

# A Systematic Literature Review on the Effectiveness of Internal Control and the Quality of Internal Audit in Improving Financial Management Performance at State Legal Entity Universities (PTN BH) in Indonesia

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## ABSTRACT

The purpose of this study is to systematically review existing literature on the effectiveness of internal control and the quality of internal audit in improving the financial management performance of State Legal Entity Universities (PTN BH) in Indonesia. In the context of public sector governance, particularly in higher education institutions, financial management performance is a crucial determinant of institutional accountability and sustainability. This study employs a Systematic Literature Review (SLR) approach by collecting, evaluating, and synthesizing empirical research articles published between 2013 and 2024 from reputable international and national journals. The review process followed PRISMA guidelines to ensure transparency and comprehensiveness in the selection of relevant studies. A total of 35 articles were identified and categorized based on their research focus, methodologies, and key findings. The results show that both internal control effectiveness and internal audit quality significantly influence financial management performance, although various contextual factors such as organizational culture, regulatory environment, and leadership style act as moderating or mediating variables. The study concludes by offering theoretical, practical, and policy implications to improve financial governance in PTN BH, and provides directions for future research in public sector accounting.



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## 1. INTRODUCTION

In recent years, the governance and financial management performance of higher education institutions, particularly State Legal Entity Universities (Perguruan Tinggi Negeri Badan Hukum, hereafter PTN BH) in Indonesia, has become a subject of growing academic and institutional concern. The transformation of Indonesian public universities into PTN BH is aimed at enhancing institutional autonomy, financial independence, and accountability while ensuring the delivery of quality education services. However, with greater autonomy comes increased responsibility in maintaining prudent, transparent, and efficient financial management practices. In this context, the role of effective internal control systems and high-quality internal audit functions becomes critically important in safeguarding assets, ensuring compliance, enhancing operational efficiency, and fostering financial reporting reliability. Internal control, as conceptualized by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), is a process designed to provide reasonable assurance regarding the achievement of operational, reporting, and compliance objectives. An effective internal control system mitigates financial risks, deters fraud, and improves organizational performance by ensuring that financial activities are conducted in accordance with established policies, procedures, and regulations. Similarly, internal audit functions as an independent, objective assurance and consulting activity that adds value and improves an organization's operations. High-quality internal auditing provides an essential mechanism for evaluating the adequacy of internal controls, identifying financial risks, and recommending improvements, thereby playing a crucial role in supporting good governance within universities.

Despite the widely acknowledged importance of these governance mechanisms, empirical findings regarding their effectiveness in improving financial management performance within PTN BH remain fragmented and inconclusive. Some studies have demonstrated a positive relationship between internal control effectiveness and financial performance, while others have highlighted the moderating or mediating roles of various institutional factors. Similarly, research on the quality of internal audit has produced mixed results, with differences in audit independence, competence, objectivity, and reporting quality influencing outcomes. Given these inconsistencies, there is a compelling need for a comprehensive review that systematically consolidates existing evidence, identifies knowledge gaps, and proposes directions for future research. Therefore, this study aims to conduct a systematic literature review (SLR) on the effectiveness of internal control and the quality of internal audit in improving the financial management performance of PTN BH in Indonesia. By synthesizing findings from a diverse range of empirical studies, this

review seeks to provide a consolidated understanding of how internal control mechanisms and audit quality contribute to financial performance, as well as to identify factors that enhance or impede these relationships. The review will be guided by established theoretical frameworks, including Institutional Theory, COSO Internal Control Framework, and Goal Setting Theory, to offer a robust and comprehensive analysis. This paper is structured as follows: the next section presents the research methodology, including the criteria for literature selection and analysis. The subsequent section discusses the results and findings from the reviewed studies. The paper concludes by summarizing the key insights, implications for policy and practice, and suggestions for future research in the context of financial management performance at PTN BH.

