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Optimizing Government Internal Audits through the Implementation of Blockchain Technology for Fraud Prevention

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Abstract

Fraud in public financial management remains a major challenge in developing countries like Indonesia, where weak internal controls and low transparency facilitate corruption, data manipulation, and budget misuse. This study examines the influence of government internal audits on fraud prevention and the role of blockchain technology in enhancing audit effectiveness within the Barru Regency government. A quantitative approach was employed, with data collected via questionnaires from 70 respondents across seven purposively selected government agencies. Data were analyzed using Structural Equation Modeling (SEM) with Partial Least Squares (PLS) through SmartPLS 4. The results indicate that internal audits positively and significantly impact fraud prevention, and blockchain technology also contributes significantly to reducing fraud. However, the moderating effect of blockchain on the relationship between internal audits and fraud prevention was found to be insignificant, suggesting that current blockchain adoption does not enhance audit effectiveness. The model explains 83.5% of the variance in fraud prevention, demonstrating strong predictive power. These findings highlight that while internal audits and blockchain independently support fraud prevention, effective integration requires comprehensive digital transformation, supported by political commitment, clear regulations, and capacity building, to fully realize blockchain's potential in strengthening public sector governance.

Keywords

Blockchain Technology, Fraud Prevention, Government Internal Audit, Public Sector Governance.

1. Introduction

Fraud in public financial management remains a serious challenge, particularly in developing countries, where corruption, financial manipulation, and budget misuse persist across sectors such as education, healthcare, and infrastructure, leading to significant economic losses and declining public trust. In Indonesia, weak internal control systems and limited transparency have been identified as key drivers of public-sector corruption (KPK, 2021). Internal audit therefore functions as a crucial governance mechanism to ensure accountability, regulatory compliance, and the reliability of financial reporting (COSO, 2017). Nevertheless, conventional audit practices, which rely heavily on manual procedures and sampling techniques, are increasingly inadequate in addressing the complexity and volume of modern financial transactions, allowing fraud risks to remain undetected (Indasari & Nafilah, 2025). To address these limitations, blockchain technology has emerged as a promising innovation due to its immutability, transparency, decentralization, and real-time traceability. Empirical studies demonstrate that blockchain can enable continuous auditing, strengthen internal controls, and reduce fraud opportunities by enhancing transparency and data reliability (Dai & Vasarhelyi, 2017; Ziemba et al., 2025).

In Indonesia, the implementation of government internal audit is formally regulated through the Audit Standards for the Government Internal Supervisory Apparatus (*Aparat Pengawasan Intern Pemerintah*/APIP) under Regulation of the Minister of Administrative and Bureaucratic Reform Number 10 of 2016. Internal audits are conducted by APIP units across central and regional government institutions, including ministries, local governments, and state universities, with technical supervision provided by the Financial and Development Supervisory Agency.

As an internal control mechanism, the Internal Auditor has a strategic responsibility to conduct systematic, objective, and independent audits of all financial management processes, programs, and performance of government agencies (Abiodun, 2020). The scope of the audit includes performance audits, financial audits, and compliance audits, which aim to assess efficiency, effectiveness, economy, and compliance with laws and regulations. APIP audit results not only consist of findings but also recommendations for improvement that must be followed up by agency leaders as part of continuous improvement in governance. However, the effectiveness of the APIP still faces challenges such as limited human resources, structural interventions, and weak follow-up on audit recommendations (Rahman, 2020). Therefore, strengthening the capacity of the internal auditor support from management, and integration with internal quality assurance systems are essential to enhance the impact of audits on the performance of government organizations (Boufounou et al., 2024).

Blockchain technology represents a major digital innovation with strong potential to enhance accuracy, transparency, and integrity in accounting and auditing. Unlike centralized systems, blockchain records transactions across decentralized networks, making data immutable, traceable, and transparent (Ziemba et al., 2025). In the public sector, this capability can strengthen state financial management by enabling real-time recording of budgeting, implementation, and reporting processes, thereby supporting internal control systems and good governance. However, despite its advantages, blockchain adoption in government internal auditing remains limited. While widely implemented in private sectors such as finance and logistics, public sector application in Indonesia is largely confined to pilot projects, including e-procurement and digital identity systems, and has not yet been integrated into internal audit functions (Puspita & Gultom, 2024; Lombardi et al., 2022). Key barriers include uneven digital infrastructure, high implementation

costs, limited human resource capacity, regulatory uncertainty, and bureaucratic resistance (Koerniawan & Wibowo, 2023; Wagola et al., 2023).

