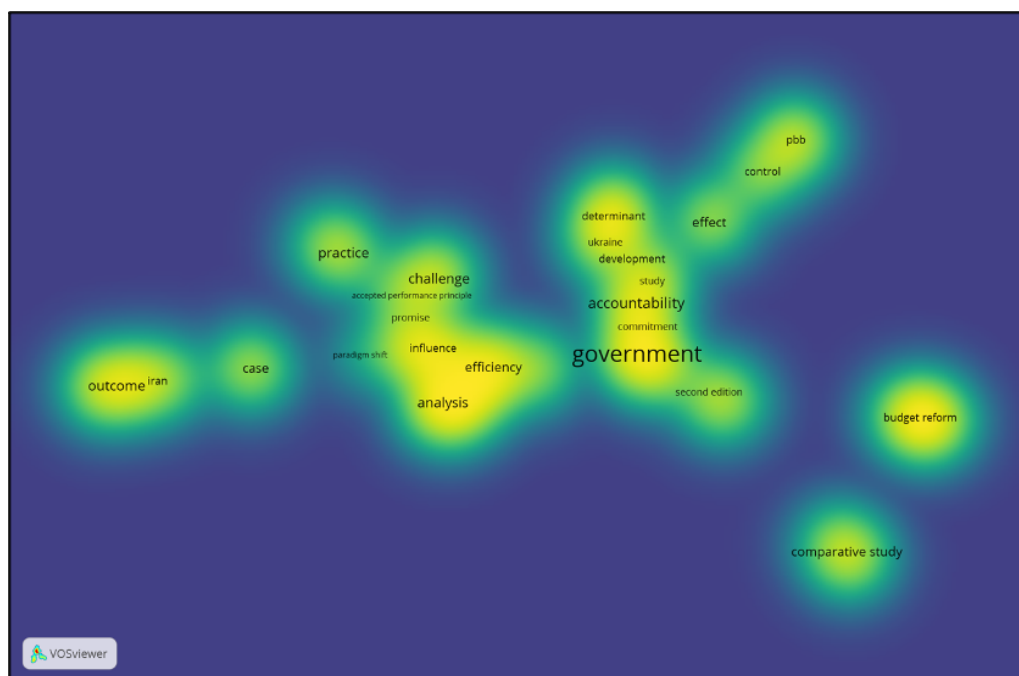

Figure 5. Density Visualization Related to Effectiveness of Performance-Based Budgeting
Source: VOSviewer, Author Processed Data, 2025

What is the effectiveness of Performance-Based Budgeting in improving financial management within the Indonesian public sector, particularly in terms of efficiency, accountability, and transparency?

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Performance-Based Budgeting (PBB) has been implemented in Indonesia with the goal of enhancing the efficiency, accountability, and transparency of public financial management. However, while the theoretical benefits of PBB are well established, its effectiveness in the Indonesian context remains a subject of debate. Several studies have pointed out that although PBB has shown promise, its impact on improving these core areas of public financial management is constrained by systemic challenges.

Efficiency

The primary objective of PBB is to enhance the efficiency of government spending by linking budget allocations to measurable performance outcomes. In theory, this should ensure that resources are directed toward programs that deliver the best outcomes. However, the Indonesian implementation of PBB has encountered significant obstacles in achieving this goal. (Willoughby & Melkers, 2000). This study finds that the concept of Performance-Based Budgeting (PBB) contributes positively to improving budget efficiency, although it is still in the early stages of implementation. Generally, several government agencies (OPDs) have begun to align their program structures with measurable outcomes, particularly in sectors such as health and education. In this context, programs with high indicator achievements tend to be maintained and receive more rational budget allocations. A study by Sofyani (2018) indicates that local governments consistently implementing PBB have experienced a decline in inefficient expenditures (e.g., ceremonial budgets) and an increase in performance-based direct spending allocations. This efficiency is reflected in improved cost-effectiveness per unit of public service over time. However, such impacts remain limited to institutions with robust performance monitoring systems. Setiawan (2017) highlights that while the Indonesian government has made strides in adopting performance-based budgeting, the actual link between budget allocations and performance outcomes remains weak. One of the primary challenges is the lack of a comprehensive and reliable data collection and monitoring system. Without accurate performance data, it is difficult to evaluate whether the funds allocated to specific programs are being used efficiently. Furthermore, inefficiencies in the budget process, such as political interference and bureaucratic inertia, continue to hinder the efficient allocation and use of public funds. (Andrews, 2004)