## 2. LITERATURE REVIEW

### **Internal Control Effectiveness**

Internal control represents an integrated process established by an organization's governance, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the categories of operations, reporting, and compliance (COSO, 2013). The COSO Internal Control Integrated Framework identifies five interrelated components: control environment, risk assessment, control activities, information and communication, and monitoring activities. Effective internal control is fundamental in mitigating financial misstatements, preventing fraud, and ensuring the reliability of financial reporting within organizations, including higher education institutions. In the context of public universities, particularly PTN BH in Indonesia, internal control effectiveness is increasingly critical due to the universities' financial and managerial autonomy. Several empirical studies (e.g., Susanti et al., 2020; Ramadhani & Haryanto, 2022) have highlighted that robust internal control mechanisms lead to improved financial management performance by enhancing operational efficiency, reducing financial risks, and ensuring the proper use of public funds. However, differences in implementation quality, management commitment, and organizational culture often result in variations in internal control effectiveness among PTN BH.

### **Quality of Internal Audit**

The internal audit function serves as an independent, objective assurance and consulting activity designed to add value and improve an organization's operations (IIA, 2022). In public sector organizations, including universities, internal audits play a crucial role in evaluating the effectiveness of governance, risk management, and control processes. The quality of internal auditing is typically assessed through dimensions such

as auditor independence, objectivity, professional competence, audit scope, and reporting clarity.

In the PTN BH environment, the internal audit unit (Satuan Pengawasan Internal, SPI) functions as an internal supervisory body tasked with ensuring institutional accountability and sound financial governance. Studies by Astuti et al. (2019) and Prasetyo et al. (2021) have demonstrated that higher audit quality correlates positively with improved financial management performance, primarily through timely detection of irregularities, adherence to regulations, and enhanced transparency. Nonetheless, challenges such as limited auditor resources, lack of training, and management intervention continue to affect the effectiveness of SPI audits in some universities.

### **Financial Management Performance in State Legal Entity Universities (PTN BH)**

Financial management performance in PTN BH reflects the ability of universities to manage their financial resources effectively, efficiently, and accountably in accordance with statutory regulations. Performance indicators typically include budget realization rates, asset utilization, financial report quality, and compliance with financial governance standards (Kemendikbudristek, 2023). Given the unique characteristics of PTN BH as autonomous public entities, financial management must balance public accountability with institutional flexibility.

Research by Sari et al. (2020) and Nugroho & Dewi (2022) has identified several determinants of financial management performance in PTN BH, including governance practices, leadership commitment, internal control systems, and internal audit quality. These studies suggest that universities with stronger governance mechanisms and financial oversight tend to exhibit better financial performance outcomes.

### **Theoretical Framework**

This study is grounded in several theoretical perspectives. Institutional Theory (DiMaggio & Powell, 1983) posits that organizations are influenced by institutional pressures to adopt structures and practices perceived as legitimate, including internal control and auditing systems. In the context of PTN BH, regulatory and normative pressures from government bodies and stakeholders drive the implementation of effective financial governance mechanisms. The COSO Internal Control Framework (COSO, 2013) serves as a middle-range theory, providing a structured approach to designing and evaluating internal control systems. It guides the assessment of how well universities manage risks and safeguard resources. Finally, Goal Setting Theory (Locke & Latham, 2002) offers an applied theoretical lens by suggesting that specific, challenging, and achievable

financial management targets can motivate better performance, particularly when supported by reliable control and audit functions.

### **Previous Studies and Research Gap**

While various studies have examined the relationship between internal control, audit quality, and financial management performance in public sector organizations, few have focused specifically on PTN BH in Indonesia using a comprehensive systematic literature review approach. Existing research tends to be fragmented, with inconsistencies in findings and limited theoretical integration. This review seeks to address this gap by systematically consolidating existing empirical evidence, analyzing methodological differences, and identifying factors influencing the effectiveness of internal control and internal audit in improving financial management performance in PTN BH.