The effective integration of blockchain into government internal audit systems offers significant strategic advantages for fraud and corruption prevention by enabling continuous auditing, real-time monitoring, and early detection of irregularities, while reducing reliance on manual procedures and limiting opportunities for data manipulation (Dai & Vasarhelyi, 2017). This technological approach is consistent with Indonesia's Grand Design for Bureaucratic Reform 2010–2025 (Presidential Decree Number 81 of 2010) and the Asta Cita agenda, which emphasize strengthening bureaucratic reform and eradicating corruption through transparent, fair, and efficient digital governance. Nevertheless, the successful implementation of blockchain requires strong political commitment, a supportive regulatory framework, and adequate human resource capacity to address administrative complexity, particularly within Indonesia's multi-level governmental structure (Wagola et al., 2023).

Previous studies on fraud prevention present mixed and inconclusive findings regarding the effectiveness of internal audits. Lonto et al. (2023) show that audit effectiveness in preventing fraud is highly dependent on audit quality, particularly the independence of internal auditors, which enhances monitoring capacity and fraud deterrence. In contrast, Sholihah and Anzwar (2023) find that internal audit functions do not significantly influence fraud prevention, suggesting that conventional audit mechanisms may be insufficient when operating in complex and dynamic public sector environments. At the same time, emerging literature highlights the transformative potential of blockchain technology in auditing. Dai and Vasarhelyi (2017) argue that blockchain enables continuous auditing and real-time verification, reducing reliance on retrospective audit procedures that often fail to detect fraud promptly. However, empirical evidence also cautions that blockchain is not a flawless solution, as it remains vulnerable to technical risks and cyberattacks (Oladejo & Jack, 2020). These divergent findings indicate a clear research gap concerning how technological innovation may enhance, rather than replace, traditional audit functions. Accordingly, this study aims to examine the effect of government internal audit on fraud prevention with blockchain technology as a moderating mechanism.

2. Literature Review and Hypothesis Development

2.1. The Effect of Government Internal Audit on Fraud Prevention

Government internal audit constitutes a critical governance instrument for promoting accountability, transparency, and efficiency in public financial management. In the Indonesian context, this function is performed by the Government Internal Supervisory Apparatus (*Aparat Pengawasan Intern Pemerintah*/APIP), which operates across central and regional government institutions. APIP is mandated to examine financial management, program implementation, and organizational performance, as well as to provide corrective recommendations that must be followed up by public sector leaders. Its role is formally guided by the Regulation of the Minister of Administrative and Bureaucratic Reform Number 10 of 2016, which establishes government audit standards as a normative framework for public sector auditing. From the perspective of agency theory, public financial management is characterized by information asymmetry between principals (the public) and agents (government officials), creating opportunities for opportunistic and fraudulent behavior (Jensen & Meckling, 2019). In this setting, internal audit functions as a monitoring and control mechanism that reduces agency problems by enhancing transparency, strengthening accountability, and identifying weaknesses in internal controls at an early stage (Amyar et al., 2023).

Beyond its monitoring role, government internal audit contributes directly to fraud prevention by systematically evaluating risk management, control effectiveness, and governance processes using a disciplined and structured approach (Handoyo et al., 2021). The identification of inherent and residual risks enables internal auditors to design preventive strategies that limit opportunities for fraud before losses occur (Rahman, 2020). Empirical evidence supports this relationship, as studies by Alina et al. (2018) show that independent, competent, and professionally implemented internal audits significantly reduce corrupt practices in public organizations. When audit recommendations are properly implemented, internal audits function not merely as a detection tool but as a preventive governance mechanism.

HI: Government internal audit has a positive and significant effect on fraud prevention.