Moreover, many government agencies in Indonesia still adhere to traditional budgetary practices that focus more on input-based allocations rather than performance outcomes. As Robinson (2015) suggests, while PBB holds the potential to improve efficiency, its success depends largely on institutionalizing performance monitoring systems and ensuring that these systems are used to guide decision-making. In Indonesia, the lack of such systems has meant that

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many budget decisions continue to be made based on historical expenditures or political considerations, rather than on the effectiveness of government programs (Roth, 1992)

Accountability

PBB was also introduced to improve government accountability, particularly by making public officials answerable for the results achieved from public expenditures. However, while PBB has made some progress in this area, the evidence suggests that it has not fully realized its potential in Indonesia. As noted by Ho and Ni (2019), a major limitation is the insufficient transparency in performance measurement and reporting.

In theory, PBB should allow citizens and oversight bodies to hold government agencies accountable by clearly demonstrating the outcomes of their budget allocations. However, the lack of comprehensive performance reporting systems in Indonesia means that there is limited visibility into how public funds are spent and whether they achieve the intended results. The absence of standardized performance indicators across different government programs further complicates the ability to assess the effectiveness of public spending, reducing the ability of the public to hold officials accountable for their actions (Alibegović & Blažević, 2010).

The impact of the implementation of Performance-Based Budgeting (PBB) on improving accountability in Indonesia has also begun to emerge through the development of Performance Agreements (PK), which must be signed by the heads of regional government agencies (OPD). With the establishment of these agreements, government officials have become more cautious in setting program targets, as performance achievements are evaluated annually and serve as the basis for accountability to the public and oversight institutions. According to Setiawan (2017), regions that consistently apply PBB have shown improvements in their evaluation scores for the Government Agency Performance Accountability System (SAKIP) issued by the Ministry of Administrative and Bureaucratic Reform (KemenPANRB), indicating more measurable performance accountability. This aligns with Park's (2019) findings, which suggest that when the public and regional legislative councils (DPRD) have access to budget performance information, public oversight becomes more effective, thereby enhancing the accountability of government programs.

Setiawan (2017) further argues that while there are some instances where PBB has helped to improve transparency, the lack of effective communication between government agencies and the public remains a significant barrier. Without clear and accessible information about how funds are being allocated and used, it is difficult for citizens to engage in meaningful oversight. This issue is compounded by the fact that performance measures are often too complex or technical for non-experts to understand, leaving the public disengaged from the budgeting process (Jack & Kholeif, 2008).

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Transparency

The final objective of PBB is to enhance transparency in the budgeting process, ensuring that public spending is open to scrutiny. In this regard, Indonesia has faced significant challenges. PBB was intended to provide clearer insights into how resources are allocated to different sectors and how effectively they are utilized. However, as Robinson (2015) observes, the implementation of PBB in Indonesia has been hindered by the lack of an integrated performance measurement and reporting framework (VanLandingham et al., 2005).

Despite efforts to improve transparency, Indonesia continues to face issues with opaque budget processes. For instance, while the central government has adopted some elements of PBB, local governments where much of the public expenditure occurs have been slower to implement the system effectively. This decentralization of governance presents additional hurdles, as local authorities often lack the resources, capacity, and political will to adopt PBB fully (Rodriguez & Bijotat, 2003).