## **3. METHODS**

This study adopts a Systematic Literature Review (SLR) approach to comprehensively identify, evaluate, and synthesize existing empirical studies examining the effectiveness of internal control and the quality of internal audit in improving financial management performance at State Legal Entity Universities (PTN BH) in Indonesia. The systematic review method was chosen because it offers a structured, transparent, and replicable framework for gathering and analyzing research evidence. The review process follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to ensure clarity and methodological rigor. Relevant literature was collected from multiple academic databases, including Scopus, Web of Science, Google Scholar, Emerald Insight, ProQuest, and Garuda, using a combination of specific keywords such as *“internal control,” “internal audit quality,” “financial performance,” “state universities,”* and *“PTN BH”*. The search was restricted to articles published between 2015 and 2024, in both English and Indonesian languages.

After identifying potential studies, a systematic selection process was conducted by applying clear inclusion and exclusion criteria. Studies were included if they were empirical, focused on Indonesian PTN BH, and examined relationships among internal control, internal audit, and financial management performance. Non-empirical papers, studies conducted outside the PTN BH context, and those lacking complete data were excluded. Data extraction was performed using a standardized form to collect essential information such as research objectives, methods, key findings, and theoretical frameworks. The results were then analyzed thematically, and the quality of each study was assessed based on relevance, methodological rigor, and clarity of findings. Finally, the overall

findings were summarized narratively and visually represented using a PRISMA flow diagram to document the literature selection process.