2.2. The Effect of Blockchain Technology on Fraud Prevention

The rapid advancement of information technology has created new possibilities for improving accounting and auditing practices, particularly through the adoption of blockchain technology. Blockchain is defined as a decentralized, immutable, and transparent digital ledger that records transactions in cryptographically linked blocks, making alterations extremely difficult without network consensus (Hakami et al., 2024). These characteristics distinguish blockchain from traditional centralized record-keeping systems that are vulnerable to manipulation and data tampering. In accounting and auditing contexts, blockchain enables real-time transaction recording and verification, supporting the implementation of continuous auditing and enhancing the reliability of financial information. Ziemba et al. (2025), through a systematic literature review, highlight that blockchain adoption can improve data integrity, reduce information asymmetry, and accelerate audit processes by minimizing manual verification. Additionally, blockchain addresses common weaknesses in conventional systems, such as double spending, unauthorized data changes, and limited transparency, thereby strengthening the quality of financial reporting.

From a governance and fraud prevention perspective, blockchain technology is closely linked to agency theory and the Fraud Triangle framework. Its decentralized and immutable nature significantly reduces opportunities for fraud by limiting managerial discretion over data and ensuring full transaction traceability (Dai & Vasarhelyi, 2017; Hakami et al., 2024). By embedding transparency into the system, blockchain weakens the opportunity element that enables fraudulent behavior while simultaneously supporting continuous monitoring and early fraud detection (Ziemba et al., 2025). Although large-scale implementation in the public sector remains limited, empirical evidence from pilot projects in countries such as Estonia and applications in Indonesia, including e-procurement systems, demonstrates improved transparency and reduced risks of mark-ups and manipulation (Lombardi et al., 2022; Puspita & Gultom, 2024). These findings suggest that blockchain can function as an independent fraud prevention mechanism, complementing traditional audit practices.

H2: Blockchain technology has a positive and significant effect on fraud prevention.

2.3. Moderating Effect of Blockchain Technology

Government internal audit plays a central role in mitigating fraud risk by strengthening accountability, transparency, and control within public financial management. In Indonesia, this function is carried out by the Government Internal

Supervisory Apparatus (APIP), which is mandated to evaluate financial management, program implementation, and organizational performance across public institutions. Anchored in agency theory, internal audit addresses information asymmetry between the public as principals and government officials as agents by acting as a monitoring mechanism that constrains opportunistic behavior (Jensen & Meckling, 2019). Through systematic risk assessment and evaluation of internal controls, internal auditors contribute not only to fraud detection but also to fraud prevention by identifying vulnerabilities and recommending corrective actions before losses occur (Rahman, 2020; Handoyo et al., 2021). Empirical studies confirm that independent and competent internal audit functions significantly reduce corrupt practices, particularly when audit recommendations are effectively implemented (Alina et al., 2018).

The effectiveness of government internal audit in preventing fraud can be further strengthened through the moderating role of blockchain technology. From the Fraud Triangle perspective, blockchain directly weakens the opportunity element of fraud by ensuring data immutability, decentralization, and full transaction traceability, thereby limiting discretionary manipulation by agents (Dai & Vasarhelyi, 2017; Hakami et al., 2024). Rather than replacing internal audit, blockchain enhances audit quality by enabling real-time access to reliable data and supporting continuous monitoring, which shifts audit activities from a reactive to a preventive orientation (Ziemba et al., 2025). Consistent with the Technology-Organization-Environment (TOE) framework, effective blockchain adoption depends on organizational readiness and regulatory support, but when properly implemented, it acts as an enabler that amplifies the impact of internal audit on fraud prevention. Evidence from public-sector pilot projects, including e-procurement systems in Indonesia, demonstrates improved transparency and reduced manipulation risks (Puspita & Gultom, 2024), supporting the proposition that blockchain technology strengthens the relationship between internal audit and fraud prevention as a moderating mechanism.

H3: Blockchain technology strengthens the relationship between government internal audit and fraud prevention.