Comparatively, countries such as Ukraine and the United States have made significant strides in enhancing transparency through the integration of performance-based measures in their budgeting processes. Ukraine adoption of PBB was supported by a strong institutional framework that ensured performance data was easily accessible and transparent. Similarly, in the United States, the Government Performance and Results Act (GPRA) created a national standard for performance-based budgeting, making it easier to assess the effectiveness of government programs and hold agencies accountable (Cohen & Reider, 2016). For Indonesia, adopting a more robust system that links performance indicators to budgetary allocations and improves public access to information would be crucial in achieving the transparency goals of PBB (Avwokeni, 2016).

Performance-Based Budgeting (PBB) promotes transparency by requiring each government agency (OPD) to develop performance indicators that are open to public evaluation. The study by Marsus & Mas'udin (2020) recorded that the implementation of performance-based e-budgeting systems in several provinces has increased public access to planning documents and budget realization, including evaluations of program performance outcomes. In these regions, there has been a rise in public participation in Musrenbang (development planning forums) and public consultation meetings, indicating that fiscal transparency is not merely administrative but also encourages civic engagement. In other countries such as Ukraine, the success of PBB in promoting transparency is reinforced by online reporting systems and electronic performance auditing. Indonesia could adopt a similar approach by fully integrating the SAKIP, e-performance, and SIPD systems to achieve data-driven transparency.

Overall, this study suggests that while the implementation of PBB in Indonesia still faces various institutional and technical challenges, its impact on efficiency, accountability, and

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transparency has begun to emerge to a certain extent. This impact is most evident in government institutions that are aware of bureaucratic reform and are supported by adequate performance management information systems. As also found by Ho & Ni (2019), the successful implementation of PBB is not solely determined by policy structures but also by institutional maturity, political continuity, and data quality. Therefore, strengthening the integration of planning, budgeting, performance reporting, and oversight is essential to expanding the positive impacts of PBB at the national level.

Table 1. Comparative effectiveness of Performance-Based Budgeting

Country	Eficiency of PBB	Transparency of PBB	Institutional Capacity	Political Commitment	Data Quality and Availability
Indonesia	Limited due to weak data systems, bureaucratic resistance, and political interference.	Limited, due to lack of clear reporting systems and inconsistent performance measures.	Weak institutional capacity, particularly at local government levels, with limited training and resources.	Moderate, political support is inconsistent, with varying levels of commitment across regions.	Data is inconsistent and fragmented, lacking standardized performance measurement systems.
United States	High, due to established systems like GPRA and regular performance audits.	High, clear performance outcomes linked to public reporting and oversight mechanisms.	Strong institutional capacity, with systems in place to manage performance-based budgeting at all levels of government.	High, strong political commitment at the federal level through continuous reforms like the GPRA.	High-quality data systems with comprehensive performance measurement frameworks in place across government agencies.
Ukraine	High, performance-based systems are deeply embedded and aligned with national goals.	High, well-established performance transparency through data reporting systems and public access.	Strong institutional capacity, with a well-developed public administration that supports performance-based budgeting at national and local levels.	Very high, continuous political support for performance-based reforms and integration into long-term fiscal planning.	Reliable and high-quality data systems for performance monitoring and transparent public reporting mechanisms.
Chile	Moderate to high, improved by strong political commitment	Moderate to high, increased transparency through public engagement and	Moderate institutional capacity, with growing support for local	High, significant political leadership in promoting PBB,	Increasing, with improving data systems and enhanced capacity for

Source: (Joyce, 1997)

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What factors influence the successful implementation of PBB in Indonesia, and how can lessons from other countries inform its adoption?

The success of PBB in Indonesia depends on several interrelated factors, including political will, institutional capacity, data quality, and stakeholder engagement. These factors determine whether the system can be effectively implemented and whether it can bring about the desired improvements in financial management. Drawing lessons from other countries that have successfully implemented PBB can provide valuable insights into how these factors can be addressed in the Indonesian context (Aristovnik, 2013).