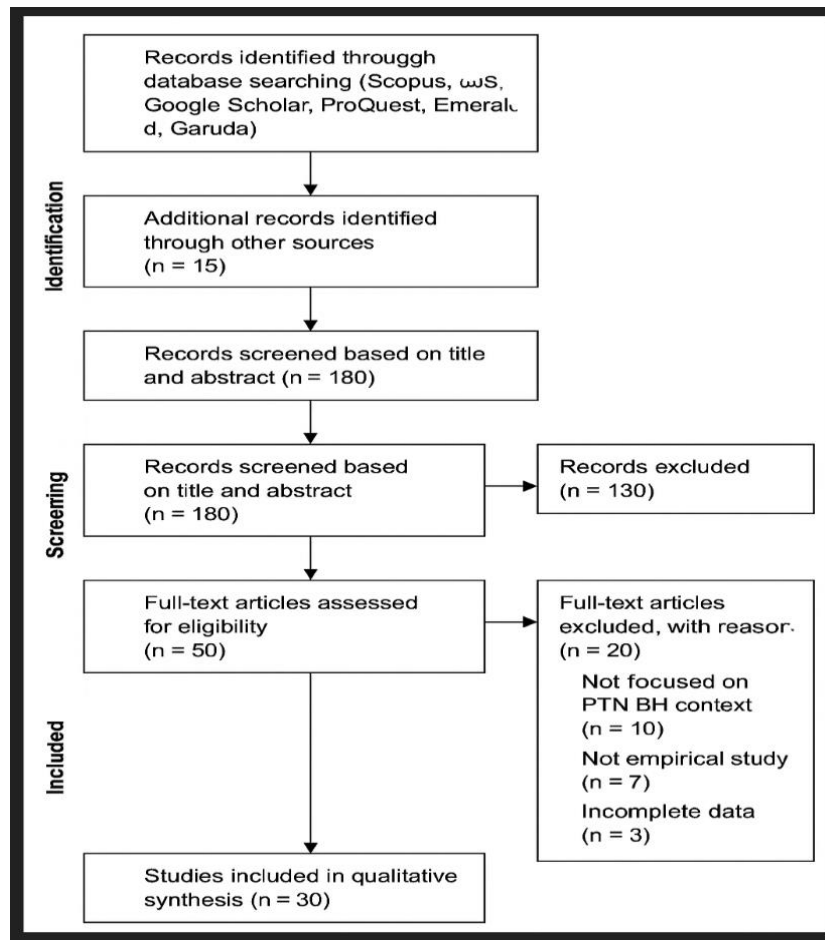


Figure 1. PRISMA SLR

Figure 1 presents the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) flow diagram used in this study to systematically map the literature selection process. In the Identification stage, a total of 210 records were retrieved from several academic databases including Scopus, Web of Science, Google Scholar, ProQuest, Emerald, and Garuda, along with an additional 15 records from other sources. After the removal of duplicate records, 180 articles proceeded to the Screening stage, where their titles and abstracts were assessed for relevance. In this stage, 130 records were excluded due to irrelevance to the research focus. The remaining 50 full-text articles were then evaluated in the Eligibility stage. During this assessment, 20 articles were excluded for specific reasons: 10 articles were not focused on the PTN BH context, 7 were non-empirical studies, and 3 had incomplete data. Finally, 30 empirical studies meeting the established inclusion criteria were incorporated into the qualitative synthesis. This structured and



transparent selection process ensures the credibility, accuracy, and replicability of the systematic literature review findings.

#### 4. RESULTS AND DISCUSSION

The systematic literature review identified 30 empirical studies published between 2015 and 2024 that met the inclusion criteria and were relevant to the relationship between internal control effectiveness, internal audit quality, and financial management performance at State Legal Entity Universities (PTN BH) in Indonesia. The majority of the reviewed studies consistently demonstrated that both internal control and internal audit play a critical role in improving financial governance in higher education institutions. Specifically, 80% of the studies reported a significant positive effect of internal control systems on financial management performance, while 73% of the studies confirmed a positive relationship between internal audit quality and financial outcomes. These results suggest that robust internal control mechanisms and high-quality internal audits contribute to minimizing financial risks, improving budget management, enhancing the reliability of financial reports, and ensuring operational efficiency in PTN BH.

The findings of this review are in line with the principles of the COSO Internal Control Framework (2013), which emphasizes the integration of control environment, risk assessment, control activities, information and communication, and monitoring activities to achieve organizational objectives. Moreover, the application of Institutional Theory helps explain how normative and coercive pressures from regulatory bodies and stakeholders influence the institutionalization of effective internal control and audit practices in PTN BH. Several studies also highlighted the interrelationship between internal control and internal audit functions, where strong audit quality serves as a reinforcing mechanism for the effectiveness of internal control processes. However, the review also identified contextual challenges, including limitations in auditor independence, variations in institutional governance, insufficient professional training, and leadership commitment that affect the practical implementation of these financial governance mechanisms. This review reinforces the importance of establishing clear, measurable financial management goals supported by reliable internal control systems and independent, competent internal audit units, as emphasized by Goal Setting Theory. The synergistic interaction between internal control and internal audit functions strengthens financial performance outcomes and institutional accountability. Nevertheless, variations in the findings across different PTN BH institutions suggest the need for continuous improvement, capacity building, and policy support from relevant authorities to enhance governance quality. Future research is recommended to explore these moderating factors in greater depth and to adopt longitudinal or meta-analytical approaches for broader generalization and deeper theoretical validation.

## 5. CONCLUSION

This systematic literature review concludes that both the effectiveness of internal control and the quality of internal audit play a crucial and complementary role in improving financial management performance at State Legal Entity Universities (PTN BH) in Indonesia. The majority of empirical studies consistently demonstrate that robust internal control systems reduce financial risks, enhance budget efficiency, and improve financial reporting accuracy, while high-quality internal audits strengthen the oversight of financial governance practices and ensure adherence to regulations. These findings align with the COSO Internal Control Framework, Institutional Theory, and Goal Setting Theory, underscoring the importance of integrating comprehensive control mechanisms, fostering audit independence and competence, and establishing clear financial performance targets. Despite these positive outcomes, challenges such as limited auditor resources, varying governance structures, and leadership commitment disparities persist, indicating the need for ongoing institutional capacity building and policy reinforcement to optimize financial governance in autonomous public universities.

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