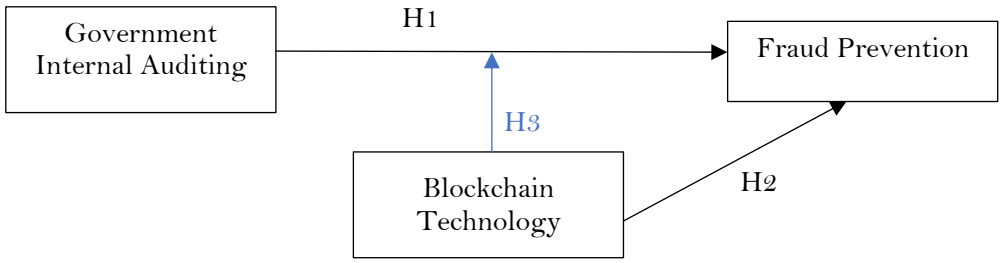

Figure 1. Research Framework

According to Figure 1, this study's framework explores how government internal auditing and blockchain technology contribute to fraud prevention. It hypothesizes that effective internal auditing enhances oversight, compliance, and financial integrity, directly reducing fraud (H1), while blockchain provides immutable, transparent, and real-time transaction records that further prevent manipulation (H2). Additionally, blockchain is expected to strengthen the impact of internal auditing by enabling continuous monitoring and early detection of irregularities, creating a more robust control environment in public institutions (H3). Together, these elements form a model linking traditional auditing and technological innovation to improved fraud prevention.

3. Methods

This study employed a quantitative research design with a positivist approach to examine the influence of government internal auditing and blockchain technology on fraud prevention. The research was conducted within the Barru Regency Government, South Sulawesi, focusing on employees with experience in internal audit activities. The design is classified as explanatory survey research, as it aims to test causal relationships between the variables.

The population consisted of internal auditors across various departments in the Barru Regency Government. A purposive sampling technique was applied to select respondents who had direct experience conducting internal audits, resulting in a final sample of 70 participants. Primary data were collected using a structured questionnaire with indicators measured on a five-point Likert scale ranging from "strongly disagree" to "strongly agree." The questionnaire was pre-tested for validity and reliability to ensure accuracy and consistency, and data collection was conducted both face-to-face and digitally over a four-week period.

The study included three main variables: government internal auditing as an independent variable, blockchain technology as both an independent and moderating variable, and fraud prevention as the dependent variable. Each variable was operationalized based on established indicators from previous research to ensure alignment with the study objectives. Data were analyzed using Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach, chosen for its suitability in testing complex models with relatively small sample sizes and non-normal data distributions. SEM-PLS allowed estimation of path coefficients, significance levels, and model fit indices, providing a comprehensive evaluation of both direct and moderating effects. The analysis was conducted using SmartPLS version 4. This integrated methodology ensures a systematic, rigorous approach to testing the hypothesized relationships, offering insights into how internal auditing and blockchain technology can jointly enhance fraud prevention within the Barru Regency Government.

4. Results

The analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) implemented in SmartPLS version 4. Before evaluating the structural model, the measurement model was assessed to ensure reliability and validity of the constructs. This step is essential in PLS-SEM to confirm that the indicators adequately reflect the underlying latent variables. The assessment included evaluation of indicator reliability (outer loadings), internal consistency reliability (Cronbach's alpha and composite reliability), and convergent validity (average variance extracted, AVE).

Table 1. Measurement Model Test

Construct	Number of Items	Outer Loadings	Cronbach's α	Composite Reliability	AVE
Government Internal Audit	5	0.867 – 0.967	0.912	0.931	0.693
Blockchain Technology	5	0.877 – 0.951	0.895	0.921	0.701
Fraud Prevention	5	0.865 – 0.927	0.934	0.947	0.721

The measurement model demonstrated satisfactory reliability and validity shown in Table 1. All constructs exhibited strong internal consistency, with Cronbach's alpha values ranging from 0.895 to 0.934 and composite reliability values exceeding 0.921. Convergent validity was confirmed as AVE values were well above the

recommended threshold of 0.50, ranging from 0.693 to 0.721. Individual outer loadings were generally high, ranging from 0.678 to 0.935 across constructs, with only one indicator in Fraud Prevention slightly below 0.70 but retained due to its theoretical importance and the overall AVE remaining adequate.