Political Will and Leadership

A critical factor influencing the successful implementation of PBB in Indonesia is political will. Without strong political commitment, PBB reforms are unlikely to succeed. Syarifuddin and Fadli (2020) note that political resistance from various government agencies, coupled with a lack of consistent leadership, has hampered the progress of PBB in Indonesia. In countries like Colombia, political leaders have played a pivotal role in driving the adoption of PBB by making clear, long-term commitments to the reform process. Similarly, Chile's experience demonstrates how strong political leadership can align the goals of PBB with broader development objectives, ensuring that it becomes a central feature of the country's financial management systems (Ho & Ni, 2019).

For Indonesia, fostering political will requires both top-down leadership and bottom-up engagement. Political leaders must not only advocate for PBB but also ensure that adequate resources and political support are allocated to its implementation. Additionally, reducing resistance to change within government agencies is essential for achieving widespread acceptance of PBB.

Institutional Capacity

Institutional capacity is another key determinant of PBB's success. Indonesia faces challenges related to the lack of capacity within public institutions, particularly at the local government level. As Syarifuddin and Fadli (2020) point out, many local governments in Indonesia lack the technical expertise and resources needed to implement PBB effectively. Ukraine experience with PBB highlights the importance of investing in public sector capacity through training and capacity-building initiatives. In Ukraine, public servants were trained in performance-based budgeting, and the government ensured that both central and local authorities had the necessary tools to manage and report on performance (Meyer, 2020).

For Indonesia, improving institutional capacity could involve providing comprehensive training for public officials, developing clear guidelines for performance measurement, and building the necessary infrastructure to support PBB implementation at the local level (J. E. Melkers & Willoughby, 2001).

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Data Quality and Availability

The quality and availability of data are crucial to the successful implementation of PBB. As noted earlier, one of the primary challenges in Indonesia is the lack of reliable data for performance measurement. Comparative experiences, particularly from the United States, show that robust data systems are essential for tracking performance and making informed budget decisions. In the U.S., the Government Performance and Results Act (GPRA) established a standardized system for performance measurement, ensuring that data collected across different agencies was consistent and comparable (Cohen & Reider, 2016).

Indonesia can improve data quality by investing in performance management systems that allow for the collection, analysis, and reporting of performance data across all levels of government. Additionally, integrating these systems with existing budgetary frameworks would ensure that data directly informs decision-making (J. Melkers & Willoughby, 1998).

Stakeholder Engagement

The involvement of stakeholders, including the public, civil society organizations, and oversight bodies, is essential for the success of PBB. Chile's experience with participatory budgeting and performance measurement demonstrates the positive impact of engaging stakeholders in the budgeting process (Fozzard, 2020). For Indonesia, promoting greater public engagement in the budgeting process would increase transparency and accountability, fostering trust in the system and encouraging greater participation in governance (Mauro et al., 2018).

How can the challenges faced by Indonesia in implementing PBB be mitigated, based on comparative experiences from other countries?
Challenges in Implementing PBB in Indonesia

Implementing Performance-Based Budgeting (PBB) in Indonesia has faced significant challenges, primarily stemming from the country's complex administrative structure, insufficient data quality, and resistance from various governmental sectors. These challenges have made it difficult for PBB to achieve its intended outcomes of improving financial management, efficiency, and accountability within the public sector (Grossi et al., 2018).

a. Data Quality and Availability

One of the main hurdles in implementing PBB in Indonesia is the lack of reliable and comprehensive data for performance measurement. According to Setiawan (2017), the absence of robust data collection and monitoring systems limits the ability of government agencies to measure and report performance accurately. This data gap reduces the effectiveness of PBB, as it becomes difficult to track whether funds are being used effectively or if they are achieving the desired outcomes (Crain & O'Roark, 2004).

In contrast, countries like Ukraine and the United States have implemented strong performance monitoring systems, which include comprehensive databases for tracking government spending and results (Meyer, 2020; Cohen & Reider, 2016). These countries have

developed advanced tools and methodologies to capture performance data, making it easier for governments to make informed decisions regarding budget allocations. The development of similar data collection frameworks in Indonesia would help address the data-related challenges (Lysiak et al., 2017).

b. Political Will and Bureaucratic Resistance

Another major challenge in Indonesia is political will. PBB implementation often requires substantial political support and leadership, which has not always been forthcoming. Bureaucratic resistance is another issue. Government employees and agencies often prefer traditional budgeting methods due to their familiarity and perceived ease of use (Syarifuddin & Fadli, 2020).

Lessons can be drawn from Colombia and Chile, where political support and a willingness to reform have been critical in the successful implementation of PBB. In Colombia, for instance, the government successfully integrated performance-based budgeting through strong political leadership, coupled with capacity-building efforts that helped overcome resistance from public servants (Ho & Ni, 2019). These comparative cases highlight the importance of a clear and consistent political commitment to the reform process, along with active efforts to reduce resistance through training and stakeholder engagement (Bourdeaux, 2008).

c. Institutional Capacity and Training

Indonesia's decentralized government structure adds another layer of complexity to the implementation of PBB. Local governments often lack the necessary capacity to implement performance-based budgeting effectively. As noted by Syarifuddin and Fadli (2020), while the central government may push for PBB reforms, local governments face challenges such as limited financial and human resources, as well as a lack of expertise in managing performance-based systems (Zhao, 2016).

Comparing this to Ukraine approach, which focused heavily on training local officials and building institutional capacity at all levels of government, Indonesia could benefit from adopting a similar strategy. Ukraine success in implementing PBB is partly attributed to its long-term investment in public sector training and the gradual building of institutional capacity across various governmental layers (Meyer, 2020). For Indonesia, implementing a comprehensive training program for both central and local government officials could significantly enhance the adoption of PBB and ensure that the system functions effectively (Mullen, 2006).

d. Lack of Alignment Between Policy Goals and Budgeting

In some instances, PBB has struggled in Indonesia due to the misalignment between policy goals and the budgeting process. As observed by Robinson (2015), PBB requires that budgeting decisions be closely linked to the achievement of specific policy outcomes. However,

in Indonesia, the budgeting process is often more focused on routine expenditures rather than strategic goals, which undermines the potential effectiveness of PBB (Mauro et al., 2019).

In contrast, countries like the United States have addressed this issue by explicitly aligning PBB with national policy objectives and ensuring that performance measures are tied to long-term strategic goals (Cohen & Reider, 2016). This alignment has allowed the U.S. to achieve more efficient budgeting by focusing on the outcomes that matter most to citizens and government priorities.

Table 2. Comparative Analysis

Country/Region	Key Findings	Challenges
Indonesia	Positive impact on program effectiveness, but issues with performance measures	Difficulty in formulating effective performance measures
China	Use of Performance Evaluation Intermediary Institutions (PEIIs)	Limited technical capacity and need for external credibility.
Ukraine	Extensive application but issues with inefficiency and corruption	Need for evidence-based approaches and better stakeholder involvement.
Latin America	Influences executive budget decisions, not legislative	Characteristics of budget laws, performance measurement systems, and fiscal stress context.
EU Member States	Use of performance indicators in budgeting	Weaknesses in current performance measurement methods.
Ghana	Perceived as useful but faces implementation challenges	Need for better performance measures and inter-institutional coordination.

Source: (Hou et al., 2011)

Mitigation Strategies Based on Comparative Experiences

From the comparative studies of countries like Ukraine, the United States, Colombia, and Chile, several lessons can be applied to mitigate the challenges Indonesia faces in implementing PBB (Sofyani, 2018):

a. Strengthening Data Collection and Performance Monitoring Systems: Indonesia can take inspiration from Ukraine and the U.S., which have implemented comprehensive performance monitoring systems that capture detailed data on government spending and outcomes. Developing similar tools in Indonesia will enable more accurate tracking and evaluation of PBB's impact.

b. Political Commitment and Leadership: The successful implementation of PBB in Colombia and Chile underscores the importance of strong political will. Indonesian policymakers need to demonstrate a clear commitment to the reform process and engage in continuous dialogue with stakeholders at all levels to build support for PBB.

c. Capacity Building and Training: Drawing from Ukraine experience, Indonesia should invest in capacity-building programs for public sector officials at both the central and local government levels. This could include the development of specialized training modules on PBB

implementation, performance measurement, and data analysis.

d. Aligning Policy Goals with Budgeting Processes: Indonesia could improve the effectiveness of PBB by aligning budget allocations with long-term strategic policy goals, as seen in the United States. Ensuring that PBB is directly linked to the country's development priorities will increase its relevance and effectiveness.