Structural model testing is conducted to determine how much the dependent variable (Y) is simultaneously able to explain the independent variable (X) as seen from the coefficient of determination (R-square) value. The requirements for the coefficient of determination (R-square) model are categorized as follows: a value > 0.67 is considered strong, 0.19-0.67 is moderate, and < 0.19 is low. Table 2 presents the results of the coefficient of determination test.

Table 2. Coefficient Determination

Test	R-square
R Square	0.835
Adjusted R Square	0.828

Table 2 shows an R-square value of 0.835, indicating that the model, which utilizes blockchain technology to moderate the influence of government internal audits, explains 83.5% of fraud prevention, categorizing it as strong.

The Effect Size test demonstrates the influence of the independent variable on the dependent variable using the Effect Size (F2) value. The magnitude of the effect is divided into three categories: small ($0.02 \leq F2 < 0.15$), medium ($0.15 \leq F2 < 0.35$), and large (greater than or equal to 0.35).

Table 3. Effect Size

Connection	Fraud Prevention	Magnitude of Influence
Government Internal Audit (X)	0.601	Large
Blockchain Technology (Z)	0.401	Large
Blockchain Technology (Z) x Government Internal Audit (X)	0.054	Small

Based on Table 3, the results of this test indicate that the majority of variable effects, both direct and moderating, are large to small. The F2 value for the government internal audit variable is 0.601, indicating a strong effect on the fraud prevention variable. The F2 value for blockchain technology is 0.401, indicating a significant effect on the fraud prevention variable. The F2 value for blockchain technology moderating government internal audit is 0.054, indicating a small to weak effect on the fraud prevention variable.

Hypothesis testing in this study is performed using the path coefficient and p-value. If the confidence level is 95% with an alpha value of 5%, resulting in a p-value <0.05, the study is considered significant. The following are the research results, presented in Figure 2 and Table 4.

Table 4. Hypothesis Testing

Relationship	Path Coefficient	P-value
Government Internal Audit (X) → Fraud Prevention (Y)	0.601	0.000
Blockchain Technology (Z) → Fraud Prevention (Y)	0.401	0.000
Blockchain Technology (Z) x Government Internal Audit (X) → Fraud Prevention (Y)	0.054	0.192

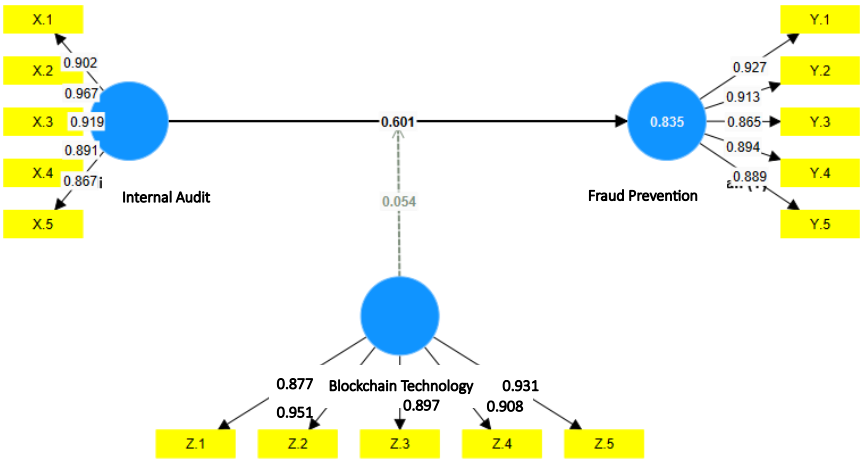

Figure 2. PLS-SEM Output Results

Table 4 presents the results of hypothesis testing examining the direct and moderating effects of government internal audit and blockchain technology on fraud prevention. The findings indicate that government internal audit has a strong and statistically significant positive effect on fraud prevention, as reflected by a path coefficient of 0.601 with a p-value of 0.000. This result confirms that effective internal audit functions play a crucial role in strengthening control systems and reducing the likelihood of fraud within public sector organizations. Similarly, blockchain technology demonstrates a significant direct influence on fraud prevention, with a path coefficient of 0.401 and a p-value of 0.000, suggesting that the adoption of blockchain enhances transparency, traceability, and real-time monitoring, thereby contributing independently to fraud mitigation.

However, the interaction term between blockchain technology and government internal audit shows a relatively small path coefficient of 0.054 with a p-value of 0.192, indicating that the moderating effect of blockchain technology on the relationship between internal audit and fraud prevention is not statistically significant. This result implies that, although blockchain and internal audit each contribute positively to fraud prevention, blockchain technology has not yet strengthened the effectiveness of internal audits in a synergistic manner. The absence of a significant moderating effect may reflect the early stage of blockchain adoption in government institutions, limited integration with audit processes, or constraints related to infrastructure, regulatory readiness, and auditor capability. Consequently, blockchain currently functions more as an independent control mechanism rather than as a reinforcing tool for government internal audit effectiveness in fraud prevention.

5. Discussion

The research results indicate that government internal audits have a positive and significant effect on fraud prevention in the Barru Regency Regional Government. This finding empirically confirms that effective internal audit implementation is a strong control mechanism in minimizing the risk of fraud within the Barru Regency regional government (Aisyah et al., 2023). In the context of Barru Regency, these findings indicate that the Government Internal Audit Apparatus has effectively carried out its role in accordance with the mandate of Minister of Administrative and Bureaucratic Reform Regulation Number 10 of 2016 concerning Indonesian Government Audit Standards (*Standar Audit Pemerintah Indonesia*/SAPI). The APIP's involvement in performance audits, financial audits, and compliance audits has created a strong culture of accountability, thereby reducing the opportunity for

fraudulent practices. Furthermore, the political commitment of regional leaders to audit recommendations is also a key factor in increasing the effectiveness of prevention. Internal audit effectively reduces opportunity, but does not eliminate pressure or rationalization (Rahman & Jie, 2024). Therefore, a preventive approach must be holistic, strengthening organizational culture, ethical leadership, and reward systems.

This finding is consistent with COSO's Internal Control Theory, which emphasizes monitoring as a core element of an effective internal control system (Rahman, 2020). In this framework, internal audit functions as a continuous monitoring mechanism that evaluates control effectiveness, enabling not only ex-post detection of irregularities but also ex-ante identification of risk gaps and preventive recommendations before fraud occurs. The results also support Agency Theory, which explains fraud risk in government as a consequence of information asymmetry and potential conflicts of interest between the public as principals and government officials as agents. Internal audit mitigates these agency problems by strengthening accountability, reducing information gaps, and constraining opportunistic behavior, thereby supporting good governance (Bari et al., 2024). Empirical evidence from Sari et al. (2017) further confirms that independent and competent internal audits enhance public accountability in Indonesian public institutions. In the context of Barru Regency, the effectiveness of the Government Internal Supervisory Apparatus is reinforced by a high rate of follow-up on audit recommendations and strong political commitment to transparency, which together enhance the preventive role of internal audit in reducing fraud risk (Espinosa & Pino, 2025).

Blockchain technology has a positive and significant impact on fraud prevention. This means that the greater the adoption of blockchain technology in the government's financial management and administration systems, the more effective efforts to prevent fraudulent practices such as corruption, data manipulation, and budget misuse. In the context of Barru Regency, blockchain implementation can be a strategic solution to strengthen governance, particularly in the budgeting process, procurement of goods/services, and financial reporting. With a tamper-proof system, the public, the public accountability apparatus, and even the supreme audit agency can directly monitor budget flows, thereby increasing accountability and public trust. These findings align with empirical research in various countries. Estonia, a pioneer in e-government, has implemented blockchain in its healthcare, judicial, and voting systems, successfully reducing fraud rates by up to 90% in some administrative processes (Espinosa & Pino, 2025). In Indonesia, although adoption is still in its early stages, a blockchain trial in e-procurement by the Ministry of Communication and Information Technology has shown increased transparency and a potential reduction in price markups of up to 25% (Puspita & Gultom, 2024).