Future Research Recommendation

While this study provides a foundation for understanding the challenges and opportunities associated with the implementation of Performance-Based Budgeting (PBB) in Indonesia, several areas for future research can help further refine and optimize PBB as a tool for improving government financial management. Future research can also explore the intersection of PBB with broader government financial management reforms (Gagaring & Mushar, 2015).

a. **Empirical Case Studies on PBB and Government Financial Management in Indonesia**

Future research could delve into empirical case studies focusing on how PBB directly impacts overall government financial management in Indonesia, including budgeting processes, financial planning, and fiscal discipline (Ehrenhard et al., 2012). These studies could investigate how PBB aligns with or challenges existing financial management systems, especially considering Indonesia's fiscal constraints and decentralization. By gathering insights from local and national government agencies, such studies could provide actionable lessons on integrating PBB into the broader framework of financial management reforms, ensuring that performance data is used effectively in decision-making and resource allocation (Hijal-Moghrabi, 2017).

b. **Comparative Studies on PBB in Government Financial Management Systems**

A comparative study across multiple countries focusing on those with similar challenges in public financial management would be valuable for understanding how PBB can be adapted to different contexts (Mischen & Sinclair, 2017). For example, examining how countries with decentralized governance systems, like Indonesia, implement PBB could provide crucial lessons for managing public finances at both central and local levels. Additionally, examining countries with advanced public financial management systems, such as the United Kingdom or New Zealand, could shed light on how PBB can complement existing financial management reforms, including improving budgeting practices, strengthening internal controls, and enhancing financial accountability (Huber & Hillebrandt, 2019).

c. **Longitudinal Studies on the Long-Term Impact of PBB on Government Financial Management**

Longitudinal studies are critical in evaluating the long-term effectiveness of PBB in transforming government financial management. Such research could assess how the use of performance data influences financial outcomes such as cost efficiency, financial sustainability,

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and resource optimization over time (Ellul & Hodges, 2019). Studies could track the relationship between PBB implementation and the overall improvement in financial management practices within Indonesian public institutions, examining whether PBB leads to sustained changes in budgeting behavior, resource allocation, and fiscal discipline (Srithongrung, 2018).

d. Impact of Technology on Performance-Based Budgeting and Government Financial Management

Technologies like blockchain for transparency, AI for predictive analytics in financial planning, and cloud computing for real-time financial data sharing could significantly enhance both PBB and overall government financial management. Exploring how such technologies can be integrated into PBB systems to improve data quality, financial reporting, and auditing practices would be a promising area for research (Lee & Hong, 2009).

e. Public Sector Governance and Financial Management Reforms in Indonesia

Given the challenges with government financial management reforms in Indonesia, future research could explore how PBB intersects with broader governance reforms aimed at improving fiscal accountability and reducing corruption (Marsus & Mas'udin, 2020). Studies could investigate the role of institutional reforms, including capacity-building and regulatory changes, in enhancing the efficiency of PBB. Understanding how public financial management reforms such as strengthening audit systems, increasing fiscal transparency, and promoting good governance complement PBB could provide a more holistic view of how Indonesia can improve its financial management practices (Alkaraan, 2018).

f. Decentralization and PBB's Role in Local Government Financial Management

Indonesia's decentralized system of governance presents unique challenges for government financial management, particularly at the local level. Future research could examine how local governments implement PBB and the degree to which it impacts local financial management practices, such as the allocation of resources, prioritization of expenditures, and tracking of program outcomes (Aisyah et al., 2021). This research could focus on how decentralization affects the consistency and reliability of financial management systems across regions and explore how central government oversight can help standardize PBB implementation in a decentralized governance system.