These findings are consistent with the principles of immutability and transparency in information systems, where blockchain functions as a distributed ledger that records transactions permanently, securely, and transparently for authorized users (Kim & Lee, 2022). Its decentralized and cryptographically protected structure reduces reliance on vulnerable central authorities, prevents data duplication, and technically closes opportunities for fraud by embedding control mechanisms directly into the system (Dai & Vásárhelyi, 2017). Within the Fraud Triangle framework, blockchain directly suppresses the opportunity element, as real-time and immutable transaction traceability leaves little room for data manipulation or concealment, while simultaneously enabling continuous auditing and immediate detection of irregularities (Alfian et al., 2023; Wiraputra et al., 2025). Nevertheless, blockchain should not be viewed as a standalone solution, as its effectiveness depends on strong political commitment, reliable data inputs, adequate human resource capacity, and supportive regulatory and infrastructure conditions,

all of which remain significant implementation challenges in many public sector environments (Koerniawan & Wibowo, 2023).

The findings indicate that blockchain technology does not strengthen, and instead slightly weakens, the effect of government internal audit on fraud prevention in the Barru Regency Government, as reflected by a positive but statistically insignificant moderating coefficient. This suggests that inadequate blockchain implementation, stemming from limited infrastructure, insufficient human resource capacity, or weak political commitment can diminish the effectiveness of internal audit in preventing fraud. Consistent with the TOE framework, technological readiness is a critical condition for organizational functions to operate optimally; thus, a strong internal audit cannot achieve its full preventive potential without adequate technological support (Lin & Chen, 2023). From the Fraud Diamond perspective, internal audit functions primarily as a detection mechanism, while blockchain enhances preventive capability by restricting opportunities for data manipulation; when this capability is weak, fraudsters retain greater room to conceal misconduct, rendering audits more reactive (Fitriana et al., 2021). These results diverge from prior studies by Dai and Vásárhelyi (2017) and Hakami et al. (2024) suggesting that blockchain enables continuous auditing and strengthens fraud prevention, indicating that partial or symbolic technology adoption does not automatically translate into improved audit effectiveness.

Research in Indonesia also found that despite blockchain's significant potential, its impact on audit systems is often hampered by bureaucratic culture and digital unpreparedness. Many government agencies have adopted blockchain only for a limited number of processes (e.g., e-procurement), without thorough integration with internal financial reporting and audit systems. As a result, audits remain reliant on manual data, and blockchain fails to strengthen the oversight process (Koerniawan & Wibowo, 2023).

6. Conclusion

Government internal auditing positively and significantly influences fraud prevention in the Barru Regency local government, highlighting APIP's role as a key pillar of clean, transparent, and accountable governance. Strengthening this role requires political commitment, enhanced human resources, and integration with broader risk management systems. Blockchain technology also proves effective in fraud prevention by ensuring data integrity, transparency, and traceability, thereby reinforcing accountability and public trust. However, its ability to enhance internal auditing's impact remains limited, indicating that blockchain's effectiveness depends on organizational readiness, regulatory support, and comprehensive bureaucratic reform. Rather than replacing internal auditing, blockchain serves as an enabler that allows audits to be conducted more efficiently, transparently, and proactively.

The findings of this study carry important practical implications for public sector governance. First, strengthening internal auditing and strategically implementing blockchain can significantly enhance fraud prevention, suggesting that government institutions should invest in both human and technological capacities, ensure political commitment, and integrate blockchain into core financial and reporting systems. However, the study has several limitations. The research was conducted solely within the Barru Regency Government, which may limit the generalizability of the findings to other regions with different technological infrastructure or organizational contexts. Additionally, blockchain adoption in this study was still at an early stage, potentially underestimating its moderating effect on auditing effectiveness. Future research could address these limitations by expanding the sample to multiple regions, examining longitudinal effects of blockchain integration, and exploring additional moderating or mediating factors, such as organizational

culture, leadership support, or digital literacy, to provide a more comprehensive understanding of the interplay between auditing, technology, and fraud prevention.

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