g. Integrating PBB with Broader Public Sector Financial Planning

Future studies could explore how PBB can be integrated into broader public sector financial planning and strategic financial management processes. For example, integrating performance outcomes into long-term fiscal planning and aligning PBB with national development plans can create a more cohesive approach to financial management (Hijal-Moghrabi, 2019). Research could also explore how PBB can help link budgetary decisions to strategic goals, such as poverty

reduction, infrastructure development, or social welfare, ensuring that public financial management serves both the government's fiscal health and its policy priorities.

4. **CONCLUSION**

The findings indicated that although PBB has the capacity to enhance financial management in Indonesia, its efficacy has been constrained by many difficulties. This encompasses the absence of dependable data for performance evaluation, political opposition, deficiencies in institutional capacity, and inadequate stakeholder involvement. The limits have impeded PBB's influence on efficiency, accountability, and transparency, as numerous government agencies continue to depend on conventional budgeting methods that emphasize inputs above performance results.

However, the study also highlighted the importance of political will, institutional capacity, and the availability of reliable data in ensuring the success of PBB. The comparative experiences of countries like Ukraine, the United States, Colombia, and Chile provided valuable lessons for Indonesia. These countries demonstrated that strong political commitment, investment in public sector capacity, development of robust data systems, and increased public participation in the budgeting process are key to the successful implementation of PBB.

While the study provides valuable insights, there are several limitations to this research. First, the findings are based solely on a literature review, which inherently means that empirical evidence from case studies or direct observations in Indonesia was not included. This may limit the applicability of the conclusions to the specific context of Indonesia, as the findings are primarily based on secondary sources. Future research could benefit from case studies or interviews with policymakers and public servants in Indonesia to better understand the practical challenges and opportunities in implementing PBB.

Second, the comparative analysis in this study was limited to a few countries—Ukraine, the United States, Colombia, and Chile. While these countries provided valuable lessons, a more extensive comparison with other countries, particularly those in similar socio-political and economic contexts to Indonesia, would have provided a broader range of insights. Future studies could explore the experiences of other developing countries that have faced similar challenges to Indonesia in implementing performance-based budgeting.

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AUTHOR PROFILE

Karina Indri is a postgraduate student at the Faculty of Administrative Sciences, Universitas Indonesia, specializing in public policy. Her academic research focuses on the intersection of budgetary policy and institutional performance within the framework of good governance principles. Alongside her academic pursuits, she serves as a Budget Planning Analyst at the Ministry of State Secretariat of the Republic of Indonesia. In this capacity, she is actively involved in the strategic planning, formulation, and evaluation of budgetary policies and programs that directly support the operational and administrative functions of the Presidency and Vice Presidency. Her professional work emphasizes enhancing fiscal efficiency, accountability, and the alignment of budgetary resources with national development priorities.

Roy Valiant Salomo is a lecturer at the Faculty of Administrative Sciences, University of Indonesia. His higher education began with a Bachelor's degree in Public Administration from the University of Indonesia in 1986. Following that, he pursued his master's degree at Queen Elizabeth University in the United Kingdom, specifically at the University of Birmingham. He majored in

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Development Administration and successfully graduated in 1991. He then continued his education by pursuing a doctoral program and in 2006, he successfully earned his Doctorate in Public Administration from the University of Indonesia.

In his daily life, he is active in various committees and as a speaker for various occasions. In 2011, he was listed as a speaker at the International Conference of the Asian Association for Public Administration (AAPA). He is also a member of the American Society for Public Administration. Additionally, Dr. Roy has actively contributed to various research studies, including: "Factors Influencing the Performance of the Jakarta Capital City Government" (2010), "Administrative Reform in Local Government Environments" (2011), and "Strategies for the National Social Security System in the Health Sector: A Scenario Planning Approach in the Indonesian Health Insurance Model until 2030" (2012).